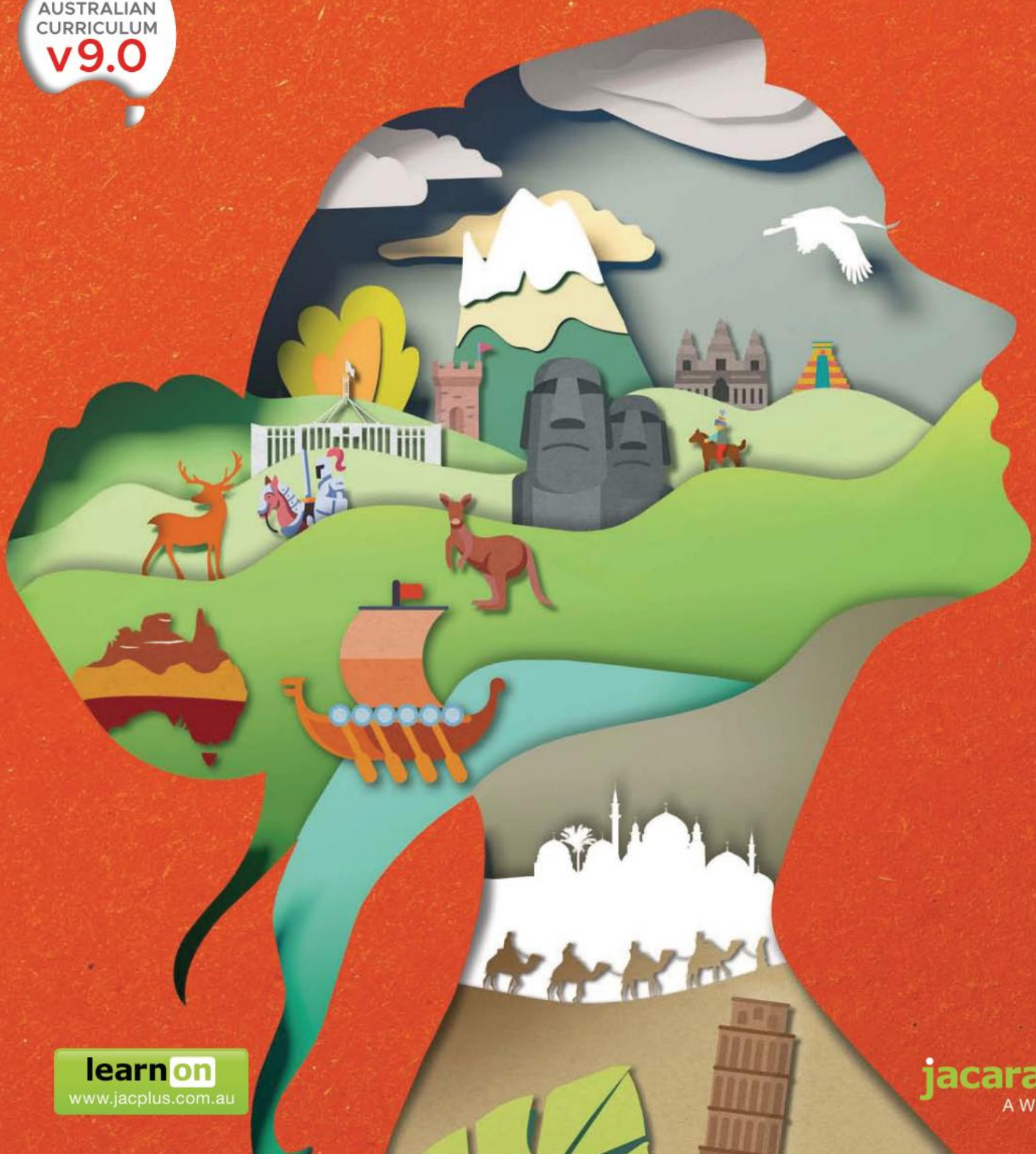
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The Publisher acknowledges ongoing discussions related to gender-based population data. At the time of publishing, there was insufficient data available to allow for the meaningful analysis of trends and patterns to broaden our discussion of demographics beyond male and female gender identification.

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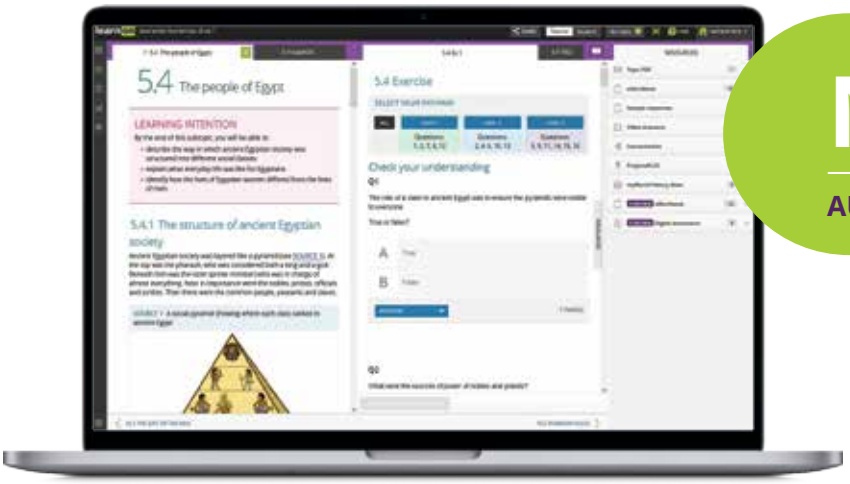
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About this resource



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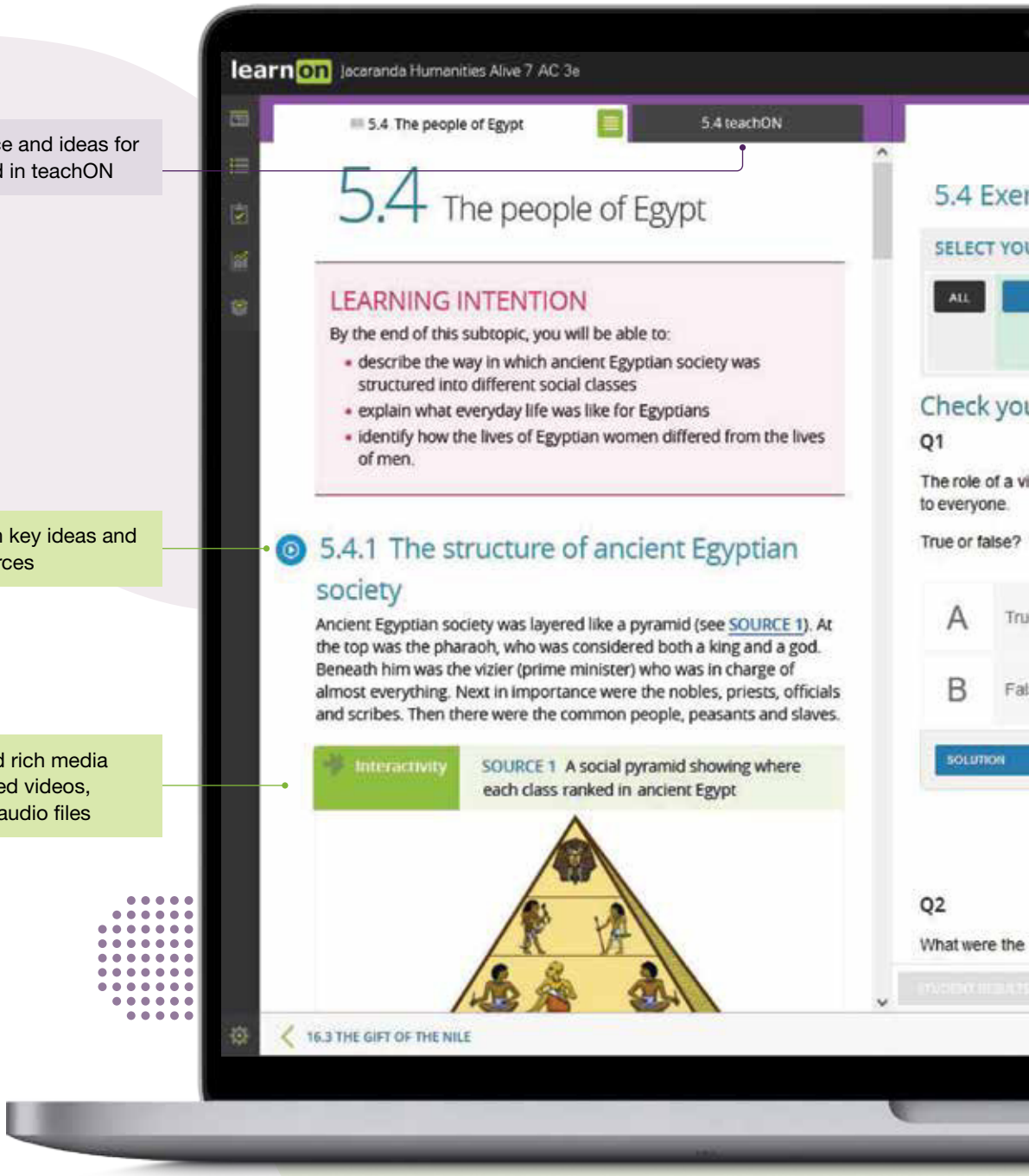
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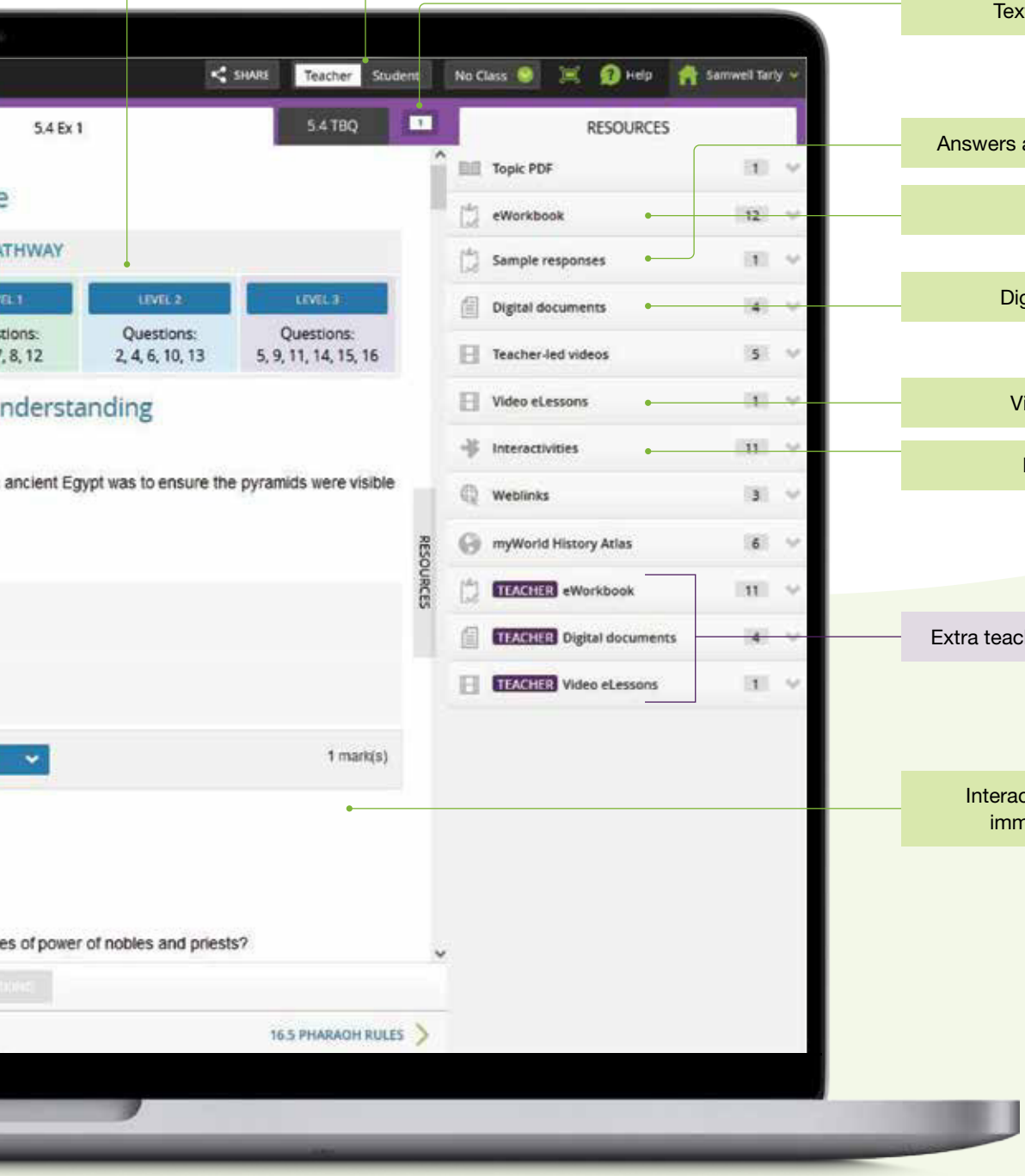
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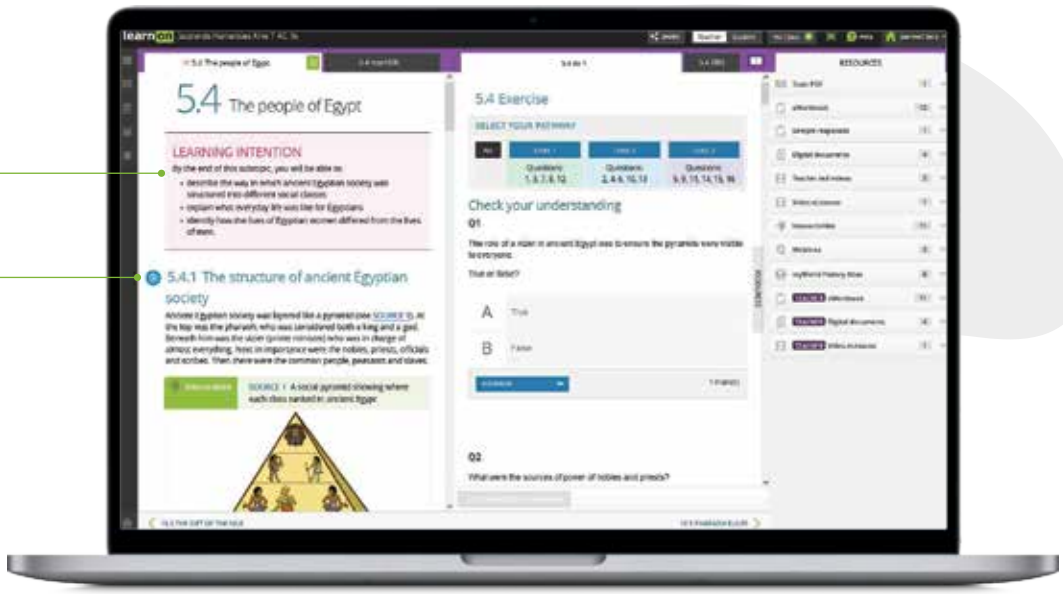
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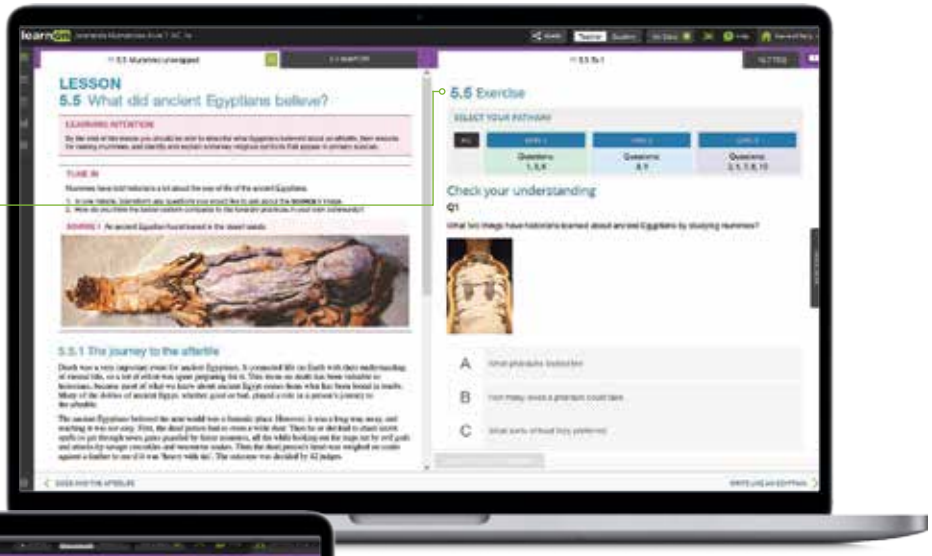
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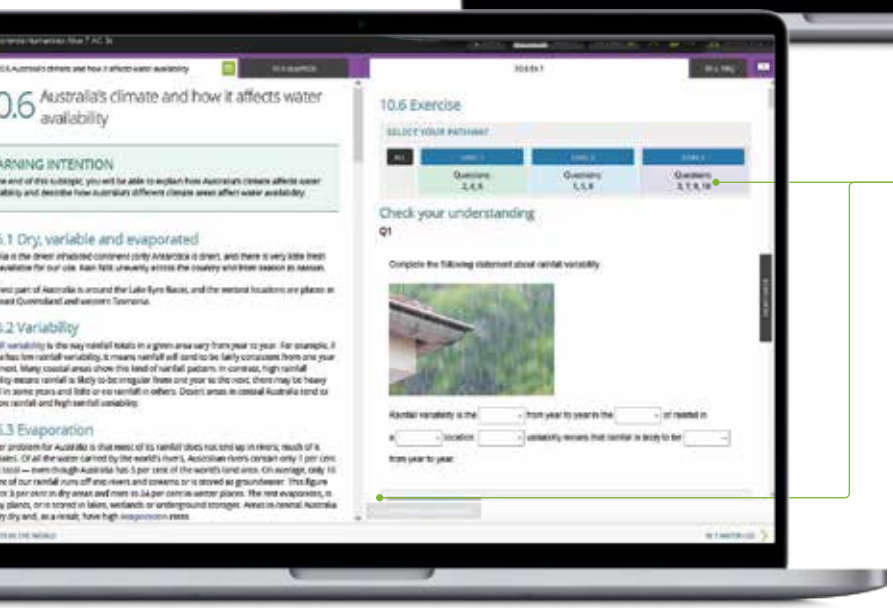




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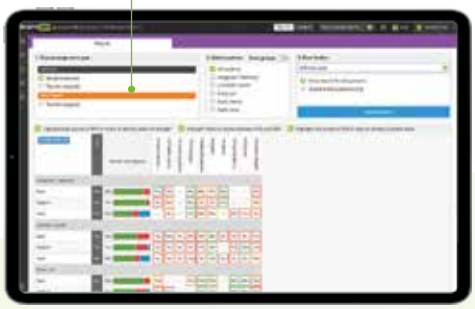
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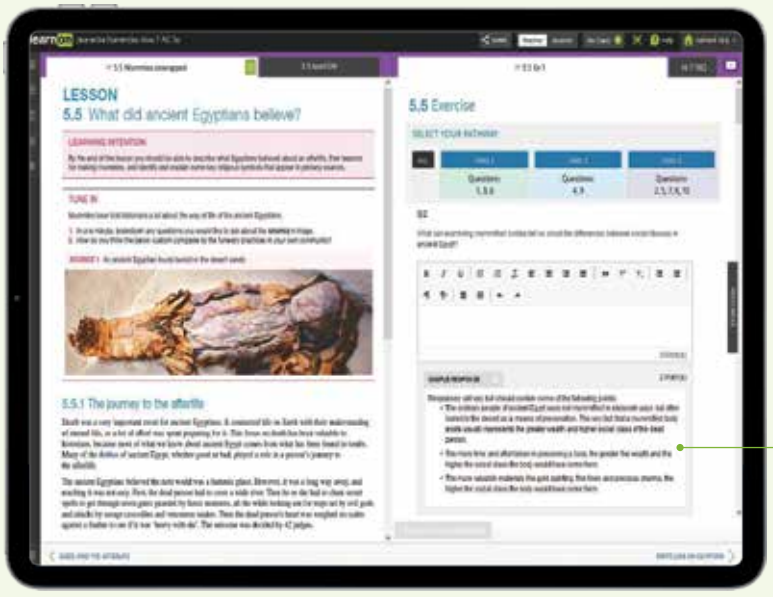




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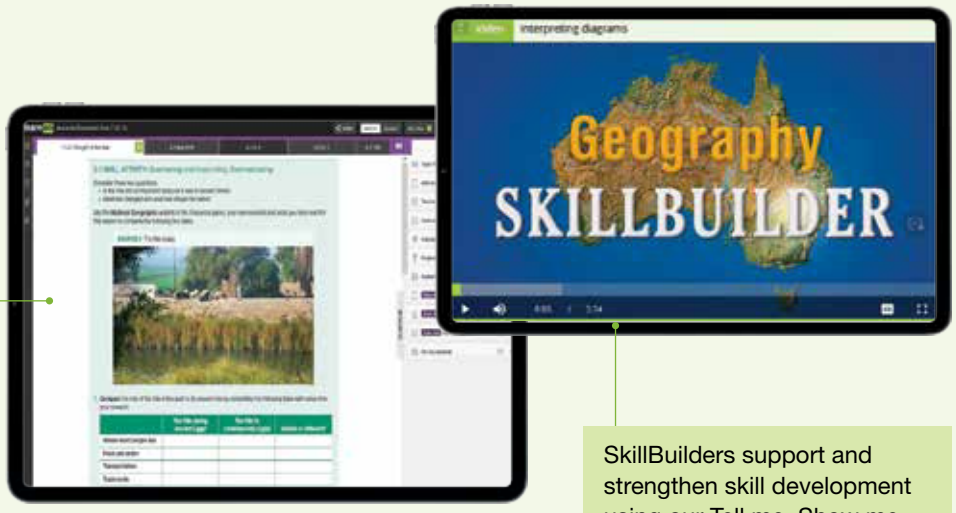
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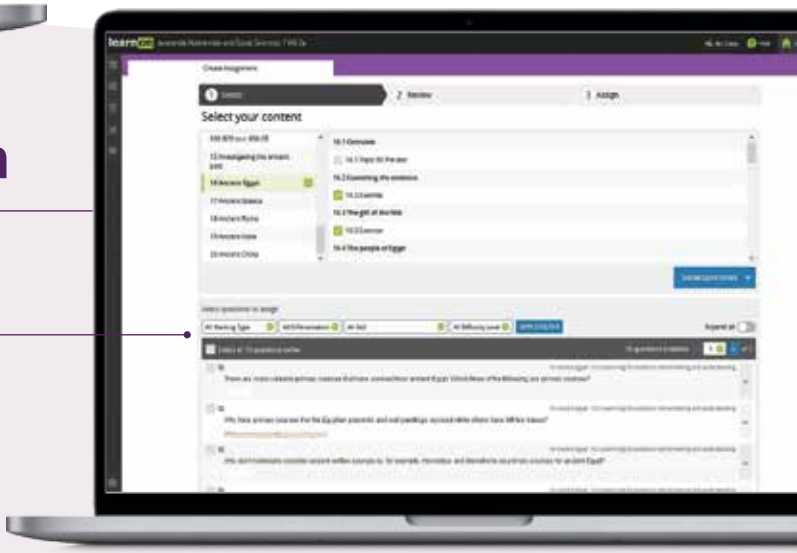
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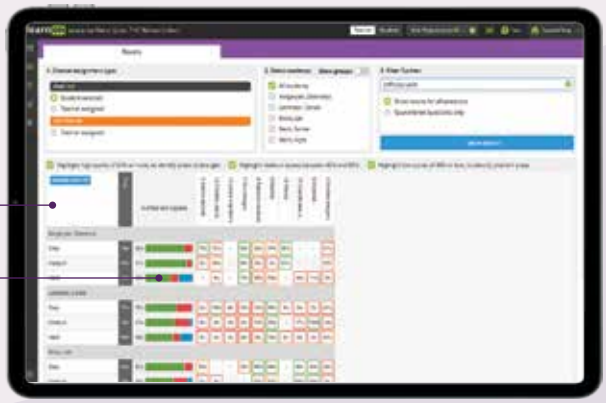
- work programs and curriculum grids
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- three levels of differentiated teaching programs
- quarantined topic tests (with solutions)

Customise and assign



An inbuilt testmaker enables you to create custom assignments and tests from the complete bank of thousands of questions for immediate, spaced and mixed practice.

Reports and results



Data analytics and instant reports provide data-driven insights into progress and performance within each lesson and across the entire course.

Show students (and their parents or carers) their own assessment data in fine detail. You can filter their results to identify areas of strength and weakness.

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Understanding cognitive verbs

Cognitive verbs in the Australian Curriculum

The Australian Curriculum aims to develop students' disciplinary knowledge, skills, understanding and general capabilities across the curriculum. Students are also expected to progressively develop their thinking skills.

In the Australian Curriculum, cognitive verbs are used as signposts for this depth of thinking. Cognitive verbs signify different types of thinking and are already used in the classroom by many teachers and students.

Questions within Jacaranda resources use these cognitive verbs to support students in cognitive verb 'thinking'. The following list describes the cognitive verbs that are frequently used in Years 7 and 8.

Cognitive verb	Description
analyse	considering something in detail, finding meaning or relationships and identifying patterns. In an analysis you may reorganise ideas and find similarities and differences.
apply	using knowledge and understanding in order to solve a problem or complete an activity. This may involve applying a familiar concept to an unfamiliar situation.
compare	recognising how things are similar and dissimilar. Concepts or items are generally grouped before a comparison is made.
decide	selecting from available options. This may involve considering criteria on which to base your selection.
describe	giving an account of a situation, event, pattern or process. A description may require a sequence or order.
develop	bringing something to a more advanced state. Processing and understanding are required in order to develop an idea or opinion.
evaluate	making a judgement using a set of criteria. This may include considering strengths and limitations of something in order to make a judgement on a preferred option.
examine	considering the information given and recognising key features. This sometimes requires making a decision.
explain	making an idea, concept or relationship between two things clear by giving in-depth information. Explanations may include details of who, what, when, where, why and how.
identify	recognising and showing a particular part or feature of something. This might also include showing what or who something or someone is.
interpret	gaining meaning from text, graphs, data or other visuals. An interpretation includes stating what something might mean.
select	choosing the most suitable option from a number of alternatives. This might require some consideration of context.

Source: Adapted from the QCAA Cognitive Verbs.

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4 The emergence of the modern world (c. 1500–1650) 106

EMPIRES AND EXPANSIONS

5 Mongol expansion (c. 1206–1368) ..... online only

6 The Ottoman Empire ..... online only

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8 The Spanish conquest of the Americas (c. 1492–1572) 194

ASIA-PACIFIC WORLD

9 Angkor and the Khmer Empire (c. 802–1431) ..... online only

10 Japan under the shōguns (c. 794–1867) 230

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1 History concepts and skills

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LESSON
1.1 Overview

Hey students! Bring these pages to life online



Watch videos

Engage with interactivities

Answer questions and check results

Find all this and MORE in jacPLUS

1.1.1 Introduction

The period of medieval Europe spanned approximately one thousand years (from 500 CE to 1500 CE) and included a range of events that have helped to shape our modern way of life. Many of the foundations of modern western society were laid in medieval times.

During the Middle Ages, the nature and organisation of society experienced fundamental changes under the laws of feudalism. The rise of Islam saw the growth of a new religion that would clash horribly and violently with Christianity for decades. In our modern-day society, elements of social hierarchy are still very visible and differing religions continue to clash over some issues.

SOURCE 1 These people are in costume to re-enact a medieval battle. Their costumes may be familiar from the many movies and books written about this time.



The later medieval period saw many advances in technology and learning that continue to influence our lives today. These include the invention of gunpowder, advancements in agriculture and construction, the early models of the printing press and the establishment of universities and higher education.

By the end of the Middle Ages, advancements in technology and agriculture, the discovery of a world beyond what was previously known, the movement of peoples and new knowledge relating to the human body and medicine had given way to a new, perhaps easier way of life.

on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10567)

Video eLessons Investigating the past (eles-1057)
History concepts and skills (eles-6017)

LESSON
1.2 Concepts in History

LEARNING INTENTION

By the end of this lesson you should be able to explain how and why we study history, and describe the key historical concepts.

1.2.1 How and why do we study History?

History is an amazing journey of discovery. As you move through the different time periods and learn about how past societies operated, you will meet people whose lives functioned completely differently to your own. You may be confused or amazed at how these people could live in such a manner. You will also meet people whose lives share similar ideas, events and characteristics to your own life. You may find that you connect with these people, though they lived long before you existed!

SOURCE 1 A woodblock ukiyo-e print by Utagawa Kunisada II of a puppet in kimono being manipulated by two bunraku puppeteers, c. 1850



What is a historian?

In our own times, there are still many obvious links with the past. For example, many people in modern society live in cities and towns that were built during medieval times. Countless places throughout Europe have managed to retain much of their medieval architecture and charm. Research into past civilisations, cultures and societies is the work of historians. They try to build up a picture of how people in other times lived and behaved. Historians try to make sense of past ideas, customs and beliefs, the ways people were ruled and how they made their living. Historians inquire into the past by examining sources. From the grand city of Prague, to the tiny island of Mont Saint Michel, there are many places where we can examine sources to help tell us about how people lived in times gone by. Historians also try to understand and explain how people's lives were shaped by other people and events, what they thought about their times and how they brought about changes in their own world.

In this topic we will become familiar with the following concepts:

- Evidence — Sources refers to any written or non-written materials that can be used to investigate and provide information about the past. Evidence is the information obtained from sources that are valuable to investigations.
- Perspective — A person's point of view; the position from which they see and understand events going on around them
- Interpretations and Contestability — When interpretations about the past are open to debate, for example, as a result of a lack of evidence or different perspective.
- Continuity and Change — Aspects of life or society that have remained the same or changed over a period of time.
- Cause and Effect — Examining the relationship between historical events or actions, where one event or action occurs as a result of the other.
- Significance — The importance that is assigned to aspects of the past.

1.2.2 The value of History

Many people question why we should value the ability to gain a comprehensive understanding of our past. The answer is that there are many valuable reasons for studying history. Knowledge of history helps us to understand our **heritage**. We begin to gain an understanding of where our ideas, languages, laws, customs and other aspects of our lives came from. We can also develop more open minds about different ways of living and learn to appreciate cultures that are different from our own. Preservation of the past is also of great importance and conservation work similar to that shown in **SOURCE 2** is one of the key responsibilities of archaeologists.

SOURCE 2 Conservation work on Bodiam Castle, in East Sussex, England. The moated castle was built during the medieval period in 1385 CE.



History, the present and the future

Human civilisation did not appear in the present as if from nowhere. It developed over many thousands of years, with each time period bearing its own advancements, knowledge and events. By understanding the past we might be able to avoid repeating past mistakes and make our world a better place in the future. How can we ever hope to understand the time we live in now or what the future may hold if we do not understand the journey that has brought us to this point?

heritage everything that has come down to us from the past

History, work and leisure

Historical concepts and skills are transferable to many different kinds of careers and jobs. They will help you to:

- carry out research
- draw conclusions and make decisions based on evidence
- recognise the difference between fact and opinion
- understand that there is usually more than one way of thinking about a problem
- think critically
- communicate effectively.

A knowledge of history is important in our everyday lives, and gives many people great personal pleasure. How much more enjoyment do people experience from travel, books and movies when they know about the history that shaped the places involved!

History and democracy

The origins of modern democracy hail from the times of ancient societies, when only men who owned land were able to have a say in the running of the country. Modern day Australia is a democratic country. This means we have the right to choose our political representatives and leaders through voting. We have evolved democracy to the point where every citizen over the age of 18 is able to cast their vote, and all votes have the same value. We cannot vote responsibly unless we can make our own judgements about the ideas that leaders put forward, nor can we have an accurate understanding of how democracy has evolved unless we understand our past.

DID YOU KNOW?

Bunraku puppetry was founded in Osaka, Japan, in the seventeenth century. The puppets are life-sized and hand-carved. Visible puppeteers manipulate them to perform a play.

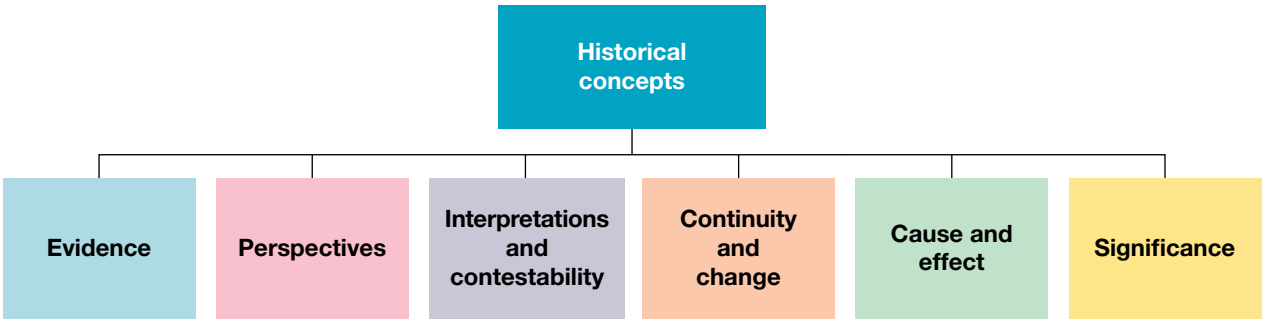
DISCUSS

How may understanding our past help us avoid repeating mistakes in the future?

1.2.3 What are historical concepts?

There are six historical concepts, as shown in **SOURCE 3**, that you will learn throughout your History unit. You will become familiar with these concepts by investigating how the world transitioned from ancient to modern society. You will investigate how societies evolved socially, politically and economically by looking at the lives of the people who lived throughout that time. You will become more proficient with these concepts as you work through other history units in subsequent years.

SOURCE 3 The six historical skills



1.2.4 Evidence

Evidence refers to the facts and information available to the historian that they can use to make judgements about the past. Historians also use evidence to prove or disprove a particular theory about events or people from the past. Evidence can come from both primary and secondary sources. Historians use evidence from a range of sources to discover when events happened, how they happened, why they happened and how different events are connected.

Sources

Historians use sources to gather information about the past. A source is any written or non-written material that can be used to investigate and provide information about the time they are studying. It is important to analyse sources from the time we are studying to judge how reliable they are and explore the different points of view, or perspectives, of people from the past. This also involves questioning later sources that are interpretations of that time.

Primary and secondary sources

There are two types of sources that historians can use to investigate events, ideas or people from the past. **Primary sources** were created or written in the period of time that the historian is investigating. **Secondary sources** are reconstructions or interpretations of the past written or created by people living after the period of study.

Depending on the event and place, primary sources might include bones, stone tools, letters, newspapers, art, photographs or many other traces. For most periods of history we can divide primary sources into written and archaeological sources. Written primary sources can include such things as poems, songs, letters, myths and legends. They might have been written on paper, painted on stone walls or inscribed in stone, metal or clay in ancient languages. Archaeological sources are objects that were made in the past. They include many kinds of **artefacts** such as tools, weapons, pottery, coins, games, toys and jewellery. Some artefacts have written sources inscribed on

primary source an object or document that was created or written in the period of time that the historian is investigating

secondary source a reconstruction of the past written or created by people living at a time after the period that the historian is studying

artefact an object made or changed by humans

them. Archaeological sources also include works of art such as sculptures and paintings, and constructions such as tombs, temples and sometimes entire cities.

Secondary sources are often books and articles. They can also include websites, models, timelines, computer software and documentary films. To create secondary sources, historians often:

- locate information in primary sources
- interpret that information
- use it to explain what happened.

Analysing evidence

Historians analyse sources as evidence to discover information about events from the past. In order to do this effectively, the historian needs to question the sources to ensure that they are accurate and reliable. Sources can be factual, or they can be the opinion of an individual or of a group of people and opinions can be **biased**. When we use sources to try to find out about the past, we have to ask questions such as:

- What type of source is this?
- Who wrote or created this source and when was it written or created?
- Why was this source written or created?
- What evidence does the source provide?
- What was happening at the time the source was written or created?
- Can I trust the source?

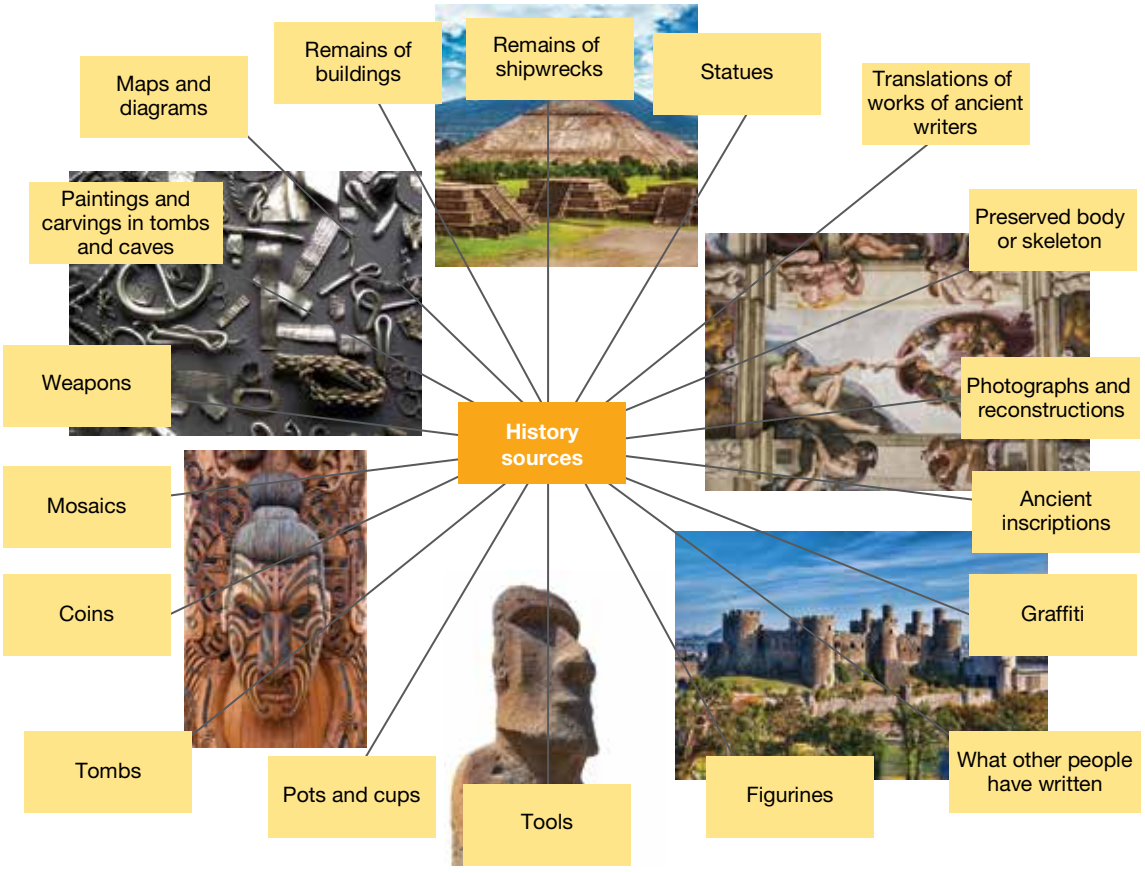
biased one-sided or prejudiced, seeing something from just one point of view

hypothesis (plural: hypotheses) a theory or possible explanation

One way to test sources for reliability is to compare them with other sources. If this evidence leads to the same conclusion, we call it supporting evidence. If it leads to different conclusions, we have contradictory evidence.

Using evidence from sources, historians form a **hypothesis** (a possible theory to explain what happened). To test the hypothesis we look for evidence that supports it.

SOURCE 4 Some types of primary sources



We also look for other evidence that contradicts it. To do this, historians needs to ask: what other information do I need to support my theory? Do I have all the available information about the events or people that I am investigating? This way, when historians come to a final interpretation of the past, they can be reasonably sure that they are correct.

Think about the investigation of a crime. Investigators look at what contributed to an event and how the different pieces of evidence that they find fit together. They ask questions that begin with who, what, where, when, why and how. Historians follow much of the same process. In this way, history is like any other kind of investigation, but it is more difficult because there are often gaps in our evidence. We usually cannot find all the clues we need. It can be like trying to solve a jigsaw puzzle when many pieces have been lost.

Wherever historians find sources and whatever methods they use to test their hypotheses and interpret the past, there will always be differing interpretations that are debated and contested. The issue of **contestability** is a very important concept in the study of history. Historical debates are ongoing. They occur when, for example, there is a lack of evidence or when different perspectives lead to different conclusions. There are ongoing debates on many things, including the causes of particular wars and the roles of particular individuals, groups and ideas in bringing about significant changes.

1.2.5 Perspectives

Understanding how people thought and felt

No two people see one event in exactly the same way. This is because of perspectives, which is the point of view that someone may have of an event. As now, people in the past may have had different points of view about an event, depending on their age, gender and social position, as well as their beliefs and values. Historians have a wide range of primary and secondary sources available to use when investigating events from the past. In many cases, as in the Crusades, the evidence portrays many different versions of the same event. The sources present different versions of the events depending on who they were written by (king, knight, villager), what religion they were affiliated with (Christian or Muslim), or even where they lived (geographical location). We try to understand the **perspectives** of people in the past by exploring their points of view, attitudes, values and culture. Historians also have perspectives and this can influence their interpretation of the past. Often, we can get a sense of the way people thought and felt by examining primary sources, such as diaries, or visiting museums and historical sites.

contestability when particular interpretations of the past are open to debate

perspective point of view or attitude

Empathy

In order to gain a meaningful insight into the past, historians need to display empathy. This means trying to understand how people thought and felt at different times in the past. Using empathy, we work with all the evidence we have in order to imagine what the past was like for people who were living in that time. We need to ask questions such as:

- Who were these people?
- Where did they live?
- How did they live?
- What mattered to them?
- What did they believe in?
- What did they see, hear, taste, smell and feel?
- What did they fear and what did they hope for?
- Did they have feelings similar to or different from ours?
- Did they all think and feel the same as one another, or did they have differing perspectives?

When you put yourself in the shoes of someone who lived in a different time, it is often easy to judge their actions in a negative manner. To show empathy means that the historian can understand the past from the point of view of a particular individual or group, taking into account the unique circumstances of that person or group. It is also important to understand their motivations, their values and attitudes that are causes of their actions.

How should we judge people in the past?

When we learn about some of the things people did in the past, it is natural that we make moral judgements. For example, it would be easy to dismiss the Vikings as bloodthirsty raiders. Viking raids began in England at the end of the eighth century; raids, attacks and then invasions in Britain and Ireland continued for more than 200 years. The behaviour of pillaging and looting Vikings might be considered to be cruel, violent or ruthless by today's standards. However, we should try to avoid judging people in the past by beliefs or standards that did not exist in their time. There are a number of possible reasons why Vikings raided and colonised other regions. These reasons include the pressure of growing population and limited farmland, fighting among different Viking groups and an awareness of the availability of great wealth in foreign lands.

SOURCE 5 A reenactment of Vikings raiding the coast from their beached longship



SOURCE 6 The Oseberg ship (a well-preserved Viking ship discovered in a large burial mound in 1903) on display at the Viking Ship Museum in Oslo, Norway



It is also worth noting that Vikings were explorers, farmers, fishermen, poets and traders. They were spiritual people and their society was governed by a primitive form of democracy. We should remember that in the future, people may think that many kinds of behaviour we consider normal will be wrong, by their standards.

SOURCE 7 A reconstructed Viking Age harbour settlement at Bork Vikingehavn, a living history museum in Denmark



DISCUSS

Working in small groups, think of something that happens in our time that some people believe is wrong. An example could be the way some countries are wealthy while in others children die of starvation and preventable diseases. Do you think that at some time in the future people might consider ours to have been an unjust age?

1.2.6 Contestability

Wherever historians find sources and whatever methods they use to test their hypotheses and interpret the past, there will always be differing interpretations that are debated and contested. The issue of contestability is an important concept in the study of history.

Historical debates are ongoing. They occur when, for example, there is a lack of evidence or when different perspectives (points of view) lead to different conclusions. In some cases, there may be a lack of evidence of an event and the historian has had to use the evidence that is available to fill in the gaps with what could have reasonably happened. This means that their interpretation of the event could be contested or debated.

In other cases there are several different perspectives of the same event that are available to historians, and all the perspectives could have some evidence to support them. In this case, the historian needs to examine the evidence available and make a reasonable judgement as to what events occurred and how they occurred, but this could still be contested. There are ongoing debates on many things, including the causes of wars and the roles of particular individuals, groups and ideas in bringing about significant changes.

DISCUSS

Why could the Viking raids be considered to be a contestable event or issue? What things about the raids could be debated and why?

1.2.7 Continuity and change

Historians investigate the past for many reasons. One of these reasons is to see how society has changed socially, politically and economically over various periods of time. When studying different societies, historians can see that some aspects of life have remained the same over time, while other aspects of life have changed dramatically. This concept is known as **continuity and change**.

Continuity refers to the things that endure, relatively unchanged, over time. In the case of some societies, many things have remained the same across long periods of time in history. Sometimes these continuities have stayed with us into the modern world.

Change refers to something that is different from what has previously occurred. The change may have been gradual, and occurred over a long period of time, or it may have been sudden, and the change has happened very quickly. In the case of gradual change, it can be difficult to detect the precise moment of change. It could be that many small events have led to a larger change. In the case of sudden change, the moment of change is obvious and definitive. Often this is associated with single events, that are sometimes referred to as turning points in history. It is also important for historians to differentiate between short- and long-term change.

SOURCE 8 Edinburgh Castle located on Castle Rock, in Edinburgh, Scotland. The buildings of the castle date from the twelfth to the twenty-first centuries.



SOURCE 9 Modern townhouses in Australia. Though the need for the protection of castles is not needed in modern times, there are some similarities.



Historians study changes, as well as the things that have remained the same because it is important to be able to identify when and why a change has occurred and when and why things have continued unchanged.

We can make comparisons between and among historical events occurring at the same time, between and among historical periods, and between the present and the past.

1.2.8 Cause and effect

There is much more to history than putting events in order and understanding the sequence and flow of events. Historians use sequencing and timelines to study continuity and change, which then assists them to investigate the relationships that exist between events.

Historical events do not just happen spontaneously, without reason. Every event will have a cause, and every event is also likely to be the cause of subsequent events, effects or consequences. Explaining how and why things in the past have happened is often the result of the historian being able to confidently identify patterns of **cause and effect**. This is an essential concept to assist in explaining the past, but can also make it possible to predict what may take place in the future.

continuity and change the concept that while many changes occur over time, some things remain constant

cause and effect the concept that every historical event will have a cause, and every event or action is likely to be the cause of subsequent effects or consequences

Causes may include actions by people or societies, politics, beliefs, economics or any other historical factor. Likewise, effects can include impacts on people, societies, politics, beliefs, economics or any other historical factor. It is important to understand that not all causes leading to a specific event are as equally significant as each other — some causes may have more influence than others.

The ability to analyse cause and effect requires a good understanding of sequencing chronology. We can identify a series of historical events and developments over time, both in the short- and long-term. Some causes occur immediately before an event began, while others may have existed for several years, decades or centuries before they caused the event. Some effects occur immediately after an event or action, while others may occur years, decades or centuries following the event or action.

Feudalism was the social order established in medieval Europe. This system involved the king owning all the land in a kingdom and a hierarchy of members of society, arranged in order of importance. After the king, the next most powerful class were the nobles. In return for the right to land and control over peasants who worked it, the nobles gave the king their loyalty, and provided him with a portion of taxes collected from their peasants. Below the nobles were the knights who, in return for land, gave loyalty to their lord, fought for him and provided him with taxes from their peasants. Peasants were at the bottom of the feudal hierarchy.

SOURCE 10 An illustration featuring medieval peasants. Peasants were at the bottom of the feudal social order in medieval Europe.



Feudalism had a number of causes. Following the collapse of the Roman Empire in 476 CE, tribal groups such as the Vikings increasingly invaded western Europe. Common people who had no protection moved onto the land of wealthy and powerful landowners. In return for working the land, they received protection.

Feudalism also resulted in a number of effects. The nobles became responsible for the people lower down in the hierarchy. The peasants sustained the land and therefore drove the economy. However, most of the peasants were bound to the land and were unable to obtain their freedom. Their lives were dictated by the landowner.

1.2.9 Significance

Determining if something is significant means deciding if something is important or not. Historical **significance** means deciding how important particular aspects of the past are. These aspects may include events, individuals or groups, developments in the past, ideas or movements, and historical sites. There is far too much history to study or learn all of it. We need to make judgements about what is most important and what is less important. For this reason, this is an essential, but challenging, historical concept.

As historians, we need to make judgements about what is more or less important in relation to the period of time that we are studying. When we try to establish the significance of an aspect of the past, we have to consider a number of questions. These include:

- How relevant was it to people living at that time?
- How many people were affected?
- How did it change people's lives?
- How long were people's lives affected?
- How important and long-lasting were the consequences?
- How relevant is it to the contemporary world?

significance the importance assigned to particular aspects of the past, for example, events, developments, movements and historical sites

Once we know the answers to some of these questions, we can put ourselves in the shoes of those we are studying and try to understand why or why not an aspect might be significant. Remember that aspects that happen quickly or that do not last a long time can still be significant.

SOURCE 11 A statue of emperor Charlemagne (Charles the Great) in Germany



SOURCE 12 A line engraving by Theodor de Bry showing Spanish conquistadors leading Native American slaves on an expedition, c. 1590



1.2 SKILL ACTIVITY: Historical perspectives and interpretations, Communicating

Use the internet and/or other information sources to find the meaning of the word 'sympathy'. **Explain** how empathy is different from sympathy.

1.2 Exercise

learnon

1.2 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 6, 7, 13	4, 5, 8, 12	9, 10, 11, 14

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Check your understanding

1. Fill in the spaces in the following passage by choosing from the following words:

civilisations	beliefs	cultures	events	research

Historians conduct _____ into past _____, _____ and societies. Historians try to build up a picture of the ideas and _____ of people in the past, how they lived and acted and how their lives were shaped by _____.

2. **Identify** the six historical concepts.
3. What is history?
4. What can we gain from understanding our heritage?
5. **Describe** the difference between primary sources and secondary sources.
6. a. A hypothesis is a _____ or possible explanation that has to be tested by looking for _____ that might support it and other evidence that might _____ it.
   b. _____ is the situation when particular interpretations of the past are open to _____.
7. **Explain** what a historian is doing when identifying continuity and change.
8. What does it mean to empathise with people you study?
9. Why could it be wrong to judge people from past times by the standards of our times?

Apply your understanding

Historical perspectives and interpretations

10. Bunraku, as seen in **SOURCE 1**, was created towards the end of the Tokugawa Shogunate (1600–1868). What might you be able to understand about Japan under the Shoguns just by using this source as evidence?
11. Look closely at **SOURCE 2**. The United Kingdom's National Trust relies on memberships and donations to preserve the remains of this medieval castle. Why do you think so much effort goes into conserving such traces of the past?
12. Suggest what we might learn about the past from one of the types of primary sources listed in **SOURCE 4**.

Using historical sources

13. **Compare SOURCES 8** and **9**. What are the similarities between these sources? What are the differences?
14. **Examine SOURCE 6**.
    A. Imagine that you are living in the past and can see this ship sailing towards your home in England. **Describe** how you feel.
    B. How do you think that modern visitors to the Viking Ship Museum in Oslo feel when looking at the ship?
    C. How would you explain any changes in attitudes over time?

LESSON
1.3 Skills in History

1.3.1 What skills will you build this year?

This year you will continue to build your ability to use the four broad categories of skills in History. The summaries below are to remind you of these four key skills.

1. **Questioning and researching** involves asking questions about history, locating relevant and detailed information and/or data from a range of appropriate sources. In Year 8 History, this includes looking at primary and secondary sources related to Medieval Europe and the Black Death, such as paintings, diagrams, maps, personal reflections and photographs.
2. **Using historical sources** involves identifying and using primary and secondary sources. It also includes looking at the sources to identify their usefulness and accuracy. In Year 8 History, this includes asking questions about sources such as '*Who wrote/produced this?', 'When?', 'Why?' and 'What does it show about the past?'*.
3. **Historical perspectives and interpretations** means using historical thinking. It involves sequencing historical events and describing and identifying historical concepts such as cause and effect, continuity and change and significance to help you understand the past. In Year 8 History, this includes looking for patterns of change over time, such as looking at the enormous changes that shaped the world from about 650 to 1750 CE. You will also build your ability to identify the causes and effects of historical events such as the Black Death and how this event shaped attitudes towards medicine, religion and society. Means examining your interpretations of information to draw evidence-based conclusions. It requires considering ambiguities and multiple perspectives in a source and proposing potential responses to contemporary challenges or issues. In Year 8 History, this includes drawing conclusions about the impacts of the Black Death on different parts of a community; for example, the experiences of the lower-class peasants was very different to that of the higher classes.
4. **Communicating** your ideas means presenting information in a range of formats to suit the intended audience and purpose. This includes essays, oral presentations, debates, tables and cartoons. Reflecting on your skills is also an important part of the process. It also means using historical sources to describe, explain and argue points of view about the past. In Year 8 History, this might include writing from the perspective of someone living during medieval times and creating posters, brochures and news articles to communicate your work.

1.3.2 SkillBuilders in the topic

In addition to these broad History skills, there is a range of essential practical skills that you will learn as you study History. The SkillBuilder topics will tell you about the skill, show you how to apply the skill and let you practise the skill with tasks related to the topics covered in this subject.

The SkillBuilders you will use in Year 8 are:

- SkillBuilder: Sequencing events in chronological order
- SkillBuilder: Interpreting medieval art as sources
- SkillBuilder: Evaluating historical significance
- SkillBuilder: Analysing different perspectives
- SkillBuilder: Evaluating Ottoman Empire sources
- SkillBuilder: Interpreting sources on the Vikings
- SkillBuilder: Evaluating roles and achievements
- SkillBuilder: Explaining different historical interpretations
- SkillBuilder: Making your own notes to analyse relevant sources
- SkillBuilder: Analysing cause and effect
- SkillBuilder: Making your own notes from sources

LESSON
1.4 SkillBuilder: Sequencing events in chronological order

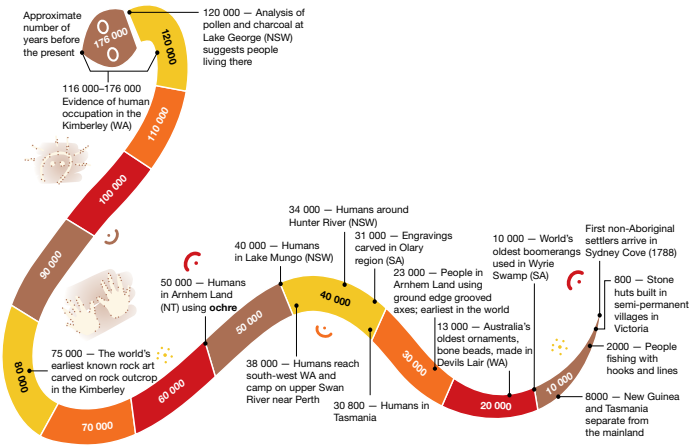
online only

What is a timeline?

A timeline is a diagrammatic tool for placing events in chronological order (the order in which they happened). Generally, timelines are constructed using a sequence of dates with the addition of descriptive labels. A timeline may cover a short period or many centuries. Timelines may be as simple as a horizontal or vertical line, or highly visual with use of colour and images.

Go online to access:

- an explanation of the skill (Tell me)
- a step-by-step process to develop the skill, with an example (Show me)
- an activity to allow you to practise the skill (Let me do it)
- questions to consolidate your understanding of the skill.



LESSON
1.5 SkillBuilder: Interpreting medieval art as sources

online only

Why is analysing artwork useful?

Artwork can tell us a great deal about a particular period or event. It may also tell us what ideas, beliefs or activities people felt were important enough to express in artwork.

Go online to access:

- an explanation of the skill (Tell me)
- a step-by-step process to develop the skill, with an example (Show me)
- an activity to allow you to practise the skill (Let me do it)
- questions to consolidate your understanding of the skill.



LESSON
1.6 SkillBuilder: Evaluating historical significance

online only

Why do historians evaluate the significance of events, ideas, achievements or people?

Historians try to determine which events, ideas, achievements or people have the most impact. Asking questions about the impact of an individual, development or cultural achievement helps us to assess its significance in bringing about change.



Go online to access:
- an explanation of the skill (Tell me)
- a step-by-step process to develop the skill, with an example (Show me)
- an activity to allow you to practise the skill (Let me do it)
- questions to consolidate your understanding of the skill.

LESSON
1.7 SkillBuilder: Analysing different perspectives

online only

Why is it important to recognise different perspectives?

Sources help you develop a balanced picture of history by analysing the perspectives different people have had about events of the past and how reliable those sources actually are.



Go online to access:
- an explanation of the skill (Tell me)
- a step-by-step process to develop the skill, with an example (Show me)
- an activity to allow you to practise the skill (Let me do it)
- questions to consolidate your understanding of the skill.

LESSON
1.8 SkillBuilder: Evaluating Ottoman Empire sources

online only

Why should we test the accuracy, usefulness and reliability of Ottoman Empire sources?

We need to be very careful when using sources as they may be biased, or those who produced them may have been forced to tell only one side of the story.



Go online to access:
- an explanation of the skill (Tell me)
- a step-by-step process to develop the skill, with an example (Show me)
- an activity to allow you to practise the skill (Let me do it)
- questions to consolidate your understanding of the skill.

LESSON
1.9 SkillBuilder: Interpreting sources on the Vikings

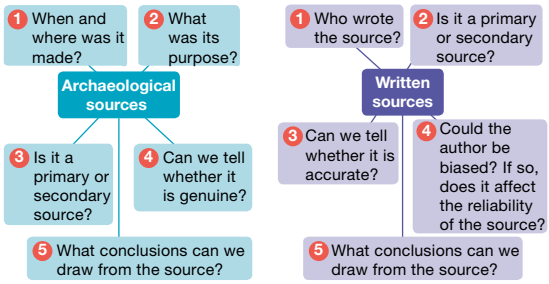
online only

Why do historians need to interpret sources?

Sources can reveal a lot about the Vikings as long as historians ask questions about their origin, their purpose and if they are reliable and therefore useful.

Go online to access:

- an explanation of the skill (Tell me)
- a step-by-step process to develop the skill, with an example (Show me)
- an activity to allow you to practise the skill (Let me do it)
- questions to consolidate your understanding of the skill.



LESSON
1.10 SkillBuilder: Evaluating roles and achievements

online only

Why do historians evaluate roles and achievements?

Historians evaluate, or judge, the role of individuals, their achievements and events so they can support historical claims that are made.

Go online to access:

- an explanation of the skill (Tell me)
- a step-by-step process to develop the skill, with an example (Show me)
- an activity to allow you to practise the skill (Let me do it)
- questions to consolidate your understanding of the skill.



LESSON
1.11 SkillBuilder: Explaining different historical interpretations

online only

What is a historical interpretation?

To explain a past event or change, historians use evidence from historical research to test the hypothesis, or an interpretation of the past.

Go online to access:

- an explanation of the skill (Tell me)
- a step-by-step process to develop the skill, with an example (Show me)
- an activity to allow you to practise the skill (Let me do it)
- questions to consolidate your understanding of the skill.



LESSON
1.12 SkillBuilder: Making your own notes to analyse relevant sources

online only

Why is note-making useful?



Note-making from sources will help make information easier to understand and recall. Note-making can also help you analyse the causes and effects of significant events.

Go online to access:

- an explanation of the skill (Tell me)
- a step-by-step process to develop the skill, with an example (Show me)
- an activity to allow you to practise the skill (Let me do it)
- questions to consolidate your understanding of the skill.

LESSON
1.13 SkillBuilder: Analysing cause and effect

online only

What does analysing cause and effect involve?



Analysing cause and effect involves examining events and sequences of events and looking for connections between them.

Go online to access:

- an explanation of the skill (Tell me)
- a step-by-step process to develop the skill, with an example (Show me)
- an activity to allow you to practise the skill (Let me do it)
- questions to consolidate your understanding of the skill.

LESSON
1.14 SkillBuilder: Making your own notes from sources

online only

Why is note-making useful?

Notes summarise key information and clarify particular points in your own words. Being able to make useful notes will help you remember and understand key information easier.

Rahui is a form of tapu that the Maori used to limit resource use. For example, rahui could be imposed over an area to prevent the gathering of food while the land recovered. It helped to conserve limited food supplies and other natural resources. All Maori tribes accepted the principles of rahui.

Go online to access:

- an explanation of the skill (Tell me)
- a step-by-step process to develop the skill, with an example (Show me)
- an activity to allow you to practise the skill (Let me do it)
- questions to test your application of the skill.

LESSON
1.15 Review

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1.15.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

1.2 Concepts in History

- Historians investigate and interpret the past.
- History helps us to understand our heritage and appreciate other cultures.
- History helps us to understand the present and what the future may hold.
- History provides us with essential skills. The key concepts you will study in History are evidence, continuity and change, cause and effect, sources, perspectives and interpretations and contestability.

Evidence

- A source is any written or non-written materials that can be used to investigate and provide information about the past.
- There are two types of sources: a primary source comes directly from the time of the event and a secondary source is one that is written or created after the event has already happened.
- Evidence relates to analysing sources to judge how reliable they are and exploring the different points of view, or perspectives, of people from the past.
- Using evidence from sources, historians can form a hypothesis (a possible theory to explain what happened).

Continuity and change

- Identifying continuity and change is the ability to recognise that, while many changes occur over time, some things remain constant.
- Historians often use sequencing of events and create timelines in order to study the changes that have happened over time.
- Historians divide the past into ages and periods.
- In Australia we count time using a system that was developed in Christian countries, but there are other systems.

Cause and effect

- Using chronological order and timelines helps us to recognise cause and effect.
- Analysing cause and effect relates to understanding that every historical event will have a cause, and every event or action is likely to be the cause of subsequent effects or consequences.

Perspective

- Perspective is the different point of view that different people may have of an event.
- We try to understand the different perspectives of people in the past by exploring their points of view, attitudes and values.
- Historians also have their own perspectives, which can influence the way that they see the past.
- Historians try to discover how people thought and felt in the past.
- We should avoid judging people from the past by the standards of our own age.
- Using historical imagination requires using your imagination, but basing your ideas on evidence.

Significance

- Determining historical significance is the ability to make judgements about the importance assigned to particular aspects of the past, for example, events, developments, movements ad historical sites.
- Historians will often have differing opinions about how significant certain events are.

Interpretations and Contestability

- When attempting to interpret the past, there will always be differing interpretations that are able to be debated and contested.
- Sometimes there is evidence available that supports different versions of events and in this case, historians must make a judgement based on the evidence.

1.3 Skills in History

- Using historical sources means identifying the context, and features of a source and analysing its intent. It also involves looking at sources to work out how reliable they are.
- Historical perspectives and interpretations involves considering cause and effect and patterns of continuity and changes. It includes looking at different perspectives in sources and analysing different interpretations.
- Communicating is about creating historical explanations and arguments which use historical terms, conventions and sources.

on Resources

eWorkbooks Customisable worksheets for this topic (ewbk-10567)
Reflection (ewbk-10568)
Interactivity History skills and concepts crossword (int-8923)

1.15.2 Key terms

artefact an object made or changed by humans
biased one-sided or prejudiced, seeing something from just one point of view
cause and effect the concept that every historical event will have a cause, and every event or action is likely to be the cause of subsequent effects or consequences
contestability when particular interpretations of the past are open to debate
continuity and change the concept that while many changes occur over time, some things remain constant
heritage everything that has come down to us from the past
hypothesis (plural: hypotheses) a theory or possible explanation
perspective point of view or attitude
primary source an object or document that was created or written in the period of time that the historian is investigating
secondary source a reconstruction of the past written or created by people living at a time after the period that the historian is studying
significance the importance assigned to particular aspects of the past, for example, events, developments, movements and historical sites

1.15 Review exercise

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Multiple choice

1. What is heritage?
   - **A.** An object made or changed by humans
   - **B.** Everything that has come down to us from the past
   - **C.** Predictions of things that will happen in the future
   - **D.** A point of view or attitude
2. Chronological order means.
   - **A.** a timeline.
   - **B.** in order from the beginning to the end.
   - **C.** any random order.
   - **D.** from the end to the beginning.
3. The work of historians can be described like that of detectives because
   - **A.** historians solve crimes.
   - **B.** historians are always right.
   - **C.** historians never make mistakes.
   - **D.** historians gather evidence from sources and interpret that evidence.
4. What are primary sources?
   - **A.** Sources that were created during the time being studied
   - **B.** Written sources
   - **C.** Secondary sources
   - **D.** Books
5. Which of the following concepts of history refers to the facts and information available to historians?
   - **A.** Perspective
   - **B.** Evidence
   - **C.** Cause and effect
   - **D.** Empathy
6. The concept of history 'continuity and change' refers to
   - **A.** the study of aspects of history that have remained relatively unchanged and the aspects that have changed dramatically.
   - **B.** studying written or non-written materials that can be used to provide information about the past.
   - **C.** historians trying to discover how people thought and felt in the past.
   - **D.** the ability to make judgements about the importance assigned to particular aspects of the past.
7. 'We should avoid judging people from the past by the standards of our own age.' When addressing this statement, which concept of history are you applying?
   - **A.** Significance
   - **B.** Sources
   - **C.** Empathy
   - **D.** Cause and effect
8. Which of the following is not a secondary source?
   - **A.** A textbook about medieval peasants
   - **B.** A photograph of castle ruins
   - **C.** A ledger kept by a medieval manor
   - **D.** A documentary about medieval sources

9. An artefact is an object made or changed by
   - **A.** animals.
   - **B.** humans.
   - **C.** plants.
   - **D.** the weather.

10. Feudalism was
   - **A.** anything relating to money.
   - **B.** a social hierarchy.
   - **C.** a peasant's allegiance to the monarchy.
   - **D.** a farming method.

Short answer

Communicating

11. In your own words, **explain** what the term 'supporting evidence' means.
12. What is a hypothesis?
13. Archaeologists search for historical sources to help them understand the past. **List** four examples of archaeological sources.

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LESSON
1.4 SkillBuilder: Sequencing events in chronological order

1.4.1 Tell me

What is a timeline?

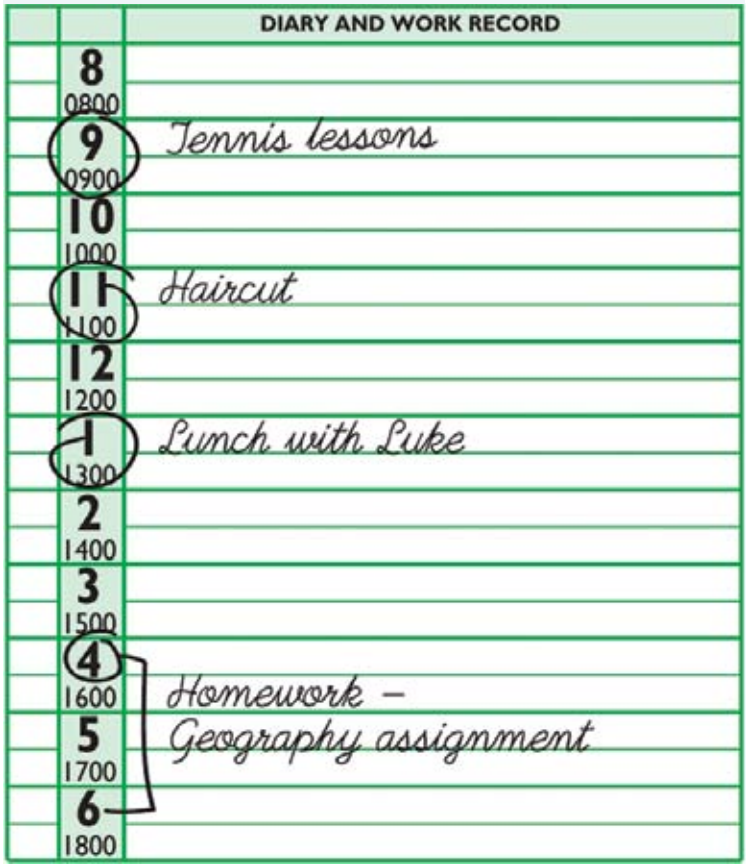
A timeline is a diagrammatic tool for placing events in *chronological order* (the order in which they happened). A simple chronology would be one, for example, that showed in sequence, or time order, key events of a day in your life.

Why are timelines useful?

Timelines are useful because they can help us make sense of events in the past. Timelines are particularly

- useful in the study of history. Creating a history timeline will help to:
- understand the order in which events occurred
- describe the time distances between events
- identify what has changed over time
- identify what has stayed the same over time
- analyse how one event might relate to other events
- compare what might have been happening in different places at the same time
- assess if one event might have led to another event (cause and effect).

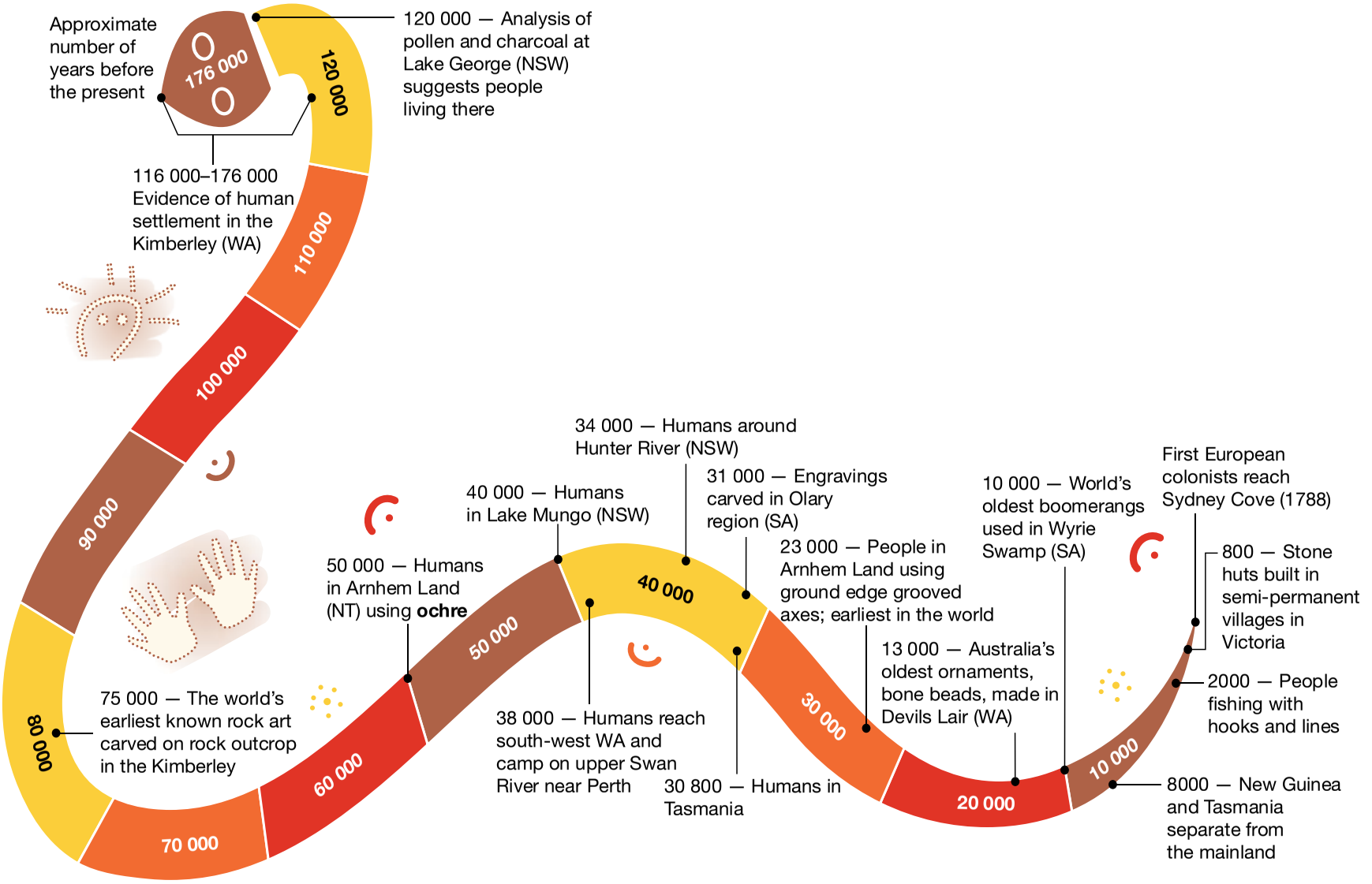
SOURCE 1 A simple chronology



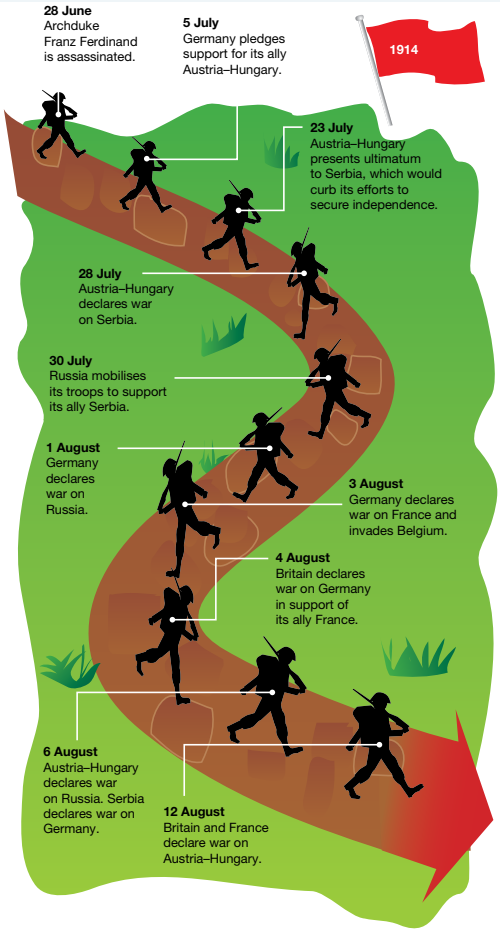
Generally, timelines are constructed using a sequence of dates with the addition of descriptive labels. The timeline may span thousands of years (see **SOURCE 2**) or cover a very short period (see **SOURCE 3**). In print, timelines may be as simple as a horizontal or vertical line, or highly visual with use of colour and images. Using digital technology, online timelines can be interactive, where users can click on a date and see a descriptive label, an image or even hear an audio narrative or sound effects.

SOURCES 2, **3**, **4**, **5** and **6** show some examples of highly visual timelines that could be presented in printed history text books.

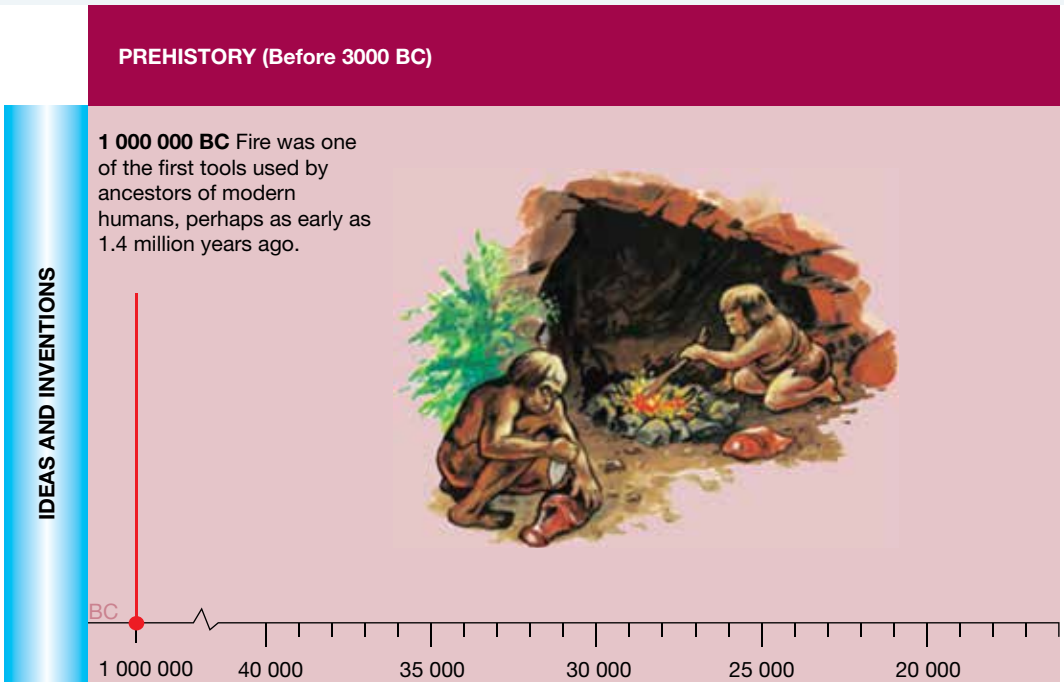
SOURCE 2 An example of a timeline that covers a long span of time



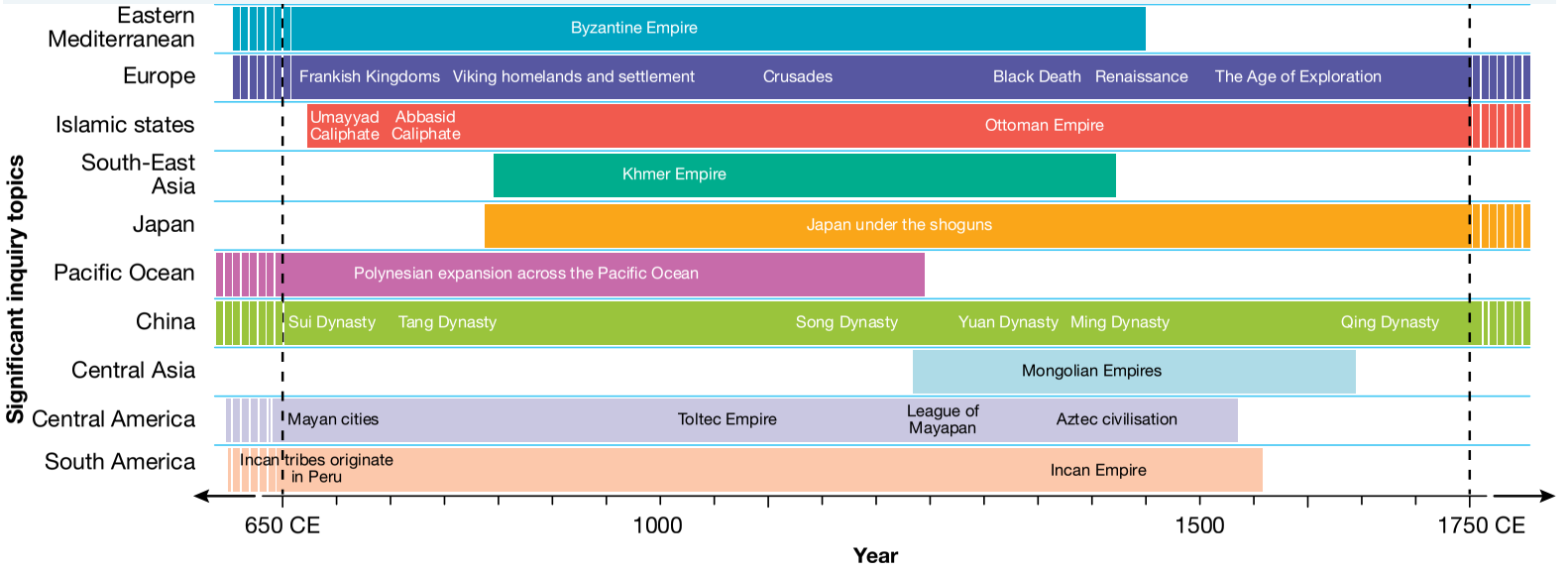
SOURCE 3 An example of a timeline that covers a short span of time



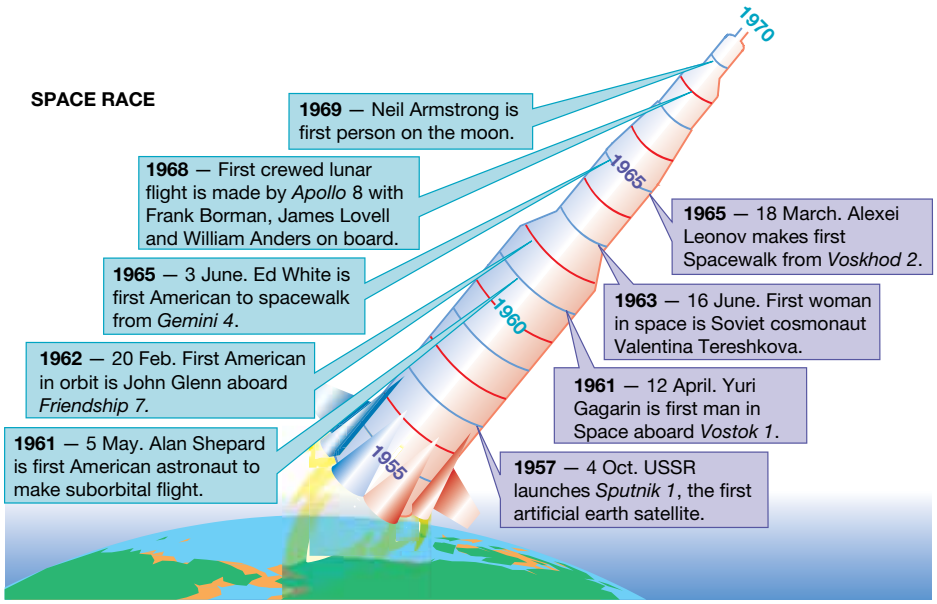
SOURCE 4 An extract from a timeline that provides some illustrative material to accompany descriptive text labels



SOURCE 5 An example of a horizontal timeline that uses coloured bars to compare significant events in different places at the same pointin time



SOURCE 6 An example of a timeline that uses a drawing of an object related to the subject or theme of the timeline



1.4.2 Show me

How to create a timeline

Timelines can cover very short or very long periods of time.

- They can focus on just a few months or years.
- They can focus on big, sweeping changes over thousands of years.
- In most cases, they are divided up into equal blocks of time, such as decades or centuries. This is not essential but it helps us to see not only the order of events but how close or how far apart they were.
- A break in the timeline (using a zig zag line, for instance) can show a long span of time between one date and the next.
- To make equal blocks of time you need to use a scale — for example, 1 centimetre =10 years.
- Timelines can be horizontal (across the page) with the earliest dates on the left and later dates to the right.
- Alternatively, they can be vertical (down the page), in which case the dates usually run from the earliest at the top to the latest at the bottom.
- Often we have only approximate dates for events in ancient history. In those cases, we put 'c.' in front of the date. It stands for the Latin word *circa*, which is Latin for 'around' or 'about'.

Step 1

Study the below timeline. Look at the way this timeline has been constructed.

- It is a vertical timeline.
- It has been divided into centuries.
- A scale of 1 centimetre = 1 century has been used.

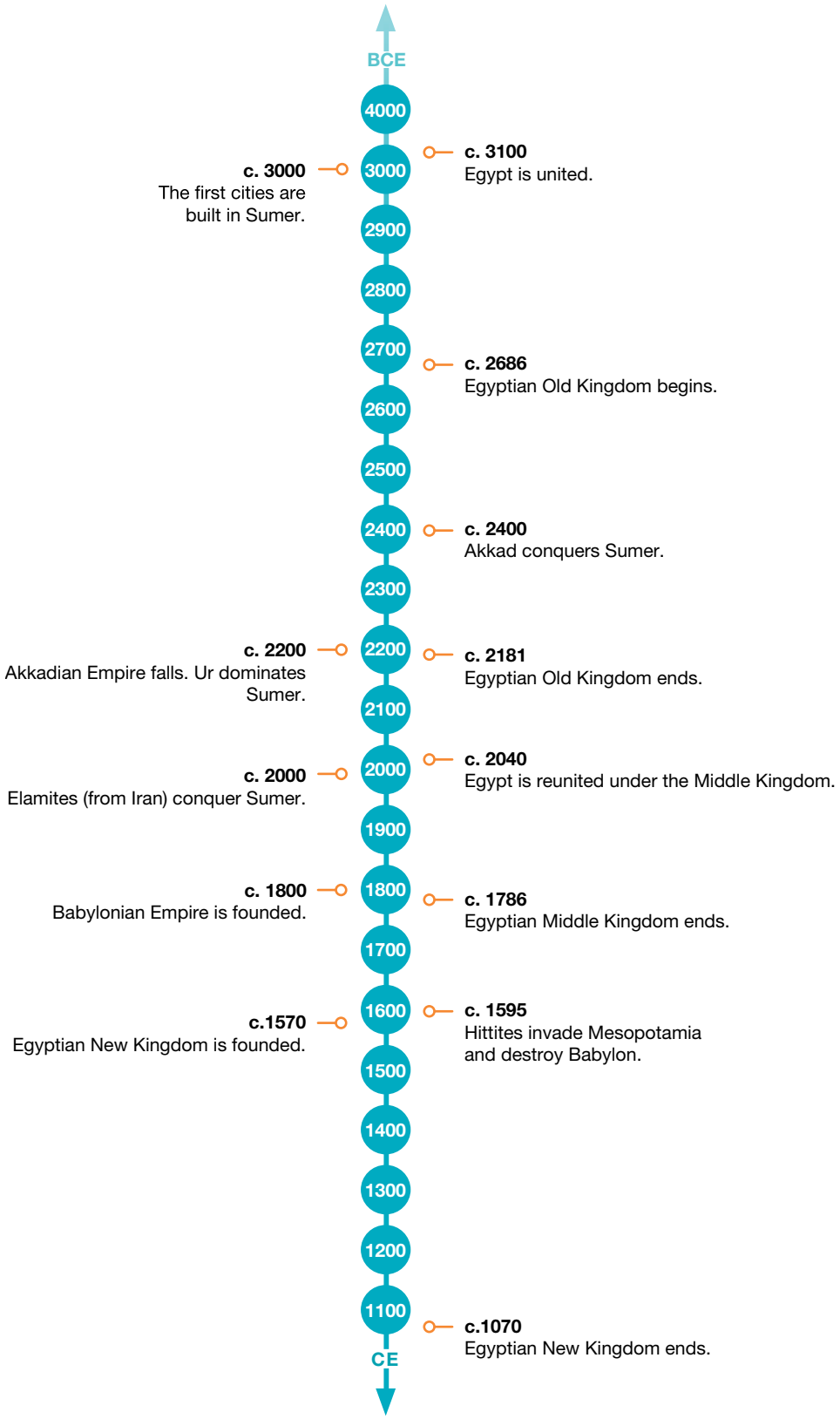
Step 2

A completed timeline has a clear title.

The title should state:

- the time period covered
- the subject or theme
- the beginning and end dates.

Timeline of the rise and fall of kingdoms and empires in Egypt and Mesopotamia between 3000 BCE and 1000 BCE



1.4.3 Let me do it

Complete the following activities to practise this skill.

1.4 ACTIVITIES

1. Construct a timeline of Europe and the Mediterranean world between 476 CE and 1683 CE.
- Use a vertical timeline.
- Divide it into centuries.
- Decide on the scale you will use.

Key events for your timeline:

1066 CE	William of Normandy wins the Battle of Hastings and becomes King of England.
476 CE	Western Roman Empire ends.
1096 CE	The Crusades start.
711 CE	Islamic forces conquer Spain
1215 CE	King John of England is forced to sign the Magna Carta
787 CE	First recorded Viking raid on England. 1298 CE Osman I founds the Ottoman Empire.
1347 CE	The Black Death breaks out in Europe.
1429 CE	Joan of Arc drives the English out from Orleans.
1453 CE	Crusades come to an end when the Ottomans take Constantinople.
1529 CE	Advancing Ottoman forces defeated at Vienna.
1683 CE	Ottoman forces again defeated in Vienna. Many see this as the beginning of the decline of the Ottoman Empire

Your timeline will help you to analyse and compare events.

2. Answer the following questions based on the timeline you have drawn.
- **a.** What time span does your timeline cover (i.e. how many years in total are covered by your timeline)?
- **b.** Which event on your timeline was the earliest?
- **c.** How many years elapsed between the start and the end of the Crusades?
- **d.** How many years elapsed between the start of the Ottoman Empire and the beginning of its decline?
- **e.** What event of significance took place in the fifth century?

LESSON
1.5 SkillBuilder: Interpreting medieval art as sources

1.5.1 Tell me

What are works of art?

Works of art may be one type of primary source. Throughout this topic we have examined various primary sources: artworks, monuments, buildings and written sources. Artworks include paintings, sculptures, bas reliefs and mosaics. Art styles changed significantly throughout the Middle Ages, and differed from kingdom to kingdom.

Why is analysing artwork useful?

Artwork can tell us a great deal about a particular period or event. It may also tell us what ideas, beliefs or activities people felt were important enough to express in artwork. For example, an elaborately carved altarpiece in a church tells us that much attention was given to expressing the Christian faith during the Middle Ages.

1.5.2 Show me

How to analyse a work of art

A useful way to approach the task of analysing a work of art is remembering to use 'the three Cs' – content, context and comment.

Content

The content is what the artwork actually shows. Look at it very carefully and make sure you note all the details. For example, you might need to look for particular symbols or gestures. Think about how you would describe the image to someone who has not seen it; that way you can be sure you have looked at it thoroughly.

Context

Context refers to what was happening at the time the artwork was created – the historical background. Try to find out about the origin and purpose of the artwork: who created it, and why? Is it a primary or a secondary source? Knowing this can reveal as much as the artwork itself. The detail from the Mariacki altar in **SOURCE 1** was created by an artist called Wit Stwosz. The artist and his team were commissioned to create this altarpiece for the Church of Our Lady in Krakow, Poland. During the Middle Ages, artists were frequently employed to create artworks with religious themes. This altarpiece shows various saints, the ascension of the Virgin Mary into Heaven and scenes from the life of Jesus. At the time of its creation in the Late Middle Ages, it was the largest altarpiece in the world.

Comment

You should question the value of every source. Why is it useful? Does it give you raw information or does it show only a particular point of view? Are there any limitations to the source – that is, is there anything the illustration cannot tell you? Do you think it is a reliable source? Why or why not? Remember, the origin and purpose of any historical source will always influence its value and limitations.

If you ask these questions each time you analyse an artwork, you'll be on your way to becoming an effective historian. In the following example, the three Cs have been applied to **SOURCE 1**.

SOURCE 1 A detail from the Mariacki altar in the Church of Our Lady in Krakow, Poland, showing the arrest of Jesus. It was carved by Wit Stwosz in the late fifteenth century.



Content. One of the scenes on this altarpiece shows the arrest of Jesus. Except for the central figure of Jesus, the figures have the sort of attire that would have been familiar to the artist. In short, they are dressed like people from late fifteenth-century Europe, not like people from the time of Jesus in the Roman Empire almost 1500 years earlier. The soldier does not look like a Roman soldier of the first century CE.

He is a knight of the Late Middle Ages. The buildings in the background are also from the late fifteenth century. Before modern times, and before the science of archaeology, little was known of how people in past societies dressed, or how artefacts looked. So if an artist created a scene from a past era, he showed the clothes and objects as they were in his own time and place.

Context. The Church was a powerful and important institution in medieval Europe. Great expense went into embellishing churches with works of art such as this. Artists were commissioned to undertake such projects and employed people to help them in their task.

Comment. Can we trust this image? We can clearly trust that it represents how important religious artworks were to the Church in the Middle Ages. We cannot trust that it is an accurate image of how things looked at

the time of Jesus. However, as students of the Middle Ages, we can trust that the artist used models from his own time to create these images. Thus we can say that, for the most part, it is an accurate image of how people looked in late medieval Europe. It shows knights' armour, head-dresses, coats, belts and other attire common to the time and place where the artist lived and worked..

1.5.3 Let me do it

Complete the following activities to practise this skill.

1.5 ACTIVITIES

1. Look at **SOURCE 2** and analyse it by completing the tasks below.

SOURCE 2 A French illustration depicting nuns looking after the sick



   a. Describe what is happening in the artwork.
   b. What impression is the artist trying to make about the subject of the artwork (the nuns)?
   c. What are the figures doing? What are the various activities? Can you identify the different roles among the figures?
   d. What sort of problems in dealing with historical sources do your answers to the above questions highlight?
2. You have learnt some of the history behind **SOURCE 1** and the sort of information it presents. This helped assess its usefulness as a source. You should now be able to think about the effectiveness of **SOURCE 2** as a historical source by answering the following questions.
   a. It is fairly certain that **SOURCE 2** was created under the direction of Church authorities. Perhaps members of the clergy created it. How might that influence the way the nuns are presented?
   b. If this was the only source available on the role of nuns in the medieval Church, what conclusions might you draw? Would all your findings be accurate?
   c. Why must historians be careful when looking at sources such as this?
   The types of questions you have asked about **SOURCE 2** can be used for any medieval artwork — in fact, they can be used to analyse artwork from any era. Keep them in mind whenever you are looking at history through artwork.
3. Based on your work interpreting sources on medieval Europe, answer the following questions.
   a. What types of artworks are categorised under the term 'medieval artworks'?
   b. What does it mean to explore the content of an artwork?
   c. Explain what exploring the context of a medieval artwork requires historians to do.
   d. How can analysing medieval artwork be useful to historians?

LESSON
1.6 SkillBuilder: Evaluating historical significance

1.6.1 Tell me

How do we know about the developments of the Renaissance?

We have a great range of primary sources that provide evidence for the developments that occurred during the Renaissance. Many significant developments of the era occurred in the areas of religion, politics, art, literature, architecture and trade. In this subtopic we will focus on how understanding of the solar system developed as part of the scientific revolution that was such an important part of the Renaissance.

How do we evaluate historical significance?

Of all the thousands of events that happen in our lifetime, how do we determine the ones that are significant? For most of us the events that lead to a positive change are remembered as important. Historians face similar questions when they try to determine which events, ideas, achievement or people have the most impact on history. Asking questions about the impact of an individual, development or cultural achievement can help us to assess its significance in bringing about change. To do this, we must first understand the idea or achievement. When we are trying to evaluate the historical significance of a development it is important to consider:

1. Who created the source we are analysing and when was it created?
2. What is the key idea?
3. Who was affected by the idea?
4. Did the idea lead to any change?
5. What was the scale of the change (was it a big change or a small one)?
6. Who was affected by the change?
7. Which areas of society were affected by the change?
8. Did the change lead to other changes?

1.6.2 Show me

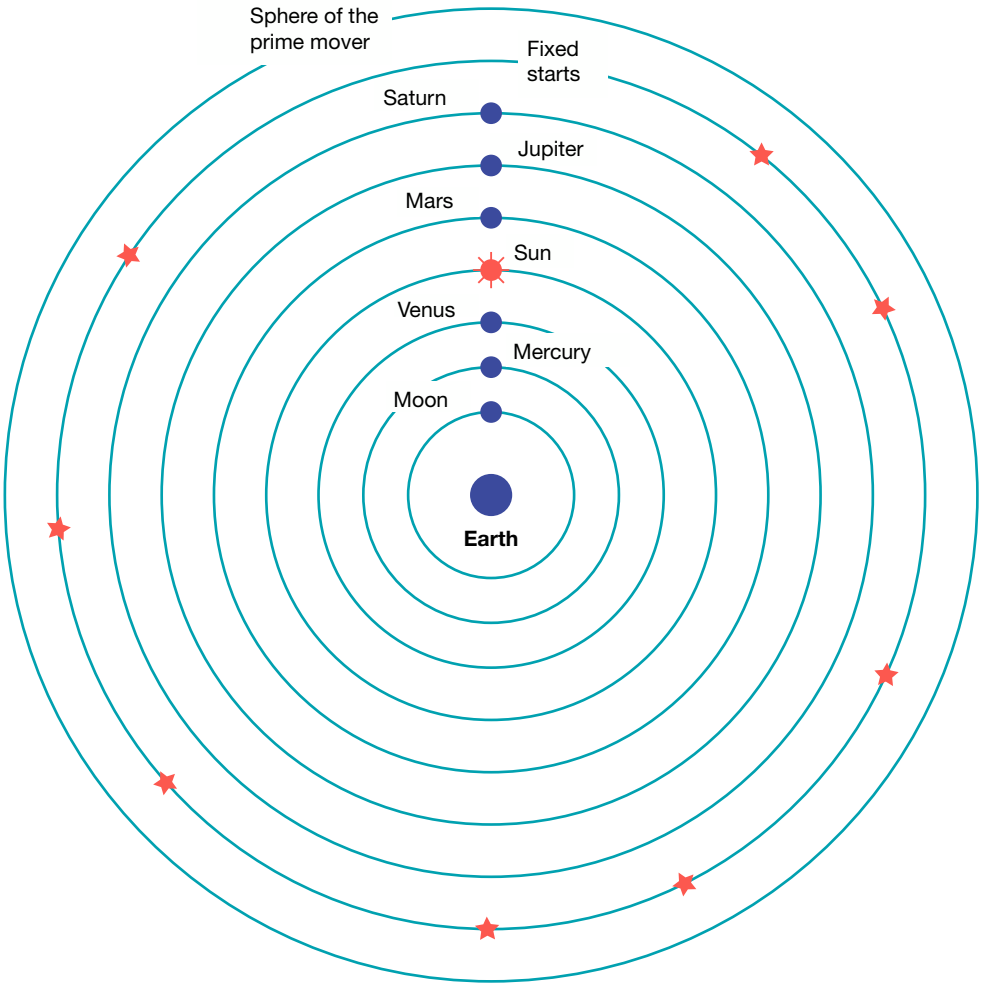
The view of the universe shown in **SOURCES 1** and **2** was developed by Aristotle (384–322 BCE), an ancient Greek thinker, and changed only slightly by Ptolemy, another Greek, in the second century CE.

Aristotle's view was taught in universities in Christian Europe from the twelfth century CE. During the Renaissance era, the Catholic Church still maintained that Aristotle's explanation was unquestionably true. Aristotle held that Earth stood still at the centre of the universe. Water, air and fire were shells around the sphere of Earth. Heavenly bodies were believed to be spheres of an element called *aether*, and they were supposed to rotate in perfect circles around Earth in the following order: Moon, Mercury, Venus, Sun, Mars, Jupiter, Saturn, fixed stars and a 'prime mover' (*Primu Mobile* in **SOURCE 1**). It was believed that beyond this system there was no wider universe.

SOURCE 1 The structure of the universe as theorised by Aristotle



SOURCE 2 An artistic impression of the structure of the universe as theorised by Aristotle



Study **SOURCE 1**. The questions for evaluating historical significance have been applied to this source.

1. *Who created the source and when was it created?* The source was created by Aristotle, an ancient Greek, in the fourth century BCE.
2. *What is the key idea?* The source explains the order of the solar system, with Earth at the centre.
3. *Who was affected by the idea?* The Catholic Church adopted this explanation of the universe and upheld it as the official explanation throughout Western Europe.
4. *Did the idea lead to any change?* The explanation of the solar system expressed in **SOURCE 1**was upheld for approximately 2000 years.
5. *What was the scale of the change? (Was it a big change or a small one?)* There were very few changes to this explanation until Nicolas Copernicus published his model in 1507.
6. *Who was affected by the change?* Because this explanation was sanctioned by the Catholic Church, it affected the general population.
7. *Which areas of society were affected by the change?* As the official view of the Catholic Church, Aristotle's explanation of the solar system influenced attitudes to science and heaven.
8. *Did the change lead to other changes?* Aristotle's explanation of the solar system did not lead to changes in the Renaissance.

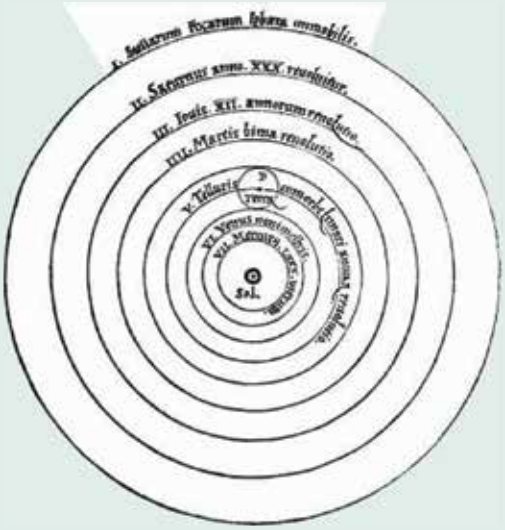
1.6.3 Let me do it

Complete the following activities to practise this skill.

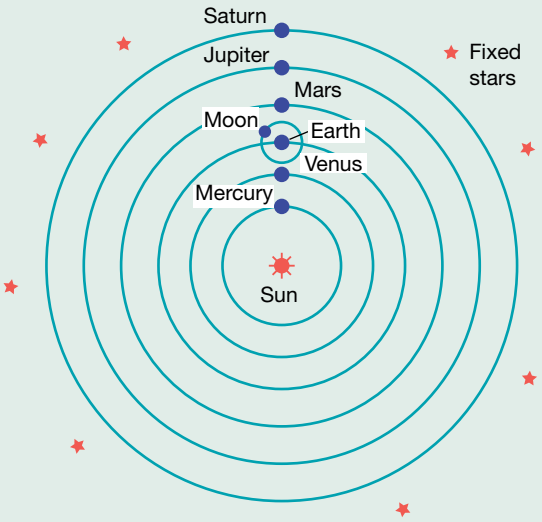
1.6 ACTIVITIES

1. Study **SOURCES 3** and **4**.

SOURCE 3 This alternative view of the universe was presented by the Polish astronomer and mathematician Nicolaus Copernicus



SOURCE 4 An artistic impression of the structure of the universe as theorised by Copernicus



This alternative view of the universe was presented by the Polish astronomer and mathematician Nicolaus Copernicus (see section 10.9.1). From about 1507, Copernicus's calculations convinced him that the Earth rotated on its own axis and that it rotated around the Sun, which was the real centre of the universe. He spent much of the next thirty or more years working on this theory but he delayed publishing his ideas because he feared that the Church would call him a heretic. The theory was finally presented in his book *The Revolution of the Heavenly Bodies*, which was published in 1543 as he was dying. Like other scholarly books of the time, it was written and printed in Latin. In Copernicus's diagram, *sol* means Sun and *terra* means Earth.

Use the eight questions to analyse the historical significance of **SOURCE 3**.

- **a.** Who created the source we are analysing and when was it created?
- **b.** What is the key idea?
- **c.** Who was affected by the idea?
- **d.** Did the idea lead to any change?
- **e.** What was the scale of the change? (Was it a big change or a small one?)
- **f.** Who was affected by the change?
- **g.** Which areas of society were affected by the change?
- **h.** Did the change lead to other changes?

2. Apply your analysis of **SOURCE 3** and the **SOURCE 1** from the Show me section to answer the following questions.

- **a.** Explain the difference between Aristotle's theory and Copernicus's theory of the location of Earth within the solar system.
- **b.** Explain the difference between Aristotle's theory and Copernicus's theory of the movement of the planets. In your answer refer specifically to the movement of the Sun and Earth.
- **c.** The Catholic Church rejected Copernicus's findings and charged Galileo with heresy when he wrote in support of Copernicus's theory. Suggest reasons why the ideas of Copernicus and Galileo were rejected by the Church.

LESSON
1.7 SkillBuilder: Analysing different perspectives

1.7.1 Tell me

What is perspective in history?

It is said that history is written by the victors. In many cases, this is true. In the case of the Mongol expansion, however, it is important to remember that the Mongols were mostly illiterate. Therefore, much of the empire's written history was created by their literate enemies and allies.

Why is it important to recognise different perspectives?

When you are trying to understand historical events, places or people, it is important that you find a balance of sources. When investigating the world of the Mongols, these sources may include written accounts, pictures and other artwork, and artefacts. Some sources might have been created by the Yuan dynasty and others by the people they came into contact with at the time. History texts can also be reliable sources because their authors have the benefit of hindsight.

1.7.2 Show me

How to recognise different perspectives

When using sources, it is essential that you determine how reliable they are. You can do this by asking a number of questions. Note that not all of these questions will apply to all sources.

- When was this source created?
- Who created this source and why?
- Who was the intended audience of this source, and how might this have affected its construction?
- In what ways does this source confirm or refute what I already know?
- How reputable was its creator(s)?
- How might the political/social/cultural pressures of the time have influenced the creation of this source?

Only after you have found a number of sources, and assessed their strengths and weaknesses, can you say you have a balanced picture of history.

An example

SOURCE 1, an excerpt from a book written by the Franciscan Friar John of Plano Carpini, is used as an example of how the previous questions could be answered.

SOURCE 1 In the thirteenth century, a Franciscan friar named John of Plano Carpini was sent to Mongolia by Pope Innocent IV, who, like many other European rulers, was worried by the rapid expansion of the Mongol Empire. The friar met with Khan Kuyuk to ask him to stop attacking Christian land. The friar's book, *History of the Mongols*, outlines some of the Mongol beliefs and customs, which the friar viewed as threatening and primitive.

> Although they have no law concerning the doing of what is right or the avoidance of sin, nevertheless there are certain traditional things, invented by them or their ancestors, which they say are sins; for example to stick a knife into a fire, or even in any way to touch fire with a knife, or to extract meat from the cauldron with a knife, or to chop with an axe near a fire; for they believe that if these things were done, the fire would be beheaded . . . On the other hand, to kill men, to invade countries of other people, to take the property of others in any unlawful way, to commit fornication, to revile other men, to act contrary to the prohibitions and commandments of God, is considered no sin by them.

1. *When was this source created?* This book was based upon the friar's journey in 1245–1247.
2. *Who created this source and why?* Friar John of Plano Carpini wrote this book after visiting Khan Kuyuk to plead, on the Pope's behalf, for him to cease his attacks on lands occupied by Christians. The book focuses on the Mongols' customs, religion and culture, as well as the best way to resist their army.
3. *Who was the intended audience of this source, and how might this have affected its construction?* Pope Innocent IV was the primary audience. The fact that he perceived the Mongols as a threat to the Christian way of life seems to have coloured many of the Friar's descriptions.
4. *In what ways does this source confirm or refute what I already know?* This source highlights the often brutal practices of the Mongols, particularly during times of war. However, from other sources, we know they were often tolerant of people of other religious persuasions, including Christians.
5. *How reputable was its creator(s)?* This is hard to say for certain without further research. The book is noted for being one of the more accurate books of its sort written during this period; however, the friar's Christian beliefs and loyalty to the Pope may have affected his depiction of the Mongols' way of life.
6. *How might the political/social/cultural pressures of the time have influenced the creation of this source?* The Pope, like many other world leaders, was afraid of the khan's power and his apparent disregard towards Christians. The friar seems to have responded to this by highlighting the more threatening aspects of Mongol culture.

1.7.3 Let me do it

Complete the following activities to practise this skill.

1.7 ACTIVITIES

1. Examine **SOURCE 2**, from the writings of Marco Polo, and answer the following questions. You may need to refer to 7.9 The travels of Marco Polo to find out more about him and his book.
- **a.** When was this source created?
- **b.** Who created this source and why?
- **c.** Who was the intended audience of this source, and how might this have affected its construction?
- **d.** In what ways does this source confirm or refute what I already know?
- **e.** How reputable was its creator(s)?
- **f.** How might the political/social/cultural pressures of the time have influenced the creation of this source?

SOURCE 2 An excerpt from *The Travels of Marco Polo*, written in the thirteenth century. Marco Polo was an employee of the Yuan dynasty and one-time governor of a major Chinese city.

The great khan, lord of lords, named Kublai, is of a fine middle size, neither too tall nor too short; he has a beautiful fresh complexion, and well-proportioned limbs. His colour is fair and vermeil like the rose, his eyes dark and fine, his nose well formed and placed . . . He maintains also a number of concubines. There is a race of Tartars who are called Migrat or Ungrat, and are a very handsome people. From them are selected 100 girls — the most beautiful in all their country, who are conducted to court . . . It may be asked, if the people of this province do not feel aggrieved by having their children thus forcibly taken away. Assuredly not; on the contrary, they regard it as a favour and an honour; and the fathers feel highly gratified when their daughters are thus selected. If, says one, my daughter is born under an auspicious planet, his majesty can best fulfill her destiny by marrying her more nobly than I can do. On the contrary, if the young lady, by bad conduct or any misfortune, be found disqualified, he attributes the disappointment to her malignant stars.

SOURCE 3 An illustration from the thirteenth century showing Marco Polo in the grandeur of Kublai Khan's court



2. Based on your work interpreting sources on the Mongol expansion, answer the following questions.
   - **a.** Explain why most of the Mongol history has been recorded by their enemies.
   - **b.** What are some of the questions to ask of a text to check whether it is reliable or not?
   - **c.** Explain how we can best gain a balanced picture of a historical period.
   - **d.** How can you work out who the intended audience of a text might be?
   - **e.** What do you know about how reputable the writer of Marco Polo's history was?

LESSON
1.8 SkillBuilder: Evaluating Ottoman Empire sources

1.8.1 Tell me

Sources of information on the Ottomans

As we have seen throughout this topic, there is a great variety of sources available to inform us about the Ottomans. Buildings, poems, artwork and other evidence survive from Ottoman times.

However, we cannot simply look at a source and draw a conclusion. Remember the picture of Suleiman the Magnificent created by someone who had never seen him or the description of the coffee houses where the author used the word 'thousand' a lot? These examples show we need to be very careful when using such sources as they may describe events in very different ways. This is because the creators of the sources may have been biased or they may have been forced to tell only one side of the story. They could be exaggerating to make their point, or words might have different meanings in different cultures or contexts. Historians often have to deal with gaps in evidence and this too can contribute to different interpretations of events.

Historians need to study a document or image closely in order to determine its suitability as a historical source. This involves an analysis of a source's strengths and weaknesses. Only after we test the accuracy, usefulness and reliability of a source can we truly know its value to a historical investigation.

1.8.2 Show me

How to interpret sources on the Ottomans

To be good historians, we need to be armed with the skills to interpret sources. We need to look critically at the source and ask ourselves several crucial questions:

1. Who made the source?
2. When was it made?
3. What do we know about the person who made it?
4. Is it a primary or a secondary source?
5. Can we tell if the source is accurate? Are there clues in the source that may suggest it is something other than a factual description?
6. What conclusions can we draw from the source?
7. Is the source useful? How does it assist our investigation?
8. Is the source reliable?

Interpreting written and visual sources

Read **SOURCE 1**. This is a description by the Greek historian Critobulus (c. 1410–1470) of the construction of the Topkapi Palace. He lived through the Ottoman destruction of the Byzantine Empire and later wrote an account of the rise of the Ottomans, their conquests and the early years of the rule of Sultan Mehmet II. His work is dedicated to the sultan. He lived on the island of Imbros and helped negotiate the peaceful handover of several islands to the control of the Ottomans.

SOURCE 1 From Critobulus of Imbros, quoted in Architecture, Ceremonial, and Power: The Topkapi Palace in the Fifteenth and Sixteenth Centuries by G. Necipoglu, Cambridge, Massachusetts: The MIT Press, 1991, p. 8

[The sultan] took care to summon the very best workmen from everywhere — masons and stonecutters and carpenters . . . For he was constructing great edifices which were to be worth seeing and should in every respect vie with the greatest and best of the past. For this reason he needed to give them the most careful oversight as to workmen and materials of many kinds and the best quality, and he also was concerned with the very many and great expenses and outlays.

Let's apply our questions to interpret this source.

1. *Who made the source?* Critobulus of Imbros
2. *When was it made?* The fifteenth century
3. *What do we know about the person who made it?* He was a Byzantine citizen who witnessed the Ottoman takeover.
4. *Is it a primary or a secondary source?* This is a primary source as it comes from the period being studied.
5. *Can we tell if the source is accurate? Are there clues in the source that may suggest it is something other than a factual description?* This source may be accurate as it comes from a person who was there at the time. However, the author seems to have approved of the Ottoman takeover, even to the extent of dedicating his work to the sultan. This may mean his account is biased.
6. *What conclusions can we draw from the source?* The palace was expensive to build, only the best craftsmen were used and the sultan took a great interest in the project.
7. *Is the source useful? How does it assist our investigation?* Being a primary source, albeit one that may be biased, this source is useful to our investigation.
8. *Is the source reliable?* Critobulus lived through the Ottoman conquest of the Byzantine Empire and, as such, he would have witnessed events firsthand. Although his account may be biased, it is still extremely valuable.

What if the source was an image, such as a work of art? The same questions can be just as usefully applied to a work of art. Study **SOURCE 2**.

SOURCE 2 An 1876 painting by French artist Jean-Joseph Benjamin-Constant, depicting the entry of Mehmet II into Constantinople after its capture in 1453. The artist had grown to appreciate the Islamic and Eastern cultures after a journey to Morocco in 1872.



1. *Who made the source?* Jean-Joseph Benjamin-Constant
2. *When was it made?* 1876
3. *What do we know about the person who made it?* He was a French artist.
4. *Is it a primary or a secondary source?* This source was created many years after the event being depicted, so it is a secondary source.
5. *Can we tell if the source is accurate?* Are there clues in the source that may suggest it is something other than a factual description? This source was created well after the event by a person who was not there. It is known the artist had an affinity with the culture he was portraying; therefore, the work may be biased.
6. *What conclusions can we draw from the source?* The capture of Constantinople was viewed as a significant event, both at the time it happened and hundreds of years later.
7. *Is the source useful? How does it assist our investigation?* Although historians usually prefer to use primary sources, secondary sources such as **SOURCE 2** still have their usefulness. Paintings and artistic depictions of historical events allow us to visualise what might have taken place. In this way, **SOURCE 2** is indeed useful to our investigation.
8. *Is the source reliable?* The painting in **SOURCE 2** is an artistic depiction of a historical event and as such is not strictly speaking reliable for our historical investigation of the Ottoman Empire.

1.8.3 Let me do it

Complete the following activities to practise this skill.

1.8 ACTIVITIES

1. Use the following questions to interpret **SOURCES 3** and **4**.
- **a.** Who made the source?
- **b.** When was it made?
- **c.** What do we know about the person who made it?
- **d.** Is it a primary or a secondary source?
- **e.** Can we tell if the source is accurate? Are there clues in the source that may suggest it is something other than a factual description?
- **f.** What conclusions can we draw from the source?
- **g.** Is the source useful? How does it assist our investigation?
- **h.** Is the source reliable?

SOURCE 3 An account from the French ambassador Philippe du Fresne-Canaye who led an embassy in 1573 to the Ottoman Empire (quoted in *Architecture, Ceremonial, and Power: The Topkapi Palace in the Fifteenth and Sixteenth Centuries* by G. Necipoglu, Cambridge, Massachusetts: The MIT Press, 1991, pp. 64–6)

At the right hand was seated the Agha of Janissaries, very near the gate, and next to him some of the highest grandees of the court. The Ambassador saluted them with his head and they got up from their seats and bowed to him. And at a given moment all the Janissaries and other soldiers who had been standing upright and without weapons along the wall of that court did the same, in such a way that seeing so many turbans incline together was like observing a fast field of ripe corn moving gently under the light puff of Zephyr . . . We looked with great pleasure and even greater admiration at this frightful number of Janissaries and other soldiers standing all along the walls of this court, with hands joined in front in the manner of monks, in such silence that it seemed we were not looking at men but statues. And they remained immobile in that way more than seven hours, without talking or moving. Certainly it is most impossible to comprehend this discipline and this obedience when one has not seen it . . .

SOURCE 4 A seventeenth-century German watercolour depicting a Turkish bath and steam room in Constantinople. Such baths were important in Ottoman culture during the seventeenth century.



2. Based on your analysis of the sources in this SkillBuilder, answer the following questions:
   a. Identify the primary and secondary sources in this SkillBuilder.
   b. Which sources do you believe are the most useful and why?
   c. Which sources do you believe are the most reliable and why?
   d. Do any of the sources contain bias? If so, which source has the strongest bias?
   e. In your opinion, what kind of historical source provides the best insight into an event?

LESSON
1.9 SkillBuilder: Interpreting sources on the Vikings

1.9.1 Tell me

What are our main sources for the Vikings?

We have many sources that tell us about the Vikings. Most sources from the Viking Age are archaeological. This means that much of what is written about the Vikings is based on guesswork. Written documents from the Viking Age itself are, for the most part, very brief. Secondary sources, including film or attempts to recreate Viking life through replicas like armour or ships or buildings, are often based on guesswork.

Why do we need to interpret sources for the Vikings?

Sources can reveal a lot about the Vikings. Historians need to ask questions about both primary and secondary sources to identify their origin (where they came from), their purpose (why they were created) and whether or not they are reliable and therefore useful.

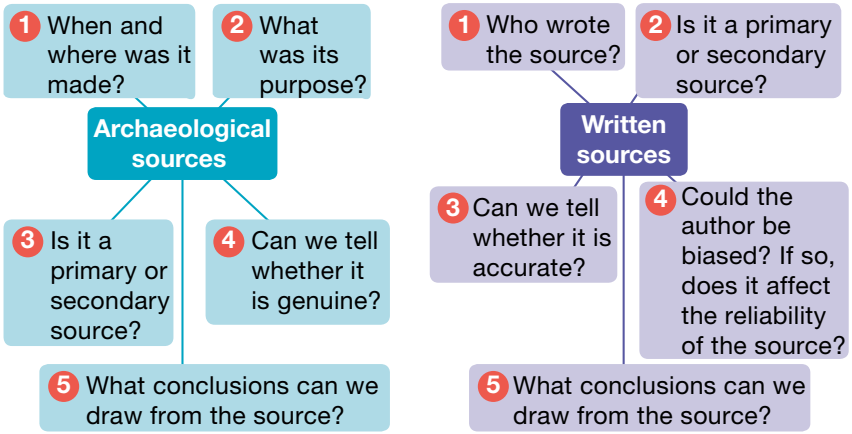
SOURCE 1 The Trelleborg Ring, a Viking fortress in Denmark, was built about 980 CE. Ring fortresses were surrounded by circular earthen mounds. Visible in this aerial view is the circular ridged earthen mound, which was the defensive wall. It is surrounded by a ditch.



1.9.2 Show me

How to interpret sources for the Vikings

We need to think carefully about the clues each source provides. We need to ask questions such as:



Step 1

The questions for archaeological sources have been applied to **SOURCE 1**.

1. *When and where was it made?* Scientific tests show it was built between 980 and 981 CE.
2. *What was its purpose?* It was a fortress, meant to shelter armed men and to control the surrounding country.
3. *Is it a primary or secondary source?* Having been built during the Viking Age, it is a primary source. Almost certainly it was built by Danish Vikings.
4. *Can we tell whether it is genuine?* It is a genuine Viking building complex. It was built during the Viking Age and is now mostly in ruins, with most of the timber structures having disappeared over time.
5. *What conclusions can we draw from the source?* The Vikings built ring fortresses that were surrounded by mounds and ditches.

Step 2

The questions for written sources have been applied to **SOURCE 2**.

SOURCE 2 An extract from an Icelandic saga called *Eyrbyggja*, written originally in Old Norse, or Icelandic, in the mid-thirteenth century

[The] onset [of the battle] was of the fiercest, and many were wounded on either side, but none slain. Snorri and his folk shot so thick and fast, that Raven with his men gave back from the wall [of the defensive work]. Then Thrand the Strider made a run at the wall, and leaped up so high that he got his axe hooked over the same, and therewith he drew himself up by the axe-shaft till he came up on to the work . . . [When] Raven saw that a man had got on to the work, he ran at Thrand, and thrust at him with a spear, but Thrand put the thrust from him, and smote Raven on the arm close by the shoulder, and struck off the arm. After that many men came on him, and he let himself fall down outside the wall . . .

1. *Who wrote the source?* The author is unknown. We know only that, like the Viking saga he has written, he has an Icelandic heritage.
2. *Is it a primary or secondary source?* The event is a Viking battle. As this source was written in the mid-thirteenth century and the author could not have witnessed the events he describes, it is a secondary source. However, if we were studying this source in the context of thirteenth-century medieval literature, it would be a primary source.

3. *Can we tell whether it is accurate?* It is not an eyewitness account. Even as a fictional account, the style of warfare may have changed after 200 years. At best, it is an imaginative account of a battle on a Viking fortress. We cannot be certain that it is an accurate description of an event from the Viking Age.
4. *Could the author be biased*? If so, does it reflect the reliability of the source? There does not appear to be any motive for bias. It is a straightforward account of a battle in the Viking Age.
5. *What conclusions can we draw from the source?* We cannot conclude anything about actual Viking battles, but we can conclude that the Vikings told stories about their battles.

1.9.3 Let me do it

Complete the following activities to practise this skill.

1.9 ACTIVITIES

1. Use the following questions to interpret **SOURCES 4** and **5**. The information given in **SOURCE 3** will help you judge which is more reliable.
- **a.** When and where was it made?
- **b.** What was its purpose?
- **c.** Is it a primary or secondary source?
- **d.** Can we tell whether it is genuine?
- **e.** What conclusions can we draw from the source?

SOURCE 3 From an article by Holger Schmidt entitled 'The Trelleborg House Reconsidered'

The reconstructed Viking-age house erected at Trelleborg in 1942 has, as a result of recent archaeological investigation, proved to be wrongly designed. The theory that it had an outside gallery [the verandah] is impossible to sustain, since on further examination the posts proved to be inclined towards the house and they must, therefore, be explained as buttresses . . . [The] whole structure of the house must be reconsidered . . . [The] Trelleborg house-type is that of the NW European medieval hall. It was built entirely of wood, the walls were of a stave-plank construction and it had a trussed-rafter roof. The convex shape of the structure was in accordance with contemporary taste or style . . . The walls . . . were perpendicular, but the roof and buttresses would have been the overriding feature of the exterior, giving it the curved outline of . . . hog-back grave-covers.

SOURCE 4 Reconstruction of a Viking longhouse from Trelleborg. It was built in 1942 and is supposed to be modelled on the longhouses which once occupied the Trelleborg Ring, as seen in **SOURCE 1**.



SOURCE 5 A more recent reconstruction of a Viking longhouse from a ring-fortress site at Fyrkat in Denmark



2. Based on your work interpreting sources on the Vikings, answer the following questions:
   a. Why are written documents from the Viking Age extremely rare?
   b. How have historians and archaeologists been able to find out about the Vikings?
   c. Describe how historians can check whether sources are reliable and/or useful.
   d. How useful are reconstructed sources like reconstructed Viking longhouses in providing information about the Viking Age?
   e. Explain whether the Viking sagas are primary or secondary sources.

LESSON
1.10 SkillBuilder: Evaluating roles and achievements

1.10.1 Tell me

What does 'evaluate' mean when studying history?

When we study history we are trying to gain a sense of the past and the way in which individuals, achievements and events affected the time period in which they occurred, as well as their lasting effect on world history. To evaluate means to judge or calculate the quality of something.

Why is evaluating important?

We evaluate the role of individuals, achievements and events so that we can piece together our historical understanding of a time period and find the answers to how past events were shaped by the people of the time. We also evaluate so that we can make our own claims about the role of different events and individuals in history. Historians evaluate the role of individuals, achievements and events in order to support historical claims that are made. When we evaluate events of the past we are studying history in a similar way to how we study science. We measure, calculate and assess to come to a conclusion about how civilisations progress through history.

1.10.2 Show me

How to evaluate the role of an individual, achievement or event

Evaluating the role of a historical figure or event can be a daunting task but it becomes more manageable if you break down the process into a number of smaller questions. Historians ask a range of questions to help organise their ideas when evaluating the topic they are studying including:

1. Did something change because of this historical figure or event? If so, what was the change, and was it positive or negative?
2. How many people's lives were affected?
3. How long-lasting were the changes? Did the situation return to how it was previously or did the changes remain for a long period of time? Once these questions have been answered you will be in a position to support a claim about the importance of the individual, achievement or event.

As an example, let's consider the conquistador Hernan Cortes. The three questions can be used to evaluate his role in history.

1. *Did something change because of this historical figure or event? If so, what was the change, and was it positive or negative?* There were many changes brought about by the actions of Hernan Cortes. He led the Spanish in their conquest of the Aztec civilisation. Through his actions European diseases were introduced to Tenochtitlan, which devastated the population. Later he became governor of New Spain and further influenced the introduction of Spanish culture to the Americas. Whether those changes are considered positive or negative will depend on your perspective. The introduction of Spanish culture to the Americas would be seen as positive by the Spanish at that time, but certainly would have been viewed negatively by the Aztec people whose culture was largely destroyed.
2. *How many people's lives were affected?* In the short term the number of people affected by Cortes's actions was hundreds of thousands. This includes the Spanish soldiers who were with him on the expedition as well as the population of Tenochtitlan, which numbered around 250 000 people. In the longer term the number of people affected could be measured in millions because his victory over the Aztecs resulted in the establishment of New Spain. This would suggest that Cortes's role in history was an important one if we consider the number of people affected.

3. *How long-lasting were the changes? Did the situation return to how it was previously or did the changes remain in place for a long period of time?* The changes brought about by the actions of Cortes changed the Aztec civilisation permanently. His actions in leading the expedition led to the destruction of the Aztec empire.

So, evaluating the role of Cortes is more manageable because we have considered what elements could be measured to come to a conclusion, which might read like this:

Cortes's role in the progression of history is very important. His leadership of the Spanish expedition that led to the conquest of Tenochtitlan and the eventual downfall of the Aztec civilisation changed the American continent forever and had a lasting impact on world history.

1.10.3 Let me do it

Complete the following activities to practise this skill.

1.10 ACTIVITIES

1. Now that you have seen how you can approach the task of evaluation, answer the three questions to evaluate the role of Christopher Columbus:
   a. Did something change because of this historical figure or event? If so, what was the change, and was it positive or negative?
   b. How many people's lives were affected?
   c. How long-lasting were the changes? Did the situation return to how it was previously or did the changes remain for a long period of time?
2. What were two main changes brought to the Americas through the actions of Hernan Cortes?
3. What was the population of the city of Tenochtitlan prior to the arrival of Cortes?
4. Explain why it is important to evaluate the role of individuals, achievements or events when studying history.
5. Why do you think how long-lasting the changes were is a useful indication for evaluation?
6. What other factors do you think might be useful to help evaluate the role of an individual, achievement or event? Share and compare your ideas with other members of your class.

LESSON
1.11 SkillBuilder: Explaining different historical interpretations

1.11.1 Tell me

What is a historical interpretation?

To explain a past event or change, a historian forms a hypothesis (a possible theory to explain what happened and why it happened). The historian uses evidence from historical research to test the hypothesis.

The hypothesis is then presented as an interpretation of the past. Through questioning interpretations, you will understand that they may be open to debate.

Why is it important to analyse and explain a historian's interpretation?

To explain an interpretation we need to analyse it. That means to see how its different parts contribute to its general idea. You now know that there is almost always more than one way of interpreting any past event.

This is because of gaps in evidence, because sources can be biased and because historians themselves bring different viewpoints or perspectives to most issues.

Differing interpretations in history are similar to what happens in a court of law. In courts, even though all members of a jury are presented with the same evidence, they can come to different conclusions. If we analyse a historian's interpretation and are then able to explain it we are in a better position to judge it and compare it with other interpretations.

It is not always easy to analyse and explain a historian's interpretation. Often the main argument will be developed over several pages along with a discussion of the evidence used for each supporting point. In the examples used here, the points that support the main argument are included but much of the specific evidence for them is not included.

maritime trade the trading of goods via sea

New World a term for the Americas during Early Modern Times

pre-empted to take ownership of something before someone else

1.11.2 Show me

How to explain a historian's interpretation

When you read a historian's interpretation, you need to:

1. identify the main point of the historian's argument
2. identify the points that are used to support the main argument.

An example

SOURCE 1 A historian's argument about the significance of the achievements of Spain and Portugal in their voyages of discovery and conquests, from C. H. Haring, *The Spanish Empire in America*, Harcourt, Brace & World, New York, 1963, pp. 1–2

One of the most . . . spectacular movements in the history of civilisation has been. . . the Expansion of Europe . . . [It] saw the rise and fall of great colonial empires . . . , the expansion of **maritime trade** into a world commerce, and the extension of Christian missionary propaganda to the four corners of the world. . .

In this process Spain and Portugal played the most dramatic role and pointed the way for other nations to follow. Their connection with the **New World** began with the initial voyage of Columbus, and for a century they **pre-empted** virtually all of the western hemisphere as well as the seas eastward to China and the Philippines.

Before the seventeenth century they were the great . . . colonial powers. Not until after 1600 did the English, Dutch and French seriously challenge their **supremacy**. Portugal's **imperial** greatness was to be displayed chiefly in the **Orient**; Spain reserved to herself the greater part of the two American continents . . . Within three generations Spaniards discovered, subdued and colonised the most extensive territorial empire the world had ever seen. . .

To analyse and explain the interpretation in **SOURCE 1**:

1. first look for the main point of the argument
2. then look for the supporting points or details used to support the argument.

The sentences or parts of sentences that state the main point have been highlighted in blue; the main words that provide supporting details have been highlighted in green.

One of the most . . . spectacular movements in the history of civilisation has been. . . the Expansion of Europe . . . [It] saw the rise and fall of great colonial empires . . . , the expansion of maritime trade into a world commerce, and the extension of Christian missionary propaganda to the four corners of the world. . .

In this process Spain and Portugal played the most dramatic role and pointed the way for other nations to follow. Their connection with the New World began with the initial voyage of Columbus, and for a century they pre-empted virtually all of the western hemisphere as well as the seas eastward to China and the Philippines. Before the seventeenth century they were the great . . . colonial powers. Not until after 1600 did the English, Dutch and French seriously challenge their supremacy. Portugal's imperial greatness was to be displayed chiefly in the Orient; Spain reserved to herself the greater part of the two American continents . . . Within three generations Spaniards discovered, subdued and colonised the most extensive territorial empire the world had ever seen. . .

In this example we can say:

1. The main argument is that Spain and Portugal played the leading role in Europe's expansion.
2. The supporting points are:
   - Spain conquered most of the Americas well before other colonisers.
   - Portugal was dominant in the seas towards Asia.
   - Spain created the world's biggest empire in the Americas.
   - The Dutch, English and French were not able to challenge them before 1600.

supremacy having the highest power or authority
imperial relating to an empire
Orient a historical word for the East, particularly China
subjugate to subdue or conquer

1.11.3 Let me do it

Complete the following activities to practise this skill.

1.11 ACTIVITIES

1. Using the example in the Show me section as a model, try to analyse and explain the interpretation in **SOURCE 2**. Before you read **SOURCE 2**, look at **SOURCE 3** to find the location and extent of the Inca empire.
   a. Identify the main argument in **SOURCE 2**.
   b. Identify the points that the author of **SOURCE 2** has used to support that interpretation.

SOURCE 2 A historian's argument about the motives of the Spanish conquistadores for their conquests, their methods and the reasons for their success, from Niall Ferguson, *Civilization*, Penguin Books, London, 2011, pp. 98–101

. . . landing in northern Ecuador in 1532, were fewer than 200 Spaniards accompanying the man who already claimed the title 'Governor of Peru' [Francisco Pizarro]. Their ambition was to conquer the Inca Empire for the King of Spain and to secure a large share of its reputed wealth for themselves. . .

By the time they reached the Peruvian highlands, Pizarro had just sixty horsemen and ninety footsoldiers at his command. . . The population of the empire they intended to **subjugate** was somewhere between 5 and 10 million.

On the conquistadores' side, however, was an invisible ally: the European diseases to which South Americans had no resistance — the smallpox, influenza, measles and typhus. At the same time, the Spaniards' horses, guns and crossbows were weapons far superior to anything in the Inca armoury; they gave the invaders a terrifying extra-terrestrial aspect. And the Inca themselves were divided. Since the death of Inca Huayna Capac, his sons Atahualpa and Huascar had been battling for the succession, while subject tribes scented a chance to throw off the Inca yoke. The Battle of Cajamarca (14 November 1532) was thus scarcely a battle at all. As Pizarro's brother Hernando described it, Atahualpa walked into a trap when he accepted the Spaniards' invitation to dinner:

'. . . I had arranged with the captain of the artillery that, when a sign was given, he should discharge his pieces, and that, on hearing the reports, all the troops should come forth at once. This was done, and as the Indians were unarmed they were defeated without danger to any Christians.'

In the words of the sixteenth-century Andean chronicler Waman Poma, the Spaniards killed the panic-stricken Indians 'like ants'. . .

SOURCE 3 A map showing the major Central and South American civilisations — Aztec, Maya and Inca — just before the time of the Spanish conquests



2. Based on what you have learned in this SkillBuilder, apply your skills to explain how the interpretation in **SOURCE 2** differs from the interpretation in **SOURCE 1**. Support your answers with examples and quotes from each source.
   a. Do they differ about the facts?
   b. Have they used different sources?
   c. Do they have different perspectives? Or do they each focus on a different aspect of the Spanish conquests?

LESSON
1.12 SkillBuilder: Making your own notes to analyse relevant sources

1.12.1 Tell me

What is note-making?

Do you ever feel overwhelmed when you see a lot of information on a page? Do you sometimes wonder how you will be able to remember it all? Don't worry, you don't need to know all of it — you just need to understand the important parts. Note-making cuts the information down into smaller pieces that are easier to remember.

Why is note-making useful?

Note-making and learning to summarise will make information easier to understand and recall. You simply write out the key information in point form. Then it won't seem so hard. Note-making also helps you analyse and therefore understand what you are reading. Here you will be learning to make notes on sources that are relevant to change and decline in the Khmer Empire.

1.12.2 Show me How to make notes

The most important thing to remember when making notes is that you are aiming to *reduce* the number of words used by keeping only the important points — and not just copying out a lot of text.

Step 1

Read the extract that you need to summarise. Don't try to make notes the first time you read it. Just try to understand the main points the author is making. Try reading **SOURCE 1**. It is about the weakening of Angkor (Cambodia) and the growing power of the Thais.

SOURCE 1 The fall of Cambodia and the rise of Thailand, from Milton Osborne, *An Introductory History: Southeast Asia*, Allen & Unwin, Sydney, 2004, pp. 59–60

Cambodian power had extended from its base in Angkor to incorporate large sections of modern Thailand, Laos and Vietnam. The really important unifying feature for the Angkorian empire was . . . the acceptance by many lesser rulers and governors that the king at Angkor was their supreme lord . . . When some of these lesser rulers no longer accepted this situation and chose to fight for their independence from the Angkorian ruler, they shattered the political relationship. In addition they threatened and eventually damaged the agricultural system upon which Angkor's very existence depended. The decision of the Cambodian King . . . to leave Angkor some time in the fifteenth century was an event of deepest importance for mainland Southeast Asia . . . A great empire had come to its end and with its end other states began their rise to greatness. The Thais were the people who brought Angkor down and their history from that time onwards was marked by slow but sure progress towards the achievement of control over the territories that comprise modern Thailand.

Step 2

Now re-read the text. Ask yourself:

- What are the main points the author is trying to make?

Highlight these (shown in light blue in **SOURCE 2**).

Step 3

Highlight any supporting ideas in the text (shown in green in **SOURCE 2**).

Step 4

Highlight any keywords that are new to you or that seem to relate specifically to the topic (shown in purple in **SOURCE 2**).

SOURCE 2 Identifying important information

Cambodian power had extended from its base in Angkor to incorporate large sections of modern Thailand, Laos and Vietnam. The really important unifying feature for the Angkorian empire was . . . the acceptance by many lesser rulers and governors that the king at Angkor was their supreme lord . . . When some of these lesser rulers no longer accepted this situation and chose to fight for their independence from the Angkorian ruler, they shattered the political relationship. In addition they threatened and eventually damaged the agricultural system upon which Angkor's very existence depended. The decision of the Cambodian King . . . to leave Angkor some time in the fifteenth century was an event of deepest importance for mainland Southeast Asia . . . A great empire had come to its end and with its end other states began their rise to greatness. The Thais were the people who brought Angkor down and their history from that time onwards was marked by slow but sure progress towards the achievement of control over the territories that comprise modern Thailand.

Step 5

Now you need to start writing. Write down the heading and then use dot points for each of your notes. Look for key words, dates, ideas, facts and evidence.

Remember, the aim is to analyse and summarise, not just to copy. Look for ways of shortening the text. Instead of listing lots of examples, use just one or two. Include definitions of words that are important to the topic. Your notes should be designed to help *you*, not other people, so use your own words. If you already know a lot about a topic, you may not need as many notes as other people; but if the topic is new to you, you may need more notes.

Now look at **SOURCE 3** and you will see how much we have reduced the text (from 170 words to about 50 words).

SOURCE 3 Summary

Cambodia had a great empire **[1st main point]**.

Angkor:

- controlled much of modern Thailand, Laos and Vietnam **[supporting point]**
- depended on lesser rulers accepting Angkor's authority **[supporting point].**

Angkor was brought down in the fifteenth century by the Thais **[2nd main point]**.

- Thai rulers rebelled and fought for independence **[supporting point].**
- Thais damaged Angkor's agriculture and gained territory **[supporting point].**

1.12.3 Let me do it

Complete the following activities to practise this skill.

1.12 ACTIVITIES

1. Using what has been done with **SOURCE 1** to create **SOURCES 2** and **3** as an example, make notes to analyse **SOURCE 4**.
   a. Outline the main point in **SOURCE 4**. (*Note:* The author's main point about the power and wealth of the Khmer king is not directly stated. But you will see what it is.)
   b. Briefly outline each of the supporting points.

SOURCE 4 Description of a royal procession written by Zhou Daguan, a Chinese diplomat who visited Angkor in 1296–1297

When the king goes out, troops are at the head of the escort; then come flags, banners, and music. Palace women, numbering from three to five hundred, wearing flowered cloth, with flowers in their hair, hold candles in their hands . . . Then come other palace women, bearing royal paraphernalia made of gold and silver . . . Then come the palace women carrying lances and shields, [and] the king's private guards . . . Carts drawn by goats and horses, all in gold, come next. Ministers and princes are mounted on elephants, and in front of them one can see, from afar, their innumerable red umbrellas. And after them come the wives and concubines of the king, in . . . carriages, on horseback and on elephants . . . Behind them comes the sovereign [king], standing on an elephant, holding his sacred sword in his hand. The elephant's tusks are encased in gold.

2. Apply your skills to complete the following.
   a. Discuss in small groups how the extravagance described in **SOURCE 4** might have contributed to the decline described in **SOURCE 1.**
   b. How would you describe the perspective of the writer of **SOURCE 4**?
   c. Explain how your analysis of **SOURCE 4** made it easier to understand.

LESSON
1.13 SkillBuilder: Analysing cause and effect

1.13.1 Tell me

The importance of analysing cause and effect

An important reason for studying history is that it enables us to understand the world we live in today. Our world has developed as a result of a whole series of different events; some of them recent, some that happened hundreds of years ago. Each of these events has had some impact on events that have followed, and this is what we understand as *cause* and *effect*. In order to fully understand a particular event or series of events, we have to be able to work out what *caused* them. In order to assess the importance of any historical event, we have to be able to recognise the *effects* of that event on later developments. Often this is not obvious, which is why historians sometimes disagree. Analysing cause and effect involves examining sequences of events and looking for connections between them. Did event A directly cause event B or was it merely coincidence that they happened close together in time? Usually we have to form judgements, by looking at the evidence and drawing conclusions from it.

Immediate causes and long-term trends

When two football teams play each other and one wins convincingly on the day, we can look at the match and recognise particular players who played well on the winning side, as well as some who played poorly in the losing side. We can identify particular strategies that worked on the day, and some that failed. Analysing these factors can give us the *immediate causes* of the match being won by one side rather than the other on that particular occasion. These are also recognised as the *short-term triggers* that worked on the day of the match.

We can also look more deeply than the immediate events on the day of the match. If the winning team is near the top of the ladder and consistently wins most of its matches, there will be *underlying causes* for this dominance. If they recruited particularly well in the previous few years, have been well coached, have few injuries and have experienced leaders in their team they are likely to do well against most other clubs. These factors form the *long-term trends* that can make the club a dominant force for a period of time.

Historical causes can be grouped in the same way. If we want to examine a particular event and find its causes, we can look at the events that happened immediately beforehand and look for connections. These are the *immediate causes* or *short-term triggers* that directly cause the event in question. We can also examine the society in which the event occurred and look for trends and longer term conditions that may have allowed the immediate causes to trigger the events in question. These are the *underlying causes*, and they are just as significant.

1.13.2 Show me

How to analyse causes and effects of significant events

To demonstrate a method of determining causes and effects we need a sample question. For the purposes of this exercise, let us examine the following question:

Why did Japan descend into the age of the warring states from the mid-fifteenth century until the establishment of the Tokugawa shogunate in 1603?

We can tackle this through the following steps.

Step 1

Identify when the period of the warring states actually occurred and compile a list of events that occurred during the period and in the years beforehand.

The period from 1467 to 1603 is the period usually known as the age of the warring states.

Some of the events that might be relevant include:

- In 1467, a civil war broke out between the followers of two brothers who were rivals for the position of shogun.
- This dispute began in 1464 over who should succeed to the position of shogun.
- The supporters of each brother were powerful daimyo clans, each seeking to increase their power.
- Wars and violence between different daimyo clans continued for over 100 years until the country became unified under Oda Nobunaga, Toyotomi Hideyoshi and Tokugawa Ieyasu, who eventually founded the Tokugawa shogunate in 1603.

Step 2

Identify some of the longer term trends that had been present in Japanese society before the outbreak of civil war and during the period.

- The Ashikaga shoguns had been in power since the fall of the Kamakura shoguns.
- The Kamakura shoguns had lost power when the daimyo and samurai rebelled against them.
- The daimyo were the wealthy landowners; they held a great deal of power in Japan since the eighth century and had been backed up by samurai warriors.
- Although the Ashikaga shoguns were officially in charge as shoguns during the period of the warring states, they were really little more than the puppets of different daimyo clans.

The shoguns had held official military power in Japan since 1192, when the emperor became a mere figurehead.

Step 3

Use the information gained to formulate an answer to the question.

The following is a model of what the answer could look like.

The period of the warring states had both immediate causes and longer term causes. The immediate trigger was a dispute between two brothers over who would inherit the position of shogun. In 1467, this led to an outbreak of civil war between the daimyo clans supporting each of the brothers. This was the first of a series of wars and uprisings involving daimyo clans that continued for over 100 years. The wars broke out and continued because different daimyo groups were constantly competing with each other for power and influence.

This leads to the underlying cause of the period of warring states: the large amount of wealth and power of the daimyo led to constant rivalries between the different daimyo clans. Each clan had large numbers of samurai warriors supporting them. While the daimyo retained their power and wealth, there were always going to be rivalries and the likelihood of war between the powerful clans. We know that this was a major underlying cause because the Kamakura shoguns had lost their power when a significant number of daimyo and samurai had rebelled against them in 1333. The power of the daimyo was a continuing problem and an underlying cause of conflict because it was not until Tokugawa Ieyasu came to power and took steps to weaken the power of the daimyo that the fighting came to an end and the power of the shogun was restored.

1.13.3 Let me do it

Complete the following activities to practise this skill.

1.13 ACTIVITIES

1. Use the three steps in the Show me section to answer the following question, discussing both the long-term trends and the short-term causes: Why did the Tokugawa shoguns take control of Japan's foreign trade?
2. Based on your analysis of the causes of the Tokugawa shoguns' decision to take control of foreign trade, answer the following questions:
   - **a.** How important was the issue of religion in the policy of the Tokugawa shoguns to tightly control foreign trade?
   - **b.** Why did the shoguns have a different attitude to the Dutch than they did toward the Spanish and Portuguese in matters of trade?
   - **c.** Identify two examples in the *Closed Country Edict* of 1635 that are designed to reinforce the Tokugawa shoguns' control of trade.
   - **d.** Why would the Tokugawa shoguns have considered it important to deny other daimyo families access to foreign trade?
   - **e.** Outline two ways in which the Tokugawa shoguns were able to benefit personally from their control of trade.
   - **f.** How did the shogunate control of trade affect the availability of valuable metals within Japan?

LESSON
1.14 SkillBuilder: Making your own notes from sources

1.14.1 Tell me

What are notes?

At the heart of any successful study of history is the ability to make effective notes. By learning this skill, you get the most out of your classes and readings. You are also more prepared for assessment as notes form the basis of revision and essay construction.

Effective notes are more than just a transcript of what has been said in class, or a direct copying of information from a textbook. Notes are a concise and comprehensive account of a topic or source. They summarise key information and clarify particular points in your own words. They also ensure that you are obtaining only the important information from a source.

Why is note-making important?

As you study a history topic, you will notice that there is a great deal of information that you are required to know. Sometimes the amount of information can seem overwhelming, but being able to make useful notes will make remembering and understanding that information easier. This is because you identify only the important information without trying to remember everything. Effective notes are not only used 'later on' when preparing for a test or essay — they are an excellent way to learn. You will find that by making notes you are helping the key information 'travel from your pen to your mind'.

1.14.2 Show me

How to make your own notes from sources

There are countless ways to make notes from sources and it is very much a personal matter. It is likely that you will develop a way that works best for you. It might be different from the way other people like to make notes. That's okay — if it works for you then it is right for you.

Summarising the key ideas from a source into dot points is a good way to start, so here are some guidelines that you should keep in mind when making notes from sources.

Step 1

Read through the source at least once without a pen in your hand. Do not make any markings or highlight anything. This will help you get an overall idea of the source before you worry about the details.

Step 2

After you have a general understanding of the source, go back and underline or highlight what you consider to be the key words and phrases (shown in blue in **SOURCE 1**). If you see words that are unfamiliar to you, you should make note of these in a different colour (shown in green in **SOURCE 1**).

SOURCE 1 Taking notes on the rahui and the extinction of the moa

Rahui is a form of tapu that the Maori used to limit resource use. For example, rahui could be imposed over an area to prevent the gathering of food while the land recovered. It helped to conserve limited food supplies and other natural resources. All Maori tribes accepted the principles of rahui.

Unfortunately, rahui came too late for the moa. Although the young birds were an important food source of the Haast's eagle, the adult moa lacked any natural predators prior to human settlement. The moa became an abundant and important food source, with both the meat of the bird as well as its large eggs providing a lifeline for the Maori. The bones of the bird were used to make ornaments and fishhooks, and even the shells of the giant eggs were used to carry water. The meat of the moa could be preserved and became a valuable trading good.

Archaeologists believe the moa was hunted to extinction by the fifteenth century. As a result, the Haast's eagle also disappeared into history. As you will see this had a huge impact on the Maori people.

Step 3

Once you have highlighted or underlined the key words and phrases, you need to organise them into dot points. Write them in your own words so that you can be sure you have understood the text. Your notes should be much shorter than the text you have read because you have summarised the important information in your own words.

SOURCE 2 A modern artist's impression of a Haast's eagle attacking young moa



SOURCE 3 Dot point notes on the rahui and the extinction of the moa

- Rahui
  - Form of tapu (sacred law)
  - Used to conserve natural resources
  - Accepted by all Maori tribes
- Moa
  - Large flightless bird native to NZ
  - No predators for adult moa
  - Haast's eagle preyed on the young
  - Moa had many uses (food, ornaments, trade)
- Extinction
  - Gone by the fifteenth century
  - Haast's eagle extinct also because prey disappeared
  - Principles of rahui were too late to save the moa.

1.14.3 Let me do it

Complete the following activities to practise this skill.

1.14 ACTIVITIES

1. Read **SOURCE 4** and follow steps 1 and 2 to make your own notes.
   After you have written your dot point notes, compare them with someone else in the class. You should both have similar information. To refine your note-making skills, continue practising using any of the text in this topic.

SOURCE 4 Taking notes on the hangi

The Maori diet was a combination of the cultivated vegetables brought from Polynesia, such as taro and yams, and the meat from birds, fish, dogs and rats. The abundance of seafood, including seaweed, dolphins, whales and seals, provided additional variety to the Maori meal. The village cooking was not done within the *whare* (house), but was generally a communal task done in an earth oven, known as *hangi* or *utu*. The hangi was made by men by digging a deep pit and covering it with wood that was set alight. Large river stones placed on the wood pile became very hot and eventually fell into the pit. The hot stones were covered with baskets of food wrapped in wet leaves. Layers of soil and wet mats were piled over the food. The heat created steam from the wet leaves, which cooked the food over the course of a few hours.

The boiling pools and streams of the North Island region of Rotorua provided the Maori with another unique method of cooking. Small ovens were built around the vents where water and steam bubbled up through the ground. Food placed in these ovens was quickly cooked.

SOURCE 5 The taro, a Polynesian vegetable, was part of the Maori diet.



2. a. Explain how the concept of rahui was used to manage natural resources.
   b. Given this information, explain why the moa became extinct.
3. How did the extinction of the moa have an impact on other aspects of the environment and on the Maori lifestyle?
4. Explain why the village cooking was not done indoors.
5. Explain how the preparation of food was an important communal activity for the Maori.
6. How did the Maori use natural resources to bring variety to their diet?

1.15.2 Key terms

maritime trade the trading of goods via sea
New World a term for the Americas during Early Modern Times
pre-empted to take ownership of something before someone else
supremacy having the highest power or authority
imperial relating to an empire
Orient a historical word for the East, particularly China
subjugate to subdue or conquer

2 Medieval Europe

LESSON SEQUENCE

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LESSON
2.1 Overview

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What were the key features of feudalism and its impact on medieval Europe?

2.1.1 Links with our times

In this topic we will explore Europe from the sixth century CE to 1500. This period is referred to as the Middle Ages and can be broken down into three periods: the Early Middle Ages (c. 500–1100), the High Middle Ages (c. 1100–1300) and the Late Middle Ages (c. 1300–1500). People often associate kings, knights and castles with the Middle Ages, but this period had many other defining features. This topic will explore the feudal system, which was the most widely adopted social order of the period, the increasing power and influence of the Catholic Church, and the peasantry, or poor farmers, who made up most of the population.

It is hard to imagine that our modern, technology-centred society could uphold any traditions from the Middle Ages (or medieval times, as they are also known). Australia, for example, was colonised 300 years after the end of the Middle Ages, yet we have a monarch whose position dates back to the Middle Ages. Many Australians follow the Christian or Islamic faiths. Both these major world religions expanded during the Middle Ages, and major conflicts involving these religions first emerged during this period. Modern nations such as France, Russia and England also emerged during the Middle Ages, and even the English language is a product of the Middle Ages; it did not exist before then. Although we no longer have need of castles or knights on horseback, many traditions, events and entire nations today have their roots in the Middle Ages.

SOURCE 1 Illustration of pilgrims embarking on their journey in the Chaucer classic *The Canterbury Tales*



on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10656)

Video eLesson Medieval Europe (eles-1824)

int-4280

SOURCE 2 A timeline of major events in medieval Europe



Late ninth century
First version of *Anglo-Saxon Chronicle* is written.



800
The feudal system begins in the Frankish Empire under Charlemagne.



965
Denmark adopts Christianity.

966
Poland adopts Christianity.

988
Kiev Rus adopts Christianity.

1000
Hungary adopts Christianity.

1095
Pope Urban II launches the First Crusade.

1099
Crusaders conquer Jerusalem.



1147
Second Crusade begins.

1187
Turks reconquer Jerusalem.

1189
Third Crusade begins.

1202
Fourth Crusade begins.



1347
The Black Death begins in Europe.



1381
The Peasants' Revolt in England.

1453
Constantinople falls to the Turks.

1391
Geoffrey Chaucer writes *The Canterbury Tales*.

CE
700
750
800
850
900
950
1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500
CE

LESSON
2.2 How do we know about medieval Europe?

LEARNING INTENTION

By the end of this lesson you should be able to identify the types of evidence that historians use to draw conclusions about medieval Europe.

TUNE IN

Illuminations such as **SOURCE 1** help us imagine what life was like during the Middle Ages. In the foreground, peasants can be seen engaged in various activities on a farm.

Many illuminations show scenes of village life, with peasants tending their crops and livestock. For the illustrator, such a scene would have been commonplace, because 90 per cent or more of the medieval population were peasants.

1. Brainstorm five conclusions you could draw about French medieval life from **SOURCE 1**.
2. As a group, decide whether you would consider this a trustworthy or reliable source.

illumination hand-painted illustration in a medieval book

SOURCE 1 Peasants working in the fields, from a French calendar illumination by the Limbourg Brothers, c. 1415



2.2.1 How do we know about medieval Europe?

There are many different types of evidence that provide historians with information. These include artwork, written sources and artefacts, monuments and buildings.

2.2.2 Artwork

In addition to the illuminations, there were also many embroidered tapestries which are also useful to historians. The Bayeux Tapestry (see **SOURCE 2**) is an embroidered cloth that depicts the battle of Hastings in 1066 and the events leading up to it. It is remarkably well preserved and hangs in Bayeux in France. Although the origins of the Bayeux Tapestry are unclear, wall hangings of this type were used for both decoration and insulation against the cold castle walls of the times. They were also highly portable and so moved around with their owners. These artworks give historians much information about the scenes they depict as well as the technologies available to their creators.

Other artworks include paintings, mosaics and frescos.

tlvd-10572

SOURCE 2 A section of the Bayeux Tapestry that shows the nobles feasting while on campaign fighting for King William I of England



2.2.3 Written sources

Many stories and poems have survived over the centuries and give us more information. One of the most famous examples is a collection of stories and poems by Geoffrey Chaucer. It is called *The Canterbury Tales* and was written in about 1391. This book examines medieval English society — even the titles of the tales show the types of jobs the people of medieval England had. For example, some stories are 'The Miller's Tale', 'The Knight's Tale', 'The **Reeve's** Tale', 'The Monk's Tale', 'The **Franklin's** Tale' and 'The Squire's Tale'.

reeve a magistrate administering law in a village

franklin in the fourteenth century, one who was a landowner but not a member of the nobility

Official records also help to give us information about the Middle Ages. For example, William the Conqueror (also called William I) carried out a stocktake of all property in England in the late eleventh century. This record is called *The Domesday Book* (see **SOURCE 3**) and is a detailed record of the resources that were held throughout England at this time. It is an incredibly useful source for historians.

SOURCE 3 *The Domesday Book* is an amazing eleventh-century public record of who owned what and how much they had. After conquering the English, the new king, William I, ordered a public survey of his new territory and the record was written up to become *The Domesday Book*.



DID YOU KNOW?

The term 'Dark Ages' was originally used by the Italian scholar Petrarch in the 1330s. He was describing what he considered to be the poor quality of literature coming from Europe in the period following the fall of Rome.

2.2.4 Artefacts, monuments and buildings

Artefacts, monuments and buildings that have survived from the Middle Ages can be valuable sources of information. Artefacts include all types of items, such as coins, armour, weapons, utensils, tools and goblets. Artefacts made of durable metal such as silver, gold and bronze are more common than garments and timber and iron materials, which tend to rust or rot away. To understand what such materials may have looked like, historians rely on written and pictorial records.

All sorts of buildings have survived from the Middle Ages: some cottages, churches, monasteries, **tithe barns**, castles and manor houses still exist. The cottage in **SOURCE 4** is made of **thatch** and stone. Although it would have been frequently renovated (for example, thatch needs to be replaced every 20 to 30 years), it is a good example of a peasant's cottage from the fourteenth century. Compare this to **SOURCE 5**, Dover Castle, which is clearly intended for a class of people far wealthier and more powerful than peasants. The history of its site goes back to pre-Roman times. However, its present appearance began to take shape under King Henry II in the late twelfth century.

Castles like Dover help historians understand how such buildings were used both as military fortresses and homes for rich owners and their supporters. Comparing cottages and castles also gives us an idea about the class differences between the peasants and their rich and powerful rulers. Even buildings that are now ruins may give us clues about what life was like in the Middle Ages.

tithe barn a barn where peasants' produce is stored as a form of taxation

thatch straw used for making roofs

SOURCE 4 These reconstructed cottages date back to the fourteenth century



SOURCE 5 Dover castle in Kent, England, was built in the eleventh and twelfth centuries.



2.2.5 First-hand accounts of the Black Death

The Black Death was a catastrophic event that had a huge impact on all the countries it passed through. Using primary and secondary sources from throughout history, we can understand better how this plague affected the people of the time. For example, monasteries in Europe also took on the responsibility of recording the events occurring around them in various **chronicles**.

chronicle a record of events as they happened, usually written by a person who was present at the time they occurred

Individual writers such as Ibn Khaldun in the Middle East and the monk Henry Knighton in England recorded the impact of the plague in their country. In Italy, Agnolo di Tura described in detail the effect of the plague on the people of the city of Siena (see **SOURCE 6**).

aud-0429

SOURCE 6 From Agnolo di Tura's *Description of the Black Death*, 1348

> The victims died almost immediately. They would swell beneath the armpits and in the groin and fall over while talking. None could be found to bury the dead for money or friendship. Members of a household brought their dead to a ditch as best they could, without priest, without divine offices. In many places in Siena great pits were dug and piled deep with the multitude of dead. And they died by the hundreds, both day and night, and all were thrown in those ditches and covered with earth. And as soon as those ditches were filled, more were dug.

Medieval church parishes kept written records of baptisms, marriages and deaths. Although the huge numbers killed by the Black Death often meant that priests or monks could not keep their records completely up-to-date, some quite accurate details of the deaths in particular parishes still survive. It takes a lot to piece all these elements together.

In particular, the leasing of land to the church for emergency graveyards helps us understand just how suddenly and violently the plague arrived and took its toll. The Medieval world was shocked by the arrival of this plague and weren't ready to deal with it.

Contemporary artists

Just as writers were keen to record the events happening around them, artists produced drawings and paintings showing many aspects of the Black Death. As well as illustrating the symptoms of the disease in their artworks, artists were inspired to explore themes of death and destruction. Burials, skeletons and personifications of death featured prominently, such as in **SOURCE 8**.

SOURCE 7 Boccaccio's *Decameron* was written between 1349 and 1351 and contains descriptions of the effects of the Black Death on the population of the Italian city of Florence. Illustrations were an important part of every medieval book.



SOURCE 8 The burial of a man who died of plague from a thirteenth-century Persian illuminated manuscript.



SkillBuilders to support skill development

- 1.5 Interpreting medieval art as sources

2.2 SKILL ACTIVITY: Questioning and researching

1. Make a **list** of types of sources shown in this lesson under the headings of 'Artwork', 'Written sources' and 'Artefacts, monuments and buildings'.
2. Write an **explanation** paragraph about what you can learn from each one as well as an example.
3. **Share** these in your class and add to a class document that you can display in your history classroom.

2.2 Exercise

learnon

2.2 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 6	5, 7, 8, 11, 12	4, 8, 9, 10

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Check your understanding

1. **Identify** the different types of artwork that historians have access to in order to draw conclusions about the medieval era. Select all that apply.
   - A. Illuminations
   - B. Photographs
   - C. Tapestries
   - D. Films
   - E. Buildings
   - F. Paintings
   - G. Frescoes
   - H. Letters
   - I. Mosaics
2. **Determine** if the following statements are true or false.
   - a. Illuminations were mostly concerned with scenes of aristocracy and court life.
   - b. Medieval church parishes kept no written records.
   - c. The **SOURCE 3** photograph of *The Domesday Book* is a secondary source.
   - d. Embroidered tapestries are not valuable to historians as they were only used to insulate castle walls.
3. Consider **SOURCE 2**.
   The Bayeux Tapestry was created to celebrate _____.
   The purpose of such a wall hanging was for decoration and _____.
4. **Explain** the importance of written sources from this period to historians.
5. **Identify** the types of artefact that were most likely to survive from this period.
   - A. Items made of cloth
   - B. Items made of timber
   - C. Items made of silver, gold or bronze
   - D. Items made of iron
6. **Describe** the illustration in **SOURCE 8** and explain the reactions of the subjects.

Apply your understanding

Using historical sources

7. Refer to **SOURCE 2**. **State** the questions you would need to ask to work out what its biases are?
8. **Analyse** how **SOURCES 1, 4** and **5** help us learn about what life in medieval Europe was like.

Communicating

9. **Explain** what a historian would be likely to learn about the medieval period from *The Canterbury Tales*.
10. **Consider** the reasons why William the Conqueror conducted a public survey of his new kingdom and **create** a written account of it (*The Domesday Book*).
11. Although Boccaccio's *Decameron* (see **SOURCE 2**) is a work of fiction, it can still provide useful historical information. **Discuss** how works of fiction can help us to find out about the past.

Using historical sources

12. Read **SOURCE 6**. **Describe** what this source reveals about the symptoms of the plague.

LESSON
2.3 What are the key features of the feudal system?

LEARNING INTENTION

By the end of this lesson you should be able to describe the hierarchical structure of European medieval feudal society.

TUNE IN

Charles the Great was King of the Franks and eventually the Holy Roman Emperor, having united Europe under his rule. Through a variety of military campaigns and powerful negotiations, he established peace and order to most of Europe.

SOURCE 1 A statute of Charlemagne that stands in Paris



1. Look closely at the statue of Charlemagne in **SOURCE 1** and identify the traditional symbols of power that you can see. Discuss what they might represent.
2. With the person sitting beside you, decide what personal qualities you think a strong king would have needed in this era? Share these with the class and see if you agree.

2.3.1 Order out of chaos

Charlemagne was a king of the **Franks**, who ruled from 768 to 814 CE. He was a powerful leader who conquered many lands around him. Under his reign, his Empire grew larger than the old Roman Empire and in 800 CE, he was crowned ruler of the Holy Roman Empire by the Pope. By implementing a strong feudal system, Charlemagne brought peace and productivity to his previously chaotic empire.

Franks people of a group of a Germanic nation who ruled in western Europe from the sixth century CE

In 800 CE, Charlemagne gave land to churchmen and wealthy families in return for their support in running the empire. This method of ordering society is called **feudalism**. Although Charlemagne's feudal system was based on practices that had existed for centuries, it is in this period that strong evidence first identifies a clear feudal system in Europe. It took hundreds of years for feudalism to spread. Some European countries never adopted the system, and some Asian societies, such as Japan, developed their own particular feudal system.

2.3.2 The feudal kingdom

There were few cities or towns in early medieval Europe. Most communities were based around small villages. Most people who lived in the villages were peasants — poor farmers who worked the surrounding land. Most of the wealth therefore came from the produce generated by the peasants, who were by far the biggest social class and made up about 90 per cent of the population.

Under feudalism, the monarch was the owner of all land in a kingdom. The next most powerful class consisted of feudal **lords**, who were the big landowning nobles. In return for the right to land and control over peasants who worked it, these nobles (or tenants-in-chief) were required to give the king their loyalty, fight for him in wars and provide him with a proportion of taxes collected from the peasants. Below the nobles were the knights (or sub-tenants). In return for land, they gave loyalty to their lord, fought for him and provided him with taxes from their peasants.

feudalism social order in medieval Europe

lords feudal term for aristocracy of big landowners

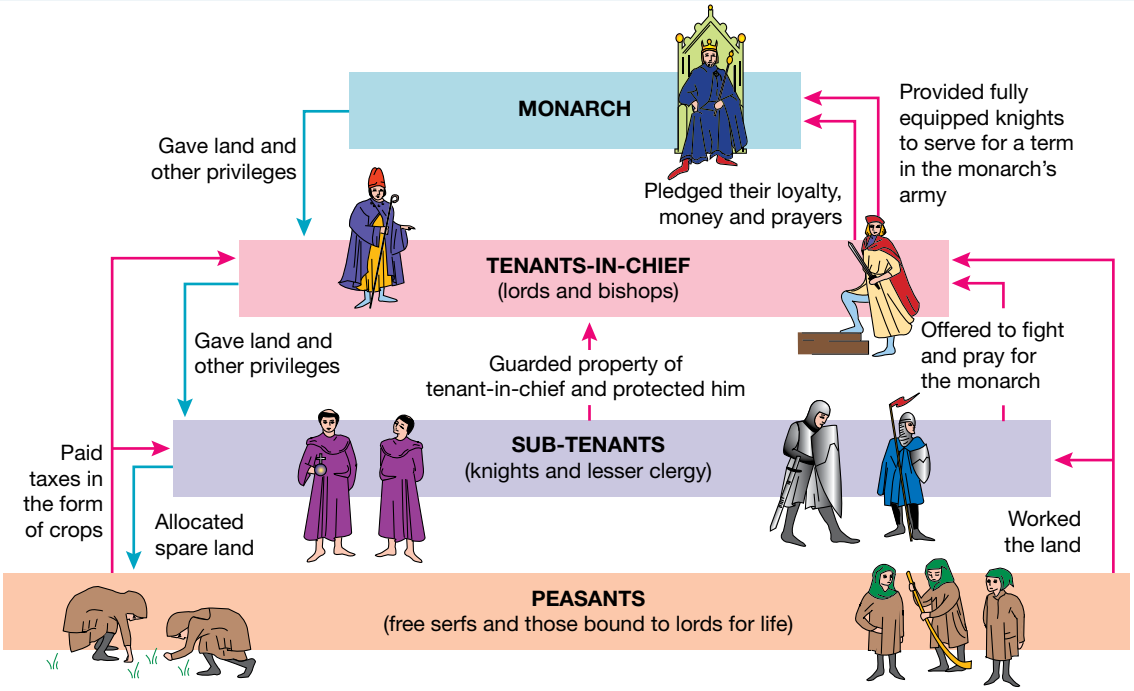
homage pledging duties and loyalty to someone of superior rank in the feudal system

SOURCE 2 An oath taken in 1127 by knights and clergy to serve William, Count of Flanders, at Bruges, Belgium. The bond between them was sealed when William touched each man with a sceptre at the end of the ceremony.

I promise by my faith that from this time forward I will be faithful to Count William and will maintain towards him my **homage** entirely against every man, in good faith and without deception.

int-7817

SOURCE 3 How society in Europe was organised under the feudal system



The monarch also gave land to the **clergy**. In western European countries such as England, the clergy swore loyalty to the Pope in Rome over their king. However, they also supported the feudal system by accepting the monarch and the lord as God's earthly representatives. Well-educated clerical advisers were often assigned to the king's service and helped keep social order.

clergy officials of the Church

Maintaining the social order

Feudalism was an effective way for the kings to control their nobles and lords. If they broke their oath with him, he could take the lands back and remove their source of power.

In return everyone had the same power of control over those who were below them, all the way to the peasants at the bottom of the social order.

Towards the end of the Middle Ages, towns and cities based on trade began to grow. The rich merchants who ran them could afford to defy or ignore the king and his lords. They could even afford to hire their own knights to protect their interests and the power of feudalism began to decline. *The Domesday Book*, ordered by William the Conqueror around 1085 to determine who owned what land and how much was owed to him in tax, allowed him to maintain control over what was his. It is an amazing achievement and gives us a clear picture of the medieval manors of the time.

2.3 SKILL ACTIVITY: Using historical sources

Read the **SOURCE 4** extract from *The Domesday Book* closely and complete the following.

a. **Identify** the tenant-in-chief of this village.
b. How many families of villagers are indicated (each number represents a family, rather than a single person)?
c. **State** how much land Hitchen has.
d. What resources does this village have?
e. What conclusions can you draw about whether or not this was a thriving village?

SOURCE 4 This extract from *The Domesday Book* gives information about a reasonably large village called Hitchen in County Hertfordshire.

Source Taxable units: Taxable value 5 **geld** units.

geld a form of land tax

Value: Value to lord in 1066 £4.

Value to lord in 1086 £6.

Value to lord c. 1070 £1.

Households: 45 villagers. 17 smallholders. 12 slaves. 29 cottagers.

Ploughland: 38 ploughlands (land for). 7 lord's plough teams. 1 lord's plough teams possible.

22 men's plough teams.

Other resources: 2.5 lord's lands. Meadow 4.25 ploughs. Woodland 600 pigs. 4 mills, value 2.66.

1 church.

Lords in 1066: Earl Harold; Hitchin, church of.

Lords in 1086: Hitchin, church of; King William.

Tenant-in-chief in 1086: King William.

2.3 Exercise

learnon

2.3 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 5	3, 4, 6, 9	7, 8, 10

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Check your understanding

1. **Identify** the two features of Charlemagne's rule that led to him being one of the most significant figures in medieval Europe.
   - **A.** His empire grew larger than the old Roman Empire.
   - **B.** He took land from wealthy families and gave them to the poor.
   - **C.** He implemented the feudal system.
   - **D.** He gave people the option to convert to Christianity.
2. Under feudalism, who was the ruler and owner of the land?
   - **A.** The monarch
   - **B.** Tenants-in-chief
   - **C.** Sub-tenants
   - **D.** Peasants
3. Under feudalism, who were the tenants-in-chief?
4. Apart from the king, **identify** who the clergy swore loyalty to.
5. **Identify** how the lords maintained control over the people below them.
   - **A.** By punishing them with physical torture.
   - **B.** By taking back land and removing their source of power.
   - **C.** By giving them a fine.
   - **D.** By having a stern word with them.

Apply your understanding

Using historical sources

6. **Analyse** the seemingly formal oath-taking ceremony described in **SOURCE 2**.
   - **a.** Why would people have sworn an oath to their lord?
   - **b.** Do similar oath-taking ceremonies occur in modern times? List three examples.
7. **Explain** how *The Domesday Book* gave William the Conqueror power.
8. Using the information in **SOURCE 1** and **SOURCE 4** **compare** and **contrast** how the symbols of power are used to show the strength of the monarch, or tenant-in-chief and what they represent.

Communicating

9. **Consider** who benefited from the feudal system and who did not. **Explain** your choices.
10. Using the diagram in **SOURCE 3** and your broader knowledge, **propose** three essential elements of a feudal society. These may be physical constructions, social classifications or ways of thinking.

LESSON
2.4 How was life for people in the feudal system?

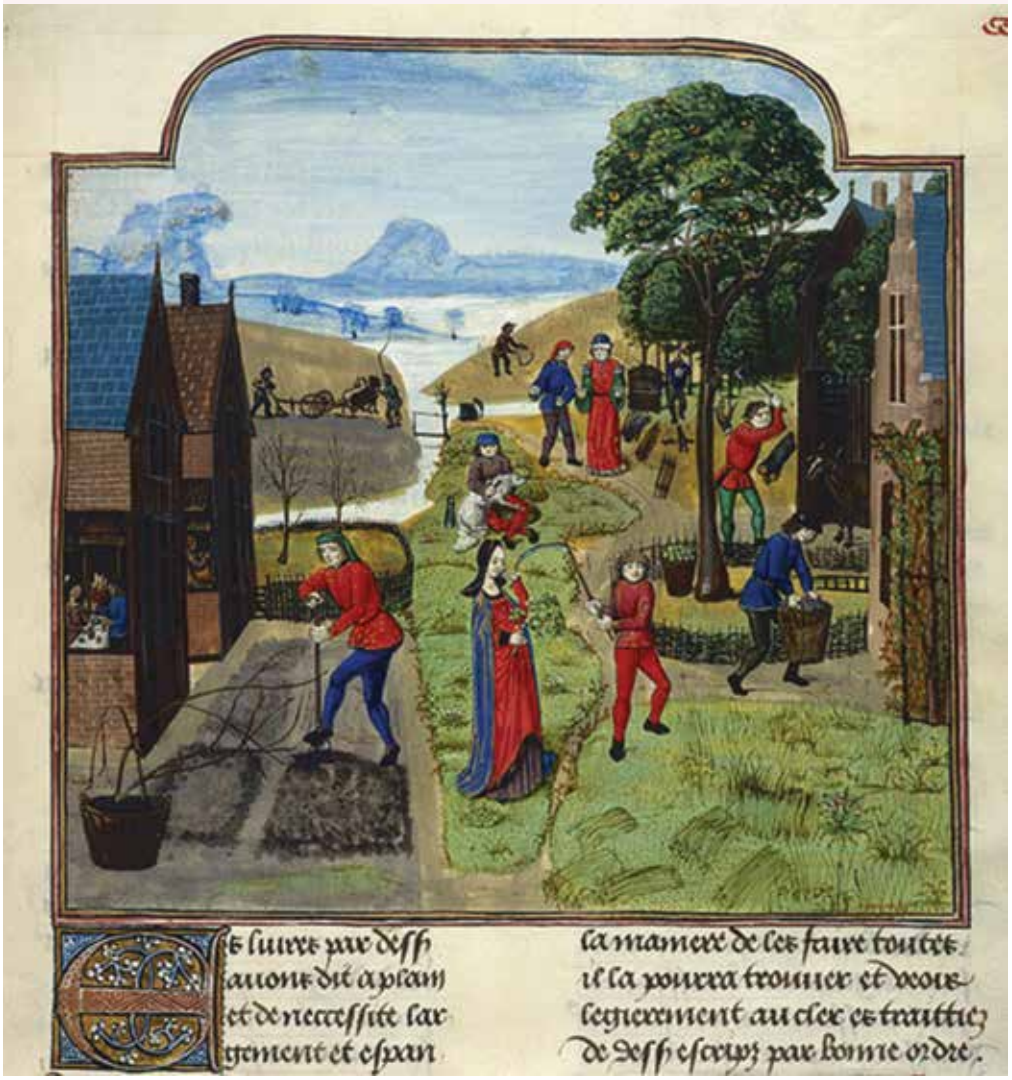
LEARNING INTENTION

By the end of this lesson you should be able to distinguish between the roles of medieval men and women in different social classes, and explain how the life of a child in medieval society differs from my own.

TUNE IN

As can be seen in this **SOURCE 1** image from fifteenth-century France, peasants worked the fields and paid most of their produce to their lords as tithes, a type of tax.

SOURCE 1 An image depicting peasants working in the fields in the fifteenth century



Closely examine the image.

1. See: What can you see the people in the illumination doing?
2. Think: What does it make you think about in terms of what you have already learnt about the feudal system?
3. Wonder: Share the questions that it raises for you about life on the manor in medieval times. Keep a list of these to see if they are answered as you work through this lesson.

2.4.1 The people on the manor

Quality of life in the Middle Ages depended largely on what position a person had in the feudal system. For the nobility, who had the luxury of wealth and servants, life was certainly more comfortable than for the peasants. Knights and barons enjoyed privileges befitting their rank; they could own several manors and lived off the taxes extracted from their peasants. The clergy led simple lives, forsaking possessions in the service of God. As the educated elite, they enjoyed the pursuit of scholarly learning in their monasteries. Although the clergy often engaged in the same kind of farm work as the peasants, many monasteries operated like manors and owned villages.

Women

Medieval women, regardless of class, had few rights. Women from the nobility married as early as the age of 12! Their marriage was arranged by the family. The aim was usually to gain political power or wealth for the girl's family. Her husband — and society in general — expected her to produce a male heir to continue the noble line of her husband. In an era of poor medical care, childbirth for women of any class was dangerous. It has been estimated that during the Middle Ages, one in five women died during childbirth. Although she looked after her husband's household and had some command over the servants, the noble woman could not own property, except as a widow.

SOURCE 2 Much of the farm work was carried out by peasant women.



Peasant women had even fewer rights. Peasant families generally were reluctant to allow their girls to marry as young as the noble girls. This was because children were an important source of labour. Peasant women did much the same farm labour as the men. On top of that, they had household duties such as preparing food and weaving clothes, and looking after the children and small livestock.

Men

For the vast majority of peasant men, life was very hard. They endured a daily grind of farm work: clearing fields, harvesting, repairing buildings, sawing and chopping timber, and paying the tithe to the lord of the manor. Most men were uneducated and remained tied to the drudgery of peasant labour. Still, some boys managed to receive formal education in monasteries. This might provide them with the opportunity to become a parish priest or to work in the manor in a bookkeeping role such as a bailiff or a steward.

Children

Childhood as a time of play or schooling was almost non-existent. Children were regarded as sources of labour on the farm. At first they would help the women with household chores, but fairly soon they could be expected to be sent out to the fields. Peasant children were educated in how to harvest a field, fix a thatched roof or milk a cow.

It appears that in medieval Europe, the period of growth now called adolescence was ignored. Children were treated as adults from the age of ten, because by then they could participate in the farm work. Boys generally married a little older than girls, when they were about 14. 'Teenagers' were isolated; as they did not go to school, they had few opportunities to mix with other people their own age.

int-4070

SOURCE 3 Life on a manor in the Middle Ages



- **A** Lords often owned and operated grain mills. They kept a portion of all grain ground as tax. The lord lived in a castle or a manor house. The woods, and any game they contained, were the lord's property.
- **B** The house of the steward — the lord's business manager — was surrounded by stables, barns, a bake house and a kitchen.
- **C** Animals grazed on an open stretch of land called a common.
- **D** The house of the bailiff, who collected taxes and ensured the steward's directions were carried out.
- **E** The house of the reeve, who supervised farm work carried out by serfs to ensure it was done properly.
- **F** Women were the property of their menfolk, and were married by about 14. They cooked, spun and weaved, and tended to the animals and the children.
- **G** The three-field rotation system was introduced by the Anglo-Saxons. Crops were grown in two fields, with the third left to lie fallow (not used) so the soil could recover its nutrients. Fields being used were divided into strips, with different serfs working each strip. Crops were rotated to prevent the same nutrients in the soil always being used.
- **H** The miller operated the mill, where grain such as wheat was ground into flour.
- **I** Tithe barn, where peasants deposited one-tenth of all they produced for use by the church.
- **J** The church (and its grounds) was a central feature. People went to church regularly. It was also the place where they paid their tithes and often held their simple markets. The tithe was a tax given to the Church equal to one-tenth of what someone received, grew or raised.
- **K** Serfs lived in simple wattle and daub huts with thatched roofs. A hole in the roof allowed smoke to escape from cooking fires. Windows had rough wooden shutters.
- **L** As well as farming, some serfs also worked as blacksmiths and carpenters. They generally could not read or write.
- **M** A serf who had been punished by the reeve was placed in the pillory. This punishment instrument consisted of a wooden framework built on posts, with holes through which the victim's head and hands were placed and then locked.

N Thatchers wove thick bunches of straw, reeds and sticks together to form roofs of village houses.

O Scythes, sickles and rakes were used to harvest crops.

P A serf's most important tool was the heavy wheeled plough.

Q Lunch for a serf might be coarse bread and vegetable soup, washed down with ale.

R Although some trees had been cleared for farmland many generations ago, the medieval manor still had many treed areas which offered shade and protection for wildlife.

2.4 SKILL ACTIVITY: Using historical sources, Historical perspectives and interpretations

SOURCE 1 is a primary source and **SOURCE 3** is a secondary source.

1. As a class, **debate** the value of each of these sources, as well as their limitations. Be specific about the content of each source as well.
2. If you were only allowed to use one source to explain this lesson to someone else, which one would you use? **Explain** your reasons in detail and share with the class.

2.4 Exercise

learnon

2.4 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 6	4, 7, 9	5, 8, 10

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Check your understanding

1. What type of work did peasant men generally do?
   - A. Preparing food
   - B. Farm work
   - C. Parish priest
   - D. Weaving clothes
2. **Determine** if the following statements are true or false.
   - a. It was impossible for peasant men to manage to get an education. True of false?
   - b. Children were treated as adults from the age of 12.
3. **Explain** why noble women's marriages were arranged for them by their family.
   - A. This was the tradition during the Middle Ages
   - B. It was to gain political power or wealth for the girl's family
   - C. It was a mandatory rule enforced by the king
   - D. Arranged marriages were the only form of marriage in the Middle Ages
4. **Explain** what property rights a noble woman had compared with her husband.
5. **Propose** why it might have been highly valued to have a large family in medieval Europe.

Apply your understanding

Communicating

6. To which social class did most people in medieval Europe belong?

Using historical sources

7. Study **SOURCE 1** and **SOURCE 3**.
   - a. Make a list of the work you can see people doing in **SOURCE 1** and **SOURCE 3**.
   - b. From the jobs you listed in question 7a., which jobs would women and children have been able to do?

8. **Determine** who held the most wealth and power in the manor in **SOURCES 1** and **3**. What was the basis of their wealth?
9. **Examine** the picture of life on a manor in **SOURCE 3**.
   a. **Explain** the roles of the reeve, steward and bailiff.
   b. **Create** a diagram that shows the bailiff, steward and reeve in order of importance.
   c. Do you think women would have been allowed to do the jobs of steward, bailiff and reeve in medieval times? **Justify** your answer.
10. Using the information gained from **SOURCE 1** and **3** from this lesson, as well as any other knowledge you have, **write** a paragraph about life on the manor, **describing** work, living conditions and farming practices in medieval Europe.

LESSON
2.5 What impact did medieval people have on their environment?

LEARNING INTENTION

By the end of this lesson you should be able to explain how medieval people interacted with their environment and the impact that they had.

TUNE IN

In medieval Europe there were very limited power sources and people were forced to work within their environments.

1. What is the difference between renewable energy sources and non-renewable energy sources? Can you give examples of each?
2. Brainstorm the types of energy sources that might have been available to medieval people and what they might have used it for?
3. Examine **SOURCE 1**. What is the source of power of the mill? What were they used for? Share your ideas with the class.

SOURCE 1 A watermill still in use in modern Germany.



2.5.1 Medieval landscapes

The landscape of medieval Europe was very different to today. People lived in villages on feudal manors and they rarely travelled out of their area. Until the later Middle Ages, towns were much smaller and tended to be clustered around castles. In countries like England, the Romans had left long, straight roads which they had packed with gravel and paved with stones, but apart from these, people generally travelled on uneven dirt or grass tracks making it slower and more difficult.

The agricultural practices of the feudal manors were the foundation of society. The serfs, who were tied to the land, worked the fields according to the seasons. The resources available to them were from their immediate surroundings. The farmers were aware of the importance of the fertility of their land and developed farming practices to ensure its productivity. As seen in **SOURCE 3** in lesson 2.4, the three-field rotation was used so that the fields were not depleted of their nutrients. This was where farmers planted one field in autumn, one in

spring and left one **fallow**. Although the agricultural practices were nowhere near as productive as today's are, the medieval farmers were generally able to produce a subsistence living for themselves and manage their commitments to their feudal lieges. Of course, this was dependent on ideal weather conditions, and this was not always the case. They faced great famines at regular intervals, due to crop failures when there was excessive cold, wet or other unmanageable conditions. It was a hard life.

fallow when a field was left for a period without being sown in order to restore its fertility through the nutrients in the soil

2.5.2 Forest Laws

In the early medieval period, much of Europe was heavily treed. Medieval forests were untamed woods with trees and heavy underscrub, as well as pastures of open land. These woods and heathlands had numerous deer and other smaller animals which could supplement a peasant's diet in times of need. People also used the wood as fuel and building materials, and, as the population grew, this cause increasing deforestation.

In England this slowed when the Norman invader, William I took over the throne. The Normans brought in new Forest Laws which banned ordinary people from these previously common lands, making them Royal lands instead. To hunt or take wood from these forests involved paying the crown a fee, and there were severe consequences for those who broke these laws. However, despite these inadvertently protective forest laws, when the population grew after the Great Plague, gradually most of the forests gave way to cultivated lands.

DID YOU KNOW?

The legendary Robin Hood and his band of Merry Men lived in one of the major forests in England, one that is still there today, albeit in a much-reduced size! They were said to be protesting the Forest Laws that denied the common people access to Sherwood Forest.

2.5.3 The miller and the watermill

We have seen that, apart from nobles and the clergy, most people in medieval Europe were poor peasants who tilled the soil on estates that were owned by lords, knights and the Church. However, not all of the common people worked on the land. Some were skilled artisans such as carpenters, stone masons and blacksmiths. In fact, many surnames come from skilled trades that have existed for centuries. For example, you may know someone whose last name is Mason, Carpenter, Smith or Miller. Millers were among the most important of the medieval skilled craftsmen and their work depended on the development of a technology and use of a renewable energy source.

aud-0430

Millers were men who ground grain into flour so that people could bake bread and pastries. Bread, in particular, has made up much of the food consumed by peasants throughout history. In the Early Middle Ages, men and horses turned the heavy stones that were used to grind grain into flour. By the eighth century, a new technology had developed to make the miller's work easier and to create flour much more efficiently. This new invention was the watermill. By 1085 CE, a survey ordered by William the Conqueror showed there were 5682 watermills operating in England and it is believed that these doubled in the following two hundred years.

SOURCE 2 From the prologue to *The Canterbury Tales* by Geoffrey Chaucer (c. 1391). This passage is written in Middle English, which is what the English language looked like in the Late Middle Ages. The same passage, and a little more, is translated into modern English prose and appears in **SOURCE 2**.

The Miller was a stout carl, for the nones;

Ful big he was of braun, and eek of bones;

That proved wel, for over-al ther he cam,

At wrestling he wolde have alwey the ram.

aud-0431

SOURCE 3 A modern translation as well as other descriptions of the miller from *The Canterbury Tales*.

The miller was a burly fellow on this occasion. He had big muscles, and thick bones too. That proved handy because wherever he went he always won the prize ram at wrestling matches. He was short-shouldered and broad — a thickset brute. There was no door he couldn't heave off its hinges or break by running at it with his head. His beard was as red as any sow or fox, and broad, as though it were a spade. On the top of his nose he had a wart. A tuft of hairs, red as the bristle of a sow's ears, grew from it. His nostrils were black and wide. He bore a sword and buckler at his side. His mouth was as big as a great furnace.

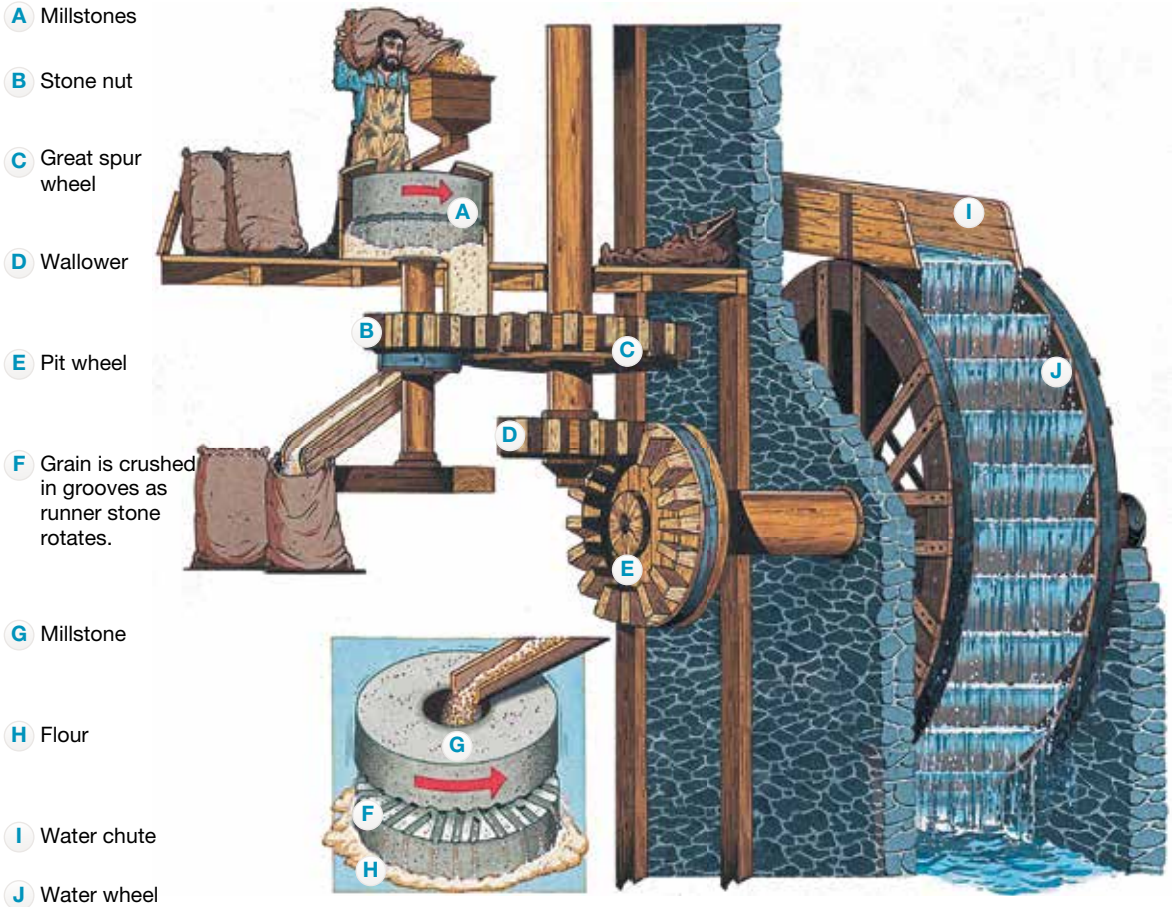
2.5.4 Operating the watermill

A watermill had to be located beside a stream so that water from the stream could be diverted into a channel called a leat. The rim of the water wheel was designed to catch the water that was flowing through the leat so that the water wheel was always turning. The power generated by the water wheel was transferred through a series of toothed wheels. The last of these wheels turned the millstones that ground the rain (see **SOURCE 4**). The millstones could turn at speeds of up to 120 times a minute, much faster than they could ever have been turned by people or even the strongest horses. The watermill could be stopped by closing a sluice gate to block the flow of the water.

Peasants would bring their harvested grain to the mill, which was usually owned by the lord of the manor. As can be seen in **SOURCE 4**, the miller would lift great bags of grain on his powerful shoulders and empty them into a wooden container, which fed the grain between the turning millstones. After it was ground into flour, it would pour down into bags. In at least a few places in England, the watermill continued to be used until the early twentieth century. With today's increased interest in renewable energy sources, hydropower is on the rise once again.

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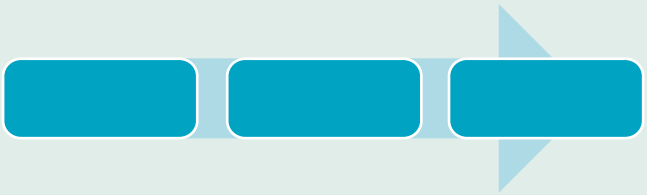
SOURCE 4 A cross-section of a watermill, showing how it works



2.5 SKILL ACTIVITY: Questioning and researching, Communicating

Explaining how one thing can lead to another is to understand the concept of 'cause and effect'.

1. Read through the information in this lesson and make notes on what may have led to (caused) one of the following 'effects':
   - deforestation
   - increased productivity for millers.
2. Use a graphic organiser like the one below to **illustrate** this relationship.



2.5 Exercise

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2.5 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
2, 4, 5, 6	1, 3, 7	8, 9, 10

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Check your understanding

1. **Describe** the three-field rotation system.
2. **Identify** what might cause a famine.
   - A. Crop damage due to poor farm management.
   - B. The ability for the nobles to confiscate all food produced
   - C. Crop failure due to poor weather
   - D. All of the above
3. **Explain** two causes of deforestation.
4. **Identify** the main purpose of a mill.
   - A. To keep the water supply moving to keep the water from going stagnant.
   - B. To grind grains such as wheat to make flour
   - C. To grind grains for planting crops.
   - D. To make cloth for garments.
5. **Explain** how we know that the mill was a common machine throughout England in the time of William the Conqueror.
6. A survey conducted in 1085 CE showed there were **2998 / 3310 / 4579 / 5682** watermills operating in England.

Apply your understanding

Communicating

7. **Explain** the purpose and process of a mill by creating a flowchart.
8. **Explain** how would the invention of the watermill might have helped increase grain production in the middle ages.

Using historical sources

9. a. What evidence is there in **SOURCES 2, 3** and **4** that the miller tended to be a strong man?
   b. What else do **SOURCES 2** and **3** tell us about the miller, apart from the fact that he was a strong man?

Historical perspectives and interpretations

10. **Analyse** how important you think the environment was to people in the medieval era? Answer the question in a paragraph.

LESSON
2.6 What were the defence features of the medieval castle?

LEARNING INTENTION

By the end of this lesson you should be able to explain the key features of castles and how they changed over time. You should also be able to identify the methods used to attack and defend castles.

TUNE IN

Castles were not just homes to those at the very top of feudal society, but fortresses designed to protect those inside the castle walls.

Study **SOURCE 1**.

1. Create a list of all the features that are protecting the castle.
2. Discuss how these features protect the castle.
3. Predict why fortresses became outdated.

SOURCE 1 Ruin of a medieval Scottish castle fort



2.6.1 Building a castle

During medieval times, castles were built to protect the monarch or lord's land. They had many features, such as high walls, that made it very difficult for enemies to invade. However, if conquered, castles could then be used by invaders to help control the land they had taken. Castle walls were so effective in the Middle Ages that they were even built around some towns and cities.

The first castles appeared in the eleventh century. They were usually made from timber and sat on a high mound called a **motte**, which was surrounded by a ditch. If the castle was near a river, the ditch could be filled with water to create a **moat**. The innermost tower was called the **keep**. **Palisade** s and walls called baileys protected the keep. By the end of the eleventh century, timber was replaced with more durable material such as stone or brick.

The easiest place to build a castle was on flat ground. However, castles were often built on hills or cliffs because high positions enabled castle occupants to look out over and control the surrounding countryside. Such positions were also easier to defend because attackers had to advance uphill. There were also great advantages in building castles on islands in rivers or lakes. Castles were built along the Rhine River in Germany to force merchants transporting goods along the river to pay taxes. Such positions also ensured a supply of water to fill a castle's moat and for drinking during long sieges.

motte a mound upon which a castle was built
moat water-filled defensive ditch surrounding a castle
keep innermost tower of a castle
palisade tall fence made of pointed timber stakes driven into the ground
concentric having a common centre
curtain wall outer wall surrounding an inner wall in a castle

2.6.2 Attacking a castle

Attacking a castle was no easy task. As castle designs became more sophisticated, more features were added. For example, **concentric curtain walls** meant that attackers who broke through one wall were faced with another and were trapped in the space between

them. Marienburg Castle in modern-day Poland had five curtain walls. Drawbridges could be lifted above the moat, blocking access to the main gate. All manner of missiles could be launched down at attackers from the walls, including arrows and rocks. Even boiling oil could be tipped through 'murder holes' in the roof of the gatehouse surrounding the main entrance. In turn, attackers responded by using siege engines, including battering rams and hide-covered siege-towers on wheels. It was not unusual for a siege to last many months. Defenders kept an ample supply of food in the castle keep and sunk wells in the inner courtyard to ensure a protected water supply.

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SOURCE 2 A castle under siege



- **A** The gatehouse was heavily defended. If attackers got in, defenders could shower them with rocks, red-hot sand or boiling water through a hole in the ceiling (called a murder hole).
- **B** A battering ram made of a huge, often reinforced timber beam would be driven against a castle gate or lower wall to try to break through.
- **C** Battlements lined the top of castle walls.
- **D** A castle was often surrounded by a ditch, sometimes filled with sharpened stakes (palisade) or water.
- **E** Sometimes castle walls sloped outwards at the base. This added strength to the walls and reduced the effectiveness of battering rams.
- **F** Missiles could be dropped on attackers through holes in the floor of the battlements known as machicolations.
- **G** The trebuchet, introduced to Europe from the Arab world, was a type of counterweighted catapult. It was used to hurl huge rocks weighing up to 90 kg against castle walls, and to toss rotting animal bodies over the walls.
- **H** The ballista was a giant crossbow that fired flaming bolts over castle walls.
- **I** A mangonel was a type of catapult used to hurl smaller objects (e.g. heads, smaller rocks or piles of dung) over castle walls.

2.6.3 A lord's home is his castle

The castle may have been a fortress, but it was also a home. A castle was usually owned by a lord or the Church. It had all the requirements of a fortress, such as troop quarters, stables and an armoury. However, if owned by a lord, it also had facilities for the comfort of his family.

By the end of the Middle Ages, castles were no longer as effective or desirable. The feudal system, which until then had encouraged the lord to show his strength by having a castle, was fading. Also, developments in the cannon meant that castle walls could no longer protect against invading armies.

DID YOU KNOW?

Crenellations are the battlements on the top of castle walls or towers. Primarily for defensive purposes, they allow for cover while still giving the space to return fire or pour boiling oil on the enemy. A 'licence to crenellate' was supposedly a grant that gave official permission for a building to be fortified and was used by the king and barons who could grant them as a symbol of status and power.

2.6 SKILL ACTIVITY: Using historical sources, Communicating

1. **Recreate** what Corfe Castle (**SOURCE 3**) may have looked like. Use the ruins in the photograph to reconstruct it visually. Include the keep, the palisade, the motte and the bailey and label them.

SOURCE 3 The ruins of Corfe Castle, in Dorset, England. The square tower is a Norman keep. The destruction was the result of cannon fire during the English Civil War in the mid-seventeenth century.



2. Use the internet to search for Corfe Castle in Dorset, England.

Find photographs with further detail and add to your diagram.

You might also find an artist's representation of what the original castle looked like to check against your diagram. How close were you?

2.6 Exercise

learnon

2.6 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 5, 9	3, 4, 7	6, 8, 10

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Check your understanding

1. The first castles appeared in the _____ century. The innermost tower was called a _____. The bailey was a _____.
2. What were early castles built from?
   - A. Timber
   - B. Bricks
   - C. Stones
   - D. Concrete
3. **Identify** two reasons why castles in medieval Europe were often built on a steep hill.
4. **Explain** what a murder hole was used for.
5. **Identify** two reasons why castles were built.
   - A. To be a fortress for military use
   - B. To be used as a church
   - C. To be used as a home
   - D. To be used as a school
   - E. To provide employment
   - F. To be used as palace

Apply your understanding

Historical perspectives and interpretations

6. **Determine** how the castle was a symbol of the feudal system.

Using historical sources

7. **Investigate SOURCE 2.**
   Which features of the castle and its defenders would be most effective in holding back the attack? Which methods of attack appear to be most effective? Give reasons for your answers.
8. How likely do you think it is that the attackers in **SOURCE 2** will succeed in breaking into the castle? Provide two reasons to **justify** your response.

Communicating

9. **Explain** the common methods used to attack and defend castles.
10. **Consider** the best places to build a castle and **explain** why.

LESSON
2.7 How was warfare conducted in the Middle Ages?

LEARNING INTENTION

By the end of this lesson you should be able to explain the role of the knight in medieval warfare, as well as identify the weapons and the strategies used in battle.

TUNE IN

One of the most iconic images of the Middle Ages is that of the mounted warrior called the knight.

SOURCE 1 depicts Norman knights on horseback attacking their English enemies at the Battle of Hastings in 1066.

1. Describe what is happening in **SOURCE 1**.
2. How would this source help the historian find out about the weapons and armour of the medieval knight of the eleventh century?
3. Discuss why you think the knight is an iconic image of medieval times, even today.

SOURCE 1 A scene from the Bayeux Tapestry, dating from the late eleventh century



2.7.1 The warrior on horseback

Although there are some earlier descriptions of warriors on horseback, the knight as we know him did not appear until the Middle Ages. Two important developments were needed to enable a soldier to move around on horseback during a battle: the **stirrup** and a heavier breed of horse capable of carrying a man in full armour. These developments emerged in the Early Middle Ages. The Battle of Hastings, fought in 1066 between Norman knights and English infantry, is one of the earliest recorded military engagements involving knights on horseback.

The knights at Hastings fought for their lord, William, **Duke** of **Normandy**. This feudal service to the lord or the king was an important aspect of knighthood. Generally, knights were wealthy themselves, because it was expensive to breed warhorses and own good armour. They were also generally quite powerful landowners.

2.7.2 The knight in battle

As **SOURCE 1** shows, a heavily armed warrior on horseback was meant to terrorise and destroy foot soldiers. The decapitated body at the bottom of the panel demonstrates the effectiveness of a charging knight.

The knight used an arsenal of heavy iron weapons. Swords, **maces** and battle axes were common. However, the **lance** appears to have been the favoured weapon: it helped to put distance between the knight and the infantry soldier he was fighting. As a last resort, the knight's wooden shield could be used as a weapon — swiping at someone with its rim could cause severe wounds.

The armour was both heavy and awkward. The coats of mail worn by the fighters in **SOURCE 5** could weigh more than 15 kilograms. It was no easy task to wear such a cumbersome outfit on horseback and fight furiously in battle.

stirrup foot supports suspended from a saddle by straps

Duke in England, a lord whose status placed him just below that of a prince; elsewhere in Europe, a ruler of a small state called a duchy or dukedom

Normandy now a French province, in the Middle Ages it was a dukedom in northern France

mace iron-headed club

lance a long wooden shaft with steel point used as a weapon by mounted knights

2.7.3 Medieval warfare

Many destructive wars were fought during the Middle Ages. However, nothing like today's firepower existed in medieval times. The destruction wreaked by two atomic bombs dropped on the Japanese cities of Hiroshima and Nagasaki show what modern technology is capable of.

In medieval Europe, wars were fought literally through clash of arms, with swords, axes and maces. Arrows and rocks, rather than bullets, were the main missiles.

The invention of gunpowder, originally from China, changed the way battles were fought. In Europe, guns and cannons were developed from the early fourteenth century. Medieval guns were at first ineffectual, being very slow to load, inaccurate and liable to blow up. Archers with longbows and crossbows were more effective. However, by the end of the fifteenth century, gun technology had improved.

Medieval battles would have been terrifying experiences. Anyone observing a battle from a short distance would have heard yelling, screaming and the clash of steel on shields. This would have been noisy in the thick of battle, but from a distance it would not have been very loud. The ear-splitting noise of twentieth- and twenty-first-century warfare largely comes from modern **artillery**.

SOURCE 2 The trebuchet was a kind of giant slingshot designed for hurling rocks at enemy armies and fortresses. Sometimes other missiles were used, including dead animals and slain enemies. with the twin aims of demoralising the enemy and spreading disease among the besieged population.



Fighting hand-to-hand, medieval armies tended to battle in tightly grouped formations. One side would push against the other. Infantry stabbed and slashed each other with swords, axes, **pikes**, maces and even farming tools. It was the job of mounted knights to charge such formations and try to break them up, as shown in **SOURCE 1**.

The bloodshed was horrific. Limbs and heads were chopped off, and brains and guts were strewn across the battlefield. The tight formations meant that soldiers were likely to stumble over the dead and the dying. By the end of the battle, which did not usually last more than an hour, the battlefield was covered with gore and blood. The ground would be littered with the bodies of both men and horses.

For those who died, there were no war cemeteries and no pensions for their wives and children. Nor were there any entitlements for disabled veterans. A beggar's bowl was often the only means of survival for the medieval common soldier who was crippled fighting for his lord or king.

artillery large mounted firearms such as the cannon

pike long spear-like weapon carried by foot soldiers

SOURCE 3 From a chronicle describing the Battle of Bannockburn in 1314, when the Scottish rebel leader Robert the Bruce defeated the English, who sought to control Scotland. Robert became King Robert I of Scotland.

The two hosts (English and Scottish armies) came together, and the great steeds of the (English) knights dashed into the Scottish pikes as into a thick wood; there arose a great and horrible crash from rending [splitting] lances and dying horses, and they stood locked together..

SOURCE 4 From *The History of the Art of War in the Middle Ages* by C. Oman, published in 1924. The battle described here is between Swiss and German infantry.

The two bristling lines of pikes crossed, and the leading files were thrust upon each other's weapons by the irresistible pressure from behind. Often the whole front rank of each **phalanx** went down in the first onset, but their comrades stepped forward over their bodies to continue the fight.

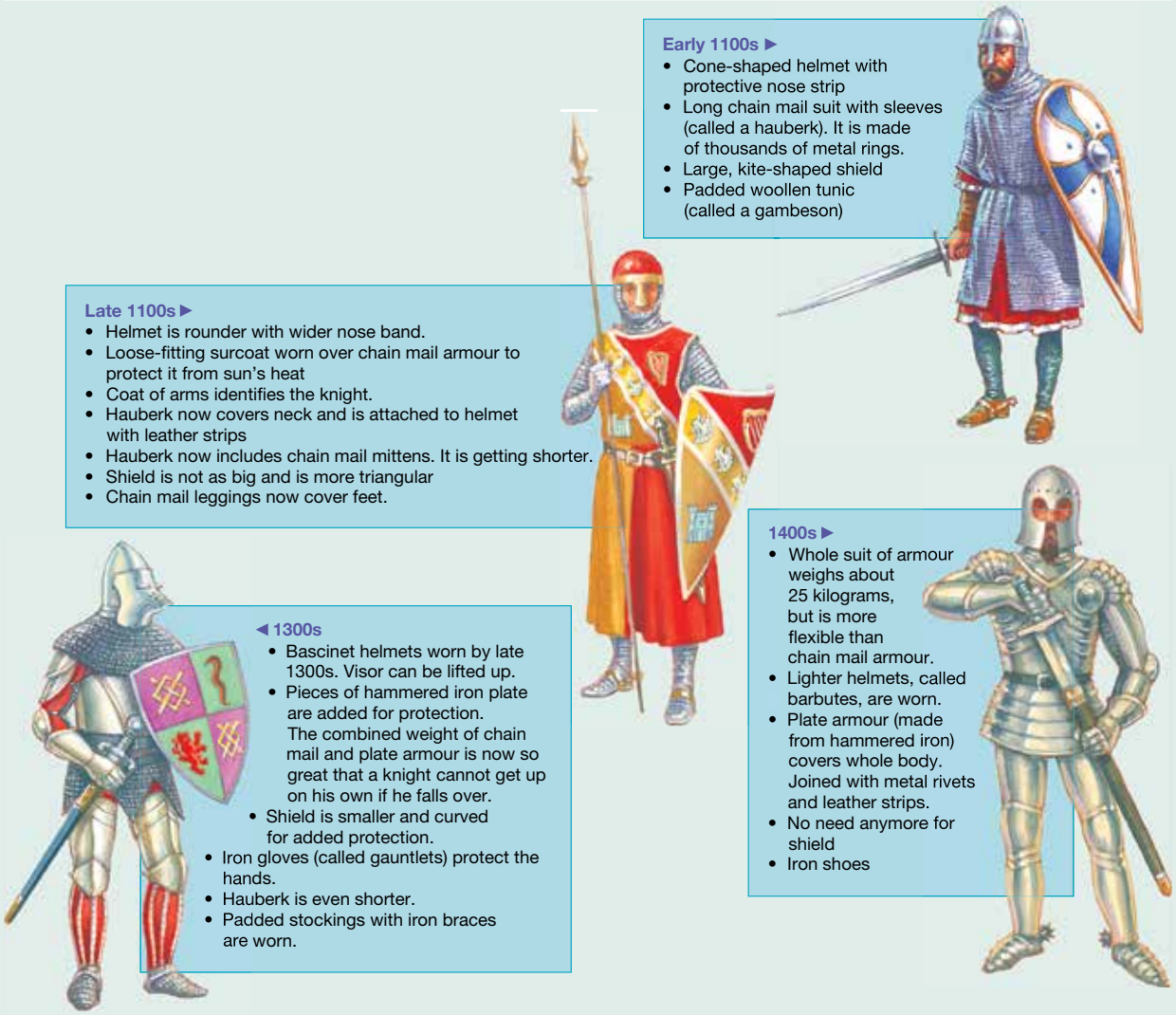
phalanx body of foot soldiers in close battle order

2.7 SKILL ACTIVITY: Historical perspectives and interpretations

Refer to **SOURCE 5** and your broader knowledge to answer the questions.

tlvd-10575

SOURCE 5 The development of the knight's armour: change and continuity



1. **Describe** how the knight's weapons and armour changed between the early 1100s and the 1400s. **List** at least four things that changed (this might include changes in function, appearance or shape).
2. **Explain** why the shield disappeared as armour in medieval Europe by the 1400s?

2.7 Exercise

learnon

2.7 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 5, 8	3, 4, 7	6, 9, 10

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Check your understanding

1. **Identify** the purpose of the mounted warrior.
   - A. To terrorise and destroy foot soldiers and break up their formations
   - B. To travel a greater distance
   - C. To lead soldiers into battle
   - D. To give soldiers direction during a battle
2. **Select** the reasons why guns were not as popular as longbows and crossbows during the Middle Ages.
   - A. They were very slow to load and inaccurate.
   - B. People did not know how to use guns.
   - C. They were liable to blow up.
   - D. They were ineffective at causing damage to the target.
3. **Recall** three weapons used by fighters in a medieval battle.
4. **State** one way a medieval battle differed from a modern-day battle.
5. Closely **examine** the trebuchet in **SOURCE 2** and complete the following passage.
   A trebuchet was a giant _____ that medieval armies used in battle. They could sling _____ to cause damage, or hurl the _____ of dead animals or slain enemies to _____ and spread _____ among the besieged population.

Apply your understanding

Historical perspectives and interpretations

6. **Explain** why you think that the knight is often seen as a symbol of the Middle Ages.
7. **Clarify** why weapons and armour changed over time. Think of things like protection and comfort.

Using historical sources

8. Closely **examine SOURCE 1**. **Name** the weapons that were used in this battle.
9. **Examine SOURCES 1, 3** and **4**.
   - a. What can you tell from each of these sources about the effectiveness of pikes in battles?
   - b. What can you tell from each of these sources about the risk to horses in battle?
   - c. What can you tell from each of these sources about why tight formations were used in medieval battles?
   - d. What can you tell from each of these sources about why there were high casualties in the front ranks?

Communicating

10. Using what you have learned about knights in this lesson, **write** a short paragraph exploring why mounted soldiers (knights) became less and less useful in battles as warfare technologies changed. In preparing your answer, **consider** the types of weapons and how they changed, as well as the formations that were used.

LESSON
2.8 Why did towns begin to grow in this period?

LEARNING INTENTION

By the end of this lesson you should be able to explain why towns began to grow in Europe from the eleventh century. You should also be able to suggest reasons for why people left the feudal manor and moved to towns.

TUNE IN

During the Middle Ages, Europe became more peaceful and regular trade routes were established. Towns sprang up along the way and a new social group, the merchants, developed. People were drawn away from farms towards the towns where they could learn new skills.

Read through **SOURCE 1,** which imagines what life in a medieval town might be like.

SOURCE 1 A young boy's experience on entering the marketplace in the English town of Shrewsbury in 1241. This extract is from *Falls the Shadow*, a novel by Sharon Penman, Penguin, 1989, p. 132.

> Church bells pealed out the hour . . . Men wandered the streets shouting 'hot meat pies' and 'good ale' . . . itinerant [wandering] pedlars hawked [tried to sell] their goods, offering nails, ribbons, potions to restore health . . . People gathered in front of the cramped, unshuttered shops, arguing prices at the tops of their voices. Heavy carts creaked down the streets . . . Dogs darted underfoot, and pigs [shuffled] about in the debris dumped in the centre gutter.

1. Describe the features of medieval towns that would have made them dirty, noisy and unhealthy. Start with the ideas mentioned in the extract.
2. Imagine that you were a young peasant coming from the countryside and entering this town for the first time. Role play a conversation that might you have had at the end of your first day about what you had seen / heard / smelt that was new to you.

2.8.1 The growth of towns

By about the eleventh century, Europe was a relatively peaceful place. People felt free to risk living beyond the security of the manor. In time, a network of towns sprang up, particularly along trade routes. These towns became the focus for the rise of a new social group — a **middle class** of merchants.

middle class a social class between the privileged nobility and the poor peasants. It typically comprised merchants and wealthier craftspeople.

fief a gift, usually land, given by a lord to a vassal (or tenant) in exchange for loyalty and service

Personal loyalty to a lord in exchange for a **fief** was a basic principle of feudalism. As barbarian raids stopped, as food stocks increased, and as money rather than personal services began to be given to lords in exchange for rights and privileges, the feudal system began to break down.

People began to drift away from the manors to start new lives in towns, many of which had developed near castles. Some people learned new skills such as spinning, weaving, baking, leather work, music, acting, ale brewing, armour construction, ropemaking, butchery, banking, cloth dying and stonemasonry.

As towns grew, large walls were built around them. Near these walls were the cramped homes of the poor, which were mostly wooden and many storeys high. Most houses were coated with a highly flammable paint made of pitch and linseed oil. Pitch was a black, tarry substance used to seal cracks in buildings and boats. The homes of the wealthy were in the town's centre.

The town's lanes were crooked and narrow. They were lit only by people's lanterns and candles, and had no footpaths. They became smelly, rat-infested rubbish dumps, splattered with food scraps, bones and sewage. Open drains stank from cloth dyes and the blood of slaughtered animals. Townspeople tramped through this muck to reach the town's central marketplace. It bustled with the activity of traders, musicians, actors, jugglers, pickpockets and beggars.

2.8.2 Rise of the merchant class

Adventurous European merchants began looking for more distant markets. They travelled to Asia, northern Africa and the Middle East with goods such as iron, timber and copper. They returned with exotic silks, furs, spices, gold and precious stones. They visited trade fairs in Europe, where both goods and ideas were exchanged. It is thought, for example, that the windmill was first heard of from traders from Iran, and soap from traders from China.

Long-distance trading was risky. There were robbers and sea pirates. As well, merchants had to deal with clever money lenders. To protect themselves and their profits, merchants often formed partnerships and shared responsibilities. This led to the formation of companies, which in turn created new jobs.

By the latter part of the Middle Ages, this new merchant class had become a very powerful force in medieval society.

SOURCE 2 Medieval illustration of stonemasons, who were highly respected craftspeople



Growth of apprenticeships

The demand for skilled workers was growing. Apprenticeships began to be set up to train young people in particular trades. Most were seven-year agreements, and were strictly controlled by guilds.

Guilds

The standard of work in each skilled craft was also controlled by its **guild**. These associations were formed by artisans to protect their interests, settle disputes between employers and skilled workers, and to set wages and prices. In some ways they were like modern trade unions, but unlike trade unions, guild members included employers.

guild an association of people engaged in a particular trade or craft for the mutual benefit of its members

Merchants also had guilds. The most powerful merchant association was the Hanseatic League, which controlled many trading ports around the Baltic Sea, and trading outposts as far away as Russia, Italy and England. The Hanseatic League was so powerful during the fourteenth and fifteenth centuries that it minted its own money and wrote its own laws. In the fourteenth century, it even waged war against the King of Denmark.

SOURCE 3 As shown in this medieval painting, businesspeople usually sold their goods from the ground floor of their home. Family, servants and apprentices lived on the upper floors.



Resources

Weblink Medieval London guilds

2.8 SKILL ACTIVITY: Questioning and researching

The growth of towns changed the power structures in medieval society and lead to significant changes.

As the feudal system weakened, the populations of medieval towns grew. People drifted away from the land and headed for the towns, which became more popular. People began to specialise in trades and would showcase their skills and sell their wares at weekly markets, held in the centre of the town. Merchants began to travel long distances to trade. This created further wealth and a new middle class began to rise.

1. **Choose** a medieval trade that you are not familiar with and **research** whether it is still around today. It may be that it is now known by another name, or it might be obsolete.

Some of these might include:

- chandler
- fletcher
- armourer.
- wheelwright
- scrivener

2. Use the **Medieval London guilds** weblink in the Resources panel to kickstart your research.
3. After you have conducted your research, **present** your trade to the class, highlighting whether it is still practised today or not.
4. **a.** Finally, **brainstorm** current trades or occupations that you think might be obsolete in 20–50 years.
   b. **Explain** why you think these jobs might disappear.

2.8 Exercise

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2.8 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
3, 4, 5, 7	1, 2, 6,	8, 9, 10

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Check your understanding

1. **Explain** the basic principle of feudalism.
2. **Identify** the initial change that meant that food stock increased and money could be exchanged.
3. **a.** The _____ usually lived in _____, wooden homes next to the large _____ that were built around _____.
   b. The homes of the wealthy were in the town centre. True or false?
4. **Identify** three destinations where the more adventurous European merchants travelled.
   A. Asia
   B. Middle East
   C. Antarctica
   D. Southern Africa
   E. Northern Africa
5. What is a guild?
   A. An association of people engaged in a particular trade or craft for the mutual benefit of its members
   B. An association of people engaged in a particular trade or craft for the benefit of its lord or king
   C. An association of lords or kings engaged in a particular trade or craft for the mutual benefit of its members
   D. An association of lords or kings engaged in a particular trade or craft for the benefit of its people

Apply your understanding

Using historical sources

6. **Describe** the medieval trades you can see in **SOURCES 2** and **3**.

Communicating

7. Imagine you are a young town dweller in the Middle Ages seeking a trade. **Select** a trade you would like to be apprenticed in. **Justify** your choice.
8. **Summarise** the major role of guilds in medieval Europe.
9. **Explain** the factors that led to the decline of feudalism.
10. **Clarify** what the growth of trade and skilled crafts had to do with the growth of towns in medieval Europe.

LESSON
2.9 How were people punished for committing crimes in medieval times?

LEARNING INTENTION

By the end of this lesson you should be able to identify the types of crimes committed in the medieval period and the punishments that were given for them. You should also be able to explain how these punishments changed over time.

TUNE IN

This device was found in most villages and towns in medieval times. It was intended as a form of corporal punishment.

Discuss the following questions and suggest answers.

1. What is the purpose of punishment? Why do we have it?
2. Is public humiliation worse than other types of punishment? Explain your answer.
3. What do you think is the difference between corporal and capital punishment?

SOURCE 1 A pillory in a village square



2.9.1 Community justice

In medieval Europe, community living was the norm. Most rural people lived in villages on feudal manors while the people in the growing towns were packed together closely, usually behind city walls. There was no police force to protect these communities, so much of this fell on the people to look after themselves.

The community was hierarchical and the lords or their reeves would often dispense justice where needed. Later in the Middle Ages, villages also had volunteer constables and watchmen, who could be turned to when a situation arose.

If a crime was committed, there were several ways that it was dealt with:

- **Hue and cry** — when a person was seen to be committing a crime, the observers called out an alarm (the 'hue and cry') and it was the duty of the neighbours to apprehend the law-breaker. If they resisted, they were even allowed to kill them.
- **Tithing** — every man over 12 was in a tithing group of ten households, which was the most basic unit of law enforcement in medieval times. They had to guarantee that they were all staying within the law. If anyone in the tithing group broke the law, the others had to arrest them and take them to the local manorial court for justice. If they did not, they were all heavily fined.
- **The posse comitatus** — If a criminal was on the run, the local sheriff had the right to call groups of men to stop what they were doing and help with the chase to apprehend the criminal.

2.9.2 Public humiliation

An accusation of disturbing the peace usually means that the crime is having an effect on the security of the community, In medieval times, these were things like public drunkenness, violent arguing, brawling and swearing. The punishments for these behaviours were meant to deter other people from doing them by publicly humiliating them.

Those accused were commonly put in stocks, or the pillory. The stocks were restraints to the feet or hands whereas the pillory was similar but rather more severe. The offender's head and hands (and/or feet) were locked into a wooden restraint and they were left all day in an uncomfortable position in the main town square (see **SOURCE 1**). Villagers or townsfolk would be encouraged to jeer at the person and throw rotting vegetables at them.

For women who were accused of gossiping, the punishment was cruel and severe. They were restrained in a device called a scold's bridle. It was a heavy iron muzzle with a bit that silenced the wearer. The woman was also walked around the town by the male family member who had accused her of nagging, or scolding. It was both painful and humiliating (see **SOURCE 2**).

SOURCE 2 A woman wearing a scold's bridle



The ducking stool was also used to mainly punish women. It was a stool attached to a wooden arm on the side of a steam or river. The accused was strapped into the chair and dunked in the water repeatedly. This punishment was most often given to women for gossiping, scolding or those accused of witchcraft.

A common crime in medieval times was theft. The punishments for this antisocial behaviour ranged from fines for petty theft, to mutilation such as loss of ears or hands or blinding. Public flogging was also commonly used for thieves.

After the Normans came to power in England from the eleventh century, they largely kept the same system that the Anglo-Saxons had been using. However, they brought in new Forest Laws which banned people from the common lands, now owned entirely by the King. To hunt or to take timber, people needed permits which, of

course, they had to pay for. This was a great source of revenue for the new Norman rulers. Anyone who broke these laws by poaching were severely punished. They also introduced a new law to protect themselves called the **Mundrum Fine**. The whole village was fined if a Norman was killed while there, as well as the culprit executed. This was meant to deter the Anglo-Saxons from killing their new Norman overlords.

2.9.3 Trials

Trials by Jury were conducted in the Manorial Court. All the villagers had to attend several times a year when this was held, or they were fined. The Lord's Steward or Reeve oversaw the court and the jury was made up of 12 village men. The jury decided whether the accused was guilty or not as well as the punishment.

SOURCE 3 Trial by Hot Water



The practice of 'Trial by Ordeals' was popular across Europe for trying serious crimes. There were several different ordeals that determined the accused guilt or innocence. Ordeal by Fire involved the accused taking a hot iron bar from a fire and walking several paces with it. Afterwards their hands were bandaged. After three days they returned to court and their wounds were examined. If they had started to heal, they were innocent but if not, they were guilty and then sentenced as such.

Similarly, Trial by Hot Water (**SOURCE 3**) involved the same process but the accused had to fish an iron bar or ring out of boiling water. The other form of Trial by Water was where the accused was tied up and thrown into a lake or river. If they sank, they were innocent; if they floated, they were guilty. In 1215, the Pope banned Trial by Ordeals and they stopped throughout Europe over the next few years.

The other form of trial which was available only to the nobility was Trial by Combat. It involved a fight to the death to establish innocence. However, it was not strength that people believed won the battle but the support of God; hence if the accused won the battle, then they were innocent because God had spared them. This practice was replaced at the end of the Middle Ages by Trial by Jury.

2.9.4 Crimes against the Church

Along with the monarchy, the Church was the most powerful institution in medieval Europe. Crimes against the Church were treated severely and swiftly. In this way, they kept control of the population and Christian beliefs in Europe. **Blasphemy** was a sin against God, when someone refused to acknowledge God or the Church or had different ideas. There were a range of punishments associated with this such as removal of the tongue so that the person could no longer speak, stoning to death or hanging. Similarly, **heresy** was an accusation when someone believed different religious opinions than the Catholic Church. **Heretics** were persecuted and executed, often burnt at the stake.

Mundrum fine a penalty imposed by William the Conqueror in 1070 for the killing of a Norman. The fine was paid by the guilty person or their community to the king or lord of the person killed, and the amount paid varied according to the social status of the victim.

blasphemy any words or actions that were considered disrespectful or insulting towards God or religion. This included things like cursing, speaking rudely about religious figures or religion, or denying the existence of God. It was considered a serious crime and was pushed by fines, imprisonment, or even death.

heresy opinion that challenged or differed from that of the Roman Catholic Church or the less tolerant Protestant churches

heretic one who rejects the teachings of the Church

Witchcraft was also seen as a form of heresy because it was generally believed that witches were the devil's companions, and they were attempting to turn people away from Christianity and towards the devil. Witches were blamed for disease, natural disasters and all kind of other things. It was common to use the Trial by Water to test if someone was a witch; when they were found guilty they were burnt at the stake. It was commonly believed that witches were women and many older women who were herbalists or midwives in medieval villages were mistakenly accused of being witches and killed.

The Church also offered **sanctuary** to those accused of serious crimes. If the accused could get to a church before being arrested and confessed, they were allowed to stay for 40 days and nights without arrest. After this time they had the choice to leave the country or be hanged for their crime.

sanctuary a legal concept that offered individuals protection if they were seeking refuge from persecution or punishment. The right of sanctuary was based on the idea that churches and other religious institutions were sacred and provided a safe place for those in need of protection. They were granted temporary protection from arrest, allowing them time to negotiate a settlement for their crime, or seek a pardon.

2.9.5 Treason

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The most serious crime was treason and if convicted of treason, people faced the most terrible punishments. Charges of treason were laid for crimes like plotting against the monarch, conspiring with foreigners against the monarch and leading a rebellion.

SOURCE 4 A Public execution complete with audience



It was important that the King or Queen could maintain their strength and remove their enemies to maintain their power. Nobles who had betrayed their monarch would be thrown into the dungeons of the castle, awaiting trial. When they were found guilty they were executed in an extremely painful manner. They could be burned at the stake, or flayed (whipped until their skin came off) alive or hanged, drawn and quartered.

The latter meant that the person was hanged until they were nearly dead, then taken down and pulled apart by horses (but still not dead) and then cut into quarters with their bits being thrown into the fire. The executioner hoped to keep them alive and in terrible pain until the very end. It was a brutal way of warning people not to do the same things. Chillingly, the public were encouraged to come to these executions. Although they were a deterrent, people also treated them as a bizarre form of entertainment (see **SOURCE 4**).

2.9 SKILL ACTIVITY: Historical perspectives and interpretations

1. Read through the different forms of justice dealt in the medieval period in this lesson and **list** them in your exercise book.
2. For each of them, write either 'obsolete' which means that it is completely out-of-date, or 'connections to today'. For those that you can see connections to today, write a few sentences **explaining** what it links with in today's justice system.
3. Share your list with the class and see if you have any common elements. As a class, **discuss** whether you believe that the modern Australian justice system has any common elements developed from medieval European justice.

2.9 Exercise

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2.9 Exercise

Learning pathways

■ LEVEL 1	■ LEVEL 2	■ LEVEL 3
1, 2, 3	4, 5, 8	6, 7, 9, 10

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Check your understanding

1. What was 'hue and cry'?
   - A. When a criminal is unfairly attacked and complains to the constable about their treatment
   - B. When observers to a crime call out an alarm and everyone nearby has to try to catch the law-breaker
   - C. When neighbours complain about each other and must settle it in court
   - D. When the offender is identified by the victim in front of everyone
2. **Recall** a common punishment for public drunkenness.
3. **Determine** if the following statements are true or false.
   - a. The Mundrum Fine was designed to protect the whole village.
   - b. Crimes against the Church weren't considered serious and only carried minor punishments.
   - c. Medieval punishments generally avoided humiliating the offender.
   - d. Men in tithing groups were required to arrest anyone in their group who broke the law.
4. Complete the following sentence:
   Trial by _____ was held in the Manorial Court and involved _____ men deciding judgement on the accused. Trial by _____ involved physical challenges from which _____ would protect the innocent. Trial by _____ involved a physical fight where the innocent person would be spared by _____.
5. **Recall** the two crimes that were believed to be against God and the Church.

Apply your understanding

Using historical sources

6. a. Divide the common medieval punishments that you have read about in this lesson into two columns: corporal punishment and capital punishment.
   b. Thinking back to your discussion about the purpose of punishment, **discuss** some conclusions about the purpose of medieval punishment.
7. **Identify** any difference in the justice dealt to a peasant compared to the nobility.
8. a. **SOURCE 4** shows another form of capital punishment not mentioned in the text of this lesson. What is it?
   b. Using **SOURCE 4**, and your broader understanding from the lesson, **justify** why the broader population were encouraged to view executions.

Communicating

9. **Consider** how medieval rulers managed to overcome their lack of a police force. In your answer, **explain** how they managed to keep an orderly society without police.

Historical perspectives and interpretations

10. **Evaluate** how the power structures in medieval society were reflected in the punishments given for crimes committed.

LESSON
2.10 What was the power and authority of the Church in medieval times?

LEARNING INTENTION

By the end of this lesson you should be able to explain the immense power of the medieval Catholic Church and identify its hierarchical structure with the Pope at the top.

TUNE IN

Imagine viewing this painting in a dimly lit medieval church with the smoky scent of incense in the air. Paintings such as this were common in churches in the medieval times. However, they were not there only as art, but more to persuade the congregation about a particular viewpoint. Let's look more closely at this painting to work out what that viewpoint was.

SOURCE 1 A medieval painting depicting what happens to people when they go to hell.



1. Examine the painting in **SOURCE 1** very closely and discuss what is happening in each part of the scene.
2. Propose what effect a painting like this was intended to have on the villagers' behaviours.
3. Share your ideas on how images like this would increase the power of the Church in medieval times.

2.10.1 The authority of the Church and the Pope

Christianity stemmed from the Jewish religion in the first century CE. It spread throughout Europe after becoming the official religion of the Roman Empire. Following the fall of Rome, it became entrenched as the principal religion across Europe. For many reasons, cultures turned away from their traditional belief systems and adopted Christianity.

SOURCE 2 Canterbury Cathedral. in Kent. England. This is a typical example of Gothic architecture. which can be identified by the points arches and highly decorative style.



The Roman Catholic Church was the one common institution found throughout western Europe. Its rituals were similar across the continent. It even used a common language, Latin, although no-one other than the clergy spoke this old Roman language any longer. Everyone was expected to live according to Church law and attend **Mass**. The **sermons** of the priest, often delivered in the **vernacular** language rather than Latin, reminded parishioners of their Christian responsibilities.

The head of the Roman Catholic Church was the Pope. The Pope was, and still is, the head of the Catholic Church. After the fall of the Western Roman Empire, the power and authority of the Pope increased — he became a unifying figure. Based in Rome, the Pope made a powerful ally in political disputes. Papal support gave a leader both political prestige and moral authority.

The Pope became far more powerful than any other Christian bishop for several reasons. He was able to claim authority based on St Peter's decision to lead the Christian Church from Rome. St Peter and St Paul, two early Christian leaders, were martyred in Rome, and this gave the city particular religious significance. Strategic political alliances with rulers such as Charlemagne also saw papal power and importance rise.

mass Roman Catholic Church service

sermon moral or religious lecture delivered by a priest

vernacular everyday language spoken by a particular group or class

cardinal leading clergyman who is a member of the Pope's Council, or Sacred College, and who has the power to elect the Pope from among his own group

archbishop head bishop

bishop clergyman who governs a diocese, a large church district

edict order issued by a monarch or other person in authority

nun member of a closed community of women living under religious vows and rules

2.10.2 The hierarchy of the Church

The **cardinals**, **archbishops** and **bishops** supported the Pope's **edicts**, advised lords and kings, and had key government positions. Below this upper class of clergy were the parish priests, **nuns** and monks, and friars. These lesser clergy took the Church's message to the people in the villages. They also collected the taxes on which the

Church's wealth depended. At the village level, this tax was called a tithe. The tithe required that 10 per cent of a person's income, or of what they produced, such as grain, eggs and livestock, should be paid to the Church.

Anyone who was believed to be acting against the interests of the Church could be excommunicated. This meant they could no longer attend Mass and receive the Christian **sacraments**. Worse, they were told they would go straight to hell when they died. The Church made sure that the fear of hell, with its fires and devils, was instilled in everyone.

2.10.3 The parish church and the cathedral

Almost every village had a parish church. Often it was both the largest building and the only one built of stone or brick. The parish church was built using peasant labour. Although unpaid for their efforts, the parishioners would have felt a sense of achievement and communal ownership. The church walls, and sometimes the stained-glass windows, depicted scenes from the Bible, especially the life of Jesus. These helped teach Bible stories to the mostly illiterate congregation. In an age before clocks, the bells in the church tower helped people keep track of the time of day.

The church was not only a place of worship. It was also a community centre, a fairground and a school for those studying for the priesthood.

The bishop's church — the cathedral

Many European cities today have at least one **cathedral**. Some of the greatest cathedrals were built in the Middle Ages.

The word 'cathedral' comes from the Greek word *kathedra*, meaning seat. This refers to the bishop's seat or throne in the back of the church. It is from here that the bishop ran his diocese, which, in turn, was divided into parishes.

The bishop's church was very important. This was reflected in its size and magnificence. The cathedral towered over the other buildings in the town. Many cathedrals took more than a hundred years to build and were completed long after their architects had died.

sacrament sacred Christian ceremony; in the Catholic Church, for example, baptism and marriage

cathedral main church of a diocese; contains the bishop's throne

DID YOU KNOW?

In 2019, one of the most beautiful and iconic representations of medieval Gothic architecture, Notre Dame Cathedral in Paris was badly damaged in a devastating fire. The probable cause was an electrical fault in the old building, which destroyed the roof and spire. The French government put all its efforts into restoring it by 2024.

2.10 SKILL ACTIVITY: Questioning and researching

You have learnt about the immense power of the Catholic Church and the Pope in the medieval period. However, you know that, whilst there are still many people who follow the Catholic religion today and the Pope is still the head of the Church, it does not govern our lives in the same way that it did for the people of the Middle Ages. Some of this can be traced back to the growing concern of medieval people about corrupt practices they saw in some of the clergy.

Francesco Petrarca (Petrach) was an Italian scholar and poet of the fourteenth century. He was a strong Catholic himself and visited Avignon to stay with a mentor of his, a Cardinal.

Read the extract from his letter and answer the guiding questions below.

SOURCE 3 Petrarch, Letter to a friend, 1340–1353

. . .Now I am living in France, in the Babylon of the West. The sun in its travels sees nothing more hideous than this place on the shores of the wild Rhone, which suggests the hellish streams of Cocytus and Acheron. Here reign the successors of the poor fishermen of Galilee; they have strangely forgotten their origin. I am astounded, as I recall their predecessors, to see these men loaded with gold and clad in purple, boasting of the spoils of princes and nations; to see luxurious palaces and heights crowned with fortifications, instead of a boat turned downward for shelter.

1. List the words and phrases that show he hates Avignon.
2. Find evidence to show that he thinks the clergy in Avignon are corrupt.
3. Draw conclusions about what he thinks they should be like instead.

Source: from J. H. Robinson, *Readings in European History* (Boston: 1904), p. 502.

Write a list of questions that Petrach might have for the Pope and then share your ideas on why people began to doubt the overwhelming power of the Church.

2.10 Exercise

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2.10 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 4,	3, 5, 6, 10	7, 8, 9

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Check your understanding

1. No particular religious institution dominated western Europe during the Middle Ages. True or false?
2. **Latin / Italian / Vernacular / English** was used in the medieval Mass.
3. **Recall** who the Head of the Roman Catholic Church was and what power he had.
4. Unpaid _____ did most of the work in building the parish _____. The sense of achievement and communal _____ made people feel part of the _____.
5. **Explain** why cathedrals were so enormous.

Apply your understanding

Using historical sources

6. **Compare** and **contrast SOURCE 1** and **SOURCE 2**. Which one do you think was a more effective way of making an impression on the medieval population? **Explain** your answer in detail.

Communicating

7. **Create** a diagram that **illustrates** the hierarchy of the Church.
8. **Explain** why you think that the Catholic Church ensured that medieval people feared the idea of hell.
9. **State** some of the methods that the parish churches used to create a sense of community.
10. **Identify** five ways the Roman Catholic church demonstrated its power over the people of medieval Europe.

LESSON
2.11 What was the power of the written word?

LEARNING INTENTION

By the end of this lesson you should be able to explain the importance of medieval religious communities in holding ancient and medieval texts as well as passing on the ideas. You should also be able to understand the importance of developing the technology of books as beautiful artworks.

TUNE IN

Medieval manuscripts were handwritten and took a long time to complete. Many also had illustrations added called illuminations.

SOURCE 1 A medieval illuminated manuscript from the Czech Republic.



Look closely at **SOURCE 1** and see if you can identify any of the following used in this manuscript:

- the language
- the colours
- the image in the historiated initial
- the layout.

Discuss its similarities with modern books and the key differences you can see.

2.11.1 The role of monks and monasteries

An important feature of early Christianity was the role of monks, nuns and the communities in which they lived. A monk or nun was a person who chose to withdraw from society in order to live according to strict Christian principles. Communities were formed, with rules governing every aspect of their lives in order to ensure their obedience of God. These communities of monks lived in monasteries or nuns in convents. Many communities were built in isolated places, both for their protection and to free them from worldly distractions and influences.

Some played important roles in the community. Many had schools attached to them. The monks were some of the only people who could read and write in these times and they passed this on to their young novices (see **SOURCE 2**).

Justice and law were dispensed by the abbot (the leader) in the towns that developed around the monasteries or convents. People gave money in the belief that this would please God. Sometimes people were forced to pay taxes to the religious community for the use of their land or to sell produce in the markets. This made some of them very rich and powerful.

SOURCE 2 A thirteenth-century illustration showing a boy being brought by his parents to a monastic school



2.11.2 Literacy in the Middle Ages

The Church was almost the sole source of literacy during the Middle Ages. Before the printing press was invented, every book had to be handwritten. Among the tasks performed by monks, and sometimes nuns, was the writing and copying (and often decorating) of books by hand. Many of these books would be used to teach students. Through copying them for teaching, they saved many of the classical texts from Greece and Rome, as these were written on fragile parchments and would not have survived until our modern times. In translating them into Latin, they also ensured that more people could read and understand them. As the language of the Catholic Church, Latin was more widely read and understood than Ancient Greek.

Many of the ideas of the ancient world also came into Europe through the Moorish Arabs in Spain, who valued books and libraries, and this gave the **Moors** access to the ideas of many great ancient philosophers.

Moor a member of a north-west African Muslim people of mixed Berber and Arab descent

2.11.3 Illuminated manuscripts

Creating a book, or manuscript, in medieval times was extremely laborious. It started with the preparation of the writing material, parchment, or its finer version, vellum. This was animal skin which was prepared by scrapping and stretching, until a smooth and durable surface was created. This was trimmed to the size needed. The scribe would write on the parchment using a quill and ink. The quill was a feather cut to a fine point and dipped in ink which was made from some minerals or vegetable dye.

Once the scribe was finished with the written word, an illuminator would illustrate the text. The illuminations were as important, or perhaps even more important than the written words. They would sketch and then paint images beside the written text, including decorated letters and illustrations.

They used precious metals, as well as dyes and minerals for the colours. Many of these are still incredibly beautiful today (see **SOURCE 3** from the *Book of Kells*, a gospel from a remote community in medieval Ireland).

Later in the medieval period, the printing press was invented which made the need for illuminated manuscripts obsolete. Invented around the 1440s in Germany by Johannes Gutenberg, this meant that ideas spread much faster, as books and pamphlet were created so quickly. Historians often credit this spread of ideas with the spread of the Renaissance. See lesson 3.9 in Topic 3 Renaissance Italy for further information on the development of the printing press.

SOURCE 3 An illuminated letter from the *Book of Kells*



2.11 SKILL ACTIVITY: Using historical sources

Written and illustrated by a twelfth-century French nun, the *Hortus Deliciarum* is a beautifully illustrated compendium of other twelfth-century texts, such as poems, texts by classical writers, illustrations and music.

Herrad of Landsberg was an abbess (leader) of a convent. She collected the texts and in addition, wrote a number of the poems with messages to her fellow nuns. It is surmised that she drew the illustrations as well, of which there are over 300.

Luckily fragments were copied and saved because the original was destroyed in a fire around 1870. This is a rich text that tells modern historians much about the time in which it was created, but also about the extraordinary woman who was Herrad of Landsberg.

Conduct research to find fragments of the illustrations from the *Hortus Deliciarum (The Garden of Delights).* Collect these digitally as a class and **compare** the different sections.

- What texts and illustrations did you find?
- What do these tell historians about Herrad and her community, as well as the times in which she lived?

SOURCE 4 The illustration of Hell in the *Hortus Deliciarum* by Herrad of Landsberg



2.11 Exercise

learnon

2.11 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
2, 3, 4,	1, 8, 9	6, 7, 10

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Check your understanding

1. **Explain** why someone might become a monk or nun.
2. **Recall** how people could gain an education in the early medieval period.
3. Medieval religious communities contributed to the survival of many Ancient _____ and _____ literary texts.
4. What were vellum and quills made of?
   - A. Animal skins and feathers
   - B. Velvet and feathers
   - C. Animal skins and sticks
   - D. Papyrus and metal
5. **Determine** if the following statements are true or false.
   - a. The illuminations, or drawings, in a medieval manuscript are so named because the precious metals used shone and caught the light thus illuminating the text.
   - b. The Church was one of many sources of literacy during the Middle Ages.
   - c. Illuminated manuscripts became obsolete when the printing press was invented.
   - d. Many ancient Roman and Greek texts were destroyed forever due to the process of copying them for teaching purposes.

Apply your understanding

Using historical sources

6. **Examine SOURCE 2**. What conclusions can you draw about the Church and its importance to people of the time?
7. **Analyse SOURCE 3** and use it to write an explanation about how it was created.

Communicating

8. **Explain** the difference between a scribe and an illuminator.
9. **Explain** why Latin was such an important language in medieval times.
10. Imagine that you are a young novice entering the convent of Herrad of Landsberg in Alsace, France. **Describe** the advantages that you would have as a nun in this protected abbey, compared to if you had remained in secular society.

LESSON
2.12 INQUIRY: Was King Arthur real?

LEARNING INTENTION

By the end of this lesson you should be able to investigate how historians have disproved medieval myths such as King Arthur and the Knights of the Round Table.

Scenario

What TV shows, books, films or computer games come to mind when you hear about King Arthur? Do you have any idea who he was? Merlin? Or the Knights of the Round Table? Sir Gawain? The sword in the stone, Excalibur?

There are so many stories about the Saxon king, Arthur, who supposedly fought enemies in early medieval Britain and united the kingdom. These stories can be traced back to early medieval manuscripts but they all offer different perspectives. Historians have attempted to trace the myths back to see if they began in a truth but no one has been able to produce a definite answer. The twenty-first century consensus seems to be, however, that King Arthur was nothing more than a fictional character.

Even though most historians do not believe that King Arthur existed, there are still many people who disagree and argue that he might have.

SOURCE 1 Are you familiar with the myth of the sword in the stone?



Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

Inquiry steps

Step 1: Questioning and researching

Discuss the following:

a. Why might people still believe in King Arthur? **List** the points for this argument.
b. Why might they not believe? **List** the points for this side.

Write your inquiry question.

Research your question.

Step 2: Using historical sources

Analyse the key points that arise in the process of your research.

Step 3: Historical perspectives and interpretations

Compare both sides of the argument.

Step 4: Communicating

Argue your perspective

- Historians will argue with each other in about controversial or, contested, ideas.
- Hold a class **debate** where you argue for or against the possibly existence of King Arthur and some truth behind the mythology.
- **Construct** the criteria by which you will decide on the winner of this debate.

Complete your self-assessment using the **Inquiry rubric** or access the 2.12 exercise set to complete it online.

on Resources

Digital document Inquiry rubric (doc-39426)

Weblinks
- A Guide to the Classics — The Arthurian Legend
- The Camelot Project
- The Camelot Project FAQs
- The historicity of King Arthur

LESSON 2.13 INQUIRY: The *Magna Carta*

LEARNING INTENTION

By the end of this lesson you should be able to ask historical questions about the impact of the *Magna Carta* on different groups in society. You should also be able to develop specific questions that will direct your investigation.

Background

The *Magna Carta* is a royal charter of rights that was signed by King John of England and his barons in 1215. It was designed to bring the peace between King John and his barons by ensuring that the monarchs of England were bound by the law and could not just make their own laws. King John of England was particularly disliked because he was seen to be an unfair king who taxed his barons heavily to subsidise the wars he kept fighting among other things.

The barons eventually revolted and the conflict came to a head when they presented King John with a list of demands at Runnymede in 1215. He signed what become known as the Great Charter or *Magna Carta* and they re-swore their feudal oath of loyalty to him.

SOURCE 1 The *Magna Carta* (1297 version, Parliament House, Canberra, Australia)



Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

Inquiry steps

Step 1: Questioning and researching

Choose one of the groups listed below and **develop** focused research questions that you could use to **investigate** the impact of the *Magna Carta*. Write your **inquiry question**.

- nobility
- religious orders and the Church
- merchants
- artisans / craftspeople
- peasants.

Use the following questions starters to **develop** some questions that might help to direct your research about your chosen group.

- For example:
  - How were…?
  - Who was…?
  - How significant…?
  - What effects…?

Read the *Magna Carta* by accessing a modern translation of the text. You could access the ***Magna Carta* English Translation** weblink in the Resources panel.

Research your question.

Make research notes: use the following research sites to begin making notes answering your directed research questions. You may need to rethink some of your research questions at this stage, depending on how far they lead you in your research.

- Some key sites for continuing your research can be found in the Resources panel:
  - ***Magna Carta* in the British Library**
  - ***Magna Carta* project**
  - ***Magna Carta* in the UK National Archives**
  - **The significance of *Magna Carta* to Australians.**

Step 2: Using historical sources

Analyse the information you have found. Does it answer the inquiry question?

Step 3: Historical perspectives and interpretations

Collate your information by using your research notes to **write** answers to your amended research questions. Remember that your original task was to investigate the *Magna Carta* and the impact that it had on one of the following social groups:

- nobility
- religious orders and the Church
- merchants
- artisans / craftspeople
- peasants.

Step 4: Communicating

Discuss with your teacher and class how you would like to present this information.

Complete your self-assessment using the **Inquiry rubric** or access the 2.13 exercise set to complete it online.

on Resources

Digital document Inquiry rubric (doc-39427)

Weblinks
Magna Carta English Translation
Magna Carta in the British Library
Magna Carta project
Magna Carta in the UK National Archives
The significance of *Magna Carta* to Australians

LESSON
2.14 What were the changing relations between Islam, Christianity and Judaism in the Middle Ages?

LEARNING INTENTION

By the end of this lesson you should be able to explain the significance of religion in medieval Europe and explain the Catholic Church's attitude towards medical science during the Middle Ages.

TUNE IN

Religion still plays a very important part of daily life in Australia today. The Australian census in 2021 revealed that only 38.9 per cent of the population weren't religious.

While people still pray for those who are sick, as seen in **SOURCE 1**, medical science is more often relied upon for treatment. What do you think prompted this change?

1. Discuss whether you think religion should play a part in treatment for illness and disease. What benefits can it bring, and what challenges can it create?
2. Brainstorm the ways in which being part of a religious community can help in daily life — why do so many people believe in a higher power?

SOURCE 1 Prayer for the sick was considered to be more important than medical science.



2.14.1 The importance of religion

Religious beliefs, and particularly the Roman Catholic Church, were central to medieval European life. When good things happened, people believed they were being rewarded for their good deeds, and illness and disease were seen as a punishment from God.

Most people were illiterate and very superstitious, and they relied heavily on priests for education and guidance on events that happened around them. In Europe, those who did not follow the Christian religion were viewed with suspicion and even hatred. If something bad happened, people looked to the Bible for an explanation and often believed they were being punished for their sins.

Islamic leaders likewise relied on their sacred texts and teachings for guidance and had inherited three principles from previous plagues to govern their people: (1) plague was a mercy from God and a martyrdom for the faithful Muslim; (2) a Muslim should not enter nor flee from a plague-stricken land; and (3) there was no contagion of plague since disease came directly from God. Not all of these practices were strictly followed, but it shows a distinct difference in thought and community response between two otherwise very intertwined cultures.

2.14.2 Religion and medical science

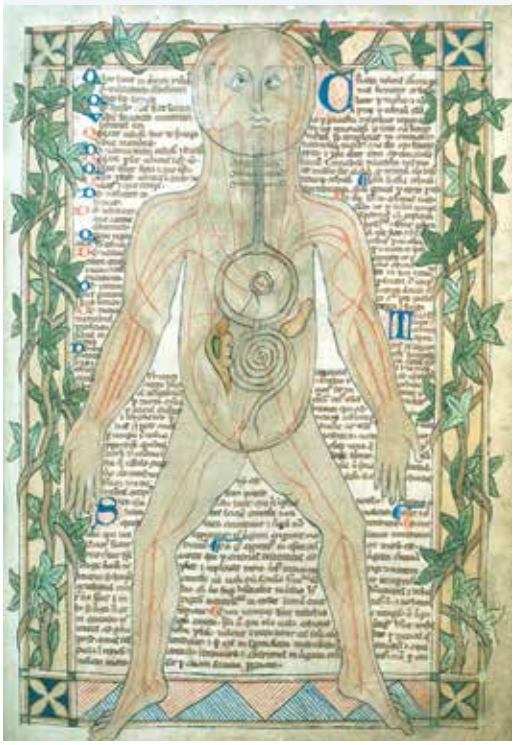
tlvd-10577

Because the Church controlled every aspect of education, the training received by medieval doctors had to be in accordance with religious teachings. All medical education carried out in universities was strictly in line with the beliefs of ancient physicians like Hippocrates and Galen. No new research was permitted because it was believed that the ancient teachings were complete and could not be contradicted. In 1300, Pope Boniface VIII prohibited the cutting up of corpses, so any attempt to study human anatomy was virtually impossible. This meant that even the most educated doctors had very little knowledge of human anatomy, making treatment of sickness difficult and any form of surgery almost impossible. **SOURCE 2** shows the limited understanding most doctors were working with.

Doctors and priests

Priests often took precedence over doctors, meaning that the doctor was permitted to assist only once the praying was finished. If the patient was important or wealthy, there might be a whole group of churchmen to offer prayers — depending on whether the disease was working quickly, the patient may be dead before they were even allowed in the room.

SOURCE 2 This late thirteenth-century illustration of the human body was meant to display the flow of blood through the body.



2.14.3 Religious conflict

By the beginning of the fourteenth century, virtually all of western Europe was Roman Catholic. The Arabic conquests during the seventh century and onwards, and the later expansion of the Ottoman Empire, meant that most of the Middle East and North Africa followed Islam. Christians and Muslims looked at each other with suspicion, largely as a result of the Crusades and of the efforts of Spanish Christians to recapture Spain from Muslim control. Since both religions viewed illness as a form of divine punishment, the people of each religion blamed the other for the Black Death when it ravaged their people. Christians also believed the Jews responsible for the death of Jesus Christ.

It didn't help that Jews had better hygiene than most medieval Christians and therefore were less likely to catch the plague — this led to accusations that they were poisoning the wells to make other people sick. This led to pogroms and massacres of Jewish communities (see **SOURCE 3**).

Despite Pope Clement issuing a decree declaring the Jews innocent, the **persecution** continued from 1348 until the early 1350s throughout most of Europe.

SOURCE 3 A medieval illustration showing a group of Jews being burnt at the stake. Jews were required to wear a yellow circle badge to identify themselves.



persecution oppression or punishment of a person or group of people, usually because of their religion

2.14 SKILL ACTIVITY: Historical perspectives and interpretations

Ibn Khaldun was an Islamic scholar who has given us great insight into the Black Death across the Middle East and Europe. Your task is to **create** a one-page biography to help other Year 8 students understand his influence.

To begin, **conduct research** and find three points of interest on each of the following:

- his life
- his philosophies
- his publications.

Ensure you use and refer to multiple sources. Include an accurate biography to show which references you used.

Show your understanding of the medieval period through your writing and remember your audience and purpose.

Your biography could be a visual one with annotations and shorter chunks of information.

2.14 Exercise

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2.14 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
2, 3, 5, 10	1, 6, 7	4, 8, 9, 10

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Check your understanding

1. **Describe** What was the attitude of the medieval Church towards medical science.
2. **Determine** if the following statements are true or false.
   a. There was a great deal suspicion between Christians and Muslims during the Middle Ages.
   b. Cultural difference led to a great deal of discrimination.
   c. Cultures worked together to find the source of the disease.
   d. Doctors were considered to be more important than priests in the treatment of the sick.
3. Why would Islamic leadership suggest that a Muslim person 'should not enter nor flee from a plague-stricken land'?
   A. They believed Muslims cannot get sick.
   B. They believed the plague was spread by people.
   C. They feared being blamed for the plague.
   D. They were told to say that by the Christians.
4. Based on the evidence you've been provided, **identify** which group Christians blamed for the Black Death.
5. During the fourteenth century, Muslims and Christians viewed illness as a form of _____.

Apply your understanding

Communicating

6. **Propose** a reason why Pope Boniface may have forbidden the dissection of corpses.

Using historical sources

7. **Identify** two inaccuracies in the diagram of the body shown in **SOURCE 2**. **Explain** what prevented medieval doctors from finding out more about the human body.
8. **Identify** one way that the activity depicted in **SOURCE 1** could actually hinder medical treatment for illness.
9. **Explain** how we know that the people being burned in **SOURCE 4** were Jews.

Communicating

10. **Identify** an example of discrimination you were aware of during the COVID-19 pandemic.

LESSON
2.15 What was the Black Death?

LEARNING INTENTION

By the end of this lesson you should be able to explain what the Black Death was, identify the origins of the Black Death and explain why it was able to spread.

TUNE IN

The Black Death was a devastating plague that occurred in a time when little was known about how to control or treat disease.

The Black Death has returned many times, even recently enough that we have been able to photograph and document it.

1. Brainstorm five reasons why diseases like this keep returning.
2. Examine **SOURCE 1**. Without any knowledge of the disease, why do you think peoples' fingers turned black?
3. Discuss: How long will COVID-19 be around for? Do you think it will keep returning over the years?

SOURCE 1 The appearance of black or purple blotches on the skin is thought to be the origin of the name 'Black Death'.



2.15.1 Introduction

In the mid-1300s, people across the Middle East, Africa and Europe were suffering from a terrible plague, often referred to as the Black Death. It killed millions of people and, at the time, nobody knew what caused it. With our modern knowledge, we understand that fleas carried on rodents infected humans, but it was a terrifying time for those living through it.

Why 'Black Death'?

This name was first used in the 1700s (a long time after the actual event). People at the time simply called it 'the great dying' or 'the plague'. It has been given many names over the years, such as *morte bleue* (French for 'blue death'), *pestis atra* (Latin for 'terrible plague') and *magna mortalitas* (Latin for the *great dying*).

There are a number of theories about the origin of the English name 'Black Death'. The most popular of these comes from the appearance of the disease in its final stages. At this time, small black or purple blotches appeared on the skin of those suffering from the disease as seen in **SOURCE 2**, and this may have contributed to the name.

Three diseases in one

Historians now believe that there wasn't just one plague affecting people, but three diseases all spreading at once.

Bubonic plague was the most recognisable. Swelling, pus-filled lumps called 'buboes' would appear on victims' bodies as the **lymph nodes** in their armpits, groin and neck appeared. Recovery was possible, but the other diseases made it less likely.

bubonic plague the commonest form of plague in humans, characterized by fever, delirium, and the formation of buboes

lymph node lump of tissue that helps the body fight infection; part of the immune system

Pneumonic plague attacked the lungs and was always fatal.

Septicaemic plague aggressively attacked the bloodstream. The bacteria in this form multiplied so fast that the person would die within hours of infection — bleeding into the skin caused purple-black blotches to appear (see **SOURCE 1**).

tlvd-10578

SOURCE 2 The bubonic plague was so named because of the appearance of 'buboes', which were swellings of the lymph nodes.



2.15.2 Origins and spread of the plague

Origins

Bubonic plague appears to be **endemic** to certain parts of the world, including western Arabia, Kurdistan, northern India and the Gobi Desert. It usually lies **dormant**, but at different times in history it has broken out in the form of major **pandemics**. There are many theories as to why it suddenly spread beyond its natural environment. The most popular theory at the moment is that climate change forced rodents to move and they carried the fleas with them, however as we learn more about the disease and its carriers this could change.

How did it spread?

In 1894 scientists identified a bacterium known by the scientific name of *Yersinia pestis*. This is now understood to be the cause of all three forms of the plague. These bacteria were transmitted by a number of different types of flea, one of which was commonly found living on the bodies of black rats. Wherever the rats thrived, the fleas had the opportunity to bite other animals and humans, usually infecting them with the bubonic or septicaemic form of the disease. Fleas could bite many people, increasing the rate of infection.

Pneumonic plague was the most contagious form of the disease because it infected the lungs. This would cause severe coughing, which would spray the bacteria out into the air. The disease could be breathed in by anyone close by, who would then be infected.

pneumonic plague a severe lung infection caused by the bacterium *Yersinia pestis*

septicaemic plague a plague wherein bacteria multiply in the blood

endemic normally and regularly found in a particular location or environment

dormant inactive or sleeping, with the potential to become active at any time

pandemic widespread across a large region

regurgitate to vomit, or bring up the contents of the stomach or throat

DID YOU KNOW?

When a flea became infected with the plague bacteria, the bacteria would multiply quickly and block the flea's feeding tube.

This would make the flea very hungry. It would try to feed on the blood of a host (an animal or human) but could not swallow the blood because of the blocked feeding tube.

The blood mixed with the bacteria would be **regurgitated** and enter the host through the open wound, leading to a new infection.

SOURCE 3 The bacteria that caused the Black Death were transmitted by fleas living on the bodies of black rats.



2.15 SKILL ACTIVITY: Historical perspectives and interpretations

When living through catastrophic events such as a global pandemic, sometimes it's easy to forget that history books will look back at these times as areas of study. Consider the ways in which we are examining a pandemic nearly 1000 years ago and compare that to how the COVID-19 pandemic will be studied in future years.

1. **List** any sources people might use to better understand the time of COVID-19. You might like to include different sources which help with examining:
   - social responses
   - religious responses
   - political responses
   - medical responses.
2. **Compare** these with the sources used in this lesson. Are there correlations (connections or relationships) between sources of the past and those you've chosen to highlight COVID-19's impact?

2.15 Exercise

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2.15 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 5	3, 4, 7	6, 8

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Check your understanding

1. Based on the descriptions provided, **identify** each of the three forms of the Black Death as either bubonic, pneumonic or septicaemic.

This form of the plague attacked the lungs and was always fatal.	
This form aggressively attacked the bloodstream and was characterised by bleeding into the skin causing purple–black blotches to appear.	
This was characterised by pus-filled swellings of the lymph nodes in the groin, armpits and on the neck	

2. When a disease is normally located in one place, it is called _____.
3. **Describe** what buboes are.
4. a. **Identify** two parts of the world in which bubonic plague appears to be endemic.
   b. **Explain** why these parts of the world do not suffer from the plague all the time.
5. **Determine** if the following statements are true or false.
   a. **SOURCE 1** suggests that the Black Death was given its name because of the dark times that people were experiencing.
   b. Pneumonic plague was the most contagious form of the disease.
   c. Septicaemic plague aggressively attacked the lungs.

Apply your understanding

Communicating

6. **State** the current popular theory explaining why the plague suddenly moved beyond its endemic environment.
7. **Examine** the different names used for the Black Death. **Determine** what these imply about the understanding of disease people had and the effect it was having on their daily life.
8. **Create** a plan for a health alert poster helping people identify the symptoms of each type of plague associated with the Black Death. Your plan can include headings for each type of plague with some dots points beneath about the information you would include in your poster.
   You could also **describe** what kinds of images or diagrams you might include.

LESSON
2.16 How did the disease spread?

LEARNING INTENTION

By the end of this lesson you should be able to explain the role of trade in the spread of the Black Death and describe the distribution of the Black Death across three continents.

TUNE IN

Examine **SOURCE 1** and consider the relationship between trade and the spread of the disease.

int-4085

SOURCE 1 Permanent human settlement led to the growth of towns and expansion of trade, which allowed the Black Death to spread more easily.



In groups, discuss the following questions:

- Why did people need to trade so much?
- There are some areas which were affected by the plague earlier than others - why do you think that is?
- Why are there large areas of the world unaffected — do you believe that they did not have any plague at all during this period?

2.16.1 Settlements and trade

The early fourteenth century was a time of rapid expansion of trade between Europe, North Africa and Asia. Wherever people traded, black rats and their disease-carrying fleas followed. Disease that had previously been confined to an area in Central Asia soon spread to populations that had no immunity to its infection.

Human settlement in the fourteenth century

As we have learned, the early medieval era was a period in which many nomadic groups moved through Europe and Asia, invading new land. Through the Middle Ages, most of these nomadic groups gradually

settled in the lands they had conquered, establishing permanent villages and towns as the centres of agricultural activity. Warriors such as the Franks, Magyars and Goths became farmers, while seafaring raiders such as the Vikings and Danes came to use their ships for peaceful trade. By the fourteenth century, most of Europe, southern and eastern Asia and much of northern Africa was subject to permanent human settlement. Only in the northern and central regions of Asia and sub-Saharan Africa was the nomadic lifestyle still prevalent.

The growth of trade

Settled civilisations were quick to realise the benefits of peaceful trade. Networks of overland trade roads developed throughout Europe, the Middle East, Africa and Asia, connecting the rapidly growing towns and leading to the growth of some towns as major trading centres. These towns would regularly hold fairs to allow merchants to display and sell their wares. Major commercial **city-states** such as Genoa and Venice sent ships throughout the Mediterranean and to western and northern European ports. Trade between Europe and Asia expanded rapidly along the Silk Road, with China and many other centres through central Asia coming into regular contact with European merchants.

city-state a city that with its surrounding territory forms an independent state

2.16.2 Outbreak in Asia

Archaeological evidence indicates that outbreaks of the Black Death may have occurred in China in the 1320s and 1330s. The province of Hubei in central China is considered by many to be the location of the first major outbreak in 1334, while others suggest that inscriptions in Issyk-Kul in Kyrgyzstan which refer to plague suggest it started there. It was in Hubei that the Black Death first appeared in its most deadly form.

In the fourteenth century, China was largely ruled by the Mongols, who had strong links to Central Asia, so they may have brought the disease with them to China. At the same time, trade between China and a number of European states was increasing via access along the Silk Road. The potential was always there for the Black Death to be carried to Europe, either by European traders returning from the east or by the Central Asian Tartar warriors (Mongols), who were continuing their attacks in eastern Europe.

The siege of Caffa

In the thirteenth century, the Italian trading city of Genoa had taken control of Caffa, on the Crimean Peninsula, in modern-day Ukraine. Caffa was a major shipping port for trade throughout the Black Sea. In 1346 the Tartars attacked the city. They were supported by Genoa's bitter rivals, the Venetians, who had previously controlled Caffa. As they laid siege to the city, the Tartars began to fall sick from a serious disease and large numbers died in a very short time. Unable to maintain the siege, the Tartars began to withdraw, but before they did, they began catapulting the diseased bodies of their dead over the walls and into the city (see **SOURCE 2**). The Genoans who escaped from Caffa soon found they were carrying the Black Death. Venetian traders who had been present during the siege were also infected and both groups carried the deadly disease deep into the heart of Europe (see **SOURCE 3**).

How important was Caffa in the spread of the Black Death?

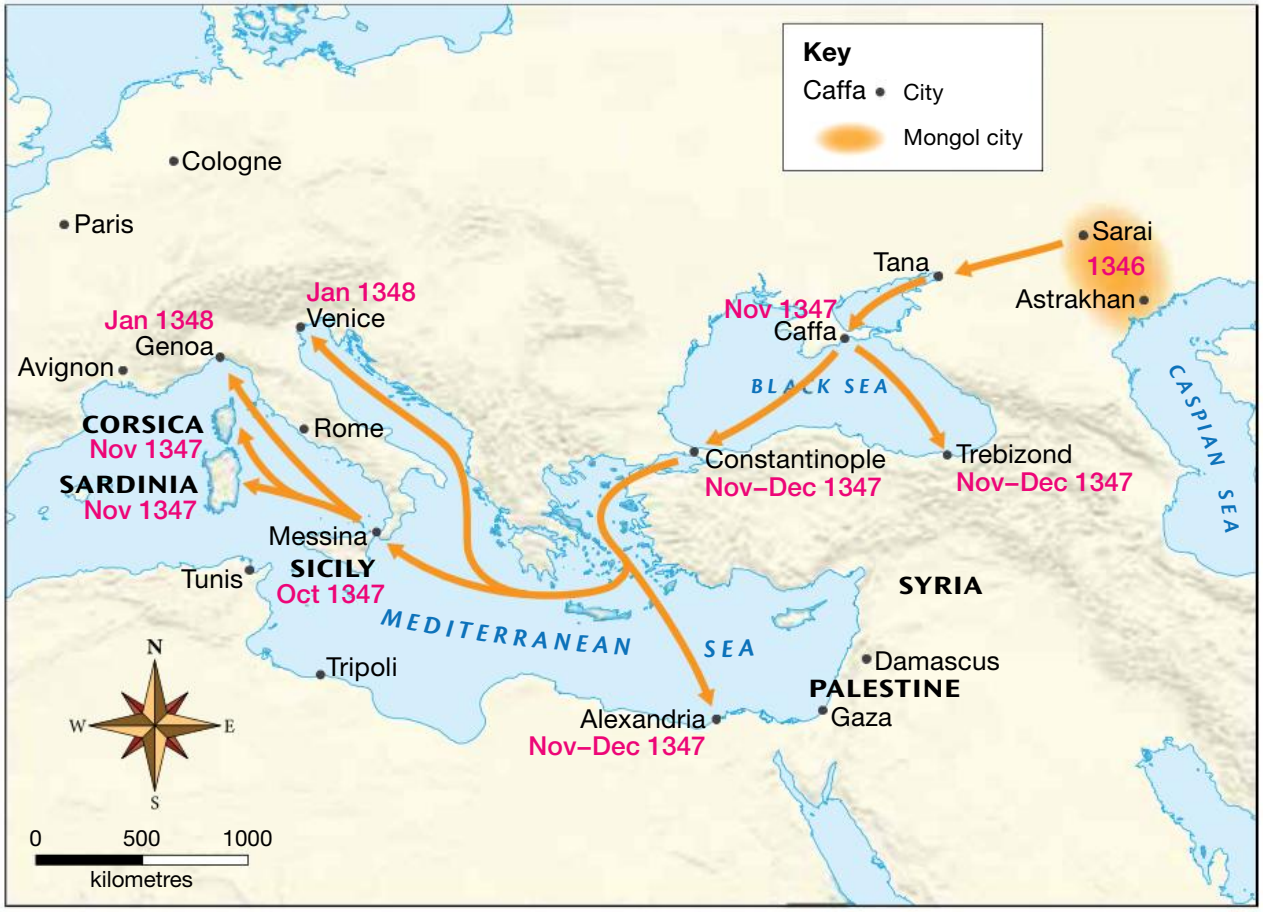
Trade links between Asia and Europe were developing so strongly during the fourteenth century that Caffa was probably not the only source of the Black Death coming to Europe. The city of Messina in Sicily first recorded the plague shortly before the siege of Caffa. Nevertheless, the rapid spread to places that engaged in trade with Caffa suggests that it was important in hastening the infection into Europe, the Middle East and North Africa. During the last few months of 1347, the disease was carried to Constantinople, the southern shores of the Black Sea, Alexandria in Egypt and the islands of Sicily, Corsica and Sardinia in the Mediterranean. Most of this spread appears to have originated in Caffa.

SOURCE 2 When the Tartars attacked Caffa, they used trebuchets like the one shown in this illustration to catapult infected bodies over the city walls.



tlvd-10579

SOURCE 3 Merchants and soldiers returning from Caffa in late 1347 soon spread the Black Death to the Middle East, North Africa and Italy.



2.16.3 The spread through the Middle East, Europe and North Africa

The Middle East

The plague appears to have come to the Middle East through several different routes. During 1347, warriors returning to Baghdad from battle at Tabriz in northern Persia (now Iran) found that they had brought the disease with them. These soldiers would have carried supplies of grain with them for food. Not only did black rats infest the grain supplies but the fleas carrying the disease would also have been able to survive on grain debris. The area that includes modern-day Iraq, as well as Syria and southern Türkiye (formerly known as Turkey), was soon ravaged by the Black Death. It is also believed that Muslim pilgrims coming to Mecca from northern India via the Persian Gulf and the Red Sea may have been transporting rats from Central Asia to the Arabian Peninsula, bringing the plague with them.

SOURCE 4 From Al-Maqrizi' s account of Alexandria

A ship arrived in Alexandria. Aboard it were thirty-two merchants and a total of three hundred people — among them traders and slaves. Nearly all of them had died. There was no one alive on the ship, save four of the traders, one slave, and about forty sailors. These [forty-five] survivors soon died in Alexandria.

The Egyptian city of Alexandria was a major trading port on the southern shores of the Mediterranean Sea. It had strong links with Constantinople, as well as with Arab cities to the east and all along the north African coast. Alexandria became infected in 1347, soon after the siege of Caffa. The Black Death then spread eastwards to Palestine and Syria in 1348, and into the Arabian Peninsula, reaching Mecca.

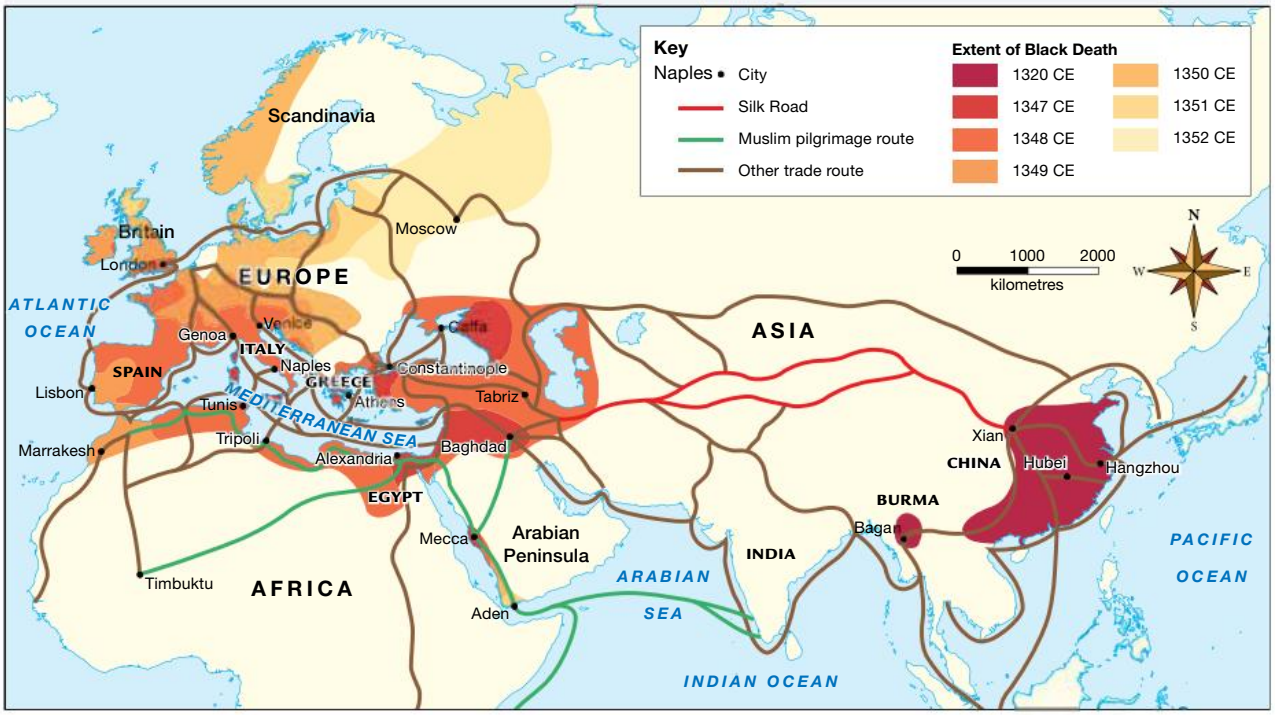
Europe

By January 1348, cases of the plague were reported in both Genoa and Venice in northern Italy. From there it quickly spread to the rest of Italy, and to southern France and Spain by the middle of that year. Within a year all of western Europe was affected and, by 1350, the Black Death had turned east again and had reached Russia. **SOURCE 5** shows how quickly the Black Death spread throughout Europe between 1348 and 1351.

int-8976

tlvd-10580

SOURCE 5 The Black Death spread like a wave across Europe between 1348 and 1351.



Source: Map drawn by Spatial Vision.

DID YOU KNOW?

Some historians believe that fleas carrying the Black Death came to Caffa on the skins of marmots. These small Central Asian mammals had no resistance to the disease, and large numbers became infected and died in the mid-1340s. Fur traders came across the dead animals, removed their hides (including the deadly fleas) and sent them along the Silk Road to cities such as Caffa.

North Africa

From Alexandria, the plague began to spread along the north African coast, and had reached Tripoli in modern-day Libya by 1348. At the about the same time, the city of Tunis appears to have been infected through its trade with Sicily, with an outbreak reported in April 1348. From Tunis, the plague spread eastwards into Libya, with that country now attacked by the plague from both east and west. In 1348, the ruler of Morocco attempted to conquer Tunis but failed, and his retreating army carried the disease back to Morocco, infecting Algeria along the way. The plague reached Marrakesh in central Morocco in 1349. It is possible that Morocco was also infected by traders from Spain, who brought the disease via the island of Majorca.

From Alexandria, the plague also spread south along the Nile valley, although it does not appear to have spread into other parts of Africa. It appears that settled areas with towns and agriculture provided the most suitable environment for black rats to thrive. The area to the south of Egypt and the Sahara was inhabited largely by nomadic tribes. Their lifestyle did not provide an environment suitable for the rats, so the plague did not spread into these parts of Africa. Ultimately, the plague lasted far longer in Egypt and Syria than other affected areas, with some estimates suggesting there were outbreaks over the course of nearly 170 years.

DID YOU KNOW?

The spread of the plague to Scandinavia is believed to have occurred through a trading ship carrying wool from England. The ship was seen floating off the Norwegian coast and the locals rowed out to examine it. They found the crew dead and decided to take the cargo of bales of wool. Little did they know the bales were full of the deadly plague-carrying fleas.

2.16 SKILL ACTIVITY: Using historical sources

Some areas of Europe, the Middle East and North Africa were hit harder than others. Use the **World map** template provided in the digital documents section of the Resources panel to chart the impact of the plague on particular regions.

First, plot each of these locations onto the map. You might like to use **SOURCE 1** to help you locate the original sites of some of these cities.

- London (62 000 deaths)
- Paris (80 000 deaths)
- Florence (70 000 deaths)
- Constantinople (no reliable data)
- Cairo (200 000 deaths)
- Alexandria (no reliable data)
- Gaza (no reliable data)
- Tunis (no reliable data)
- Baghdad (no reliable data)
- Damascus (no reliable data)
- Tabriz (300 000 deaths)

1. **Create** a timeline of when these cities were infected by the Black Death. Some have been mentioned in this lesson, but you might need to do some additional research.
2. Make a colour gradient to show their chronology (for instance, the far left of the timeline might be red and each event following moves through the spectrum of the rainbow).
3. Add these colours to your map to **illustrate** the movement of the plague across the region.
4. Use the mortality count next to each city in the list and make the point on your map bigger to **demonstrate** the size of the impact.

2.16 Exercise

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2.16 Exercise

Learning pathways

■ LEVEL 1	■ LEVEL 2	■ LEVEL 3
2, 3, 5	1, 4, 6	7, 8

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Check your understanding

1. **State** the areas of Europe, Asia and the Middle East that had become permanent human settlements by the fourteenth century.
2. The Black Death's most deadly form first appeared in the _____ province in China.
3. **Determine** if the following statements are true or false.
   a. The city of Caffa was the source of infection for Europe and North Africa.
   b. The plague lasted far longer in Egypt and Syria than other affected areas.
   c. The Egyptian city of Alexandria became infected before the seige of Caffa.
4. **Explain** why the Black Death primarily affected settled communities rather than people living a nomadic existence.
5. How did the Tartars in **SOURCE 2** spread disease into the city of Caffa?
   A. They released rats into the city
   B. The army brought it with them when they conquered the city
   C. They launched infected bodies over the walls
   D. They traded supplies for their journey which were infected

Apply your understanding

Communicating

6. a. What is a pandemic?
   b. **Explain** why it is appropriate to refer to the Black Death as a pandemic
7. **Identify** which group is thought to have brought the Black Death to China.
8. Some historians have suggested that without trade, the Black Death may never have happened. **Explain** whether or not you agree with this statement. **Justify** your opinion using evidence.

LESSON
2.17 How did people respond to the Black Death?

LEARNING INTENTION

By the end of this lesson you should be able to identify medieval treatments for the Black Death and explain why they were not effective. You should also be able to explain the religious responses to the Black Death in the Middle Ages.

TUNE IN

In the **SOURCE 1** engraving people are escaping from their village after setting the buildings on fire. The woman on the left appears to be performing the last rites for a plague-infected man.

The world was caught by surprise when COVID-19 began to spread. Why were we so unprepared for this situation if it had happened before?

1. Discuss why people may have turned to religion in the face of the Black Death.
2. Brainstorm the public response to COVID-19. How did people react to this pandemic?
3. Compare the reactions in both times. Identify any similarities and differences.

SOURCE 1 A fourteenth-century English engraving



2.17.1 Medical treatments

The strength and speed of the Black Death pandemic caught everyone in its path off guard. Medical science had no way of dealing with the outbreak and religious beliefs provided no protection against the onslaught.

Medieval doctors had no idea what had caused the Black Death and so they resorted to the traditional methods of treating illness. Bloodletting and the use of leeches were tried and failed to cure the disease. Attempts to cut into the buboes to remove the 'bad' blood often did little more than help spread the disease by exposing the doctors to the bacteria living in the blood.

SOURCE 2 A Welsh writer, who died in April 1349, described the buboes that appeared on the bodies of victims.

tlvd-10581

It is of the form of an apple, like the head of an onion, a small boil that spares no-one. Great is its seething, like a burning cinder, a grievous thing of an ashy colour. It is an ugly eruption that comes with unseemly haste. It is a grievous ornament that breaks out in a rash. The early ornaments of black death.

A common belief in Europe was that disease came from **miasma**, or the bad smells that were often found in overcrowded towns. To counter this, doctors often encouraged their patients to sniff posies of fragrant flowers, bundles of herbs or sweet-smelling oils.

miasma unpleasant smells or fumes thought to be the cause of disease in medieval times

In some cases, they even suggested that patients should breathe in the smell of human waste in the hope that one bad smell might overcome the more dangerous miasma.

Doctors themselves began dressing in long hooded robes to protect themselves from infection. They would also wear a face mask that had a long beak-like structure at the front. This beak would contain sweet smelling herbs or oils, designed to filter any evil smells that the doctor might be exposed to.

Some towns resorted to the 'cure of sound'. They would loudly ring the church bells, or fire off cannons, in the hope that the noise would frighten the plague and drive it away. In addition to prayer, spells and charms of all sorts were used in the hope of driving away the evil. These included washing the skin with vinegar and rose water, or applying a mixture of tree resin, white lily roots and dried human excrement to buboes that had been cut open.

SOURCE 3 Doctors attempted to treat the plague by draining the bad blood from the buboes in this fourteenth-century fresco.



DID YOU KNOW?

One plague prevention method involved the mixing of roasted and ground eggshells with the leaves and petals of marigold flowers, stirring this mixture with treacle into a pot of warmed ale and drinking twice a day. A similarly exotic remedy was to place a live hen near the swelling to draw out the disease and then drink a cup of your own urine twice a day.

Some effective treatments

The most successful measures taken to avoid the plague were those that involved forms of quarantine.

In fact, the word *quarantine* comes from the Italian for *forty days — quaranta giorni*. In Venice, ships suspected of being infected had to stay on an island next to the city for 40 days to ensure they weren't carrying the disease.

Islamic religious teachings encouraged people to not flee the plague, but to stay where they were to avoid infecting others. However, these methods did not completely stop the disease. For many people, simply fleeing an infected town or village was the best form of protection, although it was usually only the wealthy who could take advantage of this.

In the French city of Avignon, Pope Clement VI sat between two large fires designed to purify the air. The plague bacteria cannot survive intense heat, and fleas also dislike heat, so this method may well have been the most effective.

2.17.2 Religious responses

Followers of all religions saw the Black Death as a punishment from God. Christians, who believed they were being punished for their sins, turned to prayer and carried out pilgrimages to holy places in the hope of warding off the disease. When the plague hit Mecca in 1348, devout Muslims believed it was God's punishment for allowing non-believers to enter the city. In some places, religious authorities and town councils imposed tight restrictions on people's behaviour in the hope of keeping the plague at bay. In the French city of Tournai, men and women living together but who were not married were ordered to marry or to separate, and gambling, swearing and working on the Sabbath (a day of religious observance) were banned.

Mass deaths and burials

So large was the death toll from the Black Death that all the usual religious rituals associated with death, such as confessing one's sins to a priest before death, could rarely be observed. As many as half the priests died from the plague and many others fled, making the situation worse. In 1348, Pope Clement VI decreed that those who were infected could make their confessions to each other, including to a woman, if no priest was available. Collection of corpses took place every night, with most buried in mass graves on the outskirts of the town. Very rarely was a proper funeral service held for those who had died.

tlvd-10582

SOURCE 4 This image depicts Saint Sebastian interceding for victims of the plague.



SOURCE 5 A mass grave was discovered in Gdansk, Poland, at the former site of a hospital. The sheer number of bodies meant that they could not be buried in the usual style.



Monks and monasteries

Throughout Catholic Europe, monasteries had become important centres of learning, and many had schools attached. The monks made an important contribution to the life of the surrounding community and were often the first ones that people would turn to in times of trouble. Because the monks saw it as their duty to tend to the sick, they quickly caught the disease and numbers in the monasteries were reduced. In the period after the Black Death, many inexperienced and poorly trained monks moved into the monasteries, reducing their influence as places of learning.

The Flagellants

One religious group that responded very publicly to the spread of the plague was a group known as the Flagellants. They believed that whipping themselves with steel-tipped whips would show their willingness to be punished for their sins, and win God's favour. The Flagellants are believed to have originated in the eleventh century and had undertaken pilgrimages across Europe in the 1260s. The onset of the Black Death drew many new followers to their brotherhood, and they travelled from town to town across Europe, whipping themselves until they bled. In reality, they were probably helping to spread the disease. Many of them carried the disease in their blood, and they often brought the disease-carrying rats and fleas with them as they travelled.

SOURCE 6 A procession of Flagellants in the Netherlands in 1349



Did Islamic teachings help?

Although Islamic leaders encouraged their people to shelter in place and avoid spreading the plague, there was naturally a great deal of movement as people fled the plague or entered cities to seek new opportunities. There weren't as many outward signs of penitence, like the Christian Flagellants, because Muslims were taught that dying of the plague made them a **martyr** and allowed them to immediately ascend to heaven.

Some practices, such as communal prayers, may have only helped to spread the plague quicker. Likewise, caring for the sick in their community was one of the key principles of Islamic faith. Unlike Christian communities who shunned the sick, they were often well-cared for in the Middle East, potentially leading to greater infection but also to a higher chance of recovery.

martyr someone who dies for their faith or is recognised by their religion in death

2.17 SKILL ACTIVITY: Questioning and researching

Jewish peoples have faced discrimination throughout history. This was often because they were very focused on maintaining their community rather than embracing new ones. This led many people to mistrust them and think that if something went wrong it was easier to blame them than to actively find a solution.

1. Using the internet and a library, **research** the persecution of the Jews in medieval Europe, particular during the time of the Black Death. In particular, search for answers to the following:
   a. Why were Jews treated as outsiders?
   b. What are some examples of restrictions that were placed on Jews in different countries?
   c. **Name** at least one other incident when Jews were deliberately targeted for persecution.
2. **Create** a mind-map of ways in which Jews were persecuted in the medieval period and who was discriminating against them. You might like to colour code **Christian** and **Muslim** offenders and compare which of these groups were more tolerant of the Jews.

2.17 Exercise

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2.17 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 4, 6, 9	2, 3, 5, 10	7, 8, 11

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Check your understanding

1. **Determine** if the following statements are true or false.
   a. People used quarantine to avoid the plague.
   b. Smelling fragrant spices and herbs were used to avoid the plague.
   c. People fled plague-stricken areas to avoid the plague.
   d. The blood from buboes was ingested to avoid contracting the plague.
2. **Identify** and **explain** three 'medical' treatments that were recommended for dealing with the plague.
3. **Explain** the purpose of the costume worn by doctors during the period of the Black Death.
4. _____sat between two fires designed to _____. This probably kept him safe since _____ dislike heat.
5. Use the information in **SOURCE 2** to **create** your own description of the buboes that were symptoms of the Black Death.

Apply your understanding

Using historical sources

6. Examine **SOURCE 3**. This action would have been dangerous for the doctor because
   A. the patient might react violently to being cut.
   B. the doctor might accidentally kill the patient.
   C. the cut could attract more rats, thus spreading more disease.
   D. the infected blood might spread the disease.
7. a. **Infer** what **SOURCE 4** tells us about the importance of religion in medieval life.
   b. **Describe** how religious authorities responded to the threat of the plague.

Historical perspectives and interpretations

8. Normally, the Catholic Church allowed only priests to administer the last rites to a dying person. However, during the Black Death they allowed anyone to take final confession. **Evaluate** the effect this might have had on peoples' thoughts about the clergy.

Using historical sources

9. Refer to **SOURCE 6**. **Explain** what the Flagellants were hoping to achieve through their activities.

Communicating

10. **Describe** how the European and Middle Eastern responses to the Black Death differed.

LESSON
2.18 How did the Black Death change society?

LEARNING INTENTION

By the end of this lesson you should be able to identify the impacts of the Black Death on Europe in the Middle Ages and describe the ways society changed in the Middle Ages as a result of the Black Death.

TUNE IN

Disaster has always had an impact on daily life, either from need (people filling in vacant roles, infrastructure change or new social practices) or from a desire from populations to avoid situations such as this again.

SOURCE 1 Ibn Khaldun, who lived through the plague, wrote about the changes that he observed in societies both Christian and Islamic.

Civilization both in the East and the West was visited by a destructive plague which devastated nations and caused populations to vanish. It swallowed up many of the good things of civilization and wiped them out. It overtook the dynasties at the time of their senility, when they had reached the limit of their duration. It lessened their power and curtailed their influence. It weakened their authority. Their situation approached the point of annihilation and dissolution. Civilization decreased with the decrease of mankind. Cities and buildings were laid waste, roads and way signs were obliterated, settlements and mansions became empty, and dynasties and tribes grew weak. The entire inhabited world changed. The East, it seems, was similarly visited, though in accordance with and in proportion to [the East's more affluent] civilization.

1. Read **SOURCE 1**. Identify the ways in which the lives of average people would have been affected.
2. This author is a Muslim from Tunisia — would a medieval monk have written in the same way about this crisis? Discuss.

2.18.1 Social changes

tlvd-10583

Between 1347 and 1351, the Black Death had a brutal effect on life in Europe and the area surrounding the Mediterranean Sea. Despite all the devastation, there were also some positive changes in the following years, many of which occurred as a direct response to the horrors of the plague (see **SOURCE 2**).

SOURCE 2 As shown in this fifteenth-century illustration, the desire of doctors to find out more about the human body led to an increase in dissections, which improved knowledge of human anatomy.



Growth of medicine

The failure of medieval medicine to successfully treat the victims of the plague led to changes in the practice of medicine in the years following the Black Death. Before this time, hospitals were places where sick people were sent to be isolated. When people entered a hospital, all their possessions were disposed of because no-one expected them to survive. During the period of the Black Death, doctors began to try to cure patients placed in hospital, and this practice continued after the plague had gone. Some hospitals began to develop relationships with universities and collect libraries of medical texts. An increased emphasis on medical knowledge led to more dissections of human corpses, and so improvements in the knowledge of anatomy and surgical practices soon followed.

Sanitation and public health

In a number of places, authorities became more aware of the need to take responsibility for the health of the population. In Italian cities such as Venice and Milan, public health boards were set up to deal with the plague, and these continued after the disease had moved on. These boards gradually gained extra powers and became a valuable means of preventing the spread of illness. In London, the city council brought in regulations to clean up the city. Laws to prevent littering, the employment of street sweepers and heavy fines for dumping waste in the river were all implemented in the years following the Black Death.

Religion

The devastation of the Black Death weakened the influence of the previously all-powerful Catholic Church. The inability of religious leaders to deal with the plague through prayer and the fact that so many priests had died of the disease led to many people losing some respect for the Church. In the 1360s and 1370s, an English **theologian** John Wycliffe wrote a number of works critical of the papacy and of the role of monasteries in society. He gained a strong following among people whose recent experiences had led them to question the power and influence of the Catholic Church in society. Many of Wycliffe's followers were executed for **heresy**.

theologian a person who is considered to be an expert in religious matters

heresy opinion that challenged or differed from that of the Roman Catholic Church or the less tolerant Protestant churches

Class changes

The huge decline in the numbers of peasants and agricultural workers meant there were fewer people left to perform their tasks. This meant that peasants were able to demand higher wages. However, these demands were often resisted by those in power. Peasants and workers in various parts of Europe rose up to demand their rights in the years following the Black Death. The social and economic elite were extremely worried about the desire of those beneath them to affect change in the social hierarchy, leading to laws such as King Edward III's *Statute of Labourers* in 1350. This essentially prohibited requesting or offering wages higher than those offered pre-plague, creating a legal limit to force people to stay in their class.

SOURCE 3 The Jacquerie uprising in 1358 was an attempt by French workers to improve their conditions.



SOURCE 4 Muhammad ibn Sasra wrote about the changes he noted in his *Chronicle of Damascus*.

Men's occupations have ceased, the hearts of the rulers have become hardened, the rich have become haughty toward beggars, while the subjects perish and misfortunes increase.

In France in 1358, a group of workers called the Jacquerie rose up in revolt to try to improve their working conditions. In 1378 a group of workers in the wool industry, who were known as the *ciompi*, led a revolt in Florence where they managed to force some democratic government reforms for a brief time. In England, causes of the Peasants' Revolt of 1381 can be directly traced to Edward III's attempt to control the poorer population.

Although most rebellions and revolts were put down, the overall trend of change was undeniable. Greater proportions of the reduced population engaged in skilled trades rather than the feudalistic working of allocated land and people flocked to cities for new opportunities. This brought about the growth of a **middle class** and cemented the end of the feudal system. These things may have occurred without the Black Death's impact simply due to political unrest and the famines preceding it.

middle class a social class between the privileged nobility and the poor peasants. It typically comprised merchants and wealthier craftspeople.

DID YOU KNOW?

In some parts of Europe, kings and aristocrats were alarmed by the growth of the middle class and the increased wealth of some of the peasant class. They passed 'sumptuary laws', which regulated the type of clothing that peasants were allowed to wear. This was to prevent peasants from using their new-found wealth to begin dressing and behaving as if they were members of the upper classes.

Language

In England before the Black Death, most educated people spoke Latin or French. The death of large numbers of educated monks and other scholars meant that schools had to resort to English as the language of instruction. By the 1380s, poets such as Geoffrey Chaucer were publishing their works in what is now referred to as Middle English. Chaucer is considered by many to be the father of English literature.

2.18 SKILL ACTIVITY: Questioning and researching

The Black Death spread incredibly quickly through Medieval Europe and infected 30–60 per cent of the population.

1. **Discuss** the following with others:
   - Do you think that the Black Death would have as great an impact today as it did in medieval times?
   - How could people of the time have protected themselves better? Consider their understanding of disease and the resources available to them.
2. **Write** a brief summary of how the world is better prepared now to combat disease and infection.

2.18 Exercise

learnon

2.18 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
3, 4, 5	1, 2, 7, 8	5, 6, 9, 10

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Check your understanding

1. **Explain** how the experience of the Black Death changed the ways in which hospitals operated.
2. **Describe** an example of an action taken in London to improve sanitation and public health after the plague had moved on.

3. Many people began to lose respect for the Church after the Black Death because
   - **A.** they thought priests had caused the Black Death.
   - **B.** the *ciompi* suggested that the church was doing a bad job.
   - **C.** language began to evolve.
   - **D.** the Church couldn't do anything to stop the plague.
4. Before the Black Death, the two languages used by scholars and educated monks in England were _____ and _____.
5. What was the result of the decline in the number of peasant and agricultural workers following the Black Death?
   - **A.** There weren't enough farmers to grow food
   - **B.** Knowledge of farming was lost
   - **C.** The Peasants' Revolt of 1381
   - **D.** The growth of the middle class.
6. **Determine** how the decline in the number of peasant and agricultural workers after the Black Death gave them the strength to challenge those in power.

Apply your understanding

Using historical sources

7. a. **Describe** what is happening in **SOURCE 2**.
   b. **Identify** the differences in the way the activity in **SOURCE 2** is depicted **compared** with how it would be performed today.
8. a. **Describe** what appears to be happening in **SOURCE 3**.
   b. **Explain** why this event took place.
   c. **Recall** any places where similar uprisings took place.

Communicating

9. a. **Explain** what we mean when we refer to a 'middle class' in medieval society.
   b. **State** four examples of occupations that you think would have been carried out by middle class people during the Late Middle Ages.
10. The *ciompi* in Italy managed to gain some 'democratic' reforms in the government of their city. **Identify** an example of what you think might be a 'democratic' reform.

LESSON
2.19 INQUIRY: Tackling a problem from different angles

LEARNING INTENTION

By the end of this lesson you should be able to compare the effects of the Black Death on two diverse societies and use historical sources to build an effective discussion of the past.

Background

The Black Death was a plague pandemic that affected Asia, Europe and North Africa in the fourteenth century. The disease infected almost everyone who came into contact with it and resulted in a huge death toll and social, cultural and economic upheaval. During this period, the East and West were directly connected by not just trade, but also pilgrimage and conflict.

Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

Inquiry steps

Step 1: Questioning and researching

In order to truly understand how different cultures approached containing and managing the Black Death, you need to have a grounded place to examine. Use the list below or pick from the **SOURCE 3** map in lesson 2.16 to find two cities which, when compared, will give you an idea of how the local population reacted.

West	East or near-East
London	Constantinople
Florence	Cairo
Paris	Alexandria

Step 2: Using historical sources

Use the information in this topic and do some additional **research**. What was the reaction to the plague in the cities or their surrounding regions? Did religion play a part? Did locals listen to the guidance of their leaders?

Primary sources are a great way to get an insight, but secondary sources have normally brought together all the information you'll need into one place. Try to get a mixture of both.

Step 3: Historical perspectives and interpretations

Compare the reactions to the Black Death in one city to another in a visual way. This could mean

- a Venn diagram
- a mind-map
- comparative population/death toll graphs.

Step 4: Communicating

Create a response to the topic, *Which culture or region responded the most effectively to the Black Death crisis?*

This could be tackled in several ways:

- write a short response exploring your opinion
- create a comprehensive infographic showing the different approaches
- record a vlog discussing the positives and negatives of each approach.

Whatever mode you choose to apply to this task, you must use your research and the historical sources you have gathered to support your contention.

Complete your self-assessment using the **Inquiry rubric** or access the 2.19 exercise set to complete it online.

on Resources

Digital document Inquiry rubric (doc-39428)

LESSON
2.20 Review

Hey students! Now that it's time to revise this topic, go online to:

Review your results

Watch teacher-led videos

Practise questions with immediate feedback

Find all this and MORE in jacPLUS



2.20.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

2.2 Examining the evidence

- Much of what we know about medieval Europe is from different types of evidence that provide us with information.
- Sources from medieval Europe include artwork, written sources and artefacts, monuments and buildings.

2.3 What are the key features of the feudal system?

- Feudalism, a method of ordering society, was expanded and developed over the period that Charlemagne ruled in Europe.
- The system was based on the king giving land to the wealthier nobles and lords in return for their loyalty and taxes.
- With the land, the nobles and lords gained power over the peasants who lived and worked there, which gave them an income.
- Below the nobles were the knights, who were their sub-tenants. In return for land, they gave loyalty to the lord, fought for him and paid tax they earned from their peasants.
- The feudal system was an effective way to maintain social order.
- Towards the end of the Middle Ages things began to change in relation to the feudal system, as the towns and cities grew.

2.4 How was life for people in the feudal system?

- Quality of life in the Middle Ages depended largely on what position a person held in the feudal system. The nobility, knights and barons all lived reasonably comfortable lives with privileges. The clergy generally led simple and scholarly lives. Peasants, though, had few rights and life was very hard.
- Men did all the farm work, which was mainly physical labour.
- Most peasants had no formal education.
- Women had few rights, even those of higher classes. Their purpose was to provide children. Most peasant women also did farm labour work such as food preparation, looking after livestock and weaving.
- Children were also regarded as sources of labour as soon as they were old enough to help.

2.5 In what ways did medieval people impact their environment?

- Medieval people were limited to the resources in their local environments.
- Agriculture in the local feudal manor was the foundation of their society.
- Forests were protected for hundreds of years by William of Normanby's laws which forbade ordinary people from hunting in them or taking wood.
- Every village had a mill that used the renewable energy source of water to grind wheat into flour, as bread was the main source of food for most.

2.6 What were the defence features of the medieval castle?

- In medieval times, castles were built to protect the monarch or lord's lands, as well as for them to live in.
- Early castles were of motte and bailey design: a keep built on a high mound, surrounded by a ditch or moat. The high position gave the people in the keep the advantage when they were being attacked.
- During the Middle Ages castle designs became more and more sophisticated, with heavy concentric walls, battlements and drawbridges.
- Within the castle there were troop quarters, stables, armouries, living quarters, kitchens and dining halls.
- By the end of the Middle Ages, feudalism was declining, castles were no longer effective as a show of strength and weaponry had developed so that older weapons no longer stood up to an attacking army.

2.7 How was warfare conducted in the Middle Ages?

- Medieval warfare was a clash of arms for power and wealth.
- Armies would fight hand-to-hand in tightly grouped formation, using weapons such as swords, pikes, axes and maces.
- Archers with crossbows and longbows would also be used and mounted knights would try to break up the enemy's formations.
- Missiles were used to try to break the walls of a town or castle, with trebuchets and early cannons hurling rocks and other materials at the enemy.
- Two important developments in the Middle Ages that allowed for the appearance of the mounted warrior, or the knight, in battle were the stirrup and a heavier breed of horse that could carry a man in full armour.
- Knights tended to be wealthy, because it was expensive to breed warhorses and own good armour.
- Over the few hundred years that knighthood was at its peak, the armour developed from chain mail to whole suits of armour. Weapons were heavy iron swords, maces, battle axes and lances.

2.8 Why did towns begin to grow in this period?

- As trade routes became more established and Europe became more settled and peaceful, a network of towns sprang up, giving rise to a new social group, the merchants.
- Merchants travelled to distant markets in Asia, the Middle East and Africa, and returned with goods and ideas to be exchanged.
- The new merchant class became quite powerful.
- As the demand for skilled workers grew, young people were trained in particular trades in apprenticeships.
- The standard of work by tradesmen was overseen by a guild, which was an association formed to protect the trade's own interests. The merchant guilds become quite powerful, controlling trading ports and routes for themselves.

2.9 How were people punished for committing crimes in medieval times?

- As there was no police force to protect communities in medieval Europe, most people had to take on that responsibility for their communities. In order to dispense justice, lords and later volunteer constables and watchmen, were relied upon.
- An accusation of disturbing the peace was a serious crime in medieval times. Punishments usually took the form of being out in stocks or the pillory. Villagers or townsfolk would be encouraged to shame the offender.
- Trials by jury were commonplace and all villagers had to attend several times a year. The Lord's Steward oversaw the court and 12 village men made up the jury. The jury would decide upon the fate of the accused.
- The Church was the most powerful institution in medieval Europe and had considerable control over the population. Serious crimes, such as blasphemy and heresy, were dealt with swiftly and punished by the Church.
- Treason was an especially serious crime in medieval Europe. Plotting against the monarch, conspiring with foreigners, and leading a rebellion are some key examples of treason. To maintain power, Kings and Queens had to punish their enemies, as well as warn potential enemies against treasonous acts. Punishments were severe, yet the public was encouraged to attend the executions.

2.10 What was the power and authority of the Church in medieval times?

- The Roman Catholic Church was the one common institution found across western Europe and everyone was expected to live by Church law and keep its rituals and customs.
- As God's representative on Earth, the Pope was a very powerful figure and ruled with the upper class of clergy, his cardinals, archbishops and bishops.
- The lower clergy took the Pope's messages to the people in the villages through their sermons.
- Every village had a parish church built with peasant labour, which was the centre of their community. The more powerful churches, the seats of the bishops, were called cathedrals.
- By early medieval times, the Pope was the head of the Christian Church and communities of religious men had formed, called monasteries. These religious men devoted their lives to God and played important roles in the local communities, such as running schools and hospitals.

2.11 Who controlled the power of the written word?

- Parish priests, monks, nuns and friars played an important role in spreading Christianity to even the most remote village.
- Monks lived in small closed communities called monasteries and nuns lived in similar communities called convents.
- The religious orders such as monks produced the written texts by hand in a very labour-intensive process.
- Manuscripts were produced by hand, made from vellum and written on with quills.
- Illuminations are the elaborate illustrations that accompanied the manuscripts.

2.12 INQUIRY: Was King Arthur real?

- The myth of King Arthur has been strong for centuries.
- Many people were convinced that he was a real Saxon King in early medieval times.
- Twenty-first century historians generally agree that the evidence points to King Arthur being a myth, not a historical figure.

2.13 INQUIRY: The Magna Carta

- The *Magna Carta* is a royal charter of rights that was signed by King John of England and his barons in 1215
- It was designed to bring peace between King John and his barons by ensuring that the monarchs of England were bound by the law and could not just make their own laws.
- It had a significant impact on a number of different groups in society.

2.14 What were the changing relations between Islam, Christianity and Judaism in the Middle Ages?

- Many people during the Middle Ages were illiterate and therefore relied on priests for education and guidance.
- In Medieval Europe, medicine took second place to religion. Priests were considered more important than doctors.
- Most people believed that prayer was the most effective way of dealing with serious illness.

2.15 What was the Black Death?

- The Black Death was a disease that devastated Europe, Asia and North Africa during the fourteenth century, particularly between 1347 and 1351.
- The Black Death was a combination of three related diseases — bubonic plague, pulmonary/pneumonic plague and septicaemic plague.
- A bacterium known by the scientific name of *Yersinia pestis* was understood to be the cause of the Black Death. These bacteria were transmitted by a number of different types of flea found living on the bodies of black rats.

2.16 How did the disease spread?

- The growth of trade played an important part in the spread of disease. The Black Death was more easily able to spread between settlements along trade routes such as the Silk Road.
- It is believed that the Black Death first appeared in its deadly form in China and that it was carried there by the Mongols.
- The potential was always there for the Black Death to be carried to Europe, either by European traders returning from the east or by the Central Asian Tartar warriors (Mongols), who were continuing their attacks in eastern Europe.

2.17 How did people respond to the Black Death?

- Medieval doctors had no idea what had caused the Black Death and so they resorted to the traditional methods of treating illness.
- Some people believed that the disease came from miasma (unpleasant smells or fumes), while others saw the Black Death as a punishment from God.

2.18 How did the Black Death change society?

- Following the Black Death and the failure of medieval medicine to treat the sick, there was a greater focus on medical research. An increased emphasis on medical knowledge led to more dissections of human corpses and improvements in surgical practices.
- The Black Death weakened the Catholic Church — many people lost faith and respect after so many people, including priests, had died from the plague.
- The death of so many educated monks and scholars meant that schools had to teach in English rather than Latin or French.

2.19 INQUIRY: Tackling a problem from different angles

- Different places reacted to the Black Death in different ways
- When researching a topic a mix of primary and secondary sources is ideal.

2.20.2 Key terms

archbishop head bishop

artillery large mounted firearms such as the cannon

bishop clergyman who governs a diocese, a large church district

blasphemy any words or actions that were considered disrespectful or insulting towards God or religion. This included things like cursing, speaking rudely about religious figures or religion, or denying the existence of God. It was considered a serious crime and was pushed by fines, imprisonment, or even death.

bubonic plague the commonest form of plague in humans, characterized by fever, delirium, and the formation of buboes

cardinal leading clergyman who is a member of the Pope's Council, or Sacred College, and who has the power to elect the Pope from among his own group

cathedral main church of a diocese; contains the bishop's throne

chronicle a record of events as they happened, usually written by a person who was present at the time they occurred

city-state a city that with its surrounding territory forms an independent state

clergy officials of the Church

concentric having a common centre

curtain wall outer wall surrounding an inner wall in a castle

dormant inactive or sleeping, with the potential to become active at any time

Duke in England, a lord whose status placed him just below that of a prince; elsewhere in Europe, a ruler of a small state called a duchy or dukedom

edict order issued by a monarch or other person in authority

endemic normally and regularly found in a particular location or environment

fallow when a field was left for a period without being sown in order to restore its fertility through the nutrients in the soil
feudalism social order in medieval Europe
fief a gift, usually land, given by a lord to a vassal (or tenant) in exchange for loyalty and service
franklin in the fourteenth century, one who was a landowner but not a member of the nobility
Franks people of a group of a Germanic nation who ruled in western Europe from the sixth century CE
geld a form of land tax
guild an association of people engaged in a particular trade or craft for the mutual benefit of its members
heresy opinion that challenged or differed from that of the Roman Catholic Church or the less tolerant Protestant churches
heretic one who rejects the teachings of the Church
homage pledging duties and loyalty to someone of superior rank in the feudal system
illumination hand-painted illustration in a medieval book
keep innermost tower of a castle
lance a long wooden shaft with steel point used as a weapon by mounted knights
lords feudal term for aristocracy of big landowners
lymph node lump of tissue that helps the body fight infection; part of the immune system
mace iron-headed club
martyr someone who dies for their faith or is recognised by their religion in death
mass Roman Catholic Church service
miasma unpleasant smells or fumes thought to be the cause of disease in medieval times
middle class a social class between the privileged nobility and the poor peasants. It typically comprised merchants and wealthier craftspeople.
moat water-filled defensive ditch surrounding a castle
Moor a member of a north-west African Muslim people of mixed Berber and Arab descent
motte a mound upon which a castle was built
Mundrum fine a penalty imposed by William the Conqueror in 1070 for the killing of a Norman. The fine was paid by the guilty person or their community to the king or lord of the person killed, and the amount paid varied according to the social status of the victim.
Normandy now a French province, in the Middle Ages it was a dukedom in northern France
nun member of a closed community of women living under religious vows and rules
pagan someone who is not a Christian, Jew or Muslim, but who worships many gods
palisade tall fence made of pointed timber stakes driven into the ground
pandemic widespread across a large region
persecution oppression or punishment of a person or group of people, usually because of their religion
phalanx body of foot soldiers in close battle order
pike long spear-like weapon carried by foot soldiers
pneumonic plague a severe lung infection caused by the bacterium *Yersinia pestis*
reeve a magistrate administering law in a village
regurgitate to vomit, or bring up the contents of the stomach or throat
sacrament sacred Christian ceremony; in the Catholic Church, for example, baptism and marriage
sanctuary a legal concept that offered individuals protection if they were seeking refuge from persecution or punishment. The right of sanctuary was based on the idea that churches and other religious institutions were sacred and provided a safe place for those in need of protection. They were granted temporary protection from arrest, allowing them time to negotiate a settlement for their crime, or seek a pardon.
septicaemic plague a plague wherein bacteria multiply in the blood
sermon moral or religious lecture delivered by a priest
stirrup foot supports suspended from a saddle by straps
thatch straw used for making roofs
theologian a person who is considered to be an expert in religious matters
tithe barn a barn where peasants' produce is stored as a form of taxation
vernacular everyday language spoken by a particular group or class

2.20.3 Reflection

Complete the following to reflect on your learning.

Revisit the inquiry questions posed in the Overview:

What were the key features of feudalism and its impact on medieval Europe?

1. Now that you have completed this topic, what is your view on the question? Discuss with a partner. Has your learning in this topic changed your view? If so, how?
2. Write a paragraph in response to the inquiry question, outlining your views.

on Resources

eWorkbooks Customisable worksheets for this topic (ewbk-10656)
Reflection (ewbk-10658)
Crossword (ewbk-11457)

Interactivity Medieval Europe crossword (int-7586)

2.20 Review exercise

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Multiple choice

1. Which of the following was not a weapon used by knights?
   - A. Mace
   - B. Lance
   - C. Cannon
   - D. Sword
2. Which of the Roman Catholic clergy was the most powerful?
   - A. Cardinal
   - B. Priest
   - C. Bishop
   - D. Monk
3. The main work of early Christian missionaries was to:
   - A. Persecute non-Christians
   - B. Spread the word of Christianity
   - C. Eliminate the snakes in Ireland
   - D. Travel across Europe to primitive tribes
4. Where did the plague most likely originate?
   - A. Australia
   - B. Asia
   - C. Europe
   - D. Africa
5. The idea of ‘quarantine’ comes from which Italian phrase?
   - A. Separated patients
   - B. Forty days
   - C. God’s will
   - D. It wasn’t an Italian phrase, it originated in Spain.
6. What is the name of the bacterium considered responsible for the Black Death pandemic?
   - A. *Yersinia pestis*
   - B. *Bacillus anthracis*
   - C. *Bacterium yersinius*
   - D. None of the above
7. What is an illumination?
   - A. A light in the altar of a church
   - B. A decorated holy manuscript
   - C. A new idea
   - D. A stained glass window
8. Which of the following was not a social group in the feudal system in medieval Europe?
   - A. Clergy
   - B. Lords
   - C. Peasants
   - D. Pagans

9. Which of the following statements *does not* describe why historians once called the medieval period 'the Dark Ages'?
   - **A.** They believed that ignorance triumphed over learning and order.
   - **B.** There was a long period of coldness and darkness causing famine.
   - **C.** It was a period of great instability.
   - **D.** Many Roman architectural structures were destroyed or abandoned.
10. Which of the following was not a defence feature of a medieval castle?
   - **A.** Brewery
   - **B.** Moat
   - **C.** Palisades
   - **D.** Bailey

Short answer

Communicating

11. **Explain** the main reason for the spread of the Black Death.
12. **Describe** the main social groups in the feudal system.

Historical perspectives and interpretations

13. **Discuss** the importance of the peasant class in supporting the feudal system.

Communicating

14. a. **State** the purpose of castles.
    b. **Identify** at least two defence features of castles and **explain** how they worked against enemies.
15. Using at least two examples, **describe** the power of the Church in medieval Europe.

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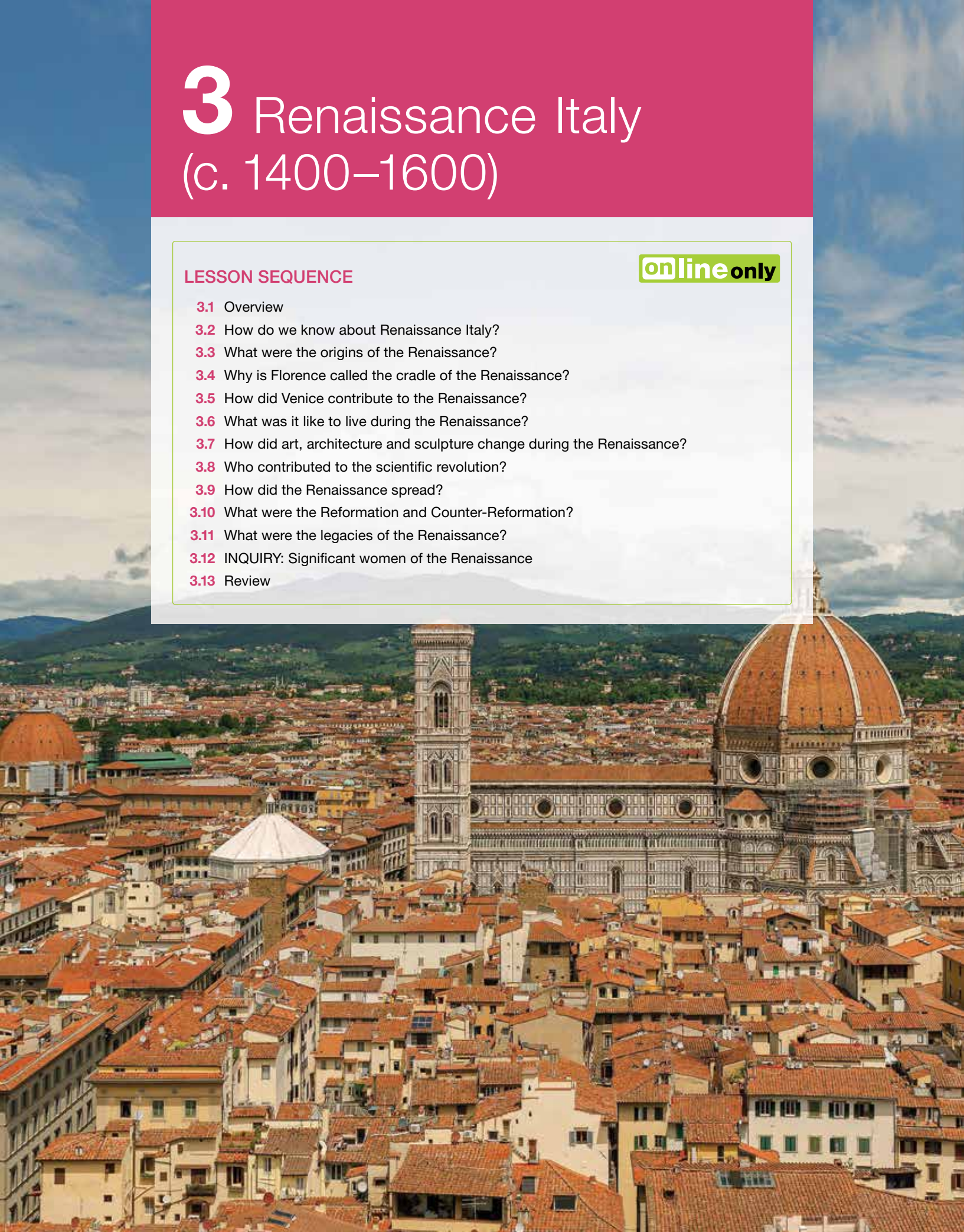


3 Renaissance Italy (c. 1400–1600)

LESSON SEQUENCE

online only

3.1 Overview
3.2 How do we know about Renaissance Italy?
3.3 What were the origins of the Renaissance?
3.4 Why is Florence called the cradle of the Renaissance?
3.5 How did Venice contribute to the Renaissance?
3.6 What was it like to live during the Renaissance?
3.7 How did art, architecture and sculpture change during the Renaissance?
3.8 Who contributed to the scientific revolution?
3.9 How did the Renaissance spread?
3.10 What were the Reformation and Counter-Reformation?
3.11 What were the legacies of the Renaissance?
3.12 INQUIRY: Significant women of the Renaissance
3.13 Review



LESSON
3.1 Overview

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How did societies change during the Renaissance?

How have individuals, groups and ideas from the Renaissance influenced the modern world?

3.1.1 Introduction

The term *Renaissance* has been used to describe great changes in art, science and learning that took place in Italy during the fifteenth and sixteenth century. These changes began in Italy and spread throughout Europe.

Just like in modern times, during the Renaissance people struggled with responding to people who had different beliefs or culture from the mainstream and it was a period of great change in culture, science and technology. Some people were very enthusiastic about these changes. Others felt that the changes offended their beliefs and values. For example, in the modern world innovations in gene technology have caused us to reconsider our ideas about the sanctity of life. In Renaissance times, Copernicus's models of the solar system challenged existing ideas of people's central place in the universe.

SOURCE 1 *The Wedding at Cana* by Paolo Veronese was commissioned by the monks of San Giorgio. The commission required that the work be large enough to fill the entire refectory wall. The work is based on the biblical story of Jesus' first miracle of turning water into wine.



on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10576)

Video eLesson Renaissance Italy (eles-1826)

int-8968

SOURCE 2 A timeline of the Renaissance

CE

1400

1409
The council at Pisa elects a new Pope, Alexander V, bringing the total to three.

1417–1436
Brunelleschi creates the dome of Florence Cathedral.



1450

1445
Johannes Gutenberg produces the first European book on a printing press using moveable type.



1492
Christopher Columbus sails to the Americas.
Leonardo da Vinci designs a flying machine.



1500

1501
Michelangelo begins work on his great statue *David*.



1517
Martin Luther begins the Protestant Reformation.

1519
Ferdinand Magellan begins his voyage around the world.

1531–1532
The Church of England breaks away from the Roman Catholic Church.

1543
Nicolaus Copernicus publishes the first book showing that the Earth is not the centre of the universe.

1550

1545
The Council of Trent established the decrees of the Counter-Revolution.

1589–1613
William Shakespeare creates most of his known work.



1590
The dome of St Peter's is completed.

1600

1606
Dutch sailors first land in Australia.

1632
Galileo Galilei publishes his Dialogues on the solar system.



1650

CE

LESSON
3.2 How do we know about Renaissance Italy?

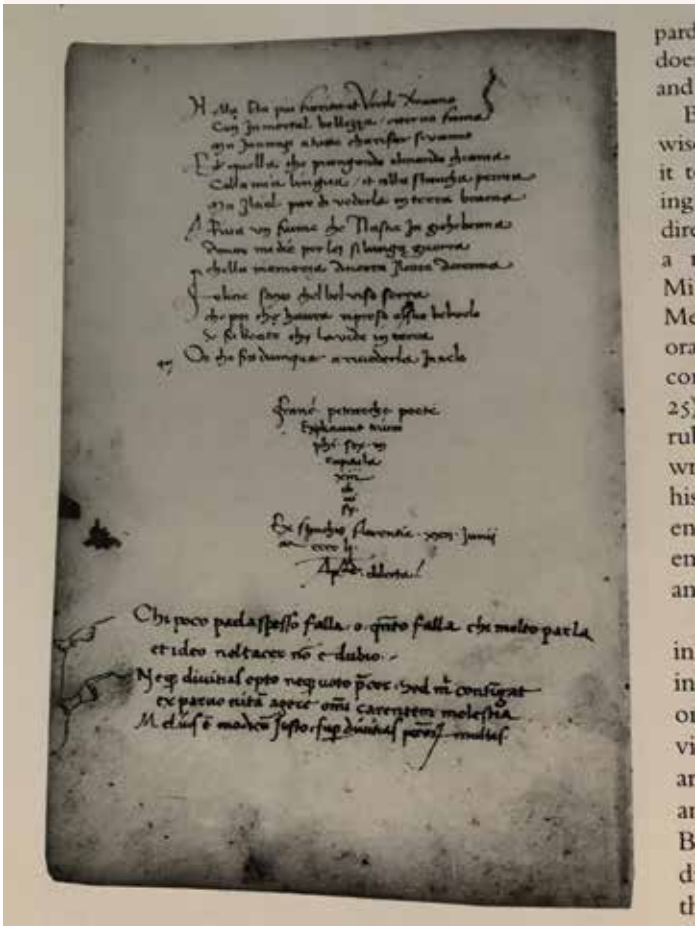
LEARNING INTENTION

By the end of this lesson you should be able to identify a range of sources from the Renaissance and describe their usefulness in understanding the period. You should be aware that different sources contain different points of view. You should also be able to define the period of history called 'The Renaissance' and identify changes associated with the period.

TUNE IN

Renaissance individuals were meticulous diary keepers. In addition to diaries, literate people from merchants to soap-makers kept scrap books or *zibaldoni* in which they carefully recorded snippets of advice, excerpts of texts and news of the day. These books could take years to complete and were intended to be guides for younger generations. Giuliano di Giovanni de'Bardi wrote in the front of his book: 'O you who read me, please don't mislay me, for I am the guide and companion of he who copied me'.

SOURCE 1 Manuscript of soap-maker Antonio di Guido Berti which was written over a two-year period.



1. What kinds of information do you think historians might discover in these diaries?
2. How do you record your experiences?
3. How might the information you save about your life compare to people living during the Renaissance?

3.2.1 How do we know about the Renaissance era?

The term *Renaissance* comes from the old French term *renaistre* meaning 'rebirth' and was first used in 1860 by Swiss historian Jacob Burkhardt to describe the renewed interest in the ideas of ancient Greece and Rome during the fifteenth century in Italy.

3.2.2 What was the Renaissance?

During the Renaissance the study of classical texts and artefacts combined with innovation to create a period of great cultural change. It was a period of cultural expression and renewed intellectual curiosity that challenged some existing beliefs and values, particularly in religion and politics. A new movement called Humanism stressed the dignity of human beings and the importance of reason and inquiry in learning.

The writing of the time suggests a belief that they were part of a new direction in art and literature. Italian poet and scholar Francesco Petrarch (1304–1374) rejected the medieval era as a period of 'darkness'. The idea of rebirth was used by the art historian Giorgio Vasari (1511–1574), who claimed in his *Lives of the Most Excellent Painters, Sculptors and Architects* (1550) that art had been 'reborn' in Italy in about 1250 and had reached maturity in Italy in the sixteenth century.

With the benefit of historical perspective, historians have argued that the social changes and cultural expression of the Renaissance developed from trends formed during the medieval period. Contact with other societies brought new ideas to Europe. The Crusades of the eleventh century brought Europeans into contact with exotic goods, such as spices from the East, and classical texts from Greece and Rome that had been preserved by the Byzantine and Arab civilisations. Several universities were established in the medieval era continuing the study of ancient texts, including Bologna in 1088, Oxford in 1096, Cambridge in 1209, Padua in 1222 and Naples in 1224. Many individuals who contributed to the changes associated with the Renaissance studied at these universities.

SOURCE 2 A view of the city of modern-day Florence, Italy. Filippo Brunelleschi's great fifteenth-century dome of the Cathedral of Santa Maria del Fiore towers above the city.



3.2.3 Primary sources

A great many sources of information survive from the Renaissance that enable students to understand the period. A few examples are:

- maps and diaries of travellers who explored new areas previously unknown to Europeans, including *The Travels of Marco Polo* (c. 1350)
- histories of the Renaissance period, including Vasari's history of art *Lives of the Most Excellent Painters, Sculptors and Architects* (1550) and political histories of Florence by Bruni, Guicciardini and Machiavelli
- collections of letters that have survived, including the letters of early humanist Petrarch, the letters of artist Michelangelo and letters written by women such as the collections of Isabella d'Este and Nanini Medici
- the business accounts of merchants in cities such as Florence, Venice and Genoa
- wills written by various individuals, including women and the lower classes
- the contents of libraries, including those established by Cosimo de' Medici and Federico of Urbino
- the preserved diaries of many careful diary writers including Marino Sanudo, Buonaccorso Pitti, Gregorio Dati and Marco Parenti
- books written during the Renaissance, including *The Prince* (1513) by Niccolo Machiavelli and the works of William Shakespeare (1564–1616)
- some of the writing of Martin Luther (1483–1546) that was printed on a press
- the music of composers including Giovanni Palestrina (1525–1549)
- the architecture, sculpture and art of the Renaissance, including the work of Brunelleschi, Leonardo, Michelangelo and Titian
- objects, such as the instruments used by Galileo to study the planets.

SOURCE 3 The Ospedale degli Innocenti (Hospital of the Innocents), built by Filippo Brunelleschi in 1419 as an orphanage, was commissioned by the Silk Guild of Florence. It is considered an excellent example of Renaissance architecture for its use of symmetry, proportion and columns.



3.2 SKILL ACTIVITY: Using historical sources

SOURCE 4 *The Merchant of Prato* by Iris Origo

'Your letter was placed in my hand when we were at table, and Tessa my wife was there; and I vow, my delight and amusement caused me to change countenance [expression], so that my wife was consumed with curiosity to know the subject of what I read.'

Letter of Ser Lapo Mazzei, writing to the wife of his friend, Margherita Datini, who Mazzei taught to read and write when she was over thirty.

Analysing sources

origin, motive, content and context, intended audience, perspective, reliability, usefulness/significance

Origin: letter of Ser Lapo Mazzei to Margherita Datini

Intended audience: Margherita Datini

Content and context: Having taught Margherita to read and write, Mazzei was eager to be updated on her progress through regular content.

Perspective: Not only does Mazzei indicate that he is pleased with Margherita's writing he takes care to tell her that he finds her letters entertaining.

Reliability: This is a highly personal communication, and we cannot conclude from it that large numbers of women in the Renaissance were taught to read. However, as this communication was intended to be private Mazzei had no reason to invent his perspective.

Significance: This letter is evidence of a Renaissance woman, Margherita, a wife of a merchant, who is taught to read and write. It is also clear that she shared regular correspondence with her teacher Mazzei, who was a business associate and friend of her husband Francesco.

SOURCE 5 Diary of Ser Lapo Mazzei written in 1400 recording the death of his mother.

'On the 27th, when I visited her, she was lifted up and brought to the fireside to sup [eat] with me, when suddenly crying out, "'Oh, God, help me!" she drew two long breaths, and gave up the ghost in my arms . . . she departed in peace, and left me, ungrateful and weak as I am, most disconsolate. For during her sickness, not thinking her near death, I was not humble and courteous as I would have wished to be. Had I but slept and talked beside her for a single night and comforted that poor little old body and persuaded that tired spirit to depart gladly, towards God, our home.'

1. a. **Origin**: record the source details.
   b. **Motive/intended audience**: why was this source created? Would the author have intended for the source to be read by others?
   c. **Content and context**: describe the event recorded in Mazzei's diary entry.
   d. **Perspective**: analyse Mazzei's feelings about this event. Use short quotes from his diary to support your points.
   e. **Reliability**: Mazzei's mother is described in the diary entry. Is it possible for readers to understand her perspective from the information in the source? Provide reasons for your answer.
2. Use Trove or Google Scholar to locate another example of a Renaissance diary. Published diary authors include Marino Sanudo, Priuli, Buonaccorso Pitti, Gregorio Dati, Francesco Datini and Marco Parenti. Having found a diary extract, **determine** the following: origin, motive, content and context, intended audience, perspective, reliability, and usefulness/significance.

3.2. Exercise

learnon

3.2 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 5, 6	7, 8, 9, 10

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Check your understanding

1. Jacob Burkhardt used the old **Latin** / **French** / **German** term *renaistre* in 1860, which means '**artistic** / **new** / **rebirth**' and described fifteenth-century Italy as the Renaissance because he regarded this as a time when the ideas and talents of Ancient **Greece** and **Rome** / **China** / **Italy**.
2. **Match** each of the below universities with the date they were opened. Place the corresponding letter into the answer column.

Oxford		**a.** 1088
Naples		**b.** 1222
Bologna		**c.** 1224
Padua		**d.** 1096
Cambridge		**e.** 1209

3. There is evidence which suggests that the culture of the Ancient Greek and Romans had not disappeared during the medieval period. True or false?
4. Which of the below outline the idea of humanism? **Select** all that apply.
   - **A.** Humanism encouraged people to follow the Church's teaching on all matters.
   - **B.** Humanism focused on the dignity of people.
   - **C.** Humanism was an unsuccessful attempt to start a new religion.
   - **D.** Humanism encouraged people to use reason and their own observations to draw conclusions and gain knowledge.
   - **E.** Humanism focused on gaining wealth and status.
5. **Describe** the evidence which suggests that the culture of the Ancient Greeks and Romans had not disappeared during the medieval period.

Apply your understanding

Using historical sources

6. **Explain** the changes that occurred during the Renaissance.
7. Select two primary sources that survived from the Renaissance. **Develop** two questions for each source. Identify whose perspective is likely to be presented in each source.
8. **Examine SOURCE 2**. What does the scale and style of the cathedral reveal about the society which built it?
9. **Investigate SOURCE 3**. **Create** a table and record your impressions of the building. Use the headings 'See', 'Think', 'Wonder'.
   - What do you see in the image?
   - What do you think about what you can see?
   - What do you wonder about the image?

Historical perspectives and interpretations

10. **Identify** any evidence that the ideas of the Renaissance were a continuation from the medieval period.

LESSON
3.3 What were the origins of the Renaissance?

LEARNING INTENTION

By the end of this lesson you should be able to identify the factors which contributed to the beginning of the Renaissance in Italy.

TUNE IN

In the fifteenth century, Italy was made up of several separate states that were not unified until the late nineteenth century.

SOURCE 1 A map of Italy in 1494.



Source: Spatial Vision

Examine **SOURCE 1** and record your observations about the city-states of Italy. Pay attention to the names of the city-states. Review your notes at the end of the lesson.

3.3.1 The growth of city-states

The Renaissance thrived in Italy from the fifteenth century, especially in city-states such as Florence, Genoa and Venice whose industry and trade increased during the period. These cities were at the crossroads of trade routes linking Europe, the Middle East and Asia. This central position allowed for the exchange of ideas and products, and interaction between people. From Italy, the Renaissance spread to northern Europe, especially after 1445 when books started to be printed in Europe.

During the Renaissance, Italy was made up of independent city-states (see **SOURCE 1**). A city-state is an independent urban centre and the surrounding countryside, including small towns, that was governed by its own laws and political system.

City-states were run by a variety of political systems, including **republics** such as Florence, Venice, Lucca and Siena in which political power was shared between eligible citizens. Others were controlled by single **hereditary** rulers, such as Naples, which was ruled by a king, and Milan, which was ruled by a duke. The city-states were often at war with each other and competed for status. For example, Leonardo Bruni wrote glowingly of his adopted home Florence in **SOURCE 2**.

SOURCE 2 From Leonardo Bruni, Panegyric to the city of Florence, 1403–04

What about the splendour of the architecture, the buildings, the cleanliness, the wealth, the great population, the healthfulness, and pleasantness of the site? What more can a city desire? Nothing at all.

3.3.2 The rise of the patron

Historians believe that the Renaissance began in Italy in the 1300s with a renewed interest in the ideas of classical Greece and Rome. Francesco Petrarch was one of the first Italian thinkers to translate these works, including the works of Cicero and Livy. Greek scholars, including Manuel Chrysoloras, moved to Italy bringing with them ancient manuscripts and teaching Greek in the schools and universities of Italy.

Growing trade with the East and new industries made a new group of medieval men wealthy. These businessmen, who made their money in trade, banking and cloth production, wanted to demonstrate their education and values, and beautify their city-states. To do this they commissioned art, architecture, literature and music.

The desire to imitate and surpass the ancient civilisations of Greece and Rome led to developments in art, architecture, literature, music, **philosophy**, education and science. These **patrons** had a significant role in the development and spread of the ideas of the Renaissance. Artists and intellectuals often moved from place to place in search of a patron, spreading the ideas of the Renaissance across Italy and later into Europe.

republic a state in which the head of the government is not a ruler who inherits his position as might a king or emperor

hereditary passed from parent to a child

philosophy the study of the principles underlying all knowledge

patron a person or institution who pays for a work to be created

3.3.3 Humanism

The social and cultural developments of the Renaissance were greatly influenced by the ideas of Humanism. Humanism comes from the Latin word *humanitas*, however, its meaning is broader than the translation 'humanity'. Humanism involved the study of ancient Latin and Greek scholars. Humanists were influenced by ancient thinkers like Cicero who argued that the mind must be cultivated through a broad education. This led to an expanded curriculum including mathematics, science, rhetoric, history, music and poetry.

Humanists also believed in the potential of individuals to comprehend the world and influence society for the better. The humanists encouraged people to use their talents to create, invent and explore. For example, Pico della Mirandola (1463–1494) was a humanist who argued that God gave humans the potential to achieve great things if they used their talents.

This led to great advances in science and mathematics which will be discussed later. Some humanists encouraged individuals to use their talents for the good of their local communities, which encouraged civic duty and pride.

DID YOU KNOW?

Marco Polo (c. 1254–1324) was a Venetian traveller who left Europe in 1271 to journey to Asia. Travelling by ship and then overland, Polo passed through the Middle East and across the Asian continent via the Silk Road to China, where he spent 17 years.

Polo returned to Venice in 1295, bringing with him porcelain, silks, spices and jade, along with many tales of his extraordinary travels.

SOURCE 3 From *The Travels of Marco Polo*, about the kingdoms and marvels of the East

Suju is a very great noble city. They possess silk in great quantities, from which they make gold brocade . . . and they live by their manufactures and trade. There are also in this city many great philosophers and diligent students of nature.

3.3 SKILL ACTIVITY: Historical perspectives and interpretations

The Renaissance was a time that saw the emergence of many new products and new ideas. **Create** a mindmap showing the causes of these changes and unpacking the changes themselves.

Mind-maps are using to help us identify and understand the connections between events or ideas in History. You will need a large piece of paper to write on and some coloured pencils. Alternatively, you may like to use a coloured lotus diagram.

1. Begin by putting the central idea of the Renaissance in the centre. Write a few words to **summarise** the Renaissance under the heading.
2. Think of as many changes as you can and record them. You may like to work with a partner. Each change should have its own colour. For example, write down classical influences in one colour.
3. Now record the consequences of classical influences in the same colour using a circle or a square from the lotus diagram. For example, humanists were influenced by the ideas of Cicero. Wherever possible record an example of a change (e.g. for the ideas of the humanists you might write new curriculum).
4. Use arrows to **illustrate** connections between your ideas (e.g. you could connect humanists with the printing press).

3.3 Exercise

learnon

3.3 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 4	6	5, 7, 8, 9, 10

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Check your understanding

1. **Determine** if the following statements are true or false.
   a. Italy's location was important in exchanging goods and ideas.
   b. Patrons were responsible for delaying the spread of Renaissance ideas.
   c. City-states were run by different political systems.
2. Why did wealthy individuals, including rulers, bankers and merchants, become patrons of the arts? **Select** all that apply.
   A. To display their economic wealth and political power
   B. To demonstrate their sophistication
   C. To promote the arts within their community
   D. To provide employment for their community
   E. To show they had wanted to be artists themselves
3. Answer the following.
   a. Which of the following best defines a city-state?
      A. A city-state is an independent urban centre and surrounding countryside that is governed by powers outside its borders.
      B. A city-state is an independent urban centre that is governed by its own laws and political system.
      C. A city-state is an independent rural centre that is governed by its own laws and political system.
      D. A city-state is an independent urban centre and surrounding countryside that is governed by its own laws and political system.
      E. A city-state is a city within a larger country that abides by that country's laws.
   b. **List** the different ways they were governed during the Renaissance.
4. Circle the correct options to complete the sentence. Patrons were important in the spread of changes and ideas of the Renaissance because **farmers** / **artists** / **bankers** / **families** and intellectuals **told each other about new ideas** / **competed for the same work** / **moved from place to place in search of a patron**.
5. **Imagine** that you are studying at a university during the Renaissance and write a diary entry **describing** your reaction to the arrival of the Greek scholar Manuel Chrysoloras.

Apply your understanding

Using historical sources

6. **Examine SOURCE 1**. **List** the states that were:
   a. republics
   b. kingdoms or duchies (ruled by dukes)
   c. controlled by the Pope.
7. Read **SOURCE 2** and **identify** what Bruni believes are the most important qualities of a city. Leonardo Bruni was the chancellor of Florence at the time he wrote his description. Does this information impact your assessment of the reliability of the source? Provide reasons for your answers.
8. Read **SOURCE 3** and **explain** why Marco Polo was impressed by the city of Suju.
9. Read **SOURCE 3**. **Analyse** how accurate Marco Polo's description of Suju is likely to be.

Historical perspectives and interpretations

10. Many wealthy noble and merchant families sent their sons to university. **Clarify** what might have been the benefit of a university education during the Renaissance.

LESSON
3.4 Why is Florence called the cradle of the Renaissance?

LEARNING INTENTION

By the end of this lesson you should be able to describe the impact of wealth on different groups in the city of Florence and the relationships between the rulers and the ruled in Florence.

TUNE IN

Florence is a city located in central Italy that was a busy trading city during the Renaissance.

tlvd-10584

SOURCE 1 A nineteenth-century copy of the *Pianta della Cantena*, a woodcut made about 1470, showing Florence at the height of the Renaissance



1. Examine **SOURCE 1** and discuss possible reasons why most buildings were built inside the city walls.

3.4.1 New industries

The city of Florence played a leading role in the development of the Renaissance and has been described as 'the cradle of the Renaissance'. It was a busy trading city with many people and products passing through each day. In the fifteenth century Florence had a population of 60 000.

Florence is located on the banks of the river Arno, which was important for the cloth industry. The city, surrounded by walls, controlled much of the surrounding countryside. The city made use of its local produce, such as oil and grain, to feed the population and provided work for people from the nearby villages. Previously, wealth had been based almost entirely on land ownership. However, during the Renaissance the main sources of wealth were banking, trade, craft goods and cloth manufacturing. Individual experience varied greatly in the Republic. In the fifteenth century the wool industry employed over 30 000 workers. Many of these workers were so poor that they were classified as *miserabili* because they owned so little that they paid no tax. Many of the jobs in the wool and silk industries were low-paid, difficult and unpleasant jobs. For example, one part of

the manufacturing process involved stamping on the wool in large vats containing urine. However, the **merchants** who owned the cloth became very wealthy from the profits.

merchant a person who buys and sells goods for profit

3.4.2 A guild government

As banking and cloth manufacturing became more profitable, merchant families campaigned for greater access to political power. Unlike some city states in Italy, Florence was not ruled by one individual, it was a republic. In Florence there were many councils, each with a separate role. During the later medieval period, merchants and nobles had fought with one another for the greatest share of these offices. In 1293, a new law called the Ordinances of Justice changed the rules about who could participate in government. To be eligible to vote or have a position in any of the political bodies you had to be male, a citizen, a taxpayer and a member of a **guild**, therefore, nobles were officially excluded.

In Florence during the Renaissance there were seven major and 14 minor guilds divided according to profession. The seven major guilds were: merchants; judges, lawyers and notaries; wool manufacturers and merchants; bankers; silk merchants and manufacturers; physicians and pharmacists; and furriers and skinners. Six of the nine priors of the Signoria of Florence were elected from the major guilds and only two from the 14 minor guilds. The ninth member became the *Gonfaloniere of Justice* similar to the Chief Magistrate of State. Despite its republican institutions most of the Florentine population were excluded from guild membership and therefore the political system.

3.4.3 The popolo grasso and the popolo minuto

As we have seen the benefits of economic developments and political representations were not enjoyed by all groups in Florentine society. The Florentines described wealthy merchants and businessmen as **popolo grasso** (the fat people) and the operators of small shops and merchants as **popolo minuto** or small people. On occasions this term was extended to included wage earners who laboured in the local industries.

In 1378, a group of wool carders called *Ciompi*, protested at their high taxes and low wages, which had forced some workers out of their homes. Significant numbers of labourers had moved from the surrounding villages into the city and had become indebted to their employers due to forced loans. The *Ciompi* were amongst those classified as *miserabili* who accounted for 22 per cent of the population but had no political representation. The group, which included other occupations such as shopkeepers, protested demanding the creation of three new guilds. Their creation resulted in a more representative government, with a wool carder, Michele di Lando elected *Gonfaloniere of Justice*. However, the guilds only lasted for 3 and a half years and were dissolved in 1382 with a return to **oligarchical** government.

guild an association of people engaged in a particular trade or craft for the mutual benefit of its members

popolo grasso the fat people in the Renaissance. A term used to describe the wealthy.

popolo minuto the small people in the Renaissance. A term used to describe people of modest means.

oligarchy a form of government where all power is held by a few people

aud-0432

SOURCE 2 Adapted from the chronicle attributed to Acciaioli, in *Chronicles of the Tumult of the Ciompi*, ed. and trans. Kantor and Green, 9.

On Sunday, all the guilds gathered in their shops. They elected representatives, one for each guild. On Monday morning the colleges assembled early in the signoria, and the representatives came. All that day they stayed with the priors and their colleges, but they could not reach agreement. Thus, on Tuesday, the guilds began to arm themselves, the guild banners were unfurled. This was brought to the attention of the priors. They immediately chose the ninety-six. Then an uproar arose in the square and people with the guild banners shouted, 'Long live the people.'

SOURCE 3 Machiavelli, *Florentine Histories*, trans. Banfield and Mansfield, 126.

'The three new guild corporations be formed, one for the carders and dyers, another for the barbers, double makers, tailors, and such mechanical arts, and the third for lesser people; and that from these three new guilds there would always be two Signori and from the fourteen lesser guilds three.'

aud-0433

SOURCE 4 Leonardo Bruni, *The History of Florence*

'This is an eternal example and warning for the city's leading citizens that they should not allow civil unrest and armed force to come down to the whims of the mob. For it cannot be restrained once it begins to snatch the reins and realizes that it is more powerful, being more numerous. Most of all, it seems, one should beware of seditious actions which have their origins among the principal citizens, for they end up moving from there to the lower orders.'

aud-0434

SOURCE 5 Diary of Gregorio Dati, entry from 1412

On 28 April my name was drawn out as standard-bearer for the militia company. Up until then I had not been sure whether my name was in the bags for that office, although I was eager that it should be both for my own honour and for that of my heirs . . . on the very day my name was drawn, I had taken advantage of the reprieve granted by the new laws and finished paying off my debts to the commune.

SOURCE 6 A speaker in the council assembly in Florence

The foundation of peace in democratic cities is equality in matters of offices and taxes. Our ancestors had provided for it, among other things, through the rotation of offices.

DID YOU KNOW?

Florentines were so concerned about one person taking control of the city that they created rules around election to office, including using bags to draw out names at random and voting using coloured beans for anonymity.

3.4.4 The Medici family

Despite the efforts of Florentines to share power between all eligible families, the government was dominated by the wealthiest merchant families. These families used a network of friends and family to influence politics in the city. The most famous of these was the Medici family. The wealth of the family came mainly from the Medici bank. In the mid-fifteenth century Cosimo de' Medici came to dominate Florentine politics; however, he took care not to attract jealousy, by riding on a donkey. Cosimo continued to influence Florentine politics until his death in 1464. The Medici family were important figures in Florence, their influence continuing under Cosimo's son Piero and then his grandson Lorenzo. The influence of the family ceased for a time with the banishing of Piero the Younger from Florence in 1494, when the Florentine government was angered because he made a deal on their behalf with the French to surrender the city. The Medici family returned to Florence in 1512 and established themselves as dukes of the city.

SOURCE 7 Niccolò Machiavelli wrote about Cosimo de'Medici in his *History of Florence*.

Although he was the chief man in Florence, he never overstepped the bounds of prudence . . . he never appeared anything but a simple citizen.

SOURCE 8 The *Procession of the Magi* by Benozzo Gozzoli shows Cosimo de' Medici riding a donkey in the bottom-left corner of the painting.



SOURCE 9 Pope Pius II writing about Cosimo Medici

. . . not so much a citizen as the master of his city. Political councils were held at his house; the magistrates he nominated were elected; he was king in all but name and state.

SOURCE 10 Alessandro Strozzi wrote about the great influence Cosimo de' Medici had over Florence.

Whoever keeps in with the Medici does well for himself.

3.4.5 Cultural patronage

The wealthy merchants of Florence were among the first people in Italy to have an interest in the classical world and played an important role in the Renaissance as patrons. They paid for a range of work to be created for churches, public buildings and private collections. Cosimo de' Medici was a great patron of humanists, artists, sculptors and architects. He gave money to humanist thinkers Poggio Bracciolini and Marsilio Ficino, as well as commissioning the translation of Diogenes Laertius's *Lives of Philosopher's*.

Both Donatello's *David* and *Judith and Holofernes* were commissioned by Cosimo for his palace. He paid for work on several churches in Florence including the Church of San Marco. Cosimo's grandson Lorenzo Medici was also a great patron and commissioned a range of work including Sandro Botticelli's *Primavera*.

In the early Renaissance the patron and not the craftsmen decided many of the details of a work. This could include selecting the content, composition and colours in a painting. For this reason, the patron was often considered the creator of a work.

The banker Giovanni Ruccellai commissioned Leon Battista Alberti to create the façade of the church Santa Maria Novella. In the inscription on the façade, Ruccellai names himself as the maker of the work. Many wealthy merchant families, such as the Strozzi in **SOURCE 11**, built their families new palaces in the new Renaissance style with balance and symmetry. Ruccellai wrote that his spending on architecture reflected 'his desire to honour God and his city and in memory of himself'.

SOURCE 11 The Strozzi Palace was begun in 1489 by Benedetto da Maiano for Filippo Strozzi. Filippo bought and demolished many buildings on the site to make enough space for the new palace, but he did not move from the site of his family's original house.



DID YOU KNOW?

Girolamo Savonarola was a Catholic priest who accused political and religious leaders of being corrupt. He was also very critical of the classical influences in literature, art and sculpture, which he described as pagan. He was particularly critical of the Medici family, who he thought were taxing the poor of Florence too heavily. He encouraged his followers to burn items he regarded as sinful, such as books, art and luxury items in the 'Bonfires of the Vanities'. He was later hanged and burnt for his criticism of the Church.

3.4 SKILL ACTIVITY: Using historical sources

In 1427 the Florentine Republic introduced a new taxation system to raise revenue to fight a war with the Visconti of Milan. The Castato was based on the household with the assessment recorded in the name of the senior male. The information collected included the name, occupation and assets of all members of the household. Assets included property, investments, livestock, slaves and items of value. The Catasto assessed the wealth of over 40 000 people and determined how much tax was due. In addition, there was also a 'head tax' levied on each male between the age of 18 and 60. Those who possessed neither property nor capital were exempt. Neighbours were rewarded for reporting people who understated their income.

1. Use the **1427 Castato** weblink in the Resources panel to search the online records of the 1427 Castato. Search the surname of a Florentine.
2. **Record** the financial assessment of your individual. Based on these figures, do you believe they could be regarded as wealthy?
3. **Suggest** the problems with reporting which might reduce a tax levy.
4. **List** the information which might be available in the Castato records of 1427. Now **list** the information which may not be accurately reported or missing from the records. Review your notes and **evaluate** the usefulness and reliability of the Castato records of 1427 for historians studying the Renaissance.

Resources

Weblink 1427 Castato

3.4 Exercise

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3.4 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
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Check your understanding

1. **Determine** if the following statements are true or false.
   a. Everyone living in Florence in the Renaissance could participate in government.
   b. Like other city-states, Florence was ruled by one individual.
   c. Patrons, rather than the artists, were often considered the creators of a work of art.
   d. In the fifteenth century the wool industry employed around 10 000 workers and most of those workers were quite wealthy.
2. What were the checks and balances that were in place in the Florentine government to prevent one individual from becoming too powerful? **Select** all that apply.
   A. Political power was shared between many eligible people, rather than having one leader.
   B. You had to be male, a citizen, pay tax and a member of a guild to vote.
   C. The names of eligible men were drawn out of bags, supposedly at random and voting was anonymous.
   D. There were several government bodies, each with a separate role, so that no one council could exercise complete power without the other councils.
   E. As members of the nobility were rich, they automatically had the right to vote.
3. **Elaborate** on what life was like for most people in Florence.
4. The majority of the population in the Renaissance Italy worked in _____ jobs. The condition for their work were often cramped, poorly ventilated and _____. These workers and their families rented their homes and lived in _____ conditions.
5. **Explain** how a patron might influence the nature of an artwork.

Apply your understanding

Using historical sources

6. **Analyse SOURCE 1**.
   a. Which buildings do you think were most important in the city?
   b. **Examine** the buildings closely and suggest what some of the identifiable ones may have been used for.
   c. **Suggest** what the river Arno may have been used for during the Renaissance.
7. Read **SOURCE 2** and **outline** the methods used by the Ciompi to change the distribution of political power in Florence.
8. Read **SOURCE 3** and **describe** the changes in the distribution of political power as a result of the Ciompi revolt.
9. Using **SOURCE 5** as evidence, **clarify** why Gregorio Dati believed election to office was important?
10. **Examine SOURCE 8**. It is a painting of the three wise men.
    a. Why do you think Cosimo Medici has placed himself in the painting?
    b. What is he trying to suggest about himself?

LESSON
3.5 How did Venice contribute to the Renaissance?

LEARNING INTENTION

By the end of this lesson you should be able to explain the economy and political institutions of Venice during the Renaissance.

TUNE IN

The city of Venice was built on a lagoon and had streets of water. People moved around the city on foot or by boat.

SOURCE 1 Boats still travel along the Venice canals today.



Examine **SOURCE 1** and suggest how Venice's watery streets would impact the sights and sounds of the city.

3.5.1 A city built on a lagoon

Venice was a republic governed by wealthy merchants. By the thirteenth century it had become a strong naval power and a centre of trade at the crossroads between Europe, Asia and the Middle East.

From humble origins on a lagoon in the Adriatic Sea, Venice grew to be one of the richest and most powerful city-states in Italy. The city is built on marshy islands so that the buildings appear to rise from the sea. The early Venetians were fishermen and sailors. They traded fish and salt for the products they could not grow. By the fifteenth century, Venice had a trading network that went in all directions as you can see in **SOURCE 2**. They had ports down the Adriatic coast through the Greek islands to Egypt, the Far East, to Constantinople and the Black Sea. Venetian ships brought timber, grain, salt, fruit and wine from the Mediterranean. From the East they brought silks, spices, drugs and jewels. People came great distances to do business in Venice. Many people came to live in Venice to do business including, Greeks, Albanians, Turks and Germans.

Cardinal Bessarion, himself from Greece, was one of many immigrants who came to live in Venice. In a letter of 1468, he said 'As all peoples of almost the entire world gather in your city, so . . . do the Greeks'.

tlvd-10585

SOURCE 2 Map of the Venetian sea trade routes



Source: Adapted from Patricia Fortini Brown, The Renaissance in Venice, pp. 12–13, The Everyman Art Library 1997. Map drawn by Spatial Vision.

SOURCE 3 A Venetian noble was not allowed to call his home a palace. He had to call it a ca', short for *casa*, a house.



3.5.2 Ship building

In order to trade the Venetians built large ships or galleys. Ship building was so important to the economy that it was controlled by the government. By 1560, Venice was the largest industrial site in Europe employing over 2000 workers. The Venetians used standardised parts for easy replacement. In times of emergency a ship could be built very quickly. In 1570 they built 100 ships in two months. Because ship building was so important the craftsmen were given special pay and conditions. This included ceremonial roles like being bodyguards to the head of the Venetian republic. However, the **arsenalotti**, as they were known, were not allowed to leave Venice because they might share the secrets of Venetian ship buildings.

arsenalotti craftsmen who built ships in Venice

SOURCE 4 A Spanish visitor's description of a Venetian ship filled with supplies

Out came a galley towed by a boat and from the windows they handed rope from one, bread from another, arms from another . . . and when the galley reached the end . . . all the necessary men were on board.

3.5.3 The Venetian Republic

Venice was a republic from 1297 until 1797 when the city surrendered to Napoleon. During this period Venetians enjoyed relative political stability. In 1297, a law was passed declaring that only men whose families had their name in the *Book of Gold* were eligible for political office. Although they were called nobles these men earned their income from trade.

All eligible men over the age of 30 were expected to sit in the Great Council when they were in Venice. The Great Council was the first level of Venetian government. Its main function was to elect the other councils. The Venetian government was made up of several councils each with its own function.

The head of the Venetian government was called the Doge. The Doge was elected through a very complicated process. He could do very little by himself. In fact, he was not allowed to open his own mail or receive visitors alone. This was to prevent him from becoming too powerful.

Both Venice and Florence were ruled by rich merchants who were determined to limit the power of individual men and families. Therefore, they used complicated voting to prevent vote rigging and multiple councils to spread the power of office.

Venetians and her visitors were impressed by the beauty of the city. They admired her canals, richly adorned buildings, thriving economy and diverse

SOURCE 5 *Juno bestowing gifts on Venice* by Paolo Veronese, 1553–1554. The figure above is the ancient Roman god, Juno and she is showering gifts on Venice, who is represented as a woman.



population. Art, architecture and sculpture were paid for to enhance the image of the Republic. Titian, Tintoretto, Veronese, Sansovino and Palladio all produced works that glorified Venice. Priuli said that she appeared to be 'built more by divine will than human hand'.

DID YOU KNOW?

Festivals were used to affirm the image of the state. For example, during the Ascension Day celebrations the Doge dropped a gold ring into the sea and declared, 'we wed you, sea, in token of true dominion'.

3.5 SKILL ACTIVITY: Historical perspectives and interpretations

1. **a.** Read the interpretation of Lane in **SOURCE 6** and **describe** double-entry bookkeeping.
   b. According to Lane, how did this financial practice assist Venice merchants to trade?
   c. According to Lane how did the introduction of double-entry booking change the habits of merchants?
2. Read **SOURCE 7**. **Analyse** the suggested reasons for the spread of double-entry bookkeeping.
3. Double-entry bookkeeping was used by other Renaissance merchants and bankers. Think carefully about your search terms and use the internet to **research** the impact of this accounting practice on the expansion of the Medici Bank.

aud-0435

SOURCE 6 Frederic C. Lane, *Venice: A Maritime Republic*.

'The use of resident agents instead of travelling merchants was facilitated by number of improvements in commercial technique. One was the system of double-entry bookkeeping. This way of grouping and checking the records of every transaction made it easier for a resident merchant to keep track accurately of what his partners or agents were doing. Tradition has assigned its invention to Venice: but . . . earlier examples have been found in Genoa and Tuscany. The Venetians seemed to have been responsible for . . . features of arrangement, for example the placing of all debits on the left, credits on the right in parallel columns. Bookkeeping and arithmetic, using Arabic instead of Roman numerals, was taught in Venice by 'masters of the Abacus'. . . This kind of bookkeeping enabled a merchant operating simultaneously on many marketplaces to know the extent of his liabilities and . . . of his assets.

Andrea Barbargio . . . bought standard commodities, such as cotton, wool, spices, copper or cloth. He kept his books carefully in double entry. . . He had been aboard in his youth, but for years he never went further than the Rialto. He had to go there to make payments and above all collect the news.'

aud-0436

SOURCE 7 Geofrey T. Mills, *Early accounting in Northern Italy*

'Double entry developed in three Northern Italian city-states between approximately 1200 and 1350. The need for a new accounting system stemmed from the economic forces of the commercial revolution. From Northern Italy, double entry spread along European trading routes to other commercial centers through demonstration and the use of new business manuals from the printing industry. The increase in economic activity was fueled by commercial contacts from the Crusades, advancements in agriculture and trade, population growth and the rise of urban areas.'

3.5 Exercise

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3.5 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
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Check your understanding

1. **Determine** if the following statements are true or false.
   a. It was necessary for Venetians to trade goods with surrounding communities.
   b. The High Council was the first level of Venetian government.
   c. The doge was not allowed to open his own mail or receive visitors alone.
   d. Each Venetian ship was unique and custom made.
2. How did the Venetian government try to control the arsenalotti?
   A. By not allowing them to leave Venice
   B. By cutting out their tongues
   C. By threatening to take away their children
   D. By torturing them
3. **Explain** why ship building was important in Venice.
4. **Select** the correct options to complete the sentence.
   The Venetians made **standardised** / **unique** / **colour** / **shape** / **plastic** / **glass** ship parts, which were the same size and **standardised** / **unique** / **colour** / **shape** / **plastic** / **glass**, so that a part could always be quickly replaced.
5. **Explain** why the city of Venice was admired.

Apply your understanding

Communicating

6. **Imagine** that you have recently arrived in Venice to do business. **Write** an account of your time in the city. **Describe** the city, including the other people and the types of goods being traded.

Using historical sources

7. **Examine SOURCE 3**. **Elaborate** on the values the Venetian government was trying to promote by preferring the word casa to palace.
8. **Explain** what we learn from the Spanish visitor in **SOURCE 4** about how the galleys were loaded.
9. a. Study **SOURCE 5**. **Identify** the gifts Juno is giving to Venice.
   b. **Analyse** the symbolism of each gift.
10. Examine **SOURCE 2**.
    a. **Outline** what was traded by the Venetians in each location.
    b. Note the locations of the Venetians ports along the trade routes. **Clarify** why the Venetians may have needed these ports along their trade routes.

LESSON
3.6 What was it like to live during the Renaissance?

LEARNING INTENTION

By the end of this lesson you should be able to identify the different perspectives of males and females during the Renaissance and be able to describe the impact of wealth on daily life and education.

TUNE IN

The piazza was a large open space where people gathered to shop, socialise and conduct business.

SOURCE 1 *Piazza del Mercato Vecchio, Florence* (The Piazza of the Old Market) by Jan van der Straet, 1555.



1. In your opinion, to what extent does the society and culture you grow up in influence your individual experiences?
2. Discuss the factors which may influence individual experience.

3.6.1 Daily life

The experience of daily life varied considerably between different social groups in Renaissance society. An individual's experience was influenced by wealth, gender and location. The wealthy nobles and businessmen enjoyed luxurious housing with expensive personal items and a rich diet. The shopperkeepers and craftsmen owned some property and tools. Day laborers lived in small rented homes and with few possessions. Peasants worked the land, often as sharecroppers, and lived in one-room homes in the countryside.

3.6.2 The importance of family

Many institutions were important during the Renaissance. Family was an important source of comfort and support. In the growing cities of the Renaissance, people also relied on connections with the people living in their local area.

For many people, their family provided guidance, advice and connections. As recommendations were essential, people also depended on their family and friends to make introductions for them. For the merchant families these networks were necessary for conducting business. For the working class and women, networks allowed them to develop new friendships and ask for favours. Local identity and relationships were very important in the Renaissance.

3.6.3 The role of the Church

The Catholic Church continued to play an important role in most people's lives in Italy during the Renaissance. Significant occasions like birth, engagement, marriage and death were usually marked in the parish church. Throughout the year numerous religious feasts and festivals were held expressing religious devotion and pride in the city-state. The Pope was the head of the Catholic Church. He was also a powerful political figure with his own army. Although most people accepted its teachings, some began to question instances abuses of power and corruption within the Church.

SOURCE 2 Ascension Day celebrations in Venice as described by Petrarch

The size of the multitude is . . . hard to believe; both sexes and every age and station were represented. The Doge himself with a great bank of leading men.

3.6.4 Women in Renaissance Italy

Renaissance Italy was a patriarchal society that favoured men. Women generally received a limited education that prepared them for tasks in the home. However, there were exceptions. Some men educated their daughters and trusted their wives with important tasks like managing the estate while they were away on business. The women of noble or merchant families tended to be restricted to the home, while poorer families could not do without the work of women. These women often worked as servants, spinners or leather workers. For women from wealthy families, the parish church was a welcomed outlet for socialisation.

Many of the decisions in the life of Renaissance women were made by her male relations. For the wealthy, marriage was a chance to form alliances between two families and the match was a family decision. For example, Cosimo de' Medici was married to Contessina Bardi, who was from an old Florentine family. The bride and groom often spent very little time with each other until the ceremony. Women were usually married between the ages of 15 and 19. Men tended to marry in their mid-twenties or later. Nanini de'Medici wrote in frustration to her brother Lorenzo 'Don't be born a woman if you want to have your own way'.

SOURCE 3 Diary of Buonaccorso Pitti

I resolved to get married. Since Guido di Messer Tommaso was the most respected and influential man in the city, I decided to put the matter in his hands and leave the choice of bride up to him.

In order to marry, a woman needed to have a **dowry**. As a woman could not marry without a dowry, wealthy individuals donated dowries to poor girls in their city. However, some girls from poor families had to work for years to earn enough to marry. Women had few options outside of marriage. Some became nuns, but even a convent required a dowry. Some women without family who could help them were forced into prostitution. The dowries of merchant women became so large that Alessandra Strozzi declared 'Whoever takes a wife wants money'.

dowry a payment of money or goods as part of a marriage agreement

3.6.5 Childhood in Renaissance Italy

Life was short in Renaissance times, with few people living into their forties. Working class houses usually had no more than two rooms, a bed, table and bench, and a few utensils. Yet in most families a child was born every two years. In poorer families particularly, most children did not live long enough to reach adulthood. Childbirth itself was so dangerous that it was common for women to make their wills before a baby was due to be born.

Peasant and artisan children usually had no formal education. In peasant families, children were put to work in the fields as soon as they were old enough to be useful. In artisan families, children would work alongside their fathers from an early age, with boys normally learning the father's trade through apprenticeships from about age 14.

It was only among the wealthy classes that childhood began to be seen as a period of freedom from the responsibilities of adult life. Upper-class boys usually attended colleges from around age 7 to 15 unless they had home tutors. Upper-class girls might attend a convent school until they were married or became nuns.

SOURCE 4 This illustration appeared in a Grammar text by Elio Donato and shows Maximiliano Sorfza at school. Maximiliano Sorfza was the son of the Duke of Milan, Ludovico Sorfza, and he became duke himself in 1512.



In all social classes, girls had less status than boys. Babies were often abandoned or left at orphanages because their parents had died, were unmarried or could not afford to keep them. The records of the city-states show that two-thirds of all abandoned babies were girls. To relieve the burden on poor families, many girls were sent out to work as servants in wealthy households. Although some were treated well by their employers, others suffered physical and sexual abuse and the laws gave them little protection from such treatment.

3.6.6 Social minorities

Not all groups were treated equally in Italian society during the Renaissance. Non-Italians were often excluded in various ways, as were slaves, prostitutes and homosexuals. People of the Jewish faith were a vital part of Venetian society during the Renaissance as they provided loans to the Venetian merchants. The financial service provided by Jews was essential to the Venetian economy, however, as Christians, the Venetians had some prejudices about the Jewish culture. As a result, Jewish people were subjected to numerous laws. In 1516, a law required all Jews to live in one location — the area of the Foundry. Jews were also subjected to a curfew that meant they had to be indoors at sundown. The Jewish community was made to pay for the walls of the ghetto and for the wages of Christian guards.

DID YOU KNOW?

The term 'ghetto' may come from the Italian *getto* meaning foundry or from *barghetto*, a small section of town.

SkillBuilders to support skill development

- 1.6 Evaluating historical significance

tlvd-10586

3.6 SKILL ACTIVITY: Questioning and researching

Lucrezia Borgia

Lucrezia Borgia was born on April 18, 1480, the daughter of Rodrigo Borgia and his mistress Vanozza Cattanei. Rodrigo was elected Pope Alexander VI in 1492. Lucrezia was married at the age of 13 to Giovanni Sforza, nephew Ludovico Sforza Duke of Milan. Lucrezia's marriage to Giovanni only lasted three years, when Alexander had the marriage annulled. She was soon married to Alfonso of Aragon, son of the King of Naples. They were married only a short time before her husband was murdered, most likely at the hands of her brother, Cesare Borgia. Presently, her father arranged marriage to Alfonso d'Este, the son of Duke Ercole. She remained married to Alfonso, dying after giving birth to her eighth child in 1519 aged 39.

1. **Propose** three questions you have about the life of Lucrezia Borgia. Consider the different periods in her life and ensure you cover several topics.

SOURCE 5 Hadrianius, Secretary to the Pope, recorded the decision of the Pope, Rodrigo Borgia, to make Lucrezia the regent of Spoleto.

Hadrianius, Secretary to the Pope

Given in Rome, in St Peter's, under the papal seal, August 8, 1499.

Aged 19 her father, the Pope, made Lucrezia regent of Spoleto:

'Dear sons, we have entrusted to our beloved daughter in Christ the noble lady Lucrezia Borgia, Duchess of Biseglia, the office of keeper of the castle as well as the government of our cities Spoleto and Foligno. Having perfect confidence in the intelligence, the fidelity, and the probity of the Duchess. We trust that you will receive the Duchess…with all due honour as your regent and show her submission in all things.

SOURCE 6 Johann Burchard's diary entry from 1501 recorded the decision of the Pope to appoint Lucrezia as his representative in his absence.

When Alexandra left Rome in 1501, he left Lucrezia as his representative. Johann Burchard writes, 'before his Holiness, our master, left the city he turned over the palace and all the business affairs to his daughter Lucrezia, authorising her to open all letters which should come addressed to him.'

2. According to **SOURCE 5** and **SOURCE 6**, what powers were given to Lucrezia by the Pope? Use short quotes in your answer.
3. Refer to **SOURCE 5** and **describe** the character of Lucrezia. You may need to use a dictionary.
4. Based on your study of **SOURCES 5** and **6**, **evaluate** the extent to which Pope Alexandra trusted the ability of his daughter.
5. Use the internet and your library and **investigate** the secular powers of the Pope during the Renaissance. **Outline** the territory controlled by the Pope and describe the methods used to ensure his control.

In 2008 it was argued that the figure is Lucrezia, however, not all scholars agree. The dagger is suggestive of the ancient Roman Lucretia, who killed herself to protect her family's honour. There is also a myrtle bush that represented Venus, the goddess of love. In the foreground is the text 'brighter is the virtue reigning in this beautiful body', which is an adaption of text from Virgil's *Aeneid*.

SOURCE 7 Lucrezia Borgia, attributed to Dosso Dossi and Battista Dossi, in the National Gallery of Victoria, Melbourne.



SOURCE 8 Ferdinand Gregorovius, *Lucretia Borgia: according to original documents and correspondence of her day*, 1909.

During the time she lived in Rome [Lucrezia] was always subject to the will of others, for her destiny was controlled, first by her father and subsequently by her brother.

SOURCE 9 Diane Y.F. Ghirardo, 'Lucrezia's honour' in *The Borgia Family: Rumour and Representation*, 2020.

'Antonio Tebaldeo, Calcagnini and Giraldi sang of Lucrezia's beauty and virtue. Marcelle Filosseno compared her to Minerva and Venus in his sonnets. Jacopo Caviceo describes her as beautiful, learned, wise and modest . . . Ariosto praised her decorum. This much is certain: her life at Ferrara was regarded as a model of feminine virtue.'

6. Based on your knowledge of Lucrezia's life, **evaluate** the perspective of Gregorovius in **SOURCE 8**. To what extent do you agree with his statement?
7. **Examine** the portrait of Lucrezia in **SOURCE 7**. **Analyse** the impression of Lucrezia that is being presented. In your response refer to specific aspects of the images and comment on their symbolic meaning.
8. **Evaluate SOURCE 7** (painted during her life at Ferrara) and **SOURCE 8. Summarise** the attitude towards Lucrezia as Duchess of Ferrara. Ensure that you support your arguments with specific references.

3.6 Exercise

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3.6 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2	3, 4, 5	6, 7, 8, 9, 10

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Check your understanding

1. **Determine** if the following statements are true or false.
   a. The purpose of marriage for merchant families was to form an alliance with another family.
   b. The Pope a powerful political figure with his own army.
   c. In Renaissance times, people generally lived into their fifties and sixties.
   d. People of the Jewish faith provided loans to the Venetian merchants.
2. In what ways was life difficult for women during the Renaissance? **Select** all that apply.
   A. Most women received a limited education.
   B. Most women from noble and merchant families were largely restricted to the home.
   C. It was hard for women because they did not have many clothes to choose from.
   D. Women from poorer families often did difficult low-paid jobs in addition to their tasks at home.
   E. Women could not marry or enter a convent without a dowry.
   F. Many of the decisions about the lives of women were made by their male relatives.
3. Many people celebrated births, _____, deaths, religious feasts and _____ at the parish church, it played a very important role in people's lives during the Renaissance.
4. Relationships were very important in Renaissance Venice. Family and friends provided comfort and support to individuals, and made introductions to others. Why were these connections to others necessary? **Select** all possible answers.
   A. For the working class and women, these connections were necessary for conducting business.
   B. For the working class and women, connections allowed them to develop new friendships and ask for favours.
   C. For the merchant families, these connections allowed them to develop new friendships and ask for favours.
   D. For the merchant families, these connections were necessary for conducting business.
5. a. **Outline** the restrictions that were placed on Jewish people in Venice during the Renaissance.
   b. **Reflect** on and **describe** the attitudes and values of the societies who created these restrictions.

Apply your understanding

Using historical sources

6. **Identify** what **SOURCE 2** reveals about the significance of the celebration of Ascension Day.
7. **Explain** how Nanini Medici might have been different from most Renaissance women. Does this make her statement a less useful source for historians? Provide reasons to **justify** your answer.
8. Alessandra Strozzi declared 'Whoever takes a wife wants money'.
   a. **Discuss** what this statement tells us about Renaissance attitudes to marriage.
   b. **Determine** whether Alessandra Strozzi is likely to be a reliable source about marriage in Renaissance Italy.
9. **Examine SOURCE 4** and record the activities you see in the illustration. This illustration appeared in a book describing the different parts of language, or grammar. **Propose** reasons why Elio Donato might have included Sorfza in the image.
10. Write four questions a historian investigating the Renaissance could ask when **analysing SOURCE 2**.

LESSON
3.7 How did art, architecture and sculpture change during the Renaissance?

LEARNING INTENTION

By the end of this lesson you should be able to name Renaissance artists and their artworks. and describe the changes in style and subject matter in art during the Renaissance.

TUNE IN

During the Renaissance, stories from the ancient Greeks and Romans were widely depicted across all forms of art.

SOURCE 1 An illustration from a medieval manuscript depicting the Three Graces (goddesses from Greek and Roman myths)



In small groups, brainstorm Renaissance artists and artworks. Keep your ideas to review at the end of the lesson. Then discuss in your groups your favourite modern artists, including musicians, and explain why you like each one.

3.7.1 Renaissance painting and sculpture

Many people consider the Italian Renaissance artists, sculptors and architects to be among the greatest of all time. Among the most famous are Michelangelo Buonarotti (1475–1564), Leonardo da Vinci (1452–1519), Raphael (1488–1520) and Titian (1488–1576).

During the Renaissance, there was a great increase in demand for the works of talented painters, sculptors and architects, and cities competed to attract them by promising great rewards.

Renaissance visual artists created works that were different in style from most art of the medieval era (compare **SOURCES 1** and **2**). Artists experimented with technique, light and colour. Unlike earlier artists, they used rich colours and tried to show depth in scenes by painting perspectives and distances realistically. This gave their paintings the feeling of having three dimensions. Artists began to use oil paint, and many of them created **frescoes** on buildings by applying paint to wet lime plaster.

Many medieval sculptures were shallow figures carved out of a background, known as relief sculptures. Renaissance sculptors were inspired by Ancient Greek statues of the classical style that had developed in the fifth century BCE. They were also inspired by Roman statues that copied this Greek style. To achieve realism, Renaissance painters and sculptors used live models to create the figures in their works. They also studied **anatomy** to gain a better understanding of how the human body functions and moves.

Subject matter

Like medieval artists, Renaissance artists painted religious scenes, especially scenes depicting events in the Bible and the lives of saints. However, many also worked on other subjects including scenes from Greek and Roman myths, landscapes and portraits, especially of their wealthy patrons.

DID YOU KNOW?

Antonio Pollaiuolo, who lived during the fifteenth century, was probably the first artist to dissect (cut up) human corpses to study anatomy. Leonardo da Vinci did the same and even discovered that hardening of the arteries was a cause of death in older people.

SOURCE 2 A detail from Sandro Botticelli's painting *Primavera* (c. 1482) showing the Three Graces



SOURCE 3 The classical sculpture shows the Trojan priest Laocoön and his sons being crushed to death by snakes. The sculpture was rediscovered in a vineyard in Esquiline Hill on 14 January 1506 and had a great impact on Michelangelo.



fresco a picture painted on a freshly plastered wall or ceiling

anatomy the scientific study of the structure of the body

SOURCE 4 *Moses* by Michelangelo, 1515, was influenced by the rediscovered classical sculpture of Laocoön shown in **SOURCE 3**.



SOURCE 5 Michelangelo Buonarotti's famous *Pietà* (meaning 'pity'). The marble sculpture depicts Mary holding the body of her son Jesus Christ after his crucifixion.



3.7.2 Renaissance architecture

Like Renaissance sculptors, Renaissance architects were inspired by the reawakened interest in the knowledge and techniques of ancient Greece and Rome. The remains of ancient Roman buildings with their Greek columns and Roman arches and domes stood in many places, especially in Italy. Architects copied their styles and techniques to design new buildings.

Among the most brilliant of their works is the dome of the Cathedral of Santa Maria del Fiore in Florence. The building of this church had commenced in 1296 and in 1419 Filippo Brunelleschi (1377–1446) won a competition to design its dome. Brunelleschi was inspired by the dome on the Pantheon, but he devised unique solutions to the problem of constructing a dome of such size. He used a herringbone design and a double skin. His completed dome is considered one of the greatest architectural achievements of the Renaissance (see **SOURCE 2** in lesson 3.2).

DID YOU KNOW?

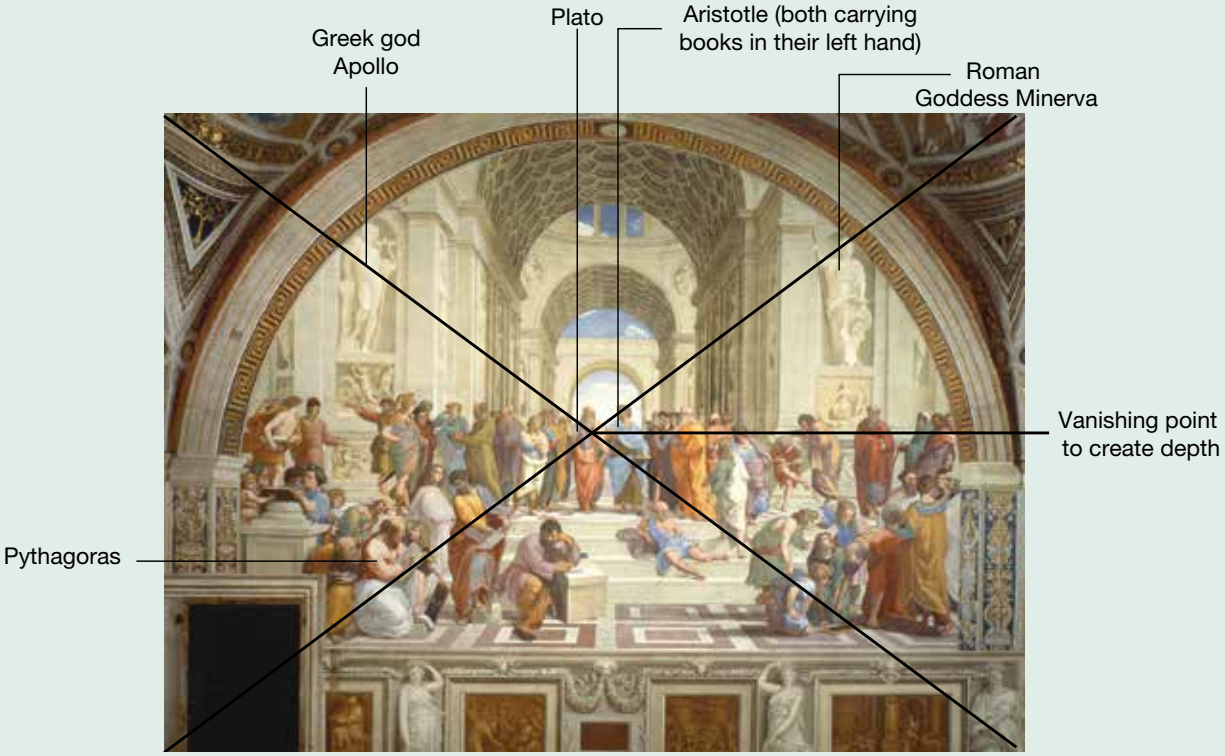
By the sixteenth century, humanist influence made it possible for a few women from the upper classes to study painting. Although women were barred from academies where male nudes provided models, some women managed to become successful artists. Among them were Sofonisba Anguissola, Marietta Robusti (the daughter of the famous artist Tintoretto) and Caterina dei Vigri, a nun.

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3.7 SKILL ACTIVITY: Historical perspectives and interpretations

Examine **SOURCE 6**.

SOURCE 6 *The School of Athens* by Raphael, showing Plato and Aristotle in discussion in the centre of the painting.



1. **Identify** the classical influences and Renaissance characteristics. Pay attention to the use of perspective, the use of columns and arches, the presentation and identity of the figures and the style of dress.
   a. Use the internet or your library to find another Renaissance artwork, sculpture or building. You may search using the names in the lesson.
   b. **Identify** the Renaissance characteristics of the work (consider both style and subject matter).
   c. **Annotate** an image of the work with specific reference to selected parts.
   d. **Present** your findings to your class or a peer.

3.7 Exercise

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3.7 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 4	3, 5	6, 7, 8, 9, 10

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Check your understanding

1. Renaissance artists studied the human anatomy to understand the human body better and paint it or sculpt it more realistically. True or false?
2. What subject matter did Renaissance artists include in their work? **Select** all that apply.
   - A. Their favourite pets
   - B. Portraits
   - C. Lives of the saints
   - D. Their houses and palaces
   - E. Places they had travelled to
   - F. Events of the Bible
   - G. Landscapes
   - H. Food they ate in restaurants
   - I. Greek and Roman myths
3. During the Renaissance artists experimented with technique, light and _____. Unlike earlier artists, they used rich colours and tried to show depth in scenes by painting perspectives and distances _____. This gave their paintings the feeling of having three _____. Artists began to use _____ paint and many of them created frescoes on buildings by applying paint to wet lime plaster.
4. What ancient styles inspired Renaissance sculptors and architects? **Select** all that apply.
   - A. Parallelograms
   - B. Columns
   - C. Triangles
   - D. Dodecahedrons
   - E. Domes
   - F. Circles
   - G. Arches
   - H. Squares
5. **Explain** the process of painting a fresco.

Apply your understanding

Using historical sources

6. **Compare SOURCES 1** and **2**. **Identify** three differences between the styles of these two artworks using the following headings:
   - Depth and perspective
   - Realism
   - Colour
7. **Examine SOURCES 3** and **4**. What evidence is there that Michelangelo was influenced by the discovery of *Laocoön*?
8. Look closely at **SOURCE 5**.
   - a. **Describe** the details of the sculpture.
   - b. **Communicate** the emotional effect of the sculpture.
   - c. **Clarify** what would have been the difficulties of carving this out of a single piece of marble.

Historical perspectives and interpretations

9. **Determine** effect of the changes in art, architecture and sculpture on the city-states of Italy.
10. **Summarise** what were the greatest changes in art, sculpture and architecture during the Renaissance.

LESSON
3.8 Who contributed to the scientific revolution?

LEARNING INTENTION

By the end of this lesson you should be able to name important Renaissance thinkers, describe the theories and inventions of the Scientific Revolution and outline their significance.

TUNE IN

Information about the human skeleton greatly influenced scientific thinking and medical knowledge during the Renaissance.

SOURCE 1 An illustration of the human skeleton that Andreas Vesalius published in 1543



Examine **SOURCE 1** and discuss why you think this might be the case.

3.8.1 Renaissance thinkers

Andreas Vesalius (1514–1564)

Vesalius is often called 'the father of human anatomy' because of his contributions to understanding the human body. The Catholic Church banned people from dissecting human bodies. This meant that doctors had to rely on the writings of Ancient Greeks such as Hippocrates and Galen for their understanding of anatomy. This

made it very difficult to treat injuries and disease. Vesalius defied the Church and obtained the permission of the local law courts to dissect and conduct experiments on the bodies of people who had been executed. In 1543, Vesalius published a book of **anatomical drawings**, with explanations of how the various body parts worked.

anatomical drawing drawing showing the workings of organs and systems of the body

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SOURCE 2 Adapted from Leonardo's letter to the Duke of Milan, requesting a job.

'Most illustrious lord, I am emboldened, to solicit an appointment of acquainting your Excellency with certain of my secrets. I can construct bridges which are very light and strong and very portable. In case of a siege, I can cut off water from the trenches and make pontoons and scaling ladders. I can demolish every fortress if its foundations have not been set on stone. I can also make a cannon which is light and easy of transport, causing the enemy to suffer heavy losses. I can make armoured wagons carrying artillery.

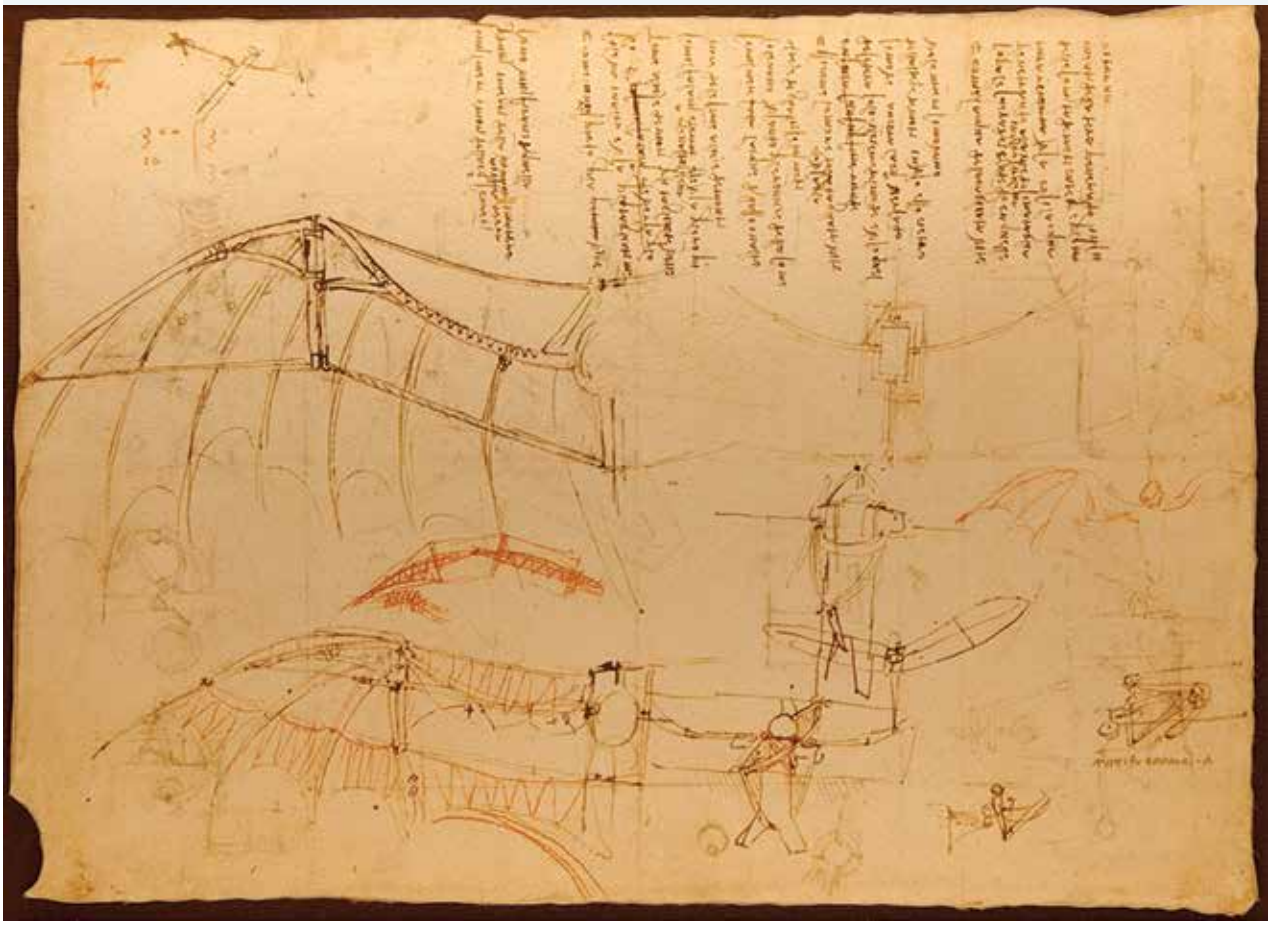
In time of peace, I can give you complete satisfaction in the construction of buildings both public and private, and in conducting water from one place to another. I can execute sculpture in marble, bronze, or clay, also in painting I can do as much as anyone else.'

Leonardo was appointed by the duke and held the job for 16 years.

Leonardo da Vinci (1452–1519)

Leonardo da Vinci was one of the most remarkable of all the Italian Renaissance thinkers. He is most famous for his art, especially the *Mona Lisa* — arguably the most famous of all paintings. He also conducted observations and experiments in biology, anatomy, geology, engineering, astronomy, mathematics and music. Leonardo was a great inventor. Among Leonardo's many designs was an underwater diving suit, a robot and a glider.

SOURCE 3 Leonardo da Vinci's sketch and instructions for building a glider



DID YOU KNOW?

Leonardo da Vinci recorded his observations, ideas and inventions in over 4000 pages of notebooks. These can only be read with a mirror because Leonardo wrote everything backwards.

SOURCE 4 In 2002, Steve Roberts built a glider based entirely on Leonardo's sketches and instructions produced between 1490 and 1505. Roberts used only materials that would have been available in Leonardo's time. The glider reached 10 metres above the ground and flew for up to 17 seconds on its longest flight.



Nicolaus Copernicus (1473–1543)

Copernicus was a Polish astronomer who developed a theory that put the Sun, rather than the Earth, at the centre of the universe. The Catholic Church held the view that the Earth was the centre of the universe and that the Sun, Moon and planets revolved around it. This belief had come from the Ancient Greek philosopher Aristotle and had been described by the Greek astronomer Ptolemy in the second century CE.

Copernicus spent many years investigating the movements of heavenly bodies and, in 1515, he sent copies of his findings to other astronomers. After further study, Copernicus published his theory in a book called *On the Revolution of Heavenly Spheres* (1543). Copernicus's model of the planetary system is called a heliocentric system. It states that the Earth revolves around the Sun in a year and rotates on its axis once every 24 hours.

heretic one who rejects the teachings of the Church

friar a member of a Catholic order who was supposed to live in poverty

Roman Inquisition a system of tribunals set up by the Catholic Church during the sixteenth century to censor literature and prosecute people accused of heresy and other crimes

Giordano Bruno (1548–1600)

Some thinkers *were* burned as **heretics**. That was the fate of Italian **friar**, philosopher, astronomer and mathematician Giordano Bruno who accepted Copernicus's ideas and expanded them, recognising that the Sun is just one of billions of suns in the universe. Several of Bruno's religious ideas also differed from those of the Church. In 1600, the **Roman Inquisition** found him guilty of heresy and had him burned at the stake.

Galileo Galilei (1564–1642)

Galileo was an Italian astronomer, physicist, mathematician, philosopher and inventor. He was a great supporter of scientific method and investigated gravity at the tower of Pisa through experiments. Galileo found that objects fall at the same rate regardless of differences in weight. He used a telescope to carry out

observations of the movement of the moon and other planets. He was a supporter of Copernicus' theory of heliocentrism, that argued the Earth rotated daily and revolved around the sun. Placing the Sun, rather than the Earth at the centre of the solar system brought him into conflict with the Catholic Church.

aud-0438

SOURCE 5 Adapted from Sidereus Nuncius published in 1610

Galileo wrote of his observations of the moons and planets: 'when I was viewing the constellations of the heavens through a telescope, the planet Jupiter presented itself to my view, I noticed that three little stars were near the planet; and although I believed them to be fixed stars, they seemed to be arranged exactly in a straight line, parallel to the ecliptic . . . When [the following night], I turned again to look at the same part of the heavens, I found a very different state of things, for there were three little stars all west of Jupiter, and nearer together than on the previous night. I therefore concluded that three stars are moving about Jupiter, as Venus and Mercury around the Sun.'

3.8 SKILL ACTIVITY: Historical perspectives and interpretations

1. **Select** one of the thinkers from the following list:
   - Konrad Gessner (1516–1565)
   - Sir Francis Bacon (1561–1626)
   - Johannes Kepler (1571–1630)
   - Geradus Mercator (1512–1594)
   - William Gilbert, also known as Gilbard (1544–1603)
   - Issac Newton (1643–1727)
   - Laura Bassi (1711–1788)
   - Maria Gaetana Agnesi (1718–1799).
2. **Conduct** research on your chosen thinker. Collect notes on one new theory that they put forward.
3. Clearly **explain** the theory or new idea. Then consider how this idea changed scientific thinking during the Renaissance. To do this you will need to **compare** the new idea with the previous ideas or theory.
4. **Write** your notes in dot points which include specific facts.
5. Use the following sentence stems to write an **explanation** of the contribution of your chosen individual.

(Insert the person's name) presented the new theory of_____ which was an important development in science/mathematics/technology. This idea was different from previous ideas because_____. This new idea impacted the Renaissance community by_____.

3.8 Exercise

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3.8 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	6, 7, 8, 9	4, 5, 10, 11

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Check your understanding

1. What were three inventions of Leonardo da Vinci?
   - A. A glider
   - B. A car
   - C. An underwater diving suit
   - D. A vacuum cleaner
   - E. A hot water service
   - F. A lead for a dog
   - G. An oven
   - H. A shower cap
2. What was the theory of Copernicus?
   - A. The Earth moves around the Sun every 24 hours and the Earth rotates on its axis once every year.
   - B. The Earth moves around the Moon.
   - C. The Sun moves around the Earth once a year.
   - D. The Sun moves around the Earth once every 24 hours.
   - E. The Earth moves around the Sun in a year and the Earth rotates on its axis every 24 hours.
3. **Determine** if the following statements are true or false.
   - a. Giordano Bruno was found guilty of heresy and burnt at the stake for his scientific theories.
   - b. Vesalius is often called 'the father of human anatomy' because he used to be a doctor.
   - c. Copernicus believed that the Earth revolves around the Sun.
4. **Evaluate** what the careers of Giordano Bruno and Andreas Vesalius reveal about the role of the Church in scientific discovery during the Renaissance.
5. _____ was an Italian astronomer, physicist, mathematician, philosopher and inventor.

Apply your understanding

Using historical sources

6. Read **SOURCE 2**.
   - a. **Identify** the skills Leonardo is offering to the Duke of Milan.
   - b. Can you **infer** what these skills reveal about the needs of the duke?
7. **Demonstrate** how **SOURCES 3** and **4** support the claim that Leonardo da Vinci was a revolutionary thinker.
8. Study **SOURCE 4**. **Explain** why Vesalius was able to depict the human skeleton so accurately and why it had been difficult to create accurate anatomical drawings before his time.
9. **Analyse** the significance of Copernicus's theories for our understanding of astronomy.

Historical perspectives and interpretations

10. **Examine** the impact of the ideas of Giordano Bruno on our understanding of the place of humans in the universe.
11. **Examine SOURCE 1** and **SOURCE 5**. **Evaluate** the extent to which the work of Andreas Vesalius and Galileo Galilei used a scientific method, which bases theories on observations and experiments.

LESSON
3.9 How did the Renaissance spread?

LEARNING INTENTION

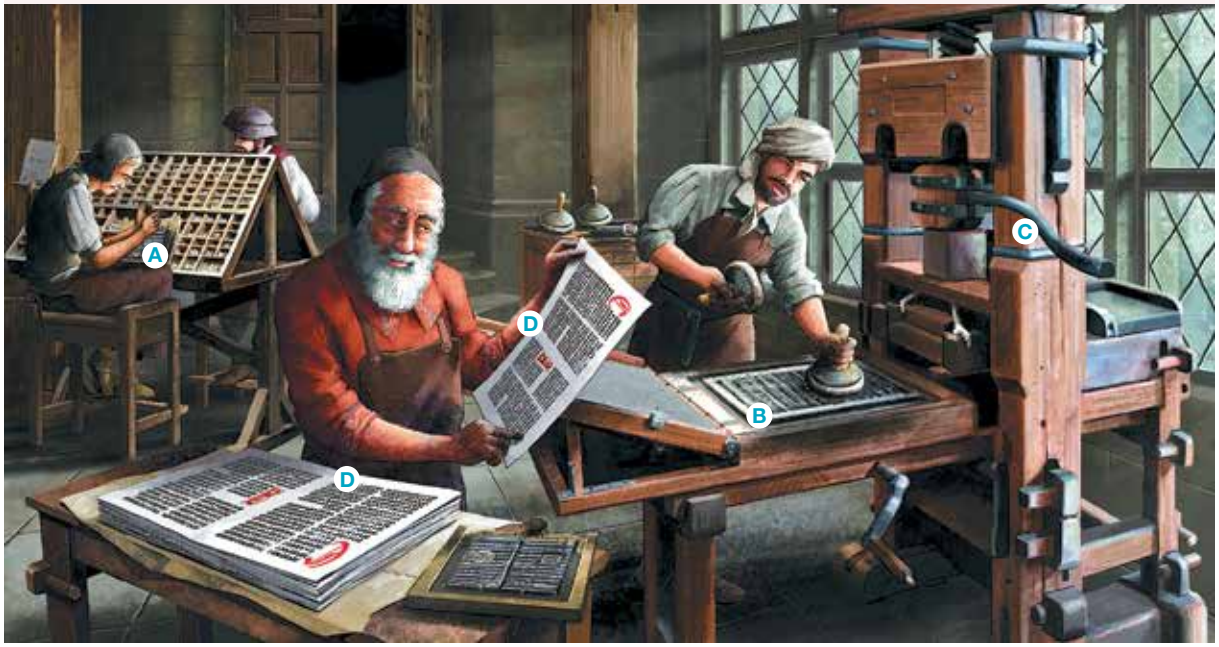
By the end of this lesson you should be able to describe the spread of Renaissance culture to Northern Europe and beyond.

TUNE IN

Advancements in technology, such as the printing press in **SOURCE 1**, allowed renaissance culture to spread throughout Europe.

int-4124

SOURCE 1 A modern artist's impression of printers producing books on a fifteenth-century printing press



- **A** Metal letters, numbers and symbols called 'type' were arranged and rearranged side by side in rows held together by a frame to create each page of print.
- **B** A frame of type was then fixed onto the press and the surface of the type was covered with ink.
- **C** A press, adapted from a wine press for squashing grapes, was pulled down to press sheets of paper against the ink-covered type in the frame.
- **D** The press was raised and the printed pages were removed. The complete sets of pages were bound together to make a copy of a book.

Examine **SOURCE 1** and predict what is happening in the image. In a pair identify one modern technological device. Discuss how this device is used today to spread culture across the world.

3.9.1 A widening movement

From about 1450, the Renaissance spread from Italy to Europe. Historians call this movement the Northern Renaissance. Ideas were spread in several ways: through wealthy individuals importing Italian art and employing Italian artists and architects; through trade; through northern European students attending Italian universities; and through northern writers and scholars who were influenced by Italian humanism. But the most important reason for the spread of Renaissance ideas was the growing availability of printed books.

Influential scholars, such as Erasmus and Rabelais, spread humanist ideas as they travelled. King Francis I of France brought in Italian artists, including Leonardo da Vinci, to paint for his court and from the middle of the fifteenth century several Italian artists travelled to Poland. King Ivan III brought in Italian architects to design Russian buildings. Young Hungarians studying in Italy returned with humanist ideas and, in the late fifteenth century, the Hungarian city of Buda became an important centre of the arts with one of Europe's greatest collections of books.

The spread of the Renaissance was not just about the copying of Italian ideas but the development of them. In Northern Europe, the brothers Hubert and Jan van Eyck perfected techniques of painting in oils. In the Netherlands, the painter and printmaker Pieter Bruegel (1525–1569) followed Italian artists in depicting scenes from the Bible. An example is his famous *Massacre of the Innocents* (1565–67), which depicts the biblical story of King Herod's attempt to wipe out all young male children in ancient Bethlehem. However, Bruegel also explored other ideas in his artwork, such as the horrors of war in his *Triumph of Death* (1562), and he went on to influence many artists through his landscapes and scenes of peasant life.

3.9.2 The English Renaissance

From the early sixteenth century, Renaissance culture flourished in England, especially through the works of poets such as John Milton and John Donne, and playwrights such as Christopher Marlowe and William Shakespeare. Of all the great figures of the English Renaissance, none has had a more lasting influence than Shakespeare. Shakespeare wrote 38 plays and 154 sonnets many of which continue to be performed today.

The printing press

No means of spreading Renaissance ideas was more important than the printing press. A form of printing with moveable type had been used in China since the late tenth century, but the first European printing press was developed in Germany between 1440 and 1452 by Johannes Gutenberg (1398–1468), a goldsmith. Before Gutenberg's press, books had to be copied by hand or printed from wooden blocks on which each letter had to be hand-carved. This process was very time consuming and therefore very expensive.

Gutenberg's press used movable metal type. This enabled books and pamphlets to be mass-produced so that ideas could circulate widely. Books were generally printed in Latin because it was the international language of scholars. They were also printed in the various languages used by the peoples of Europe. The first book produced on Gutenberg's press was the *Gutenberg Bible*, which was completed in 1456.

DID YOU KNOW?

A Renaissance printing press could produce 3600 pages in a day. It has been estimated that more than 20 million copies of books had been produced on printing presses by 1500. By the late sixteenth century, ten times as many had been printed.

3.9 SKILL ACTIVITY: Historical perspectives and interpretations, Communicating

Evaluate the claim that the most important reason for the spread of Renaissance culture was the invention of the printing press.

To determine the impact of one historical factor historians ask questions about the nature and scale of the consequence.

1. Ask and answer questions about the impact of the printing press on the spread of the culture of the Renaissance:
   a. **Identify** the short-term effects of the printing press.
   b. **Describe** the nature of the effects. (Consider social, cultural, and economic effects).
   c. What was the scale of the impacts? How many people or areas of life were impacted?
2. **Evaluate** the claim: **consider** whether any other factor had a similar or greater impact on the spread of the Renaissance.
3. **Communicate** your findings: present your ideas in a logically written paragraph.

3.9 Exercise

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3.9 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 4	5, 6, 8	7, 9, 10, 11

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Check your understanding

1. How were books printed before using the printing press?
   - A. They were photocopied
   - B. Images were taken of the text and then added together
   - C. There were no books before the printing press
   - D. They were made by hand
2. **Determine** if the following statements are true or false.
   - a. Johannes Gutenberg developed the first printing press.
   - b. Historians call the spread of the Renaissance from Italy to Europe the 'Southern Renaissance'.
   - c. The first book produced on Gutenberg's press was the *Gutenberg Bible*.
3. Young Hungarians studying in Italy returned with humanist ideas and, in the late fifteenth century, the Hungarian city of _____ became an important centre of the arts with one of Europe's greatest collection of books.
4. **State** how many pages a Renaissance press could produce in a day.
5. **Match** how trade, students, scholars and artists contributed to the spread of Renaissance culture.

Artists	Trade	Students	Scholars

Standardising ship-building parts	
Importing silk	
Employed by wealthy people and rulers in northern Europe	
Moving from place to place and bringing books and ideas with them	
Importing art	
Attending university and hearing of the new ideas	
Importing grain	

Apply your understanding

Using historical sources

6. **Examine SOURCE 1** and **explain** why the Renaissance printing press allowed books to be produced faster.

Historical perspectives and interpretations

7. **Explain** how trade, students, scholars and artists contribute to the spread of Renaissance culture?
8. **Evaluate** the claim that the most important reason for the spread of Renaissance culture was the invention of the printing press.
9. **Identify** the changes in the culture of the Renaissance as it spread from Italy to the rest of Europe.
10. **Consider** the patrons who helped to spread the ideas of the Italian Renaissance. In your opinion, was wealth an important factor in encouraging the ideas of the Renaissance? Back up your opinion with evidence.
11. **Rank** in order of significance the factors that spread the ideas of the Renaissance. Provide reasons to **justify** the choice of most important factor.

LESSON
3.10 What were the Reformation and Counter-Reformation?

LEARNING INTENTION

By the end of this lesson you should be able to identify the key changes of the Reformation and explain the key ideas of Martin Luther.

TUNE IN

The events of the Reformation were portrayed in many ways by Renaissance artists.

SOURCE 1 A woodcut by Jorg Breu, c. 1530, showing the Pope's representatives selling indulgences to Catholic townspeople



Examine **SOURCE 1** and its caption and suggest what is happening in the image. What do you think 'selling indulgences' might mean?

3.10.1 Luther challenges the Church

As the name suggests the Reformation began as a series of unrelated attempts to reform the Catholic Church. The people who made these attempts were called Protestants, because they were protesting a specific aspect of the Catholic Church. Protestants believed in the central place of the Bible in determining Christian **doctrine** and that the Bible should be translated into the **vernacular** language so that everyone could read it. However, as a result of these calls for change, significant and permanent divisions occurred within the Christian Church.

doctrine a collective teaching
vernacular everyday language spoken by a particular group or class
chastity choosing not to have sexual relationships

Martin Luther was a German Catholic monk and a professor at the University of Wittenberg. Luther believed that some Church teachings were not supported by the Bible. He disagreed with the Church's practices of selling indulgences (making people pay to have a dead person's soul enter heaven) and selling positions of authority in the Church. He was also angry that many priests, who had taken vows of **chastity**, lived openly in sexual relationships.

Martin Luther believed that the Bible was the ultimate source of Christian teaching. He translated the Bible from Latin, Hebrew and ancient Greek into German. The project took him many years and the German New Testament was published in 1522. A complete translation was published in 1534. Many copies of the Bible were sold thanks to the recently invented printing press. This made the Bible accessible to many people who had never read it before.

In 1517, Luther nailed his *Ninety-Five Theses* to the door of Wittenberg Cathedral. His arguments included the following ideas:

- Popes, bishops and priests were not superior to other Christians.
- Christians did not need priests to stand between them and God.
- Indulgences were corrupt because only God could decide on punishments for sins.
- Priests should be permitted to marry.
- People were not saved (able to enter heaven) by following Church practices.
- People could achieve salvation only through faith in Jesus Christ.

3.10.2 New forms of Protestantism

Other forms of Protestantism soon appeared. In Switzerland, John Calvin formed a church that replaced bishops and priests with elected ministers and in 1536 Calvin published Institutes of the Christian Religion. Calvinists believed that only some people were chosen to be saved. Calvinism spread into parts of France, Germany, the Netherlands and Scotland.

Among other Protestants were the Anabaptists, who rejected the practice of baptising infants, preferring for individuals to make an informed decision about their faith as an adult. The Church of England was formed initially because the Pope would not grant England's King Henry VIII a divorce. Henry declared that he, not the Pope, was head of the English Church and in 1534 the Church of England became separate to the Roman Catholic Church.

3.10.3 The Counter-Reformation

From the late sixteenth century the Catholic Church attempted to reform itself by stamping out corruption and promoting Catholic beliefs. This movement was called the Counter-Reformation. The Church began this process at the Council of Trent, 1545 to 1563. Among Catholicism's most effective defenders was the Society of Jesus (Jesuits). It was formed in 1534 to convert heretics and non-believers. Jesuit priests set up missions, schools and colleges in Africa and Asia. In the New World, they befriended and converted many Native Americans.

3.10.4 Wars of religion

Religious uprisings and wars raged across Europe for over a century. In Germany, under the Peace of Augsburg (1555), it was agreed that each ruler had the right to decide the religion of his subjects. However, in 1618, the Thirty Years' War began. It was partly about religion and partly a struggle for power between rival rulers. It spread over much of Europe but was worst in Germany, where a third of the population was wiped out.

SOURCE 2 The Massacre of Saint Bartholomew's Eve in Paris on 24 August 1572. In this incident, Catholic extremists dragged some eight thousand Huguenots (French Protestants) out of their beds and slaughtered them.



3.10 SKILL ACTIVITY: Historical perspectives and interpretations

During the Reformation and Counter-Reformation wars of religions were fought throughout Europe.

1. Use your library and the internet to **research** the European wars of religion.
2. Take notes on **where** each conflict was fought, the **motive** for the conflict and the **outcomes**, including death rates and religious repression.
3. **Consider** these conflicts in light of the aims of the Protestant reforms discussed above.
4. **Conduct** a class debate on the following topic:

   The results of the Protestant Reformation were vastly different from the intentions of those who started it.

3.10 Exercise

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3.10 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 5	3, 4, 6, 7, 8	9, 10, 11

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Check your understanding

1. By creating the Church of England, the priests and Henry VIII were declaring that they did not recognise the Pope as the head of the Church and therefore did not recognise his decisions. True or false?
2. How did the Jesuits promote the beliefs of the Catholic Church?
   - **A.** The Jesuits set up schools, missions and colleges in Europe and Antarctica, and befriended and converted Native Americans.
   - **B.** The Jesuits set up orphanages in Africa and Asia, and befriended and converted Native Americans.
   - **C.** The Jesuits set up schools, missions and colleges in Africa and Asia, and befriended and converted Maoris.
   - **D.** The Jesuits set up schools, missions and colleges in Africa, and befriended and converted Native Americans.
3. **Define** Protestantism.
4. **Explain** the Counter-Reformation.
5. The _____ refers to the attempts to reform the Catholic Church, which led to the establishment of the _____ churches.
6. Under the Peace of Augsburg, who had the right to decide what religion people would follow in any state?

Apply your understanding

Using historical sources

7. From Luther's *Ninety-Five Theses*, **identify** one demand that was concerned with corruption and one demand that challenged Church beliefs.
8. **Clarify** the point Jorg Breu was making about indulgences in **SOURCE 1**?
9. Using **SOURCE 2** as your evidence, write a paragraph and **describe** one consequence of the Reformation.

Communicating

10. **Create** a list that puts into order the events of the Reformation and Counter-Reformation chronologically.
11. **Summarise** how the results of the Reformation different from the intentions of those who started it.

LESSON
3.11 What were the legacies of the Renaissance?

LEARNING INTENTION

By the end of this lesson you should be able to identify and discuss the legacies of the Renaissance. You should also be able to name important Renaissance literary and artistic works and explain the important changes in scientific method which occurred during the Renaissance.

TUNE IN

SOURCE 1 shows a section of the fresco (a mural applied over wet plaster) painted on the ceiling of the Sistine Chapel in the Vatican. The artwork was completed by Michelangelo between 1508 and 1512 and contains biblical and ancient references.

SOURCE 1 Artwork on the ceiling of the Sistine Chapel at St Peter's Basilica



1. Examine **SOURCE 1** and consider how the artist would have been able to paint such a huge scene on a ceiling in a time before modern machinery.
2. Discuss what this painting reveals about the values and attitudes of the society which made it.

3.11.1 Renaissance art and literature

The legacy of the Renaissance is enormous. Its spirit of inquiry encouraged change and a thirst for new knowledge and understanding. It brought ways of thinking that are essential to the scientific advances that are so much a part of the modern world. The Renaissance era has also given us a wonderful cultural legacy, while the Reformation and Counter-Reformation changed the Christian faith and led to new **denominations**.

denomination a religious group, especially an established church

Millions of people visit Italy every year to see the artistic legacies of the Renaissance. In Florence, they visit sites such as the Cathedral of Santa Maria del Fiore, the Uffizi Gallery, which has some of the great works of Renaissance art, and the Accademia Gallery, which holds Michelangelo's magnificent sculpture *David*. The Vatican in Rome holds many more Renaissance artistic treasures, and there are others scattered around churches, galleries and museums across Italy and throughout the world.

SOURCE 2 The dome of St Peter's Basilica is considered a Renaissance cultural treasure.



The spirit of the Renaissance combined with the introduction of printing contributed to the rise of literature, which has been with us ever since. Famous Italian writers included Dante, Petrarch and Boccaccio. Leonardo Bruni is considered the first modern historian. Niccolo Machiavelli (1469–1527) described ruthless methods of gaining political power in *The Prince*. In modern times, we use the word *Machiavellian* to describe someone who uses ruthless, scheming methods to rise in politics.

Even more significant have been the works of the great English Renaissance era playwright William Shakespeare (1564–1616) who produced about 38 plays and over 160 poems. Not since the age of the ancient Greeks had such great steps been taken to explore human behaviour through drama. In his own time, the audiences for performances of Shakespeare's plays included every level of English society. Shakespeare's plays are still widely studied. They have been translated into almost all modern languages and their performances still draw huge audiences throughout the world. This is because they portray human situations and conflicts and pose questions that are still relevant to modern times.

3.11.2 Scientific legacies

Perhaps the most important of all legacies of the Renaissance era is scientific thinking. Before the Renaissance scientific studies were not seen as separate from religion, and authorities saw inquiry as a threat to their beliefs and their power. We know today that there is still much remaining to be discovered. However, Renaissance thinkers like Copernicus and Galileo investigated and developed hypotheses based on observations, calculations and other kinds of evidence. We owe a great debt to those who pushed the boundaries of knowledge.

3.11 SKILL ACTIVITY: Historical perspectives and interpretations, Communicating

1. The Renaissance was a time of new ideas and change.
   a. **List** the positive and negative consequences of the Renaissance. (**Consider** the changes that caused conflict as well as the changes that were celebrated.)
   b. Review your list with a partner. Are there any consequences that you put into different columns? **Discuss** your reasons for doing this.
   c. Would you change your list after your discussion with your partner? Why or why not?
   d. Having considered your list, **decide** if you think the consequences of the Renaissance were mainly positive or mainly negative. **Justify** your position with reasons.
   e. Review your list and **decide** which single consequence you think is the most important. Provide a reason for your opinion.

2. Draw up three columns in your workbook.
   a. In the first column, **list** the legacies of the Renaissance era.
   b. In the middle column, give one example of each type of legacy. You may need to look back at previous lessons for more information.
   c. In the third column, **rank** these legacies in the order in which you think they have had the most impact on the modern world.
   d. Share your list with the class and **justify** your rankings.

3.11 Exercise

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3.11 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 4, 6	5, 7, 8	9, 10

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- Receive immediate feedback
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Check your understanding

1. How did the Reformation change who could read the Bible? **Select** all that apply.
   A. The Reformation and Counter-Reformation encouraged the spread of education and so more people could read the Bible.
   B. The Bible was translated into the native language of each country, so it was no longer confined to people who could read Latin; anyone who could read their native language could now read it.
   C. The invention of the printing press meant that Bibles were more affordable to buy and so less wealthy people could afford to own one.
   D. The invention of the photocopier also meant that Bibles were more affordable to buy and so less wealthy people could afford to own one.
2. Today we use the word *Machiavellian* to describe someone who used ruthless methods in politics. True or false?
3. **Identify** where might you go to see examples of Renaissance art.
4. **List** three legacies of the Renaissance.
5. **Explain** how the discoveries of Copernicus and Galileo changed the way we think about the universe.
6. 'Scientific thinking' is a phrase used to describe a way of thinking about the world that is based on _____, evidence and _____.

Apply your understanding

Historical perspectives and interpretations

7. **State** what **SOURCES 1** and **2** can show us about the ideas, values and skills of Renaissance artists and architects. Refer to specific aspects of the works in your answer.

Communicating

8. Many patrons of the Renaissance were motivated by a desire to make their cities more beautiful. **Consider** one city-state you have studied and decide if they achieved their aims. **Justify** your response with examples. Present your ideas as an annotated visual.
9. The Renaissance saw conflict between scientific discovery and religion. Do you think there is still such a conflict today or can a person be both scientific and religious? **Justify** your response.
10. **Evaluate** which scientific discovery of the Renaissance is most significant. **Justify** your position with a reason.

LESSON
3.12 INQUIRY: Significant women of the Renaissance

LEARNING INTENTION

By the end of this lesson you should have a comprehensive understanding of Lucrezia Borgia's influence on the Renaissance and identify the important roles other women played during the Renaissance.

Background

Several women played an important role in society during the Renaissance, including Lucrezia Borgia, Catherine de Medici, Isabella d'Este and Catrina Sforza. We can study the contribution of these individuals and learn about the position and role of women during the Renaissance.

Task

Create a 2–3-minute film trailer that **evaluates** the significance of Lucrezia Borgia to our understanding of Renaissance society. You will be assessed on your ability to **communicate** a clear contention supported by specific evidence.

Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

Inquiry steps

Step 1: Questioning and researching

You may wish to review your knowledge of Lucrezia Borgia in lesson 3.6. **Compose** three questions about the significance of the life of Lucrezia Borgia. **Consider** the following prompts:

- **Evaluate** the position and role of women
- **Analyse** the role of men in her family
- **Analyse** differences in historical perspectives

Use Google Scholar or Trove to research the life of Lucrezia Borgia. You will need specific detailed information to analyse. Think carefully about your search terms and use the Advanced Search function.

Take notes under the following headings. Review your questions and add subheadings as needed. Remember to use dot points and include specific information.

Subtopics	Key points	Primary sources/ Historical interpretations
Early life (be brief)		
Rome — first marriage		
Life in the convent		
Rome — second marriage		
Ferrara — third marriage		

Step 2: Using historical sources

Lucrezia has proved to be a controversial figure and the assessment of her varies considerably in primary sources. Use Trove or Google Scholar to locate primary source descriptions of Lucrezia. Ensure that you include at least one author writing about her life in Rome and one who wrote about her as Duchess of Ferrara. Paintings are also considered primary sources. When **analysing** paintings pay attention to the representation of the subject.

Renaissance authors who focus on her time in Rome and tend to take a negative view include: Sannazzaro, Pontanus, Priuli, Machiavelli and Guicciardini. Johann Burchard was in Rome with her and therefore his account is more likely to be knowledgeable. Those who wrote more favourably include Ercole Strozzi, Bembo, Aldo Manuzio, Tebaldeo and Ariosto.

The interpretations of historians have varied considerably over time. Using your preferred search tool, locate and **analyse** historical interpretations of Lucrezia. Pay attention to the information each historian focuses on. **Consider** how the values and attitudes of the historian might be influencing their judgements about Lucrezia. Add this information to your table, taking note of the reasons for the position of each historian.

Step 3: Historical perspectives and interpretations

Think carefully about the primary sources and historical interpretations in your notes. Assessments of Lucrezia are extremely diverse. This is influenced by attitudes to her father Alexander and brother, Cesare.

1. Did the authors of the primary sources have access to first-hand information about Lucrezia? Can their claims be proven or disproven?
2. What do the historical interpretations tell us about the values of the historians? To what extent have the historical interpretations of Lucrezia changed over time?
3. What can historians learn from studying the life of Lucrezia about the position and role of women during the Renaissance?

Step 4: Communicating

Reflect on your study of Lucrezia, read over your notes and make three strong claims about the significance of her life. Write each claim as a statement. Support each claim with evidence. This evidence might be information, a primary source or historical interpretation. **Analyse** each claim, **explaining** its significance. **Review** your claims and revise as needed.

Complete your self-assessment using the **Inquiry rubric** or access the 3.12 exercise set to complete it online.

on Resources

Digital document Inquiry rubric (doc-39429)

LESSON
3.13 Review

Hey students! Now that it's time to revise this topic, go online to:

- **Review your results**
- **Watch teacher-led videos**
- **Practise questions with immediate feedback**

Find all this and MORE in jacPLUS



3.13.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

3.2 How do we know about Renaissance Italy?

- During the Renaissance there was renewed interest in the ideas and art of ancient Greece and Rome.
- Study and innovation gave rise to new cultural expression and intellectual pursuits.
- A large range of primary sources survive from the Renaissance.

3.3 What were the origins of the Renaissance?

- City-states became important centres, which encouraged the changes of the Renaissance.
- New industries made a new group of men wealthy.
- Wealthy individuals and groups commissioned art, architecture, literature and music.

3.4 Why is Florence the cradle of the Renaissance?

- During the Renaissance, Florence grew into a large urban centre, with a variety of profitable industries.
- Lifestyles and experiences varied between social groups.
- Florence was governed by members of the guilds.
- Wealthy merchant families, including the Medici family, were able to manipulate the government system and exercise considerable political power.
- Humanism encouraged the expansion of intellectual pursuits during the Renaissance, including a broader education curriculum, interest in Classical Greek and Roman literature and new literary and historical works.

3.5 How did Venice contribute to the Renaissance?

- Venice became a strong naval power and centre of trade during the Renaissance.
- Advances in ship-building techniques made the Venetian industry very efficient.
- Venice was a republic until 1797, when Napoleon invaded.

3.6 What was it like to live during the Renaissance?

- During the Renaissance, family provided guidance, advice and connections.
- Social networks were important for conducting business, developing friendships and asking for favours.
- The Church played an important role in people's lives, marking important occasions like marriage and baptism, as well as holding feasts and festivals.
- Marriages tended to be arranged between families, rather than between individuals.

3.7 How did art, architecture and sculpture change during the Renaissance?

- Religious scenes continued to be popular, however, new subject matter appeared in art and sculpture.
- Artists introduced new techniques, including linear perspective that showed depth more realistically.
- New techniques and styles were introduced in architecture, including the introduction of columns and arches.

3.8 Who contributed to the scientific revolution?

- During the Renaissance scientific discovery was increasingly based on observations and logic.
- Many scientific discoveries were made during the Renaissance in areas of astronomy, medicine, biology and mathematics among others, including the Copernicus' model of the solar system and the observations of Galileo using a telescope.

3.9 How did the Renaissance spread?

- From the mid-fifteenth century the ideas of the Renaissance spread from Italy to Europe.
- The printing press meant that books were more widely available.
- The movement of artists, scholars and humanists spread ideas throughout Europe.
- In the early sixteenth century English culture flourished.

3.10 What were the Reformation and Counter-Reformation?

- The Reformation began as a series of unrelated attempts to reform the Catholic Church.
- One important reformer was Martin Luther, who translated the Bible from Hebrew and ancient Greek to local languages, making the Bible accessible to many people who had not been able to read it before.
- In Switzerland, John Calvin formed a church with elected ministers instead of priests and bishops.
- In England, King Henry VIII created the Church of England and replaced the Pope as its head.
- In response to the Reformation, the Catholic Church experienced its own period of reform, which is called the Counter-Reformation.

3.11 What were the legacies of the Renaissance?

- The Renaissance gave the world an enormous cultural legacy of art, sculpture, architecture, poetry and literature.
- The spirit of intellectual inquiry in humanism influenced new generations to study and create.
- The advances in the fields of science and mathematics contributed to modern society.
- The Reformation created several new Christian denominations that exist today.
- The Bible was translated into local languages and large numbers were printed on printing presses.

3.12 INQUIRY: Significant women of the Renaissance

- Lucrezia Borgia was a prominent Renaissance woman connected to powerful male relatives and three influential husbands.
- Views on her life and character varied considerably during the Renaissance.

3.13.2 Key terms

anatomical drawing drawing showing the workings of organs and systems of the body
anatomy the scientific study of the structure of the body
arsenalotti craftsmen who built ships in Venice
chastity choosing not to have sexual relationships
denomination a religious group, especially an established church
doctrine a collective teaching
dowry a payment of money or goods as part of a marriage agreement
fresco a picture painted on a freshly plastered wall or ceiling
friar a member of a Catholic order who was supposed to live in poverty
guild an association of people engaged in a particular trade or craft for the mutual benefit of its members
hereditary passed from parent to a child
heretic one who rejects the teachings of the Church
merchant a person who buys and sells goods for profit
oligarchy a form of government where all power is held by a few people
patron a person or institution who pays for a work to be created
philosophy the study of the principles underlying all knowledge
popolo grasso the fat people in the Renaissance. A term used to describe the wealthy.
popolo minuto the small people in the Renaissance. A term used to describe people of modest means.
republic a state in which the head of the government is not a ruler who inherits his position as might a king or emperor
Roman Inquisition a system of tribunals set up by the Catholic Church during the sixteenth century to censor literature and prosecute people accused of heresy and other crimes
vernacular everyday language spoken by a particular group or class

3.13.3 Reflection

Complete the following to reflect on your learning.

Revisit the inquiry questions posed in the Overview:

How did societies change during the Renaissance?

How have individuals, groups and ideas from the Renaissance influenced the modern world?

1. Now that you have completed this topic, what is your view on the questions? Discuss with a partner. Has your learning in this topic changed you view? If so, how?
2. Write a paragraph in response to the inquiry questions, outlining your views.

on Resources

eWorkbooks Customisable worksheets for this topic (ewbk-10576)
Reflection (ewbk-10577)
Crossword (ewbk-10578)
Interactivity Renaissance Italy crossword (int-7592)

3.13 Review exercise

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Multiple choice

1. The Renaissance began in the city-states of
   - **A.** England.
   - **B.** France.
   - **C.** Italy.
   - **D.** Spain.
2. The culture of the Renaissance was influenced by an interest in
   - **A.** medieval Church thinkers.
   - **B.** classical Greece and Rome.
   - **C.** Viking relics.
   - **D.** Indian scholars.
3. During the Renaissance there were changes in
   - **A.** art, sculpture and architecture.
   - **B.** science and maths.
   - **C.** literature.
   - **D.** all of the above.
4. Patrons played an important role in the production of art and literature during the Renaissance by
   - **A.** paying for works to be produced.
   - **B.** directing arts/scholars regarding composition.
   - **C.** collecting works of classical Greece and Rome.
   - **D.** all of the above.
5. Florence and Venice were republics, meaning that
   - **A.** they were ruled by a duke.
   - **B.** they were ruled by a small group of citizens.
   - **C.** they were ruled by the Pope.
   - **D.** everyone in the city-state had a vote.
6. Venice was a wealthy city-state that was a centre of
   - **A.** wool and silk manufacturing.
   - **B.** agricultural production.
   - **C.** trade and shipping building.
   - **D.** timber and mining.
7. During the Renaissance art, sculpture and architecture included
   - **A.** anatomically correct figures.
   - **B.** portraits.
   - **C.** perspective.
   - **D.** all of the above.

8. Scientific thinkers of the Renaissance based their theories on
   - **A.** observations and logic.
   - **B.** the teaching of the Catholic Church.
   - **C.** accepted theories.
   - **D.** popular opinion.
9. The ideas of the Renaissance spread throughout Europe as a result of
   - **A.** trade between city-states and countries.
   - **B.** travel of patrons and artists.
   - **C.** individuals studying at Italian universities.
   - **D.** all of the above.
10. The Reformation was
   - **A.** encouraged by the Catholic Church.
   - **B.** a series of unrelated attempts to reform the Catholic Church.
   - **C.** accepted by everyone.
   - **D.** a movement of the Catholic Church to reform itself.

Short answer

Communicating

11. **Select** the correct terms to complete the following sentences.
   - **a.** During the Renaissance, **eastern / western** European scholars were inspired by the classical art and literature of ancient Greece and Rome.
   - **b.** The first **schools / universities** were formed by people who encouraged a new spirit of inquiry.
   - **c.** This spirit of inquiry often led to criticism of the **Catholic / Protestant** Church.
   - **d.** Humanism stressed the importance of **faith / logic and reason**.
12. **Match** the Renaissance person or group to their achievement.

Name		Achievement
Leonardo da Vinci		**a.** missions and schools in Asia and Africa
Michelangelo Buonarroti		**b.** the Reformation in Switzerland
Filippo Brunelleschi		**c.** architecture
The Medici family		**d.** the heliocentric system
Galileo Galilei		**e.** painting and sculpture
Nicolaus Copernicus		**f.** patronage of artists
John Calvin		**g.** a powerful telescope
The Jesuits		**h.** many designs for inventions and engineering, scientific experiments, art and music

13. **Describe** the factors that influenced the emergence of the Renaissance in Italy in the fourteenth century.
14. **Summarise** how attitudes to science changed during the Renaissance.
15. **Explain** what is meant by the term 'Reformation' and the changes that occurred during it.

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Online Resources

on Resources

This is a summary of the digital resources you will find online for Topic 3 to help support your learning and deepen your understanding. When you see these icons next to an image or paragraph, go to learnON to access video eLessons, interactivities, weblinks and other support material for this topic.

3.1 Overview

eWorkbook
- Customisable worksheets for this topic (ewbk-10576)

Video eLesson
- Renaissance Italy (eles-1826)

Interactivity
- A timeline of the Renaissance (int-8968)

3.4 Why is Florence called the cradle of the Renaissance?

Video eLesson
- Discussing a nineteenth-century copy of the Pianta della Cantena, a woodcut made about 1470, showing Florence at the height of the Renaissance (tlvd-10584)

Audio
- Adapted from the chronicle attributed to Acciaioli, in Chronicles of the Tumult of the Ciompi (aud-0432)
- Leonardo Bruni, The History of Florence (aud-0433)
- Diary of Gregorio Dati, entry from 1412 (aud-0434)

Weblink
- 1427 Castato

3.5 How did Venice contribute to the Renaissance?

Video eLesson
- Exploring a map of the Venetian sea trade routes (tlvd-10585)

Audio
- Frederic C. Lane, *Venice: A Maritime Republic* (aud-0435)
- Geofrey T. Mills, *Early accounting in Northern Italy* (aud-0436)

3.6 What was it like to live during the Renaissance?

Video eLesson
- Discussing Lucrezia Borgia (tlvd-10586)

3.7 How did art, architecture and sculpture change during the Renaissance?

Video eLesson
- Analysing The School of Athens by Raphael (tlvd-10587)

3.8 Who contributed to the scientific revolution?

Audio
- Adapted from Leonardo's letter to the Duke of Milan, requesting a job (aud-0437)
- Adapted from Sidereus Nuncius published in 1610 (aud-0438)

3.9 How did the Renaissance spread?

Interactivity
- A modern artist's impression of printers producing books on a fifteenth-century printing press (int-4124)

3.12 INQUIRY: Significant women of the Renaissance

Digital document
- Inquiry rubric (doc-39429)

3.13 Review

eWorkbooks
- Customisable worksheets for this topic (ewbk-10576)
- Reflection (ewbk-10577)
- Crossword (ewbk-10578)

Interactivity
- Renaissance Italy word search (int-7592)

To access these online resources, log on to **www.jacplus.com.au**.

4 The emergence of the modern world (c. 1500–1650)



LESSON SEQUENCE

4.1 Overview 107
4.2 How do we know about the emergence of the modern world? 109
4.3 What caused economic and social change in Early Modern times? 112
4.4 How did the Protestant Reformation bring change? 116
4.5 How did the power of rulers change in Early Modern Europe? 120
4.6 What were the achievements of the Scientific Revolution? 125
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LESSON
4.1 Overview

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How did societies change in Early Modern Times? What key beliefs and values influenced them? What were peoples' perspectives? Which significant ideas have influenced the world today and how have historians interpreted the period?

4.1.1 Introduction

This topic looks at the enormous changes that reshaped Europe from about 1500 to 1650 CE. This period is called **Early Modern Times** and the age of the **Scientific Revolution** and also the **Reformation Era**, because it saw revolutionary changes in religion. It overlaps with the period called the **Renaissance**, which began in the fifteenth century. This period saw changes in technology, growth of population and a renewed growth of cities and trade. It was also called the **Age of Exploration**.

The Early Modern Times period marked the end of the Middle Ages and the beginning of Modern Times. In our own times, we are used to change. We only have to think about technologies like mobile phones and digital television and issues like global warming and artificial intelligence to know that the future will be different from the present. Today, in most of the world, people freely investigate scientific problems. But such freedoms do not exist everywhere in the modern world and they did not exist in Europe in the period 1500 to 1650. In many ways, our lives today are shaped by changes that began in that time.

SOURCE 1 The Henry the Navigator *Monument to the Discoveries*, in Lisbon, Portugal. The monument commemorates Portuguese sailors who led in the quest for trade, colonies and riches.



Early Modern Times the sixteenth and seventeenth centuries

Scientific Revolution age of scientific discoveries and achievements

Reformation Era the period of the emergence of Protestant churches

Renaissance period of great changes in the arts, science and learning in the fifteenth and sixteenth centuries

on Resources

Workbook Customisable worksheets for this topic (ewbk-10662)

Video eLesson The emergence of the modern world (c. 1500–1650) (eles-6003)

int-8969

SOURCE 2 A timeline from the emergence of the modern world (c. 1500–1650)









CE

1440

1445
Johannes Gutenberg produces the first European book on a printing press using moveable type.

1460

1473
The Spanish Inquisition is established.

1492
Christopher Columbus reaches the Americas in a sailing ship. Leonardo da Vinci designs a flying machine.

1480

1498
Vasco da Gama reaches India by sea.

1500

1517
Martin Luther begins the Protestant Reformation.

1519–22
A Spanish expedition commanded by Magellan and Elcano is the first to circumnavigate the world.

1524–25
The German Peasants' War.

1520

1531–32
The Church of England breaks away from the Roman Catholic Church.

1536
The Inquisition is established in Portugal.

1540

1534
Jacques Cartier makes his first voyage to North America for France.

1543
Nicolaus Copernicus publishes *De Revolutionibus Orbium Coelestium*, the first book showing that the Earth is not the centre of the universe.

1553
Michael Servetus is burnt at the stake by order of the Protestant governing council of Geneva, Switzerland.

1560

1558
Beginning of the reign of Queen Elizabeth I in England.

1555
In Germany, under the Peace of Augsburg, it is agreed that each ruler has the right to determine the religion of his subjects.

1580

1589–1613
William Shakespeare creates most of his known work.

1600

1562–98
French wars of religion between Catholics and Huguenots (Protestants).

1620

1606
The first landing by Dutch sailors in Australia.

1640

1600
The astronomer Giordano Bruno is burnt at the stake in Rome. By this year an estimated one million African slaves have been transported to Spanish and Portuguese colonies in the Americas.

1609
Johannes Kepler publishes *Astronomia Nova (New Astronomy)*.

1660

1633
Galileo Galilei is arrested for denying that the Earth is the centre of the universe.

1618–48
The Thirty Years War kills a third of Germany's people.

1680

1700

1642
English Civil War breaks out between the Parliament and monarchy.

CE

LESSON
4.2 How do we know about the emergence of the modern world?

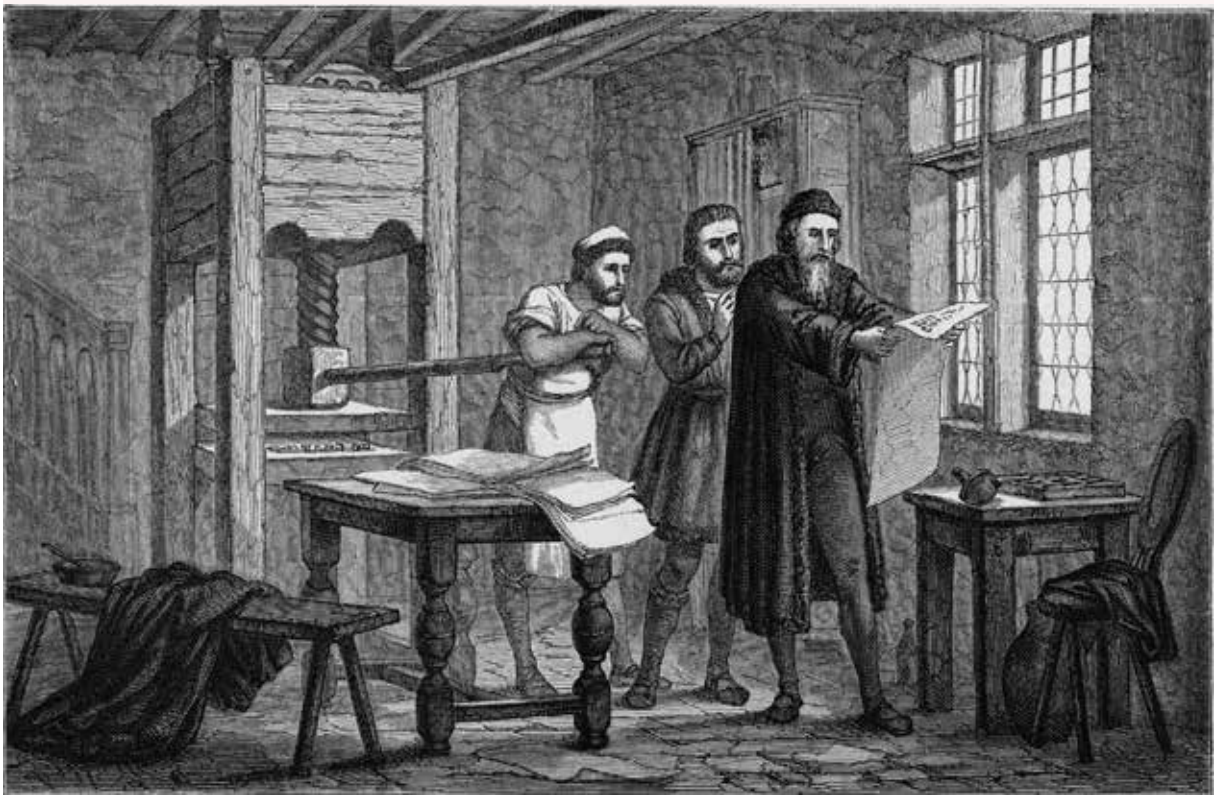
LEARNING INTENTION

By the end of this lesson you should be able to explain how we know about Europe in the period from around 1500 to 1650, and begin to develop the skills of identifying, analysing and using historical sources.

TUNE IN

In Europe during the Middle Ages, most written records were made by monks and other church people and most ordinary people were illiterate. In the period c. 1500 to 1650 most Europeans were still illiterate. However, new ideas were able to be spread among educated people and no means of spreading ideas was more important than the printing press. A form of printing with moveable type had been used in China since the tenth century CE, but the first European printing press was developed in Germany between 1440 and 1452 by Johannes Gutenberg (1398–1452), a goldsmith.

SOURCE 1 An artist's impression of Johannes Gutenberg inspecting the first sheet of his Bible printed on his printing press.



Consider the following questions and discuss with your class:

1. What would it be like if all books still had to be copied by hand?
2. Can you imagine life without printing?
3. What difference would the printing press have made?

4.2.1 Primary sources

As you know, our knowledge of history is based on evidence from primary sources. Generally, we know more about the period between 1500 and 1650 than about many ancient and medieval societies because more evidence has survived. There are still gaps in our written evidence because some sources have been lost and, because ***most*** people could not read or write, we have little evidence of their ideas. But the printing press enabled many more copies of written sources to be made and therefore increased the chances of copies surviving.

We still have to be very careful about what we trust. Very often we only have the recorded evidence of one side in a conflict. This was especially so doing a period of religious conflict. Also, the people who made written records usually came from the privileged groups in a society. Although such people did not all see things the same way, we need to look out for bias.

Archaeological sources

We have many archaeological sources from this era. Many of them tell us about religious beliefs. There are Catholic and Protestant Christian churches and the art that represents ideas of these faiths. Other remains tell us about everyday life, work and trade. These include towns, their walls and marketplaces and weapons and armour that tell us about war, which was a constant feature of these times.

SOURCE 2 Detail from the artist Fra Angelico's painting *The Last Judgement*, 1432–1435



SOURCE 3 Peasants paying taxes to their lord in both money and livestock, a fifteenth-century woodcut



Using the sources

You will begin to gain understanding of these times from just a few sources. Remember that to analyse a source you need to ask historical questions, for example:

- What is this source about?
- When was it made or built or created?
- Where is it from?
- Who created this source?
- Why did it exist?

aud-0439

4.2 SKILL ACTIVITY: Using historical sources

Identify the origin, content, context and purpose of primary and secondary sources by **examining SOURCE 4**.

SOURCE 4 From the journal of Christopher Columbus, written for the King and Queen of Spain during Columbus's voyage of 1492, during which he accidentally discovered America

Your Highnesses, as Catholic Christians, and princes who love and promote the holy Christian faith, and are enemies of the **doctrine of Mahomet**, and of all **idolatry** and **heresy**, determined to send me, Christopher Columbus, to . . . India to see the said princes, people, and territories, and to learn their disposition and the proper method of converting them to our holy faith; and furthermore directed that I should not proceed by land to the East, as is customary, but by a Westerly route, in which direction we have . . . no certain evidence that any one has gone. So after having expelled the Jews from your dominions, your Highnesses, in the same month of January, ordered me to proceed with a sufficient armament to the said region of India . . .

doctrine of Mahomet the religion of Islam; the Muslim faith, which follows the teachings of Mohammed
idolatry the worship of idols
heresy opinion that challenged or differed from that of the Roman Catholic Church or the less tolerant Protestant churches

1. **Identify** who instructed Columbus to make this voyage.
2. **Describe** their attitudes to Muslims, Jews and other non-Christians.
3. **Identify** when the voyage took place.
4. **Explain** in which direction Columbus was ordered to sail to India.
5. Refer to a world map to find out what undiscovered continent would have stood in his way.

4.2 Exercise

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4.2 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 5	6, 7, 8

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Check your understanding

1. **Identify** which of the following are reasons why written sources from this period are quite likely to be biased.
   - **A.** Only educated people were able to read and write.
   - **B.** All educated people had the same views.
   - **C.** Ideas were spread by printed books.
   - **D.** In a time of religious conflict, written sources might be propaganda for one side.
2. The printing press helped to ensure that copies of many books and pamphlets from this period survived. True or false?
3. **Consider** the following archaeological sources**. Identify** what aspects of this period they each provide evidence of:
   - **a.** markets
   - **b.** weapons
   - **c.** a town
   - **d.** a church
4. History is based on evidence from primary sources. **Explain** why there are sometimes gaps in our evidence for this period.

Apply your understanding

Using historical sources

5. **Analyse SOURCE 2** using the following questions:
   a. Who created this source and when was it created?
   b. **Identify** reasons for its creation.
   c. **Describe** the tortures suffered by sinners in this depiction of hell.
   d. **Explain** how you think believing in such an afterlife would have affected people's behaviour.
6. **Examine SOURCE 3** and locate the peasant who is paying the taxes.
   a. **Explain** how you can tell that he is paying in both money and livestock.
   b. How do you think he would have felt about being forced to pay in the traditional feudal way and in cash?
   c. Why might peasants be a potentially rebellious social class?

Communicating

7. **Explain** which sections of European societies are unlikely to have their perspectives expressed in written primary sources.
8. **Discuss** what general conclusions about this period you can draw from **SOURCES 2, 3** and **4**.

LESSON
4.3 What caused economic and social change in Early Modern times?

LEARNING INTENTION

By the end of this lesson you should be able to explain how changes in economic activity, including the growth of towns, cities and trade, contributed to the transformation of the medieval world to the modern world.

TUNE IN

In the **SOURCE 1** extract, the writer is raising a question about how we should understand the causes of big changes that came about in the period 1500 to 1650.

SOURCE 1 From Roland H. Bainton, *The Age of the Reformation*, New York, 1956, p. 4

The Age of the Reformation was an age of upheaval. With regard to every such era dispute arises as to whether events precipitated ideas or ideas incited events. Undoubtedly travel, discovery, invention, and the consolidation of power prompted reflection about institutions and about the ultimate problems of life.

Consider the following questions and discuss your answers with the class:
1. What do you think he is saying about the question of whether events brought about changes in ideas OR whether changes in ideas caused events?
2. Can you think of an example from our own times that raises the same question?

4.3.1 Economic changes

The period c. 1500–1650 is often described as a time of transition from the medieval system of **feudalism** to the modern system of **capitalism**. Feudalism is a general term for the system under which land was held or used by **vassals** in return for services to

feudalism social order in medieval Europe

capitalism economic system in which the means of production, distribution and exchange are privately owned

vassal a person who holds land for a lord, and in return pledges loyalty and service to him

their **lords**, who were supposed to protect them in return. In reality, feudalism was different in different times and places. Capitalism is the modern economic system in which the means of production, distribution and exchange are owned by individuals or companies motivated by the desire to make profits.

In the early fourteenth century, European population levels fell due to wars and epidemics, especially the Black Death (bubonic plague), and the Little Ice Age, a cold period in the Northern Hemisphere, which caused famines.

However, populations grew rapidly after 1350. The number of towns grew again and some towns and cities grew wealthy and powerful. For most people in most places, life in the period 1500 to 1650 CE probably seemed to go on much as it had before.

Few people could have been aware that changes that were happening would have enormous consequences. Almost all of the great changes that began in this period started in Europe. The discovery of new lands, including the Americas, led to a commercial revolution that was headed by Portugal. By the mid-sixteenth century, the Portuguese had set up trading posts along the coast of Africa, in the East Indies and in India and Brazil. Spain soon followed Portugal in claiming much of the **New World**.

lords feudal term for aristocracy of big landowners

New World a term for the Americas during Early Modern Times

The price revolution

Merchants were the main groups to benefit from the commercial revolution. They improved methods of transport by land and sea. They also improved commerce and finance and took measures to make their businesses more efficient and they were assisted by rulers of kingdoms, states and cities. Merchants formed *hanses* (guilds), of which the best-known was the Hanseatic League, which dominated trade in Germany, northern Russia and Scandinavia.

However, while successful merchants grew wealthy, the poor grew poorer. From the late fifteenth century, Europe experienced a price revolution that was caused by Spain and Portugal exporting to Europe large quantities of silver and gold from their colonies in the Americas. These exports caused the value of precious metals to fall, which caused inflation.

SOURCE 2 Trade, merchants and money changers, a c. 1539 woodcut by Joss Amman. During the period, many hundreds of publications were sold on methods of bookkeeping for businesses.



In the same period, Europe's population increased between 1460 and 1620, raising demand for all kinds of goods, including food. The result was widespread hunger as earnings for the poor lagged behind prices. Big landowners benefited while the poor suffered.

4.3.2 Social classes

By around 1500 CE, several social classes in Europe were dissatisfied with the economic changes that were affecting their lives.

- **Townsmen** who were successful in business increased their influence with rulers. The most powerful were the **patricians**, who made up only about 3 per cent of the population of cities and towns but controlled their economies and lived in houses that were equal to those of the **nobles**.
- **Craftsmen** and their families made up about 90 per cent of the population of towns. They consisted mainly of guild masters, journeymen and traders and they often revolted against the power of the patricians. Medieval craft guilds lost their powers to control trade and became hostile to these changes.
- Towns were also the homes of many day labourers and servants and they were poor and suffered due to the price revolution.
- **Peasants** remained poor but they were becoming literate and interested in movements for reform. Increasingly, wealthy town and city dwellers invested in agriculture and territorial rulers imposed new taxes on peasants, which would cause peasant revolts in Europe.
- The **feudal aristocracy, the nobles,** had lost any real reason for existing but they clung onto their medieval rights and privileges. Kings, princes and other territorial rulers no longer needed them for protection. Armed with English long bows, hand guns and cannons, standing armies and **mercenaries** were able to defeat the most heavily armoured mounted knights. Some knights became officers in armies, including mercenary armies, while others became robber barons stealing from villagers and merchants.
- The higher **clergy** became richer through increasing money payments charged for their services, so poor people increasingly resented them and the power they had. While the lower clergy were often poor, many of the higher clergy were as wealthy as some kings.

mercenary soldier who fights for money rather than for ideals or patriotism

clergy officials of the Church

aud-0440

4.3 SKILL ACTIVITY: Using historical sources

Identify the origin, content, context and purpose of primary and secondary sources by examining **SOURCE 3**.

SOURCE 3 From Harold J. Grimm, *The Reformation Era 1500–1650*

. . . a new attitude toward economic matters manifested itself among businessmen which may be called the '**capitalist spirit**'. Since money was no longer loaned primarily to assist those who were in need, but also loaned for profit, the Biblical [restrictions] . . . and other restrictions upon **usury** were . . . ignored. The new spirit began to touch nearly every phase of European life. Feudal services and dues were commuted to money payments; agricultural production came to be looked at as a means of making profit; merchants and even some nobles invested accumulated surpluses in commercial and industrial enterprises; **entrepreneurs** began to own raw materials, warehouses and the means of production; labor was hired as a means of creating new wealth; territorial rulers sought to increase the decline of the medieval economy . . . and its many regulations designed to give people 'a fair living' and goods sold at 'a just price', and with the greater opportunities to make money their power by tapping all available sources of income; and even church offices and means of grace were frequently viewed in terms of financial returns. . . . The older chivalric virtues of honor and personal loyalty were gradually supplanted by the middle-class virtues of honesty, industry, and integrity; and the medieval sense of corporate responsibility gave way to an emphasis upon individual initiative.

Source: Harold J. Grimm, *The Reformation Era 1500–1650*, Macmillan, New York, 1965, p. 12.

capitalist spirit the way of thinking behind capitalism

1. **Identify** what Grimm calls the new attitude of businessmen towards economic matters.
2. **Explain** what you think he means by 'the capitalist spirit'.
3. **Describe** what changed in investment in agriculture and industrial production.
4. **Analyse** how virtues were changing.

4.3 Exercise

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4.3 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 4	5, 6	7, 8, 9, 10

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Check your understanding

1. **Identify** when populations began to recover from the losses caused by plagues, famines and wars.
   - A. The mid-thirteenth century
   - B. The early twelfth century
   - C. The eighteenth century
   - D. The mid-fourteenth century
2. The Hanseatic League came to dominate trade in
   - A. Britain, Germany and Italy
   - B. Germany, northern Russia and Scandinavia
   - C. Portugal, northern Russia and Spain
   - D. India, Scandinavia and Germany
3. **Complete** the following sentences by filling in the blank spaces:
   Merchants improved transport by _____ and _____ They improved commerce and were assisted by rulers of _____ and _____ and _____
4. **Identify** the parts of the world where Portugal had trading posts by the mid-sixteenth century.

Apply your understanding

Questioning and researching

5. **Explain** why the medieval craft guilds opposed changes in trade.
6. **Identify** three social classes who had reasons to resent the economic changes that were taking place.

Using historical sources

7. **Describe** the scene in **SOURCE 2.**
8. **Explain** what evidence **SOURCE 2** provides for a changing economic system, in which bookkeeping and money changing had become more important.
9. **Examine SOURCE 3**. 'Usury' means making people pay interest on borrowed money. It was considered sinful by Christians in the Middle Ages. **Outline** what this source suggests about changes in attitudes to usury and to making profits?
10. **Explain** why a changed attitude to usury and profit-making would have been essential for a modern capitalist system to emerge.

LESSON
4.4 How did the Protestant Reformation bring change?

LEARNING INTENTION

By the end of this lesson you should be able to explain how the Reformation took place in the sixteenth century and describe its consequences.

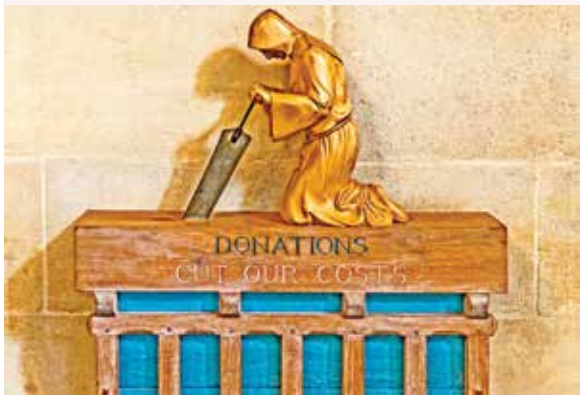
TUNE IN

If you were religious, what would you think if the religion to which you belonged seemed more interested in making money to enrich itself than teaching religion and caring for its followers?

Consider the following questions and discuss your answers with your class:

1. Would you leave that religion or would you try to change it?
2. Would either of those options be easier now than they would have been in the sixteenth and seventeenth centuries?

SOURCE 1 A donation box in a church in Bury St. Edmunds, UK



4.4.1 Martin Luther challenges the Church

Religious beliefs had an enormous influence on people's thinking in Early Modern Times. This was particularly the case in northern Europe, where **humanist** ideas encouraged many people to question the ideas and power of the Church. The Catholic Church lost much of its influence in that region during the sixteenth century. The Reformation began as an attempt to reform the Church but instead it led to permanent divisions in Christianity.

SOURCE 2 A woodcut by Jorg Breu, c. 1530, showing the Pope's representatives selling indulgences to Catholic townspeople



Martin Luther was a German Catholic monk and a professor at the University of Wittenberg, one of the many states that made up what is now Germany. He believed that some Church teachings were wrong and that the Church was more concerned with making money than saving souls. He hated the Church's practices of selling **indulgences** (making people pay to have a dead person's soul get into heaven) (See **SOURCE 2**) and selling positions of authority in the Church. He was also angry that many priests, who had taken vows of **chastity**, lived openly in sexual relationships.

humanist a doctrine, attitude, or way of life centred on human interests or values

indulgence a payment people would make to allow their loved ones to enter heaven

chastity choosing not to have sexual relationships

Luther's Theses included the following ideas:

- Popes, bishops and priests were not superior to other Christians.
- Indulgences were corrupt because only God could decide on punishments for sins and whether a person could go to heaven.
- Priests should be permitted to marry.
- People were not saved (able to enter heaven) by following Church practices.
- People could only be saved through faith in Jesus Christ.
- Christians did not need priests to stand between them and God.

4.4.2 Why did Luther and his followers survive?

In the past, people who challenged the Church were declared to be heretics and they were punished by being burnt alive. In 1520, the Pope, the head of the Roman Catholic Church, declared Luther to be a **heretic** and **excommunicated** him in the following year. However, Luther quickly gained many supporters. They were called Protestants because they protested against the Catholic Church. Those who followed Luther's ideas were called Lutherans.

Luther's ideas were spread through printed pamphlets and he gained support from several German rulers. Many oppressed peasants were inspired by Luther's revolt against the Church and in 1525 they rose up against the feudal lords who exploited them, attacking the castles of nobles. Luther made it clear that he was against social revolution and he urged German rulers to crush them (see **SOURCES 4** and **5**). Not surprisingly, the defeated peasants turned away from Lutheranism.

4.4.3 New forms of Protestantism

Other forms of Protestantism soon appeared. In Switzerland, John Calvin formed a church that replaced bishops and priests with elected ministers. Calvinists believed that only some people were chosen to be saved and the rest were doomed to burn in hell. Calvinism spread to parts of France, Germany, the Netherlands and Scotland.

SOURCE 3 Luther fastening his Ninety-Five Theses to the Wittenberg Cathedral door, 31 October 1517



SOURCE 4 Peasants burning and looting during the Peasants' War, 1524–25



heretic one who rejects the teachings of the Church

excommunicated to be banned from membership of the Church

Among other Protestants were the Anabaptists, who rejected the practice of baptising children. The Church of England was another breakaway church. But it was not initially formed because of Protestant ideas. Rather, it broke away because the Pope would not grant England's King Henry VIII a divorce. Henry declared that he, not the Pope, was head of the English Church. After Henry's death, Protestant ideas came to dominate the Church of England.

4.4.4 The Catholic Reformation

From the twelfth century CE, the Catholic Church had used the **Inquisition** to crush those it considered to be heretics. But as Protestantism took hold in northern Europe, Catholic leaders came to see that this movement could not be defeated by persecution alone. From 1545, the Church worked to stamp out corruption and to promote Catholic beliefs. Among Catholicism's most effective defenders was the Society of Jesus (Jesuits). It was formed to convert heretics and non-believers.

Jesuit priests set up missions, schools and colleges in Africa and Asia. In the New World (the Americas), they befriended and converted many Native Americans. This reform of the Catholic Church has been called the Catholic Reformation by Catholics and the Counter-Reformation by Protestants.

Inquisition body established by the Catholic Church to try people suspected of heresy

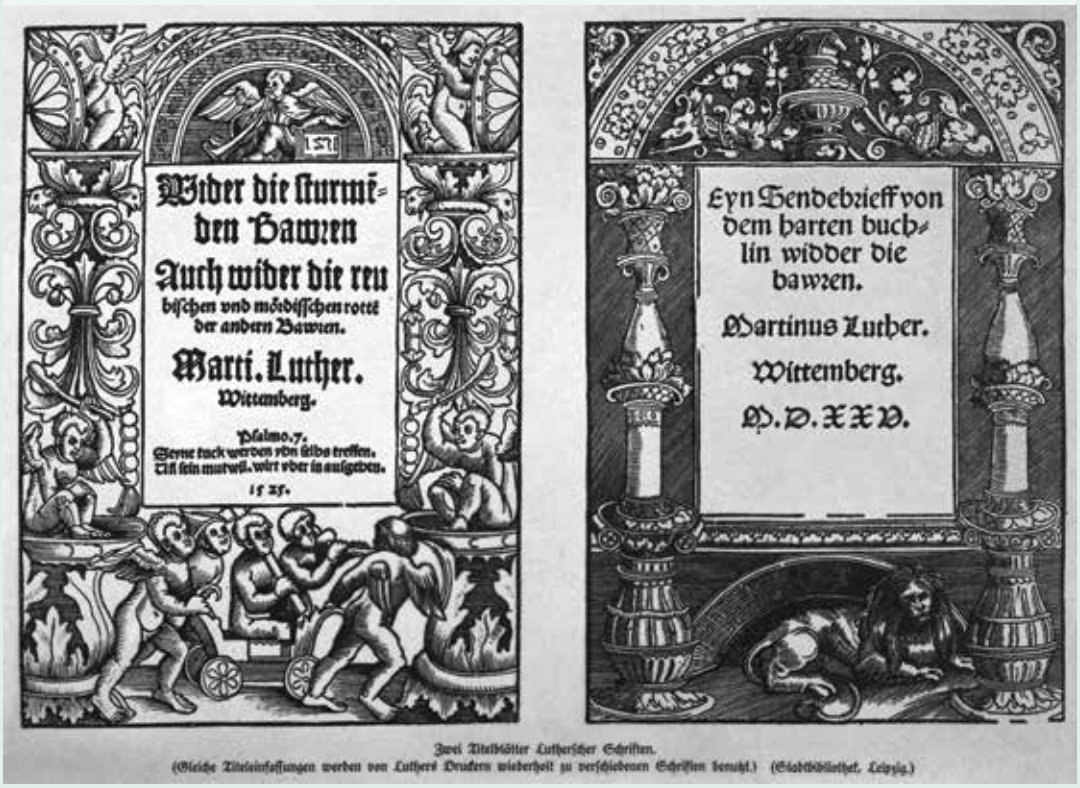
SkillBuilders to support skill development

- 1.10 SkillBuilder: Analysing different perspectives

4.4 SKILL ACTIVITY: Historical perspectives and interpretations

Identify perspectives, attitudes and values of the past using the following information about Luther's pamphlet (the front cover is shown in **SOURCE 5**).

SOURCE 5 The front page of Luther's writings *Against the Storming Peasants*, 1525, left, and *An Open Letter on the Harsh Book Against the Peasants* (right)



Zwei Titelblätter Lutherscher Schriften.
(Gleiche Titeleinfassungen werden von Luthers Druckern wiederholt zu verschiedenen Schriften benutzt.) (Stadtbibliothek, Leipzig.)

In his pamphlet, Luther condemned the rebellious peasants as doing the work of the devil and he called on the princes to be 'both judge and executioner'. 'To knock down, strangle, and stab, and think nothing so venomous . . . or satanic as an insurgent . . . Such wonderful times are these that a prince can merit heaven better with bloodshed than a prayer'.

1. **Identify** Luther's attitude to the rebellious peasants.
2. One of the reasons for the Peasants' War was that, while the territorial princes were gaining increased wealth and power, peasants were having to pay taxes to their feudal lords in money and livestock so their position was worsening. **Explain** why a reformer would not support them.
3. Luther believed in the 'divine right of kings' and depended on the support of rulers to protect him from the Catholic Church. **Identify** if this would explain his attitude to rebellions.

4.4 Exercise

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4.4 Exercise

Learning pathways

■ LEVEL 1	■ LEVEL 2	■ LEVEL 3
1, 2, 3, 4	5, 6	7, 8, 9, 10

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Check your understanding

1. The Reformation began as an attempt to reform the Roman Catholic Church. True or false?
2. Which powerful people supported Luther?
   - A. The peasants
   - B. The Pope and clergy
   - C. German rulers
   - D. King Henry VIII
3. Complete this passage by filling in the blanks: Luther was against the Church's practice of selling _____ that meant that people had to _____ to get their loved ones into _____ He believed that _____, _____ and priests were not superior to other Christians.

Communicating

4. **Describe** the Pope's response to Luther's demands.

Apply your understanding

5. **Describe** one idea associated with the Calvinists and one associated with the Anabaptists.
6. **Identify** changes that were made by the Catholic Reformation.
7. **Distinguish** how England's break with the Roman Catholic Church was different to what happened in other countries.

Using historical sources

8. Examine **SOURCE 2** and **explain** why this practice would have caused much resentment towards the Catholic Church.
9. **Identify** three of Luther's arguments and **explain** why each of these would have been seen as a threat to the power of the Catholic Church.
10. Examine **SOURCES 4** and **5**. Throughout around a third of Germany, thousands of peasants were killed as their revolt collapsed. **Determine** why this contributed to a fall in support for Lutheranism.

LESSON
4.5 How did the power of rulers change in Early Modern Europe?

LEARNING INTENTION

By the end of this lesson you should be able to explain how the Reformation affected the powers of rulers and how rulers used religion to gain from war.

TUNE IN

In the **SOURCE 1** scene, the cook, the chaplain and Mother Courage are discussing the Thirty Years War, in which territorial rulers claimed to be fighting for religious reasons.

SOURCE 1 From German playwright Bertold Brecht's play *Mother Courage and Her Children*, written in 1939 to protest against the rise of the German Nazis and their role in causing World War II. Brecht set the play during the Thirty Years War (1618–48)

The Cook: It's a war all right in one sense, what with . . . murder and looting and the odd bit of rape thrown in, but different from all the other wars because it's a war of faith.

Can you think of a case in Modern Times when people have used religion as their justification for waging wars and committing atrocities? Discuss your thoughts as a class.

4.5.1 The territorial states

In western Europe, territorial states increasingly consisted of kingdoms, principalities and city-states. They were supported by townspeople, who wanted to end the privileges of feudal lords. The territorial rulers helped the towns to gain freedom from the nobles and to protect the towns, especially as the townspeople were willing to pay taxes and services to their territorial rulers and to give them absolute power in their territories.

SOURCE 2 *Soldiers plundering a farm during the Thirty Years War*, by Sebastiaen Vrancz, 1620



Due to advances in the technologies of war, such as the development of gunpowder, guns and cannons, infantry and **artillery** became much more effective than cavalry provided by knights. Consequently, territorial rulers replaced feudal armies of knights with mercenary armies. The territorial rulers wanted their territories to be prosperous because they needed their subjects to be able to pay taxes. They also assumed the right to control religion in their lands. To see examples of how the powers of rulers changed, we will look briefly at events in Germany, France, England, Spain and Russia.

artillery large mounted firearms such as the cannon

4.5.2 Germany

Germany was made up of over three hundred separate political states in the Holy Roman Empire, which had been formed in 800 CE. It was formed when Pope Leo III crowned Charlemagne as emperor. Centuries later, under Emperor Maximilian I, it transformed into the Holy Roman Empire of German Nations in 1512. Following the Reformation, German Catholics and Protestants frequently fought each other but the 1555 Peace of Augsburg divided the Holy Roman Empire into Catholic and Protestant states, whose rulers decided on the religion of their subjects.

The worst period of conflict was the Thirty Years War (1618–48). It began mainly as a war of religion between Protestant and Catholic German states within the Holy Roman Empire, motivated by religious differences. However, it soon became driven by contests between rulers for territory, wealth and power.

Very soon, ambitious rulers from other countries, including Sweden, Denmark, the Dutch Republic, Spain and France, became involved in the war. Rulers were motivated by greed and power. For example, the Lutheran state of Saxony, along with Denmark, Sweden and Calvinist Brandenburg fought over control of trade in the Baltic.

Terrible atrocities, including rape, mutilation, torture and murder were committed by soldiers during this conflict. This long war caused between 4.5 and 8 million deaths, an enormous number in proportion to the population at the time. Total civilian deaths were between 3 500 000 and 6 500 000. Thousands of civilians were killed by armies but the major causes of deaths were diseases, such as typhus and bubonic plague, poor harvests and famine, caused by soldiers plundering civilian food supplies. The war ended in 1648, but Germany would not become a united country until the late nineteenth century.

SOURCE 3 The sacking of the Protestant city of Magdeburg during the Thirty Years War. In 1631, Magdeburg was besieged, sacked and burned by Catholic forces.



4.5.3 France

By 1500, the government of France was controlled by its king. The Estates-General, representing the interests of the clergy and nobles, had held the right to grant taxes but it had surrendered that right to the king during the fifteenth century, therefore French kings had absolute power. Conflict between Catholics and Calvinists

(called Huguenots) in France led to the first of the religious wars from 1562 to 1598. The best-known event of this conflict was the St. Bartholomew's Day massacre of 24 August 1572. In a well-organised plot, massacres of Huguenots were carried out by Catholics simultaneously in several French cities. It has been estimated the around 20 000 Huguenots were killed. Despite this, France joined the Thirty Years War in 1635 on the Protestant side. Its motive for doing so was its rivalry with the Catholic Spanish and Austrian Hapsburg dynasties.

4.5.4 England

Rulers of England did not have absolute power, as England had a parliament representing the interests of the privileged classes. However, King Henry VII (1485–1509) replaced rebellious nobles with officials. When he was succeeded by Henry VIII, England had a strong, centralised government. Henry VIII seemed more powerful than many earlier English rulers but he had this power by using Parliament. He defied the Pope and divorced his wife Catherine of Aragon in 1533 in order to marry Anne Boleyn.

SOURCE 4 *Henry VIII and Anne Boleyn*, engraved by Johann Raab



When the Pope excommunicated him, Henry broke with Rome and declared himself head of the Church of England. He dissolved all monasteries in England, enriching himself through sales of their lands. He became King of Wales by passing the Acts of Union with Wales (1536–43) then King of Ireland in 1541. Henry was a brutal and ruthless ruler, who had Anne Boleyn beheaded when she could not give him a male heir. He also beheaded his fifth wife Catherine Howard.

When Henry died in 1547, he was succeeded by his only male heir, 10-year-old Edward VI, who died 6 years later. Edward was succeeded by Mary I, daughter of Catherine of Aragon, who was a devout Catholic. She set out to restore Catholicism to England. She executed over 300 Protestants but died without an heir in 1558.

She was succeeded by her half-sister Elizabeth I (1533–1603), daughter of Anne Boleyn. It was under Edward and Elizabeth that the Church of England became Protestant. Elizabeth never married so, when she died, she was succeeded by her closest Protestant relative, James I of Scotland. He was succeeded by his son, Charles I. Charles clashed with the English Parliament and this led to the English Civil War, in which the Royalist army was defeated by Parliament's New Model Army in 1645. Charles was tried and executed in January 1649.

England became a republic, in which Oliver Cromwell, commander of the New Model Army was given the title Lord Protector in 1653. Cromwell died in 1658 and was succeed by his son Richard. The monarchy was restored in 1660 but it had lost much of its power to Parliament. In the following three decades, the monarchy lost power to suspend laws passed by Parliament, to levy taxes and raise an army without Parliamentary consent and to interfere with parliamentary elections or to punish members of parliament for anything they said during parliamentary debates.

SOURCE 5 Oliver Cromwell making his first speech in Parliament on 2 March 1629



4.5.5 Spain

After the marriage of Princess Isabella of Castile and Prince Ferdinand of Aragon in 1469, much of Spain became one kingdom. The remainder of the Iberian Peninsula was made up of the kingdoms of Portugal and Navarre. Ferdinand and Isabella suppressed the nobles, reduced the powers of the Cortes (assemblies) and in 1473, with the support of the pope, they established the Spanish Inquisition. In 1492, they expelled the Muslims from Spain and forced all Jews who wanted to remain in Spain to convert to Catholicism. The Inquisition was used to destroy converted Jews and Muslims who were suspected of heresy. In 1506, Spain took Navarre and had control of the entire peninsula except Portugal. The rulers of Portugal consolidated royal power using the same methods as Spain.

4.5.6 Russia

With the fall of Constantinople to the Turks in 1453, the Grand Prince of Muscovy declared that Moscow was the new religious capital of Orthodox Christianity. Ivan III (1462–1505) took the title tsar (Caesar) and consolidated his power, conquering weaker Russian states. Under Ivan IV, 'Ivan the Terrible' (1553–1584), the power of the tsar was further increased at the expense of the boyars (the high aristocracy). Nobles were expected to be totally obedient to the ruler and hundreds of the boyars and their families were killed. As an Orthodox Christian country, Russia was unaffected by conflict between Catholics and Protestants.

However, between 1598 and 1613, Russia went through the 'Time of Troubles', during which it experienced civil wars and invasions by Polish and Swedish armies, which were often helped by Russian boyars. Possibly a third of Muscovy's population died during this period. In 1613, an assembly of nobles and officials chose Michael Romanov as the new tsar, founding the Romanov dynasty, which survived until 1917. The 'Time of Troubles' resulted in general acceptance of the need for tsars to have absolute powers. In 1649, the Russian government reduced the rights of all Russian peasants by making them serfs. The peasants lost the freedom to leave the land on which they toiled. This development ensured that the nobles could serve the Russian army but it led to many peasant rebellions during the seventeenth century.

4.5 SKILL ACTIVITY: Using historical sources

Consider SOURCE 2, *Soldiers plundering a farm during the Thirty Years War*, by Sebastiaen Vrancz, 1620.

1. **Identify** which of the figures in this source are soldiers. How can you identify them?
2. **Identify** what they appear to be stealing.
3. If they stole food, **analyse** how would that affect the farming family's chances of surviving.
4. **Interpret** on whose evidence would this artwork have been based.

4.5 Exercise

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4.5 Exercise

Learning pathways

■ LEVEL 1	■ LEVEL 2	■ LEVEL 3
1, 2, 3, 4, 5	6, 9	7, 8, 10

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Check your understanding

1. In western Europe, territorial rulers were supported by townspeople who were also against the powers of nobles. True or false?
2. Which event led to the division of the Holy Roman Empire into Catholic and Protestant states in 1555?
   - **A.** The Thirty Years War
   - **B.** The Peace of Augsburg
   - **C.** The Reformation
   - **D.** The crowning of Charlemagne as emperor
3. Complete this passage by filling in the blanks: Due to advances in the technologies of war, such as the development of _____, guns and cannons, _____ and _____ became much more effective than cavalry provided by _____ Consequently. Territorial rulers replaced feudal armies of knights with _____ armies.

Apply your understanding

Questioning and researching

4. **Explain** the motives of rulers for entering the Thirty Years War.
5. **Describe** what happened in the St. Bartholomew's Day Massacre in France.

Using historical sources

6. **Analyse SOURCE 4** using the following questions:
   - **a.** What is the source about?
   - **b.** When was the source created?
   - **c.** Who created the source?
   - **d.** How different would this source be if it had been created after Henry VIII had Anne killed?
7. **Describe** the scene in **SOURCE 5** and **explain** the significance of Oliver Cromwell for England's form of government.
8. **Determine** in which of the countries discussed in this lesson were the powers of territorial rulers strengthened.
9. **Describe** the scene in **SOURCE 3** and **explain** which side's perspective it represents.
10. **Evaluate** what changed and what remained unchanged in the powers of rulers during this period.

LESSON
4.6 What were the achievements of the Scientific Revolution?

LEARNING INTENTION

By the end of this lesson you should be able to explain the achievements of scientific thinkers in this period and the dangers they faced.

TUNE IN

When Marco Polo, an Italian merchant and explorer, visited China in the thirteenth century, he was amazed by its wealth and culture. Nothing in Europe at that time compared with it.

Nobody in his time could have imagined what western Europeans would discover in the following few centuries and how Europe would come to dominate the world.

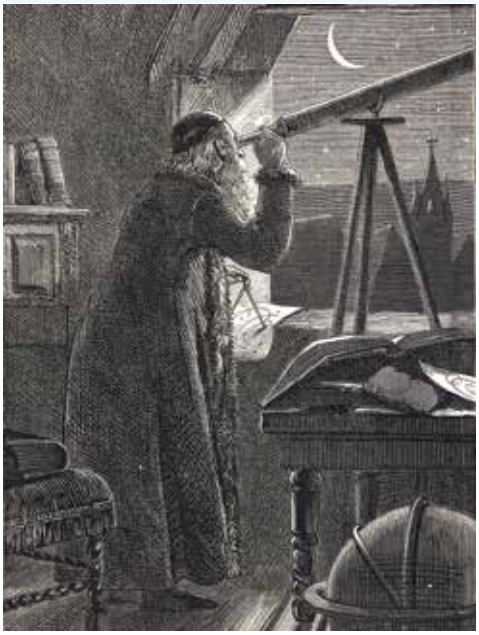
Brainstorm ideas about what could possibly make such a change possible.

SOURCE 1 An artist's impression of Marco Polo being welcomed to the court of Kublai Khan



4.6.1 Who were the great scientific thinkers?

SOURCE 2 Copernicus observing the night sky with his telescope



During this period, religion, arts and sciences were not really separate from each other. A scholar could be a priest, scientist, artist and inventor. The Renaissance brought a scientific revolution, encouraging thinkers to challenge authority and to be guided by observation and reason.

- Among the most famous of the new scientific thinkers was **Leonardo da Vinci (1452–1519)** He is best known for his art but he also conducted observations and experiments in biology, anatomy, geology, engineering, mathematics and music. He even designed an underwater diving suit and a robot.
- **Nicolaus Copernicus (1473–1543)**, a Polish astronomer, was another of the greats of the Scientific Revolution. He developed a theory that the Earth revolved around the Sun, contradicting the view of the Catholic Church that the Earth was the centre of the universe. Copernicus spent many years observing and investigating the movements of heavenly bodies and, in 1515, he sent his findings to other astronomers. Although there was not sufficient proof at the time, he published his theory in 1543, as he was dying.
- **Andreas Vesalius (1514–1564)** has been called 'the father of anatomy' because of his contributions to understanding the human body. The Catholic Church banned dissecting human bodies but Vesalius defied the Church by obtaining the permission of local courts to conduct experiments using bodies of people who had been executed. In 1543, he published a book showing how different parts of the body worked.

- **Giordano Bruno (1548–1600)** was an Italian friar, philosopher, mathematician and astronomer, who took Copernicus's ideas further, recognising that the Sun is just one of billions of suns in the universe.
- **Galileo Galilei (1564–1642)** was an Italian astronomer, physicist, mathematician, philosopher and inventor. He developed a telescope and carried out observations that proved that Copernicus was right about the movement of the Earth and other planets. He proved by observations that the Earth rotated around the sun and he published his findings in 1632.
- **Girolamo Fracastoro (1478–1555)** was another famous figure of this scientific revolution. This Italian scientist discovered that diseases, like the Black Death, contained tiny particles (germs) that spread by close contact and through the air. Three centuries later, his theories were proved to be correct.
- **Miguel Servet (1511–1553)**, known outside Spain as Michael Servetus, was a brilliant Spanish scientific thinker whose studies included astronomy, geography, meteorology, medicine, law, theology, mathematics and languages. He was the first European to describe how blood circulated.
- **Johannes Kepler (1571–1630)** was a German mathematician and astronomer. He is best known for his laws of planetary motion. His work provided the basis for Isaac Newton's theory of universal gravitation. Among his many published works was *Astronomia Nova* (New Astronomy) in 1609.
- **Isaac Newton (1643–1727)** was an English mathematician. He was most famous for his laws of motion and discovery of gravity.

4.6.2 The dangers faced by scientific thinkers

All things in Medieval Europe were governed by religion. It was very different from what we understand as 'faith' today, and it played a much bigger role in explaining the world and its structure.

Contradicting holy teachings or the bible could be risky, however, this doesn't mean that religious leaders hated progress. In fact, a great deal of scientific advancement during the Scientific Revolution was made possible because of the church's contribution to scientific thinkers.

Despite this, when the church decided something was heresy their judgement was swift and harsh. For example:

- Giordano Bruno was tried for heresy, found guilty and burnt at the stake in 1600.
- The Church had Galileo arrested in 1633. The Roman Inquisition put him on trial for heresy and threatened him with torture. Galileo was forced to recant (take back what he had proved) and was kept under house arrest for the remainder of his life.
- Miguel Servet (Michael Servetus) was persecuted not for his scientific theories but for his religious ideas. Because he opposed infant baptism and argued that God was one being, not three (the father, son and holy ghost), the Catholic and Protestant churches condemned him as a heretic. He was arrested in Geneva, Switzerland, and burned at the stake on the orders of the Calvinist governing council.

Ultimately, the Scientific Revolution meant that powerful institutions were unable to maintain the control they once had. In particular, the introduction of the printing press was a key moment. It meant that the knowledge and philosophy of one person could be shared with hundreds, sometimes thousands, of others where before it was only possible to teach a small group of people at a time.

Once the bible was printed and translated into multiple different languages (not just Latin) anyone could access the gospel and didn't have to rely on the clergy to share the parts they chose. A new age of thinking, learning and shared knowledge had begun.

SOURCE 3 Galileo Galilei facing the Roman Catholic Inquisition, 1633



SOURCE 4 Michael Servetus being burnt alive, 27 October 1553



4.6.3 The Enlightenment

Hundreds of years after the Scientific Revolution, the terms 'enlightenment' (referring to intellectual and philosophical growth) and 'Renaissance' (meaning re-birth of classical ideas and thinking) came about. In this period, a number of remarkable Europeans carried out experiments and pushed the limits of their understanding further than anything possible in the years before.

Because of the new discoveries made and the thinking that came because of them, some parts of life before the 'Age of Reason' were questioned for the first time. The absolute authority of the church, the positions of power held by kings and nobles and long-held beliefs about the world around us were questioned and tested and often overthrown. Increasingly, those in power tried to hold onto control through various, and sometimes brutal, methods.

4.6 SKILL ACTIVITY: Historical perspectives and interpretations

Consider SOURCE 2, Copernicus observing the night sky with his telescope.

1. **Describe** what Copernicus was doing in **SOURCE 2**.
2. **Explain** how his theory differed from the beliefs of the Catholic Church.
3. **Determine** how Giordano Bruno and Galileo Galilei improved upon the findings of Copernicus.

4.6 Exercise

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4.6 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 4, 5, 6	7, 6	8, 10

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Check your understanding

1. Andreas Vesalius was able to conduct experiments using bodies of people who had died of natural causes, without defying the Catholic Church's ban on dissecting human bodies. True or false?
2. Leonardo da Vinci conducted experiments and observations in several different sciences. True or false?

3. Complete this passage by filling in the blank spaces:
Nicolaus Copernicus, a Polish _____, developed a theory that the Earth revolved around _____, contradicting the view of the Catholic church that the _____ was the centre of the universe. Galileo Galilei developed a _____ and proved that Copernicus was right about the movement of the _____ and other _____. Giordano Bruno took Copernicus's ideas further, recognising that the Sun is just one of _____ of suns in _____.

Apply your understanding

Questioning and researching

4. **Describe** the new attitudes that marked the Scientific Revolution and later the Enlightenment.
5. **Describe** the attitude of the Catholic Church to these new ways of thinking.
6. **Explain** how Vesalius was able to study human bodies in defiance of the Church.

Using historical sources

7. **Examine SOURCE 3**.
   a. **Describe** what is happening in this source.
   b. **Explain** why Galileo is on trial.
8. **Examine SOURCE 4**. Michael Servetus was executed for his religious ideas rather than for his scientific discoveries. **Predict** why he was made to suffer such a cruel death.

Historical perspectives and interpretations

9. **Explain** the different perspectives of Galileo and the people who persecuted him.
10. **Investigate** how science and religion were not really separate in Early Modern Times and **discuss** how this posed great risks for scientific thinkers.

LESSON
4.7 INQUIRY: Historians' different interpretations of issues in pre-Modern Europe

LEARNING INTENTION

By the end of this lesson you should be able to explain why there are different interpretations of historical events.

Background

In Early Modern Times, publicly sharing certain ideas could be dangerous as various religious and other institutions could be intolerant to change and act harshly.

There have been many debates about changes during Early Modern Times so you have a lot to choose from. On the issue of the roles and relationships of different groups and whether they contributed to causing the Reformation, **SOURCES 1** and **2** are examples of two historians with conflicting interpretations.

SOURCE 1 Summary of the argument of H. Holborn, 'The Social Basis of the German Reformation', Boston, 1962

Holborn argues:

- Capitalism was rising but that had no far-reaching effects during the sixteenth century.
- The newly rich were eager to join the ranks of the land-owning nobles rather than to destroy them.
- The clergy had huge influence over the peasants and this was the crucial factor in the Reformation
- The poor followed the reforming clergy for religious reasons, not for social class reasons.

SOURCE 2 Summary of the argument of P.C.G. Walker, 'Capitalism and the Reformation', L.W. Spitz, *The Reformation. Material or Spiritual?* Boston, 1962

Walker argues:

- Capitalism existed in Europe before the Protestant Reformation and the existing forms of economic organisation were not compatible with its needs
- The Price Revolution from about 1520 to the 1540s made it necessary for the wealthy townspeople, the rising capitalists, to become a ruling class
- The problems that confronted them were to accumulate capital they needed by the destruction of feudalism and transfer of feudal property into their hands
- His conclusion is that the Reformation was the result of social class interests and economic needs created by rising capitalism.

In this inquiry, you will use skills in identifying perspectives and explaining historical interpretations.

Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task, you can use this rubric to self-assess.

For the provided **SOURCES 1** and **2**, discuss the following: What is the writer's judgement about the connection between capitalism, social classes and the Protestant Reformation?

Step 1: Questioning and researching

Write your **inquiry question**. Your question can be based on anything, for example, one of the following issues:

a. Class conflict in pre-Modern Europe
b. Religious intolerance
c. Consolidation of power in the hands of rulers and parliaments
d. Scientific progress.

Research your inquiry question.

Step 2: Using historical sources

Analyse the sources that you find. Some may be biased so try to separate fact from opinion.

Step 3: Historical perspectives and interpretations

Evaluate the significance of changes made.

Step 4: Communicate:

What is your answer to your inquiry question? Present your findings in a format of your choosing. Support your answer with examples from your research, analysis and evaluation.

Complete your self-assessment using the **Inquiry rubric** or access the 4.7 exercise set to complete it online.

on Resources

Digital document Inquiry rubric (doc-39400)

LESSON
4.8 Review

Hey students! Now that it's time to revise this topic, go online to:

Review your results

Watch teacher-led videos

Practise questions with immediate feedback

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4.8.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

4.2 How do we know about the emergence of the modern world?

- Most Europeans were still illiterate.
- New ideas were spread among educated people by the printing press.
- Due to printing, more copies of written sources survived.
- We need to be aware of bias.
- Archaeological sources provide evidence of trade, work, everyday life, religion and war.

4.3 What caused economic and social change in Early Modern Times?

- The period was a time of transition from feudalism to capitalism.
- The price revolution brought riches to some and poverty to others.
- Several social classes had reasons to be discontented, including craftsmen and peasants.
- Territorial rulers replaced knights with standing armies and mercenaries.

4.4 How did the Protestant Reformation bring change?

- Religion had an enormous influence on people's thinking.
- Martin Luther started the Protestant Reformation in 1517.
- The Peasants' War was inspired by Luther's revolt against the Church but Luther condemned social revolution.
- Other forms of Protestantism developed as did the Catholic Reformation.

4.5 How did the power of rulers change in Early Modern Europe?

- Rulers of territorial states were supported by townspeople.
- Territorial rulers gained control of their subjects' religions.
- The Thirty Years' War resulted in great loss of lives in Germany.
- In France, Spain and Russia rulers gained more power.
- In England Parliament gained more power.

4.6 What were the achievements of the Scientific Revolution?

- Many famous scientific thinks made an impact during this age.
- It was a dangerous time to make discoveries that contradicted the beliefs of the Catholic Church.
- Some scientific thinkers were silenced or killed by the Catholic Church and Calvinists.
- The Scientific Revolution of the sixteenth and seventeenth centuries led to the Enlightenment.
- There have been many debates about changes during Early Modern Times.
- An example is the issue of the relationship between capitalism and the Reformation.
- Historians also have different interpretations of other issues such as religious intolerance, class conflict, consolidation of political power and scientific progress.

4.7 INQUIRY: Historians' different interpretations of issues in pre-Modern Europe

- Historians can have differing interpretations of pre-Modern Europe.

4.8.2 Key terms

artillery large mounted firearms such as the cannon
capitalism economic system in which the means of production, distribution and exchange are privately owned
capitalist spirit the way of thinking behind capitalism
chastity choosing not to have sexual relationships
clergy officials of the Church
doctrine of Mahomet the religion of Islam; the Muslim faith, which follows the teachings of Mohammed
Early Modern Times the sixteenth and seventeenth centuries
excommunicated to be banned from membership of the Church
feudalism social order in medieval Europe
heresy opinion that challenged or differed from that of the Roman Catholic Church or the less tolerant Protestant churches
heretic one who rejects the teachings of the Church
humanist a doctrine, attitude, or way of life centred on human interests or values
idolatry the worship of idols
indulgence a payment people would make to allow their loved ones to enter heaven
Inquisition body established by the Catholic Church to try people suspected of heresy
lords feudal term for aristocracy of big landowners
mercenary soldier who fights for money rather than for ideals or patriotism
New World a term for the Americas during Early Modern Times
Reformation Era the period of the emergence of Protestant churches
Renaissance period of great changes in the arts, science and learning in the fifteenth and sixteenth centuries
Scientific Revolution age of scientific discoveries and achievements
vassal a person who holds land for a lord, and in return pledges loyalty and service to him

4.8.3 Reflection

Complete the following to reflect on your learning.

Revisit the inquiry question posed in the Overview:

How did societies change in Early Modern Times? What key beliefs and values influenced them? What were peoples' perspectives? Which significant ideas have influenced the world today and how have historians interpreted the period?

1. Now that you have completed this topic, what is your view on the question? Discuss with a partner. Has your learning in this topic changed your view? If so, how?
2. Write a paragraph in response to the inquiry question, outlining your views.

on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10662)
Reflection (doc-10664)
Crossword (doc-10665)
Interactivity The emergence of the modem world crossword (int-8970)

4.8 Review exercise

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Multiple choice

1. Who was the first European to produce books on a printing press?
   - A. Martin Luther
   - B. Henry the Navigator
   - C. Johannes Gutenberg
   - D. Gustavus Adolphus
2. Leonardo da Vinci designed which of these?
   - A. A computer
   - B. The Colosseum
   - C. A telephone
   - D. A flying machine
3. Why did Henry VIII break with the Roman Catholic Church?
   - A. The Pope wanted him to stop drinking ale.
   - B. The Pope would not let him divorce Catherine of Aragon.
   - C. Henry did not like attending mass.
   - D. Henry was an atheist.
4. The Peace of Augsburg gave which power to German territorial rulers?
   - A. They could keep fighting each other.
   - B. They could decide the religion of their subjects.
   - C. They could levy more taxes.
   - D. They could stop fighting.
5. Nicolaus Copernicus showed which of these?
   - A. That the Earth was round.
   - B. That the Earth was the only planet in the universe.
   - C. That the sun went around the Earth.
   - D. That the Earth is not the centre of the universe.
6. The price revolution of the early sixteenth century was caused by which of these?
   - A. Too much government spending
   - B. Too many wars
   - C. An economic depression
   - D. Cheap silver and gold exports from the Americas
7. Martin Luther challenged the Catholic Church over which of these issues?
   - A. Indulgences
   - B. Prayers
   - C. Having to wear robes
   - D. The poor quality of communion wine
8. Territorial rulers replaced feudal armies of knights with which of these?
   - A. Bows and arrows
   - B. Machine guns
   - C. Mercenaries and standing armies
   - D. Ninjas

9. The Thirty Years' War caused how many deaths?
   - **A.** Between 4.5 million and 8 million
   - **B.** About 2 million
   - **C.** About 100 000
   - **D.** Nearly a billion
10. In which of these countries did rulers gain more power in the sixteenth and seventeenth centuries?
   - **A.** England and Germany
   - **B.** France and England
   - **C.** Russia and Spain
   - **D.** Spain and Germany

Short answer

Communicating

11. **Identify** three motives contributed to the Thirty Years War
12. **Describe** why German peasants revolted in the early sixteenth century.
13. **Examine** how England became a republic in the seventeenth century.
14. **Determine** the consequences of the 'Time of Troubles' in Russia.

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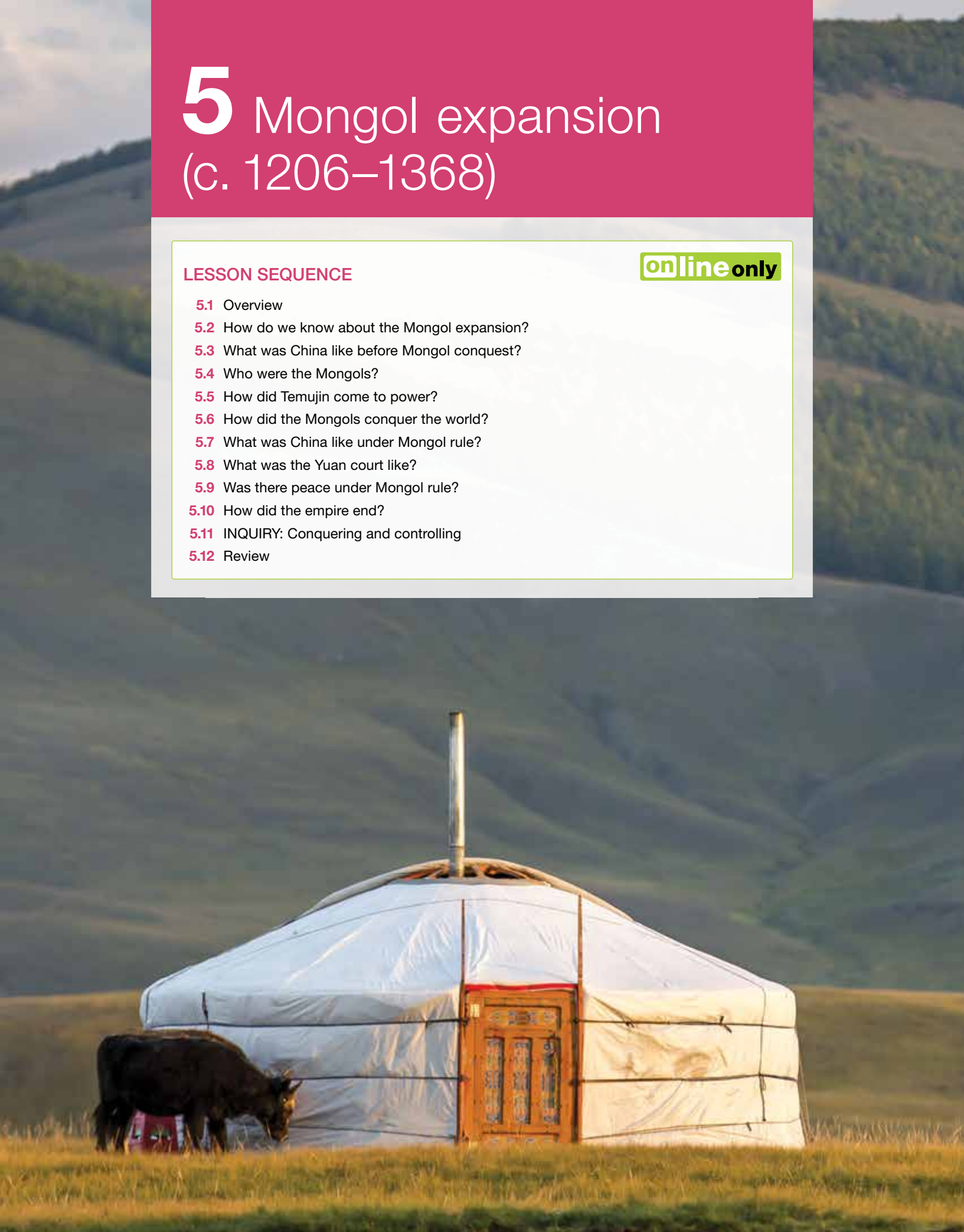


5 Mongol expansion (c. 1206–1368)

LESSON SEQUENCE

online only

5.1 Overview
5.2 How do we know about the Mongol expansion?
5.3 What was China like before Mongol conquest?
5.4 Who were the Mongols?
5.5 How did Temujin come to power?
5.6 How did the Mongols conquer the world?
5.7 What was China like under Mongol rule?
5.8 What was the Yuan court like?
5.9 Was there peace under Mongol rule?
5.10 How did the empire end?
5.11 INQUIRY: Conquering and controlling
5.12 Review



LESSON
5.1 Overview

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The Mongol Empire stretched from Europe to the Pacific Ocean. What allowed them to spread their influence so widely, and what impact did they have on the world around them?

5.1.1 Introduction

The Empire of the Great Khan spread further than any other empire before, dwarfing the conquests of Greece and Rome. From the Pacific Ocean to the east of Asia to the Mediterranean, people under Mongol rule knew peace. Old learning and new ideas spread and the foundations of the modern world were established.

Mongol power contributed to the revival of learning in Europe, reunited China and expanded frontiers. Trade, knowledge and ideas flowed along the Silk Road under Mongol protection. It is no wonder, then, that the world of the thirteenth and fourteenth centuries is often called the age of the Mongols. The cultures they shaped still have great impact on us today.

SOURCE 1 The Genghis Khan Equestrian Statue, a stainless steel statue of Genghis Khan (Temujin) in Mongolia. It is the largest equestrian statue in the world.



on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10692)

Video eLesson Mongol expansion (eles-1830)

int-8977

SOURCE 2 A timeline of the Mongol expansion

CE

950

960
Emperor Taizu reunites China and establishes the Song dynasty.



1000

1004
Song dynasty establishes peace with powerful Khitan tribes to their north.



1050

1100



1125
The Jin dynasty is established when the Khitan are defeated by the Jurchen.

1150

1209
Northern Uigher tribe accepts Mongol rule.

1206
Genghis Khan is proclaimed ruler of the Mongols and begins his conquest.

1210–1350
Pax Mongolica.

1200

1227
Genghis Khan dies.

1211
Genghis Khan invades China.

1234
Mongol forces complete conquest of northern China and defeat northern Song.

1215
Mongols attack Jin dynasty and destroy capital, Zhongdu.

1254
Marco Polo is born in Venice.

1250



1271
Kublai Khan declares himself the emperor of Yuan China.



1271–1295
Marco Polo's travels.

1300

1258
Mongol army invades Poland.

1294
Kublai Khan dies.



1325
Peasant rebellion against Yuan dynasty begins.

1350

1368
Yuan dynasty is defeated, marking end of Mongol Empire.

1281
Japan defeats a second Mongol invasion force.

1400

CE

LESSON
5.2 How do we know about the Mongol expansion?

LEARNING INTENTION

By the end of this lesson you should be able to explain that what we know about the past depends largely on the sources we find, who created them, and why.

TUNE-IN

The *paiza*, or Mongol passport, shown in **SOURCE 1** was used by those travelling through the Mongol Empire on official business. It was worn around the neck so that it would be visible to customs officers who would let the wearer pass.

The inscription reads, 'By the strength of Eternal Heaven, an edict of the Emperor [Khan], he who has no respect shall be guilty.'

SOURCE 1 A *paiza*



Compare **SOURCE 1** to a modern-day passport. We have different systems for Australian citizens returning from overseas and those entering the country for the first time. In what ways is this *paiza* similar, and in what ways is it different?

5.2.1 Mongol expansion sources

In this topic, we will explore the age of the Mongols, from about 1206 to 1368 CE. For many people, this was a time of war and destruction at the hands of the Mongol army. For others, it was a time of relative peace when ideas and religions could be expressed freely and cultural barriers were lowered between Europe and Asia.

This connectivity and peace allowed for the trade of many ideas and the documentation of what was happening around the world during this period. Many more written records survived longer due to the lack of war and as ideas spread more and more scholars wrote down these ideas in new places.

5.2.2 State History

To ensure they are remembered by the generations to come, governments often commission official histories to be created. Just a few decades after his death, the Mongol leadership commissioned an anonymous writer to document the life of Genghis Khan, leader of the Mongol army, as well as that of his son, in *The Secret History of the Mongols*. Intended to be read by only the Mongolian ruling class, the book was based upon the oral stories passed down within the empire and celebrated Khan's heroic deeds. Written in a flowing style, it included lessons for keeping the empire strong (see **SOURCE 2**).

SOURCE 2 *The Secret History of the Mongols* is a mixture of prose and verse, and contains many lessons.

She gave unto each [of her five sons] a single arrow shaft, saying 'Break [it]!' The single [arrow shaft] — how could they have hindered [it from breaking]? — each brake and cast away. Again, she bound five arrow shafts together in a bundle and gave [them to her sons], saying, 'Break [them]!' All five, holding, every person, the five arrow shafts bound in a bundle, were in turn not able to break [them].

5.2.3 The writings of explorers

China was known as the 'middle kingdom' in Europe during the Middle Ages, and legends of its wealth and mystery filled the popular imagination. Following the publication of *The Travels of Marco Polo*, interest in the region increased. Sources such as **SOURCE 3** give information about both the Mongols and what other societies thought of the Mongols.

aud-0449

SOURCE 3 Marco Polo's descriptions of the khan's prowess on and off the battlefield helped to make the Great Khan a celebrity in Europe.

When Nayan and his men saw their camp thus encircled by the khan and his host, they were seized with amaze; yet they ran to arms, formed themselves in order of battle, and were soon prepared to strike. Then began the beating on many instruments, and singing with loud voices; for it is the custom of the Tartars [Mongols], that until the horn termed naccar is winded the troops do not engage.

But when that grand trumpet of the great khan was sounded, all the other performers began playing, and raising their voices very loud, making a noise that was truly most wonderful. Then the two armies rushed against each other with sword, spear, and lance, while the footmen were prepared with bow and quiver. The battle was fierce and cruel; the arrows filled the air like rain; horses and horsemen were seen falling to the ground; and the tumult was such, that if Jove had thundered, he could not have been heard. Nayan was a baptized Christian, and therefore had the cross upon his standard.

Never, in our day, was there so hard and terrible a combat, nor so many assembled on one field, especially of horsemen; and the number who fell on both sides was fearful to behold. The battle continued from nine in the morning till midday; but the great khan at last remained master of the field.

5.2.4 Everyday objects

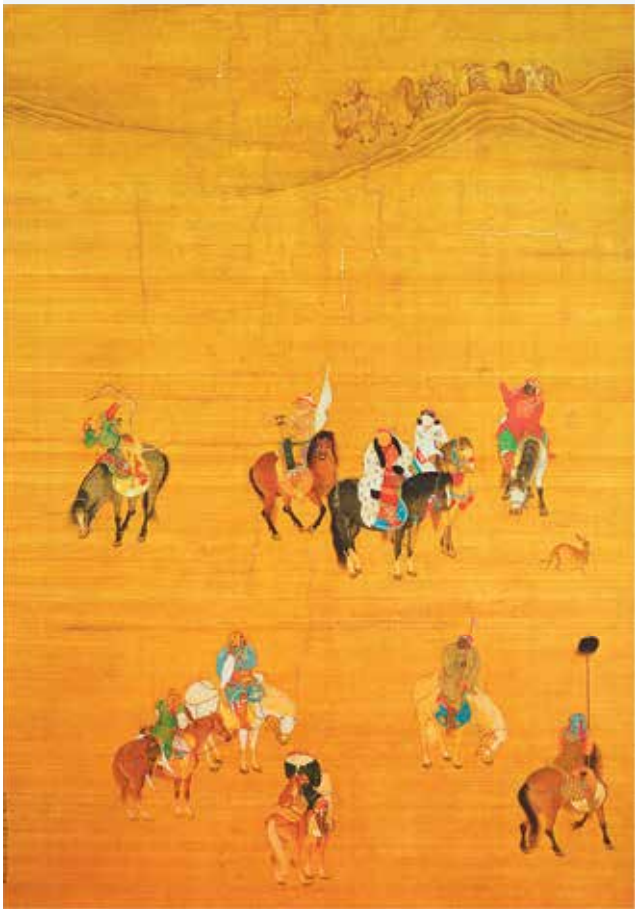
To better understand the lives of the Mongol people, it is important to look at the everyday objects they left behind (see **SOURCE 1**). Much can be learned by looking at seemingly simple things such as the tools they used, the jewellery they treasured, the houses they lived in and the food they ate.

5.2.5 An artistic view

Artwork gives great insight not only into the feelings of the artist but also into the audience for which the artwork was created. During the reign of the Mongols, Chinese artists worked for their Mongol rulers, producing calligraphy and paintings that depicted everyday life, landscapes and famous battles (see **SOURCE 4**). There were also many artworks created centuries after the fall of the Mongol Empire. Some of these, such as the painting shown in **SOURCE 5**, depict the power of the Mongol army.

tlvd-10591

SOURCE 4 This thirteenth-century artwork depicts Kublai Khan, grandson of Genghis Khan, in a hunting party. This source was created using ink and colour on silk during the Mongol expansion.



SOURCE 5 A sixteenth-century illustration of the Mongol army engaged in battle with Chinese Song dynasty forces. This is a secondary source as it was created many years after the event it depicts.



SkillBuilders to support skill development

- 1.6 Evaluating historical significance
- 1.7 Analysing different perspectives

5.2 SKILL ACTIVITY: Using historical sources

Analyse SOURCE 3 and **SOURCE 4**. What examples of the artist's bias or personal perspective can you see in what is depicted?

Consider:
- when the source was created
- who it might have been created for
- what the artist was trying to show their audience.

5.2 Exercise

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5.2 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	5, 6, 8, 11	4, 7, 9, 10, 12

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Check your understanding

1. The age of the Mongols was from about ____ to ____ CE.
2. Why would governments commission official historical records to be created?
   - **A.** They were required to by law
   - **B.** They did this to keep track of what was happening at the time.
   - **C.** They created historical records so that generations to come will remember them.
   - **D.** They did not commission records to be created.
3. **Determine** whether the following statements are true or false.
   - **a.** Sources created at the time, such as paintings, would not be biased.
   - **b.** A paiza was used as a form of identification to stop people from travelling through the Mongol Empire.
   - **c.** China was known as the middle kingdom in Europe.
   - **d.** *The Secret History of the Mongols* was intended to be read by only the Mongolian peasant class.
4. **Suggest** why China was known as the middle kingdom in the Middle Ages.
5. Objects such as weapons provide us with information about the Mongol people. **List** three everyday objects that provide us with information about the lives of the Mongol people from the Middle Ages.
6. **State** what type of artwork was produced during the reign of the Mongols.

Apply your understanding

Using historical sources

7. **Suggest** what lesson you believe was meant to be learned by the boys in **SOURCE 1.**
8. In **SOURCE 2**, the explorer Marco Polo describes a large battle.
   - **a. Identify** what adjectives or phrases he uses to describe the khan and his forces.
   - **b. Identify** what adjectives or phrases he uses to describe the khan's enemies.
   - **c.** Whose side was Marco Polo on (if any), and **explain** how you can tell.
9. **SOURCE 1** is an example of an everyday object used by government officials. **Identify** what it tells you about the society in which they lived.
10. **Explain** what is depicted in **SOURCE 4.** Why would an artist create this scene?
11. Is **SOURCE 5** a primary or secondary source? **Explain** your answer.

Historical perspectives and interpretations

12. Using the sources in this lesson and what you have already read about the Mongol expansion, **suggest** why the Mongol Empire expanded so quickly during the thirteenth and fourteenth centuries.

LESSON
5.3 What was China like before Mongol conquest?

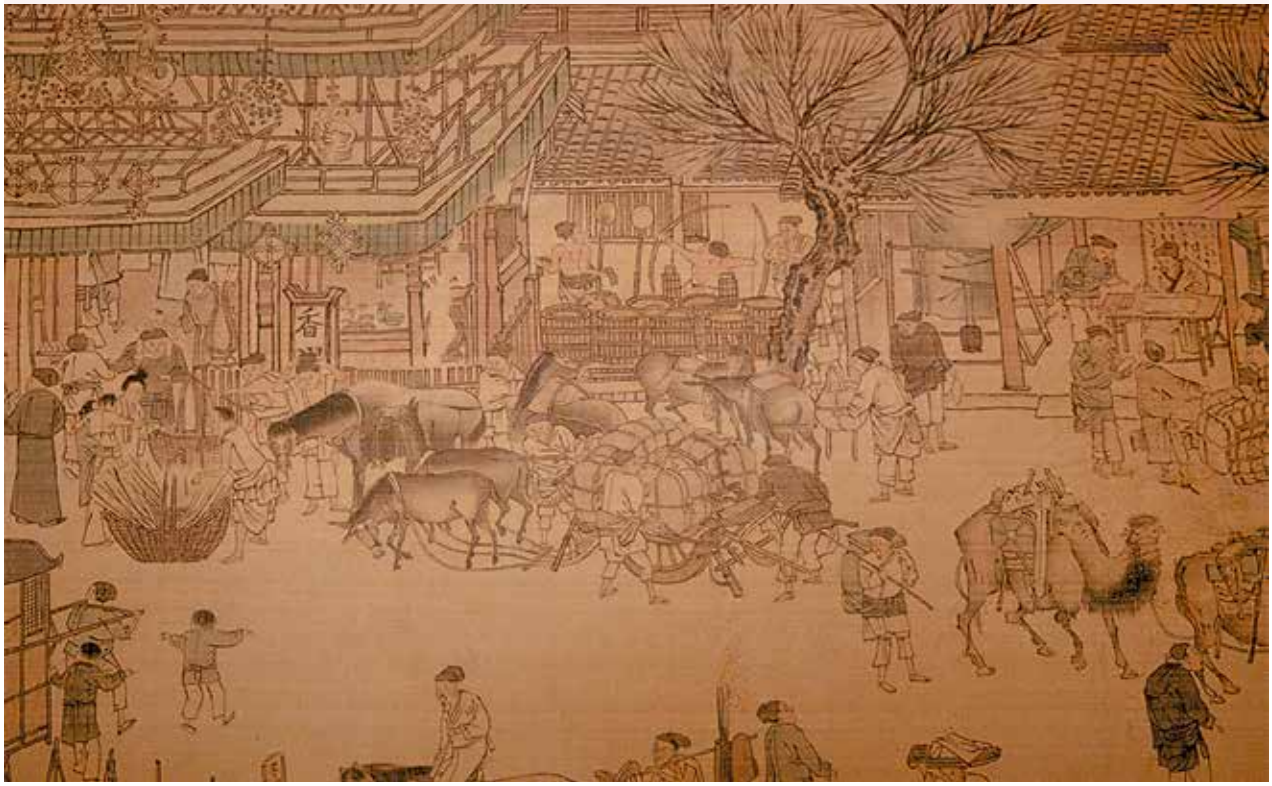
LEARNING INTENTION

By the end of this lesson you should be able to explain the way that life changed for the Imperial Chinese once the Mongols invaded.

TUNE-IN

In the eleventh century, the city of Kaifeng, the capital of the Song dynasty, had a population of more than one million people.

SOURCE 1 An illustration created in the twelfth century of the beautiful city of Kaifeng.



1. Use **SOURCE 1** to identify as many aspects of daily life in the Song dynasty as you can.
2. This scene depicts a market — can you identify the different people coming to this central meeting space? How is this similar or different to the life we live today?

5.3.1 The Song dynasty

In the twelfth century, over 100 million people lived under the rule of the Song. The Song Empire covered 4 million square kilometres of rich agricultural land and bustling cities. In 960 CE the first Song emperor, Taizu, established his control of central China when he led the army in a rebellion against the government. Once in power, Taizu turned away from using military force to rule the people.

The emperors of the Song **dynasty** built their authority through a strong **civilian** government:

- **civil servants** were selected by a series of examinations and interviews
- an imperial academy and university-trained government officials
- governors and **magistrates** were appointed to run government at a local level
- senior government officials were made responsible for drawing the emperor's attention to public opinion and problems
- taxation of trade and industry raised the revenue to finance important government works such as irrigation programs
- prices were regulated through government control of big industries such as salt, tea and wine.

Life in the Song cities

Peace in Song-dynasty China led to a massive growth in population because farming techniques improved, irrigation systems were rebuilt and trade grew. As a result, Song city streets were bustling places, crowded with the congestion of horses, mules, carts, **rickshaw** boys and **porters** carrying goods dangling from poles balanced across their shoulders. People stopped to shop at the booths and stalls marked by tall posts and banners advertising their wares.

In the Song cities of Kaifeng and Hangzhou, the wealthy could shop for exotic items such as rhinoceros horn from Bengal and ivory from Africa. Street stalls and shops stayed open until 2 am. At the tradesmen's stalls, there was knife sharpening, pot mending, coffin making and tailoring on offer. Crowds also gathered to listen to fortune tellers, watch magicians and consult healers.

SOURCE 2 A group of wealthy Song women dressed in their fine silk robes.



DID YOU KNOW?

Anyone who wanted to appear before the emperor had to sink on their knees and knock their head nine times on the floor to show their obedience.

Song cities were built in the shape of a square and had thick defensive walls. People entered the city through guarded gates and walked down straight streets that criss-crossed from north to south and east to west. Houses were grouped into **wards**, enclosed by another protective wall that was locked every night. In cities teeming with people, the government was responsible for community health and hygiene. Garbage was regularly removed from the streets and transported on barges to dumps in the countryside. Every day the 'pouring men' came to cart away the city's human waste, which was dried and used as fertiliser for the local vegetable gardens.

dynasty a sequence of rulers from the same family
civilian an ordinary citizen
civil servant a person who works for the public
magistrate a court official who hears cases in the lowest court in the legal system
rickshaw a small two-wheeled vehicle pulled by a man
porter a person who carries luggage and heavy loads
ward a district in a city or town

5.3.2 Home and the Chinese family

Traditional life in China was in stark contrast to life for the nomadic Mongol warriors. The Chinese way of life centred on agriculture. Every member of the Chinese peasant family was needed to work on farming tasks such as draining and ploughing fields, fertilising crops and irrigating. Most people living in traditional Chinese communities were bound to the land for their survival. Traditional Chinese culture emphasised a person's duty to their family, including dead ancestors who were continually honoured

through religious rituals. Loyalty to the family was more important than loyalty to the government. The father was the head of the family and made all the decisions. Wives and children were expected to obey.

During the Song dynasty, China had many small villages where between 200 and 400 people lived in family cottages made from mud bricks. Chinese families also lived on boats, called sampans, along the busy waterways of the large river systems. Within the harbours of the port cities, thousands of boat people lived in floating villages. The strong Chinese family network provided security in a land where natural disasters like insect plagues, floods and droughts frequently destroyed harvests and homes.

SOURCE 3 The ideal traditional Chinese family (from the southern Song dynasty, tenth century)



5.3.3 Song inventions and ideas

Many inventions and ideas have their roots in ancient China. From the fourth century CE, the western world was greatly influenced by Chinese developments such as:

- the loom for weaving silk
- the compass for establishing directions and distances
- the breast strap harness and the foot stirrup for horse riding
- the stern post rudder for steering ships
- the wheelbarrow
- the blast furnace for obtaining metals
- the mechanical clock to keep time and track the movements of the sun, moon and stars.

The Chinese discovered that a combination of coal, saltpetre and sulfur would make gunpowder 300 years before the western world learned this knowledge from them. The Song dynasty leaders recognised the military usefulness of gunpowder and used it to set off fires and create frightening clouds of smoke. Song China defended itself against the Mongol army by hurling gunpowder grenades from catapults and shooting flaming arrows from thick bamboo tubes.

SOURCE 4 A water-powered Song clock in Kaifeng. The wheel rotated every 14 minutes and 24 seconds, tipping water from one bucket into another.



SOURCE 5 A Song dynasty description of one of the uses of gunpowder

At the end-of-year festival . . . there were many firecrackers . . . there were fuses so arranged that when you lit one it set off hundreds of others . . . [Some] fireworks . . . were like wheels and revolving things, others like comets, and others again shooting along the surface of the water, or flying like kites . . .

Spreading the word

Printing began in China 700 years before it was shared with Europe. In 750 CE, sheets of paper were stamped with inked blocks of wood into which Chinese characters had been carved. It was a quick and easy process known as 'block printing'. By the ninth century, the blocks had become much larger and each could print a whole page.

Over the centuries, labour-saving methods of printing were developed. The Song dynasty printer Bi Sheng made characters out of clay and set them in a frame. These clay characters could then be removed and new characters arranged for printing the next page.

5.3.4 The dynasty crumbles

The Song dynasty, for all its achievements, was not a strong military power. Two powerful tribes to the north, the Khitan and Jurchen, constantly launched raids into their territory. In 1004 CE, the Song dynasty agreed to give an annual **tribute** of silver and silk to the Khitan in exchange for peace, however this ultimately failed.

tribute a tax or regular payment given to ensure protection or peace

By 1120 CE, the Song wished to be rid of the Khitan and supported the Jurchen in a war between the two tribes. The Jurchen won the conflict, but then turned their attention to the Song and moved to invade, taking control in 1126.

The humiliated survivors of the imperial family fled south while the Jurchen established the Jin (pronounced 'chin') dynasty and their capital, Yanjing (later known as Beijing). This conflict was the first time that gunpowder was applied as a weapon, an innovation of the Song, but the Jin dynasty became the recognised rulers of China.

SOURCE 6 An early form of a 'firelance', ancestor of the modern firearm. This illustration is from the Huolongjing, or Fire Drake Manual, a guide to gunpowder-based weapons from the thirteenth–fourteenth century.



The southern Song

The surviving members of the Song dynasty fled south and established a new capital at the town of Linán, now known as the city of Hangzhou. This southern Song settlement was protected by the dense forests of the lower Yangtze River valleys. Linán was located in the wealthiest agricultural land in China.

The southern Song secured themselves in this prosperous region by building a navy to defend the coast and developing more sophisticated military technology. The southern ports flourished as Song sailors and their fleets of ships made long voyages in search of trade. They held their power in this southern empire for another 150 years, until they faced a more powerful foe than the Khitan — the Mongols.

5.3 SKILL ACTIVITY: Questioning and researching, Communicating

1. **Select** one invention from the Song dynasty.
2. **Conduct research** to build your understanding on the invention. Make notes on the following:
   - What problems does this invention solve?
   - How could this invention be useful to others?
   - How does the invention work?
   - Any other information the buyer might like to consider.
3. **Create** a pamphlet advertisement which the creator could share with people at the time.

5.3 Exercise

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5.3 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 3, 6,	2, 4, 5, 9	7, 8, 10, 11, 12

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Check your understanding

1. How did the Song emperors build their authority?
   - A. Through establishing a dictatorship
   - B. Through a strong civilian government
   - C. Through the use of their military
   - D. Through fear and persecution
2. **Identify** the key features of the civilian government.
3. Why did the population grow so rapidly in Song-dynasty China? **Select** all that apply.
   - A. People were encouraged to expand their families
   - B. Farming techniques improved
   - C. Irrigation systems were rebuilt
   - D. Trade grew
4. a. **Describe** how cities were designed.
   b. **Explain** how this helped protect the citizens.
5. **Identify** what work the traditional Chinese peasant did.
6. The combination of which elements made gunpowder? **Select** all that apply.
   - A. Coal
   - B. Iron
   - C. Saltpetre
   - D. Sulfur
   - E. Silicone

Apply your understanding

Communicating

7. **Propose** what weaknesses there were behind the Song dynasty.
8. The Song dynasty was threatened by two powerful tribes called the Khitan and the Jurchen.
   a. **Explain** what saved the city of Kaifeng from being attacked by the Khitan.
   b. **Identify** what the consequence of this was for the Song imperial family.

Using historical sources

9. **Discuss** what features of life in the Song cities are shown in **SOURCES 1** and **2**.

Historical perspectives and interpretations

10. **Explore** the reasons that the Song dynasty created such a flourishing culture that allowed for so much growth and creativity.
11. **Evaluate** the statement that China was way ahead of Europe in technology and culture during the Middle Ages.
12. **Suggest** what elements of the Songs' way of ruling a city can be found in Australian society today.

LESSON
5.4 Who were the Mongols?

LEARNING INTENTION

By the end of this lesson you should be able to discuss what life was like for Mongolian people before the rule of the great khans.

TUNE IN

SOURCE 1 shows that the Mongolian people could take their home with them when they migrated.

SOURCE 1 A traditional Mongolian yurt was easily collapsed and transported. The conical shape allowed rain to run off and provided resistance against strong Mongolian winds. Sections of the wooden frame were secured with strips of rope to form a cylinder shape over which felt was stretched for insulation. Roof poles supported the outer covering.



1. Consider your lifestyle:
   - If you had to move tomorrow, could you pack up your essential items?
   - How would a nomadic lifestyle impact the things you keep or value?
2. Examine the landscape around the yurt. How do you think this environment would force people to stay mobile and move to a new area regularly?

5.4.1 The Mongol homeland

The Mongols were nomadic tribal people from Mongolia, the cold and barren land to the north and west of China. The Mongol homeland was bordered by the high Altai Mountain range to the west, the Gobi Desert to the south and Lake Baikal to the north.

The people raised animals on the vast treeless grasslands of Mongolia because the region was too cold and dry for growing crops. The Mongols lived off their herds of cattle, goats, yaks and sheep. Fleece was used to make clothing and line the walls of homes, known as *yurt*. They collected the sheep manure for fuel and made cheese and butter from milk.

Mutton was also a major part of the Mongol diet. The Mongols used camels to cross the harsh deserts, oxen to move heavy loads and horses for transport, hunting and warfare.

Life in Mongolia was shaped by the land and the seasons. Every year the Mongols migrated south from summer pasture lands on the open plains to their winter pastures in the sheltered mountain valleys. Survival in the unforgiving climate was a struggle and so Mongol territory remained sparsely populated. 'Luxuries' such as grain, metals, textiles and tea were obtained through raiding or trading with the settled agricultural people living to the south of China's Great Wall.

mutton the flesh of a mature sheep used as food

imperial the rule of an emperor or something belonging to an empire

From 400 BCE, the Chinese Emperors constructed walls to defend themselves against raids from the tribes living along their northern border. China's huge population was concentrated in the river valleys where the people cultivated crops, constructed roads and built great cities. The Great Wall marked the boundary between two very different ways of life: the wealth and sophistication of **Imperial** China, and the poverty and simplicity of nomadic Mongolia. The Chinese regarded the Mongols as 'barbarians'.

SOURCE 2 Yaks are perfectly suited to the Mongolian landscape. They can survive extreme temperatures, live on rocky slopes and flat plains, and can forage through snow for fodder, which is essential in a country where snow covers the ground for almost half the year. Hangai yak provided Mongols with meat, milk and transport.



SOURCE 3 Mongolia lay to the north of China. The stark northern landscape was the home of people the Chinese regarded as barbarians. This Song dynasty illustration shows the Chinese view of the Mongol homeland as barren and harsh.



5.4.2 Mongol society

The Mongols lived in small clans. Groups of clans were bound together by marriage and blood relationships to form a Mongol tribe. A chieftain, or khan, governed the tribe. The khan was not born to rule, but kept the position of power through constantly proving personal strength and protecting the tribe. Within clan groups, the people belonged to a particular social class which determined everything, from what they were given to eat at a banquet to how they were armed and dressed when they went into battle.

The role of women

Mongol women had power, influence and considerable freedom because they managed daily life in the camp. Their tasks included:

- herding and milking all the livestock
- making cheese, yoghurt and butter
- packing the yurt
- making felt by soaking and beating sheep fleece for winter insulation of the yurt
- rearing the children
- cooking and sewing animal skins into warm winter clothing.

Marriage ties were very important to Mongol tribal organisation. Marriages were arranged through discussion with clan leaders and were regarded as an important step into adulthood. Men were permitted to have many wives. Once married, a woman was responsible for her own yurt. The location of the yurt, in relation to the man's yurt, indicated seniority among the women. The first married wife placed her yurt to the east of her husband's and subsequent wives placed their yurts to the west. If the husband died, it was expected that the youngest son or brother would take care of the widow. Married women had particular status in Mongol society and were identified by elaborate headdresses.

aud-0450

SOURCE 4 An extract from a first-hand report written by European Giovanni da Pian del Carpini, who visited the Mongols between 1245 and 1247 at Pope Innocent IV's command

Girls and women ride and gallop as skillfully as men. We even saw them carrying quivers and bows, and the women can ride horses for as long as the men; they have shorter stirrups, handle horses very well, and mind all the property. The Tartar (commonly used term for Mongols) women make everything: skin clothes, shoes, leggings, and everything made of leather. They drive carts and repair them, they load camels, and are quick and vigorous in all their tasks. They all wear trousers, and some of them shoot just like men.

Hunters and horses

Horses were the Mongol's most treasured asset. The herders and hunters of Mongolia spent their lives in a saddle. From childhood they were taught to hunt from horseback. This outdoor life gave the Mongols independence and mobility. Traditional hunting expeditions, called the *nerge*, also provided military training. By riding in a vast circular formation, the Mongol horsemen gradually forced wild game such as deer and boars into a *corral*, or enclosure. The hunt required great teamwork, skill and endurance. Mongol warriors were known to ride for days without rest, surviving on dried milk curd and the blood drawn from an incision into the veins on their horse's neck. The life that the Mongol nomads knew from birth created powerful warriors.

5.4 SKILL ACTIVITY: Questioning and researching

The Mongolian homeland was too cold and dry for growing crops. **Explain**, using examples from other cultures, how this led to the skills and lifestyle they needed to conquer many other lands. You might need to do some additional research on other contemporary cultures.

For example, there is evidence that the Vikings conquered other lands due to a lack of arable lands at home.

Guide your research by **investigating** the similarities and differences between the Mongols and the Vikings in terms of their:

- homelands
- culture
- weaponry
- enemies.

5.4 Exercise

learnon

5.4 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
2, 4, 5	1, 6, 7, 8, 9	3, 10, 11, 12

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Check your understanding

1. **Name** the animals the Mongols used and **explain** why they used them.
2. Why was the Great Wall of China built?
   - A. To keep the Chinese inside
   - B. To become a tourist attraction
   - C. To defend themselves from raids from the northern 'barbarians'
   - D. As a symbol of China's strength
3. **Explain** why clan and family was so important to the survival of Mongol society.
4. The ruler of the clan was the chieftain, called the **khan** / **emperor**. They maintained power through personal strengths and **protecting the clan** / **punishments**.
5. **Determine** whether the following statements are true or false.
   - a. Marriages in Mongol society were generally by choice with no involvement of the clan leaders.
   - b. The Mongols regarded the Chinese as 'barbarians'.
   - c. Mongol women had no power, influence or freedom.
   - d. Horses were extremely valuable to the Mongols in many ways.
6. **Discuss** what the biggest differences for men and women in Mongol society were.

Apply your understanding

Using historical sources

7. Using **SOURCE 1**, **explain** how the Mongolian yurt was perfectly created to work within the conditions in which the Mongolians lived.
8. Look closely at the landscape in **SOURCE 2**. **Suggest** what makes yaks so suited to their landscape.
9. **Describe** the elements in **SOURCE 3** that show the Song illustrator thought the Mongol landscape was harsh and barren.
10. **SOURCES 1, 3** and **4** give information about Mongolian life. Using these sources, **suggest** why the Chinese regarded their northern neighbours as 'barbarians'.

Communicating

11. **Pretend** you are a Mongol tribe member who has made the journey to trade with the settled agricultural people to the south of the Great Wall. Using the sources in this lesson as a basis, tell the farmers about your home and why you continue to live there despite the harsh conditions.
12. Referring to all the sources in this lesson, **describe** the Mongol people's relationship with:
    - a. the land
    - b. their animals
    - c. the weather
    - d. the Imperial Chinese
    - e. each other.

LESSON
5.5 How did Temujin come to power?

LEARNING INTENTION

By the end of this lesson you should be able to describe who Temujin was, and how the attributes he showed as a boy would dictate the type of leader he would become.

TUNE IN

There are no portraits from when Temujin was alive, so **SOURCE 1** is likely the most accurate depiction of him that we have, as it was commissioned by his grandson, Kublai, after his death. Kublai wished to make the most accurate portrayal possible.

Discuss some of the following questions:

1. Why do you think Temujin didn't want images of himself? This was very unusual for the time.
2. Are there any challenges to understanding Temujin which come from not knowing what he looked like?
3. The man in the portrait looks very ordinary. Why do you think Kublai wanted such a simple version of his grandfather?
4. In the painting, the artist has depicted Temujin wearing white robes like a Mandarin sage. Why do you think this is?

SOURCE 1 A painted silk portrait of Temujin, known to the world as Genghis Khan, made after his death.



5.5.1 Early life

The details of Temujin's early life are unclear, but it is believed that he was born around 1162 and was the son of a warrior and minor chieftain named Yusegei. Mongol legend claims that Temujin was born clasping a clot of blood in his right hand, a sign that he was destined to become a hero.

Temujin was a member of a Mongol tribe known as the *Oirat*. When Temujin was still a young child his father was poisoned by another band of nomads and his family was abandoned by their clan. It was left to his mother, Yulun, to instruct him in the skills of the warrior: riding horses and shooting the Mongol bow and arrow.

At that time, the Mongols were divided into many tribes that constantly went to war with each other in their efforts to gain the best hunting grounds and pastures. Warriors also went on raiding parties, kidnapping women from other tribes to be brought back as additional wives. A shaman named Teb-tengri described life on the **steppe** when Temujin was a boy by saying, 'There was no respite, only battle. There was no affection, only mutual slaughter.'

As a young man, Temujin was noted for his height, his broad forehead and his piercing green eyes. He learned to survive by developing military superiority and the skills of diplomacy and negotiation.

steppe a vast plain without trees

5.5.2 The creation of a khan

By the time he was in his twenties, Temujin had built alliances with a number of other Mongol clans. He gained a reputation as a furious warrior and a man of great influence, leading to his being given the position of tribal chief in 1189. In 1206 — the year of the leopard — his greatness was recognised when he was elected as the khan over all his fellow tribal chieftains. Temujin took on the new title of *Genghis Khan*, meaning 'the universal ruler'.

To strengthen the bond between the Mongolian tribes, Genghis Khan relied upon three ties that were familiar to the nomadic tribes:

- **quda** — tie of marriage. A skilled politician, Genghis Khan used marriage as a tie to bind together old enemies, even marrying one of his daughters to a rival tribe after they submitted to him without a fight. There are theories that Genghis Khan would then send his new sons-in-law to the front lines of war, leaving his daughters in control of the tribe.
- **anda** — tie of sworn brotherhood. As a child, Temujin had made this tie with a friend named Jamuka by exchanging knuckle bones and a bow and arrow. As a man, Genghis Khan exchanged valuable items such as sable coats with other warriors to create ties that were considered stronger than the tie between real brothers.
- **nökör** — tie of friendship. This was a bond similar to that of a European lord and liegeman, in which the follower promised to obey and defend his leader, leaving his family behind to travel with his leader.

The Great Khan commanded loyalty from his companions and obedience from his soldiers, but accepted criticism from his advisers, including his mother, Yulun. He was also noted for his tolerance of other religions, a position that he adopted because it made it easier to work with and manipulate others. Under the brilliant leadership of Genghis Khan, the warring Mongol tribes were finally united.

Genghis Khan's first military victory as the universal ruler was against the Tanguts of Xi Xia, south of the Gobi Desert. Rather than battle the forces of Genghis Khan, the Tanguts chose to pay a tribute to him. The Great Khan now controlled a major section of the Silk Road, giving his army direct access to China.

SOURCE 2 When a new camp was established, the khan's tent was the first to be erected. In this image, created in the fourteenth century, the khan is surrounded by his court officials. In the trees outside, the yak tails hang as a symbol of the presence of the khan.



aud-0451

SOURCE 3 Genghis Khan met with a Taoist holy sage, or holy man, in 1221. The record of his conversation with Ch'ang-Ch'un presents a different image of the Great Khan.

I hate luxury and exercise in moderation [the Khan wrote]. I have only one coat and one food. I eat the same food and am dressed in the same tatters as my humble herdsmen . . . In the space of seven years I have succeeded in accomplishing a great work, uniting the whole world in one empire. I have not myself distinguished qualities . . . But as my calling is high, the obligations incumbent on me are also heavy and I fear that in my rule there may be something wanting. To cross a river we need boats and rudders. Likewise we invite sages and choose assistants to keep the empire in good order . . . I implore thee to move thy sainted steps. Do not think of the extent of the sandy desert. Commiserate with the people in the present situation or have pity upon me and tell me the means to preserve life.

SOURCE 4 Genghis Khan's ferocious reputation was created through statements that Yuan-dynasty writers attributed to him.

The greatest joy a man can know is to conquer his enemies and drive them before him; to ride their horses and take away their possessions; to see the faces of those who were dear to them wet with tears . . .

5.5 SKILL ACTIVITY: Questioning and researching, Using historical sources

Using the internet or your library, **research** the importance of the Silk Road and answer the following questions.

a. Who built the Silk Road and why?
b. Where was it? What were travelling conditions like on the road in the thirteenth century?
c. **Explain** the road's strategic importance to Genghis Khan.
d. **Name** some of the products and ideas that were transported via the Silk Road in the days of the Great Khan.

5.5 Exercise

learnon

5.5 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 5	3, 4, 7, 12	6, 8, 9, 10, 11

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Check your understanding

1. Temujin was a member of the **Toira** / **Oirat** / **Quda** tribe.
2. When Temujin was a boy, the Mongols were at peace. True or false?
3. In his early life, Temujin displayed impressive physical characteristics and skills. **State** what they were.
4. How did Temujin gain the title *Genghis Khan*? **Explain** what it means.
5. In what ways did Genghis Khan show great leadership? **Select** all that apply.
   - A. He was an effective military leader
   - B. He did not require any advice from his mother or companions
   - C. He commanded loyalty from his companions and obedience from his soldiers
   - D. He accepted criticism
   - E. He showed tolerance for other religions and openness to ideas from others
6. What did Genghis Khan gain from his first military victory as the universal ruler? **Explain** why was it so important.

Apply your understanding

Historical perspectives and interpretations

7. **Identify** how **SOURCE 2** visually recognises the khan's great power.
8. **State** how long Genghis Khan had been the universal leader by the time the conversation in **SOURCE 3** took place.

9. The Yuan dynasty was established by Genghis Khan's grandson Kublai Khan.
   a. Is **SOURCE 4** a primary or secondary source?
   b. **Explain** why they would want to establish a fierce reputation for Genghis Khan.
10. Which source in this lesson do you think is the most reliable? **Explain** your answer using evidence.

Communicating

11. **Explain** the terms *quad, anda* and *nökör* in your own words. **Describe** how these terms were used to create strong bonds between the Mongolian tribes who became a great force in the region.
12. **Suggest** what aspects of the Mongol life the khan drew on to create a superior warrior force.

LESSON
5.6 How did the Mongols conquer the world?

LEARNING INTENTION

By the end of this lesson you should be able to articulate what aspects of the Mongols' military made them a force to be reckoned with, and the tools that Genghis Khan used — both military and diplomatic — to keep his army in line and on the same page.

TUNE IN

Mongol horsemen could turn and shoot arrows from their composite bow with great accuracy and speed. The composite bow was made from combining a layer of **sinew**, wood and horn to create the frame.

sinew the tissue that binds bones and muscle together

SOURCE 1 Mongolian archers take aim while riding horses, displaying the same skills as Genghis Khan's warriors.



How would a group of warriors such as the one found in **SOURCE 1** be an effective fighting force during this period? Compare them to non-mounted soldiers from other nations and discuss the differences.

5.6.1 Mongol soldiers

With a mighty army consisting of the Mongol tribes from the southern deserts, the steppe lands of central Mongolia and the mountains of the freezing northern frontiers, Genghis Khan invaded China in 1211. Swift-footed horses carried the Mongol **cavalry** with incredible speed over vast distances. The cavalry combined military skill with discipline and toughness; Mongol commanders believed that winter provided the best opportunity for war and used frozen lakes and rivers as their highways to battle.

The Mongol soldier was well equipped and carried a variety of weapons:

- a lance fitted with a hook for pulling enemies from their horses
- a curved sword and a dagger that was strapped to the arm
- two bows; one used to shoot from horseback and another heavier bow for use on foot. The typical Mongol bow could shoot arrows that pierced armour 200 metres away
- a shield, an iron helmet and armour made from leather that was waterproofed with a coating of **lacquer**.

cavalry a unit of the army mounted on horseback

lacquer a hardened layer of made of tree sap which could be applied to surfaces to add strength

The Mongol warrior's greatest strength lay in his horse, a short and stout wild animal that was tough and hardy like the soldier that rode it. Mongol horses could survive the bitter winter of the north because they had coarse coats and the ability to find and feed from the grasses that lay beneath winter snow. The Mongol army provided each soldier with about five horses to accompany him on campaign, as the rule was that after a day of riding a horse was given three days of travel without a rider. It was said that Mongol soldiers could live in the saddle for up to ten days and would eat the raw meat of dogs, rats, mice and horses when they were on campaign. Stories of the discipline and strength of the Mongol army spread fear across Asia and Europe.

5.6.2 Military structure and discipline

Mobilising an army

The Mongol tribal organisation developed military strength. Even in peacetime all able-bodied men between 15 and 60 years of age were under military orders, meaning that they could be called upon to fight. Promotion in the Mongol army was not related to high birth, but achieved as recognition of bravery and skill. The Mongol army was reformed and reorganised into a decimal system under Genghis Khan. It was composed of:

- *arban* — a group of ten men from different Mongol clans, ordered to be loyal to each other regardless of clan connections
- *zuun* — a company, consisting of ten arban (100 soldiers)
- *myangan* — a battalion, consisting of ten zuun (1000 soldiers)
- *tumen* — an army, consisting of 10 myangan (10 000 soldiers).

The tribal links of the clan groups were broken up by the army structure to ensure old loyalties could not threaten Mongol unity. In battle the close-knit and tightly drilled units used skills developed in the traditional Mongol hunt, encircling, trapping and then cutting the enemy to pieces. The use of **couriers** enabled the various sections of the Mongol armies to keep close contact with each other.

Death and duty

One of the most important features of the Mongol army was the principle of strict discipline known as *Yassa*, meaning an order or decree. The thirteenth-century writer Juvaini explains the Yassa as a 'rule for every occasion and a regulation for every circumstance while for every crime [there was] a penalty'. Genghis Khan was unable to read and write because Mongol civilisation had not developed **literacy**. Adapting Uigher script from the northern Turkic tribe, the Great Khan had the rules of the Yassa written down on scrolls. During wartime, desertions, failing to rescue captured colleagues, plundering without permission, sleeping on duty, fighting with other tribal groups within the army and showing unnecessary kindness to a captive were all punishable by death.

courier a messenger, often carrying important government documents

literacy the ability to read and write

tlvd-10592

SOURCE 2 Genghis Khan declared in the Yassa that 'if the military leaders and the leaders of the many descendants of the ruler who will be born in the future, should not adhere strictly to the Yassa then the power of the state shall be shattered and come to an end'. Although a complete list of the laws has never been found, it is believed that they covered all aspects of public and private life. The Yassa was of particular importance to the discipline and structure of the army.

- The ruling that divides men of the army into tens, hundreds, thousands, and ten thousands is to be maintained. This arrangement serves to raise an army in a short time, and to form the units of commands.
- The moment a campaign begins, each soldier must receive his arms from the hand of the officer who has them in charge. The soldier must keep them in good order, and have them inspected by his officer before a battle.
- Forbidden, under death penalty, to pillage the enemy before the general commanding gives permission; but after this permission is given the soldier must have the same opportunity as the officer, and must be allowed to keep what he has carried off, provided he has paid his share to the khan's representative, who will convey it to him.
- To keep the men of the army exercised, a great hunt shall be held every winter. On this account, it is forbidden any man of the empire to kill from the month of March to October, deer, bucks, roe-bucks, hares, wild ass and some birds.

5.6.3 Conquering the world

Mongol military campaigns involved thorough planning and **reconnaissance**. Not only did this make it possible for the Mongols to defeat their foes, but they were also able to learn new battle strategies from their enemy. From the Chinese and the Persians, the Mongols learned about siege machines and gunpowder. They then transported catapults on horseback to the battlefield and hid their movements behind smoke grenades and firebombs.

SOURCE 3 Mongols used more than just their advanced horseback tactics. They laid siege to larger cities with up to 300 000 warriors across their empire and used complex devices such as the trebuchet shown in this depiction of a thirteenth-century attack.



Most people in the path of the Mongol army had a choice: surrender and live or resist and die. If a city rebelled after agreeing to surrender, the population was massacred and the city was annihilated. As the Mongols moved across western Asia, they used terror as a weapon of war, exterminating town after town and encouraging the spread of stories about their conquests. Genghis Khan began his invasion of China by attacking the Jin people of northern China and Manchuria. In 1213, the Mongol armies broke through the Great Wall of China and within two years conquered and destroyed the Jin capital city of Yanjing. So many thousands of people were killed in the conquest of northern China, it was said white hills appeared that were made of the bones of the dead.

reconnaissance a search made to gain military information

5.6.4 The empire after Temujin

In 1227 Genghis Khan died within eight days of leaving for a campaign in China. His cause of death is unknown, and his son Ögedei became *khagan* ('great khan') in his place. He continued to conquer new lands but brought far more stability to the regions his father had invaded.

In 1268, the Mongols launched their second colossal invasion of China. Mongol forces were now led by Genghis Khan's grandson, Kublai Khan. Kublai Khan's army **blockaded** the Yangtze River and began advancing on the cities of the southern Song. The Song were well defended with their modern gunpowder weapons, such as rockets and flamethrowers. The Mongol armies changed their fighting tactics and surrounded the great walled Song cities, cut off supplies and starved them. For four years the **sieges** continued until the Mongols were victorious. Every Song city that fought against the Mongols was destroyed. The only chance for survival was unconditional surrender.

By the end of the fourteenth century, the vast empire was divided into four Mongol kingdoms:

- Kublai Khan ruled China — the Yuan dynasty
- Hulegu ruled Persia — the IlKhanate
- Batu Khan ruled southern Russia — the Golden Horde
- Chagatai ruled Central Asia — the Chagatai Khanate.

The closing defeat of the southern Song came in 1276. The Mongols again used their siege tactics to destroy the Song navy. For two weeks they encircled the Chinese fleet and blocked all supplies. With the last Song forces weakened, the Mongols attacked on a morning shrouded in rain and fog. Mongol victory was swift.

Among the thousands of Chinese who died on that day was the last Song emperor, a child named Bing, and his empress mother. Mongol victory was complete when Kublai Khan declared himself the first foreign emperor of China. By this time, the Mongol army had conquered territory stretching from the Arctic Ocean to the Persian Gulf and from Hungary to Korea.

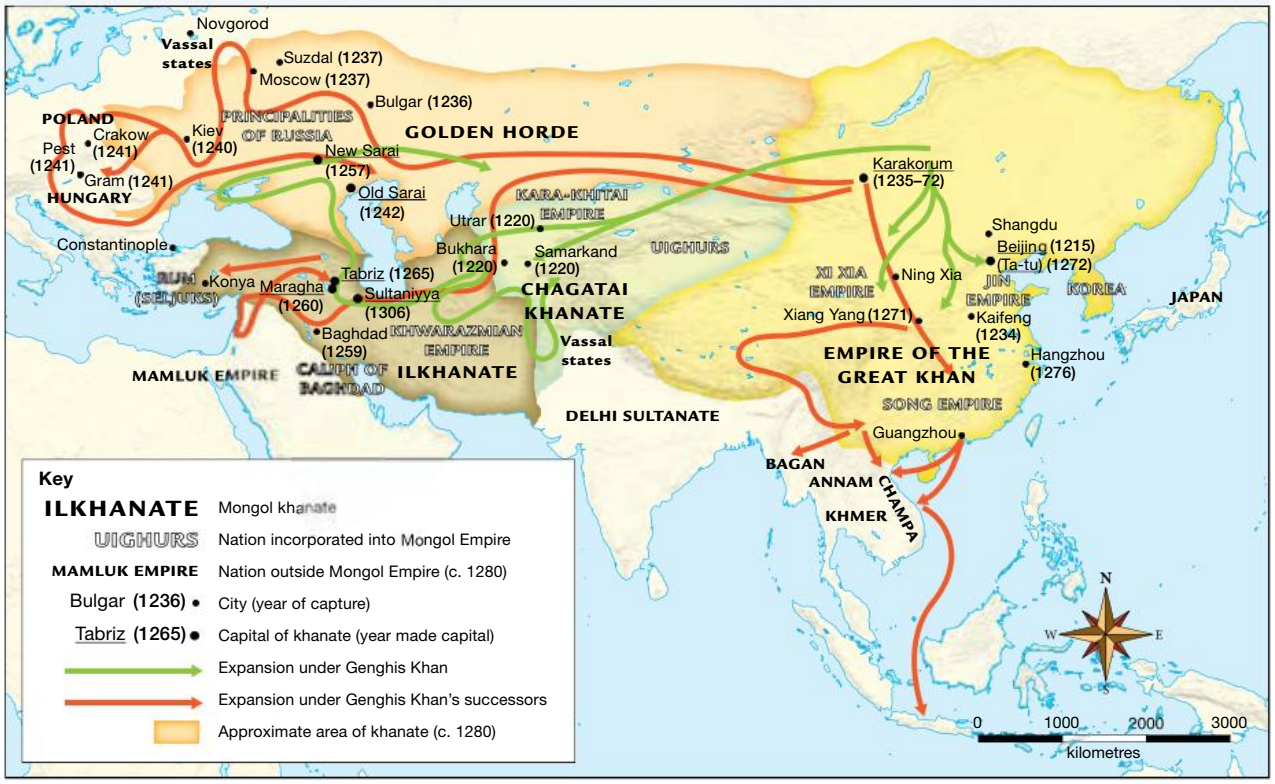
blockade the shutting off of a location to prevent entry or exit

siege capturing a protected place by surrounding it and cutting off supplies

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tlvd-10593

SOURCE 4 A map of the Mongol Empire near its peak in 1280



Source: Map drawn by Spatial Vision.

SOURCE 5 Despite the Mongol army's domination of much of Asia, attempts to conquer Japan failed, as shown in this nineteenth-century Japanese woodcut. In both 1274 and 1281, Mongol invasions were thwarted by a combination of resistance from Japanese warriors and destructive typhoons, which shattered the Mongol ships and killed many thousands of the Mongol invaders.



SkillBuilders to support skill development

- 1.4 Sequencing events in chronological order
- 1.6 Evaluating historical significance

5.6 SKILL ACTIVITY: Communicating

1. **Create** a timeline of the history of Mongol expansion, beginning with the conquest of the Jin.
   Leave enough room so that, as you learn more about the creation of the Mongol Empire, you can continue adding details of events and personalities to your timeline.
   Make sure to include the following in your timeline:
   - Key events
     The year the event took place
     The era (such as the dynastic period).
   - Key personalities
     Mongols
     Others (for ex. Marco Polo, Chinese individuals, etc.).
   - A brief description summarising why the event is important

   Keep in mind that the timeline is a summary of major events and personalities (less is more), you do not need to include everything you have learnt.
2. Cultures outside of Mongol rule considered them to be 'barbarians'. **Write** an explanation supporting or refuting this claim using evidence from this topic.

5.6 Exercise

learnon

5.6 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
2, 3, 5	1, 4, 6, 9	7, 8, 10

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Check your understanding

1. Briefly **describe** the weapons carried by a Mongol soldier.
2. Each Mongol soldier took **one** / **two** / **three** / **four** / **five** horses with him on campaign. This allowed them to give a horse **two** / **three** / **four** days of travel without a rider. This way they could keep travelling for long distances while not wearing out their horses.
3. What was the basis for promotion in the Mongol army?
   - A. Social class and wealth
   - B. Age and experience
   - C. Recognition of skill and bravery
   - D. Promotions were not given.
4. **Explain** why the tribal links of the clans were broken up by the army structure.
5. How did the different sections of the army communicate during the battle?
   - A. Communication was not possible.
   - B. Leaders would move between sections.
   - C. Communication was carried out through couriers.
   - D. Soldiers would move between sections when they felt necessary.
6. Refer back to section 5.6.2.
   a. **State** what the Yassa was. What script was it written in?
   b. **Explain** why Genghis Khan didn't just use his own language for the Yassa.
   c. **Explain** why Genghis Khan had the Yassa developed.

Apply your understanding

Using historical sources

7. **Analyse** the laws outlined in the Yassa in **SOURCE 2**.
   a. What was the benefit of dividing the army into tens, hundreds, thousands and tens of thousands?
   b. Whose responsibility was it to hand out the arms to the soldiers?
   c. Are the soldiers allowed to pillage (rob violently) the enemy at all?
   d. How did Genghis Khan intend to keep his armies fit during winter?
8. The Mongol Empire continued to expand after the death of Genghis Khan. **Examine SOURCE 4**, which depicts the expansion of the Mongol Empire.
   a. How far west did Genghis Khan's campaigns go?
   b. Which three Asian empires were conquered by the Mongols?
   c. What city was at the centre of the Mongol lands?
   d. Identify three modern day countries which were once part of the Mongol Empire.
   e. What region was the focus of Kublai Khan's campaign and empire?

Communicating

9. Using the illustration in **SOURCE 5**, as well as the information in the caption, **explain** why the Mongols' attempt to conquer Japan was unsuccessful.

Historical perspectives and interpretations

10. Based upon what you now know about the Mongol army's strategy, **write** two short accounts of one of the final battles before the fall of the southern Song stronghold during the siege of 1276. The first should be written from the perspective of a member of the Song royal family and the second from the perspective of a Mongol warrior.

LESSON
5.7 What was China like under Mongol rule?

LEARNING INTENTION

By the end of this lesson you should be able to explain what Kublai Khan hoped to achieve as a ruler, and how the new imperial Chinese capital would come to represent the values of the Yuan Dynasty. In this way, you should be able to reflect upon the ways in which the rule of Kublai Khan might be seen as an evolution of the rule of his grandfather, Genghis Khan.

TUNE IN

As emperor, Kublai Khan placed the whole of China under Mongol control.

SOURCE 1 A thirteenth-century painting of Kublai Khan, the first emperor of the Yuan dynasty.



Compare the character in **SOURCE 1** with the painting of Genghis Khan (**SOURCE 1**, lesson 5.5). These two figures are very similar — why do you think this is?

5.7.1 Yuan government

Now the emperor of China, Kublai Khan named his new dynasty *Yuan*, meaning 'creative force'. He abandoned the old Mongol capital of Karakorum and established the imperial Chinese capital in Cambuluc (modern-day city of Beijing), where he developed a very different style of government that blended Mongol and Chinese traditions. By doing so, he created a Chinese state that was bilingual, multicultural and tolerant of religious differences.

Kublai Khan brought Confucian scholars to his court to help govern Yuan China. He appointed a General Secretariat, composed of 14 trusted officials, to enforce his laws and ensure efficient government. The population of China was divided into four groups or classes:

- *Mongols* — the elite of Yuan dynasty society who were given all the most important government jobs. The Mongols did not have to pay taxes and were granted large estates that were worked by Chinese peasant labourers.
- *non-Chinese allies and* ***mercenaries*** *from the west* — appointed as government officials across the empire
- *northern Chinese* — Khitans, Jurchens and Koreans
- *southern Chinese* — all subjects of the former Song dynasty.

The northern and southern Chinese had limited rights, were punished more severely than non-Chinese, were forbidden to gather in public and paid heavy taxation to support the Yuan government.

mercenary soldier who fights for money rather than for ideals or patriotism

int-7823

SOURCE 2 The coat worn by the emperors showing the 12 symbols of power in China



The 12 symbols and their meaning

- A *Moon* — of Heaven and enlightenment
- B *Fu* — justice
- C *Water weed* — purity
- D *Constellation* — Heaven and enlightenment
- E *Axe* — punishment
- F *Cups* — respect for parents
- G *Sun* — Heaven and enlightenment
- H *Dragon* — adaptability
- I *Fire* — brilliance
- J *Mountains* — Earth and protection
- K *Pheasant* — literary achievements
- L *Grain* — abundance for the people

5.7.2 Rebuilding China

Millions of workers were set the task of rebuilding China after decades of Mongol war and conquest. Transport links were constructed with thousands of kilometres of roads and a Grand Canal linking north and south China. To protect against possible famine, **granaries** were built throughout the empire. Kublai Khan built schools, hospitals and orphanages, and established a regular postal service connecting every corner of his Yuan kingdom.

The khan also sent explorers to map China's great river systems and record the geography of the vast land. This encouraged merchants to journey overland to the Middle East and South-East Asia, and eventually led to the development of trade links with Europe.

In 1269 Kublai Khan established a printing office so that pamphlets could be published to communicate government decrees to the people. He also encouraged the printing of books on a wide range of subjects including agriculture, law, medicine, mathematics, art and history. Yuan dynasty printing presses were so widespread that books were mass produced and cheap to buy. Paper money was printed with such success that, for the first time in human history, paper money became the main form of currency.

granary a storehouse for grain

SOURCE 3 Despite the positive achievements of the Yuan dynasty, the population of China plummeted due to the harsh conditions imposed upon them by Mongol rule. This Yuan dynasty painting by a Chinese artist shows death luring a baby away from his sister. His mother is powerless to save him.

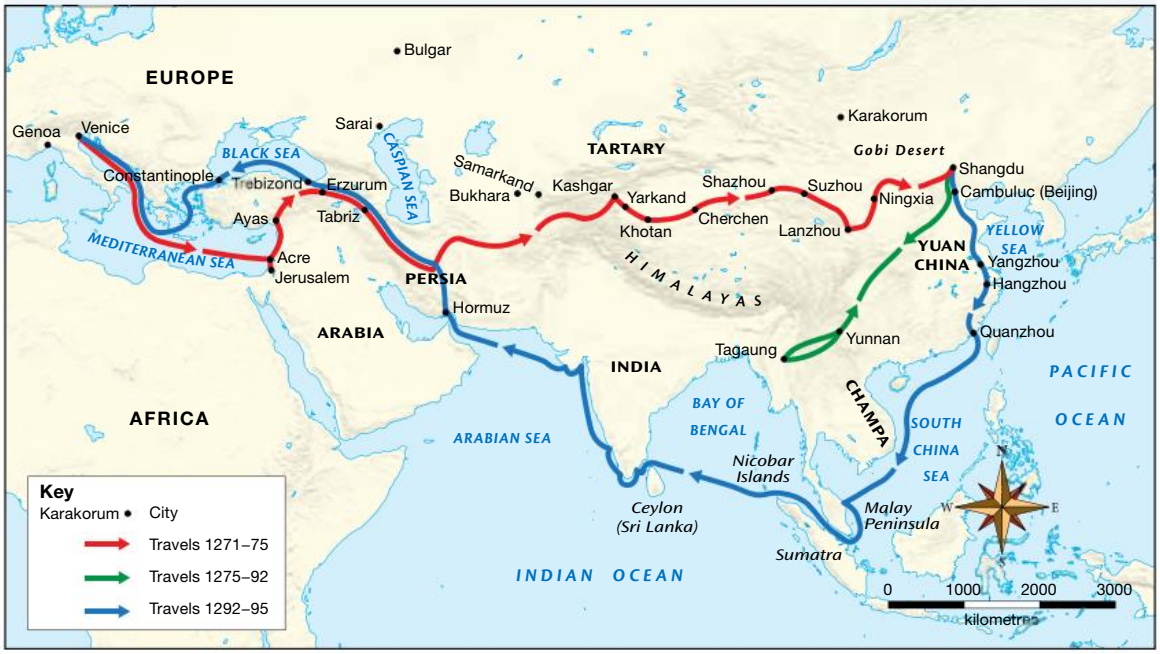


5.7.3 Westerners in the khan's court

Kublai Khan was fascinated by two brothers, Nicolo and Maffeo Polo, who visited his court to trade goods from their homeland of Venice, Italy. They arrived in 1266 and took messages from the khan, requesting missionaries and European scholars, back to the pope in Venice. When they returned to the khan, they were accompanied by Nicolo's son, Marco.

int-4110

SOURCE 4 Polo's work for the khan would take him around Asia and Europe and through many of the lands conquered by the Mongols.



Source: Map drawn by Spatial Vision.

Marco Polo quickly became trusted by Kublai Khan and became his emissary to India and Burma. He travelled extensively in South-East Asia and, upon his return to Italy, shared his stories with a writer who turned them into the book *The Travels of Marco Polo*. At the time, they were both imprisoned by enemies of Venice whom Marco fought against.

SOURCE 5 In *The Travels of Marco Polo*, experiences are often 'larger than life', leading to claims by many people that the book was more fiction than fact. Some people have even claimed that Marco Polo never made it to China.

. . . I will tell you another very wonderful thing; for there are men in this kingdom who have tails like dogs, larger than a palm, and who are covered with hair. They remain in the mountains, never visiting the towns. There are unicorns, with various beasts and birds for hunting.

How much of *The Travels of Marco Polo* is true was questioned by people in the fourteenth century but, even on his deathbed at the age of 70, the intrepid explorer insisted that *The Travels* was a true account of his experiences. When asked by a priest to retract his 'fables', Marco Polo said, 'I have not told half of what I saw'.

Whether the stories were true or not, what cannot be questioned is Marco Polo's influence on the popular imagination of the day. When Christopher Columbus set off to find China more than a century after Polo's death, he carried a copy of the book with him. To Columbus, as to many others, Marco Polo was both inspiration and guide.

DISCUSS

Many people of the time nicknamed Marco Polo's book *The Million Lies* because they found it so hard to believe; however, he left a famous epitaph, 'I have not told half of what I saw'. Debate whether or not you think *The Travels of Marco Polo* was a true account. Find evidence to support your opinion.

5.7 SKILL ACTIVITY: Communicating

1. Using the sources and information in this lesson, make a **list** of the journeys and events in the life of Marco Polo.
2. Turn your list into a timeline.
3. **Illustrate** it using images from the internet or hand drawings if you can.

5.7 Exercise

learnon

5.7 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 3, 5	4, 6, 7, 11	2, 8, 9, 10, 12

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Check your understanding

1. Kublai Khan gave the name **Qin** / **Song** / **Yuan** to his new dynasty, which meant **'creative force'** / **'bright light'**.
2. **Consider** the people of China.
   a. What were the different groups or classes of people in the population of China at this time?
   b. Were they treated equally?
   c. Why were the Chinese treated more harshly than non-Chinese?
3. Why did China need rebuilding at this time?
   A. They had experienced decades of war and conquest from the Mongols.
   B. They wanted to begin an architectural revolution.
   C. The emperor demanded it.
   D. China did not need rebuilding.
4. **Summarise** the main developments that Kublai Khan achieved in reconstructing and rebuilding Chinese society.
5. Kublai Khan's winter palace was in **Tai-du** / **Chung-tu** / **Xanadu** / **Yanjing**, which he renamed **Tai-du** / **Chung-tu** / **Xanadu** / **Yanjing**.
6. **State** how long Marco Polo was in China for and **explain** the circumstances under which *The Travels of Marco Polo* were written.

Apply your understanding

Historical perspectives and interpretations

7. **Describe** how **SOURCE 1** portrays Kublai Khan. Do you think that the painter was trying to show him in a good light or not? Explain your answer.
8. **Examine SOURCE 2**. From what you know of Kublai Khan's achievements in rebuilding China, which of the 12 symbols would he have valued and why?
9. **Examine SOURCE 3** carefully.
   a. What comment is the artist making about life in Yuan China?
   b. Given that Kublai Khan put so much effort into rebuilding China, why do you think the artist might feel like this?

Communicating

10. Which of Kublai Khan's achievements in rebuilding China would have had the most impact on the people? **Explain** why you think this.
11. **Identify** which aspects of **SOURCE 5** are beyond belief.
12. Based upon what you know of Kublai Khan, would he have been happy with the publication of *The Travels of Marco Polo*? **Explain**.

LESSON
5.8 What was the Yuan court like?

LEARNING INTENTION

By the end of this lesson you should be able to describe what life was like within the court of Kublai Khan.

TUNE IN

Regardless of their own beliefs, Kublai and his descendants made very public shows of honouring and preserving Chinese culture, such as the Guozijian shown in **SOURCE 1**.

The Guozijian was built shortly after Kublai's death as a space to give offerings to Confucius and keep his ideas alive.

SOURCE 1 The Beijing Guozijian located in Beijing, China.



What do you believe they were trying to show the citizens of China?

5.8.1 Honouring China's heritage

During the Yuan dynasty, Kublai Khan's court was the centre of political, artistic, philosophical and religious debate and expression. In order to maintain stability within the empire, the khan sought to find a balance between Chinese and Mongolian culture.

The influence of royal women had begun with Genghis Khan's mother. It continued into the reign of Kublai Khan. His wife, Chabi Khatun, played an important role in shaping the government of the empire when her support of Tibetan monks encouraged many members of the Mongol ruling class to convert to Tibetan Buddhism.

The emperor's mother, Sorghaghtani Beki, realised that Kublai Khan would need to understand the Chinese if he was going to successfully rule over the 100 million people of Yuan China, and encouraged him to study their belief systems. Taking his mother's advice, Kublai Khan invited scholars and religious leaders to attend his court and debate matters of religious and philosophical importance. During the Yuan dynasty, Chinese religion, ideas, art and culture flourished.

5.8.2 The path to enlightenment

During the Song dynasty, three great religions and traditions had merged to produce a set of beliefs and principles shared by Chinese people of all social classes:

- *Confucianism* — developed in the sixth century BCE by the Chinese philosopher Confucius, this philosophy valued qualities of honesty, morality, loyalty, self-sacrifice, love and good manners. Confucianism also taught people about their place in society.
- *Daoism* — a way of thinking based on the teaching of the philosopher Laozi who stressed the importance of living a simple life that honoured the natural world. Daoism eventually became a religion with deities, temples and priests, and taught people how to improve society by understanding their place in nature.
- *Buddhism* — a religion that came to China from India in the first century CE, Buddhism emphasised the need to reject material possessions as a path to enlightenment. Buddhism gave people a hope of life after death.

5.8.3 Art and culture

In Chinese culture, painting, poetry and calligraphy were known as the 'three perfections'. Poets and painters aimed to express spiritual peace and tranquillity through their art, while the calligrapher aimed to capture the beauty of every line of a Chinese character. Traditionally, Chinese art was rich in symbolism. Plants and animals represented objects and ideas of importance. Some examples include:

- The butterfly represented the human spirit or joy.
- The chrysanthemum represented courage.
- The orchid represented purity.
- Bamboo represented scholars.
- The crane represented a long life and great happiness.

With Kublai Khan's encouragement, Chinese writers, painters and calligraphers recorded the history of the earlier Tang, Jin and Song dynasties. Although many Chinese artists agreed to work for their Mongol emperors, some expressed their true feelings about the Mongol **occupation** of China through art and literature.

The most highly regarded painters of this period were known as the *literati.* These scholarly Chinese artists turned away from depicting everyday life in China and concentrated on painting landscapes. Rather than painting images designed to please their audience, they sought to depict nature as *they* experienced it, a practice that would influence generations of artists to come.

occupation invasion, conquest, and control of a nation or territory by foreign armed forces

SOURCE 2 Huang Gongwang was the oldest of the four painters known as the Masters of the Yuan dynasty. This painting shows the Fuchun Mountains to which he retired after serving briefly in the Mongol administration.



5.8.4 Visiting the court of Kublai Khan

Kublai Khan's palace was a vibrant place full of visitors from around the Mongol Empire and beyond its borders. The khan was attended by religious and political advisers, and encouraged the free exchange of ideas. Although the court was multicultural and was tolerant of its members practising different religions, it still had its share of conflict.

int-8979

SOURCE 3 A modern artist's impression of the court of Kublai Khan



A. Foreign dignitaries were welcome at the court of Kublai Khan. Such visits were an opportunity to increase trade between the East and the West.

B. Under the rule of Kublai Khan, Tibetan Buddhism thrived and became one of the official religions of the Yuan dynasty.

C. Women who were close to Kublai Khan were encouraged to engage in political discussions during his rule. His mother and wife were particularly influential.

D. Confucianists, some of whom had advised the Song, were invited to the khan's court. Xu Heng was a well-respected Confucianist and educator, and was appointed the first leader of the dynasty's National Academy in 1271.

E. The court was filled with poets, artists and calligraphers, whose work was displayed for all to see. Influential poets included Zhang Yanghao, who challenged government policies, and Huang Gongwang, who was one of the four great painters of the Yuan dynasty. After retiring to the mountains, he spent three years painting one scroll.

F. Diet was of great importance. It was believed many diseases could be cured or prevented through diet alone. Assorted foods that may have been eaten included duck, chicken, fish, rice and vegetables.

G. In the thirteenth century, the court of Kublai Khan regularly saw high-level meetings between the Mongolian ruling class and dignitaries from around the world. Through these meetings, ideas flowed into China, while tales of the now-famous emperor spread all over the world.

H. During the Yuan dynasty, there were many debates between Daoists and Buddhists at the khan's court. After losing a debate in 1281, Kublai Khan ordered many Daoist texts to be burned.

5.8 SKILL ACTIVITY: Questioning and researching, Using historical sources

Using the internet and/or your library, **research** one of Confucianism, Daoism or Tibetan Buddhism and answer the following:

a. How and where did this belief system begin?
b. When and how did it enter China?
c. Why might it have appealed to the people of China during this time period?
d. How may its teachings have guided Kublai Khan in ruling over the Chinese people?

5.8. Exercise

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5.8 Exercise

Learning pathways

■ LEVEL 1	■ LEVEL 2	■ LEVEL 3
1, 2, 3	5, 6, 9	4, 7, 8, 10

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Check your understanding

1. Consider the influence of the women in Kublai Khan's life.
   a. **Sorghaghtani Beki** / **Chabi Khatun** / **Huang Gongwang** was Kublai Khan's wife.
   b. Kublai Khan's wife's support of **Tibetan leaders** / **warriors** / **monks** encouraged many members of the court to convert to **Tibetan rule** / **Buddhism** / **armies**.
   c. Kublai Khan's mother was **Sorghaghtani Beki** / **Chabi Khatun** / **Huang Gongwang**.
2. **Identify** the three main religious traditions shared by the Chinese people during the Song dynasty.
   A. Judaism
   B. Confucianism
   C. Daoism
   D. Buddhism
   E. Christianity
3. **Identify** the 'three perfections'.
   A. Song
   B. Painting
   C. Dance
   D. Poetry
   E. Calligraphy
4. **Suggest** what the poets, painters and calligraphers aimed for in their work.
5. Who were the *literati*? **Explain** what they did.
6. **Suggest** why Kublai Khan's court was a vibrant and exciting place to be.

Apply your understanding

Using historical sources

7. **Explain** how the artist of **SOURCE 2** can be seen as a member of the literati from this painting.
8. Use **SOURCE 3** to **explain** where there might have been possible sources of conflict within the court, despite its multiculturalism and political stability.

Communicating

9. Consider the court of Kublai Khan.
   a. **Describe** how the court of Kublai Khan was different from the courts of the past.
   b. **Identify** what was still the same, or similar.
10. Is it fair to describe Kublai Khan's rule as an 'occupation' of China? **Discuss** why or why not.

LESSON
5.9 Was there peace under Mongol rule?

LEARNING INTENTION

By the end of this lesson you should be able to identify which aspects of the Mongol expansion led to relatively short-term change compared to those that led to longer-term change within Chinese society and should be able to articulate reasons for these differences.

TUNE IN

Almost all traders during this period would be travelling in 'caravans', large convoys of traders and craftsmen who travelled together for safety. They would stay at *caravanserai* like the one shown in **SOURCE 1**.

SOURCE 1 Selim Caravanserai was a resting point for traders along the Silk Road. It was built in 1332 and demonstrates the growth of Mongolian technology from their nomadic roots. Many of these caravanserai were built to give traders shelter along their travel.



Before setting out on their journey, what decisions do you think they made about:

- provisions such as food and water
- the animals they chose for different terrain (desert, mountain, etc.).

5.9.1 Pax Mongolica

The rule of the khans led to a period in the thirteenth and fourteenth centuries of relative peace across their realm. This peace, referred to later by western scholars as *Pax Mongolica*, or the 'Mongolian peace', broke down the walls separating the great civilisations of Europe from those in the Middle East and Asia. With peace ensured by the Mongols from Europe to the far east, traders could move freely and share ideas and goods from across the continent.

This, combined with the *Yassa* ('Great Law') which punished wrong-doers and ensured religious freedom for all, made the four khanates an ideal space for many cultures to grow and thrive. European merchants could now make the long journey to the Far East and trade routes were further developed, including the planting of trees along major routes to provide shade for travellers.

As people and their trade goods moved back and forth across the Eurasian world, they brought with them skills and understanding. European travellers to China brought goods such as silver, fine cloth, horses, linen and musical instruments, and important foods like the cereal grass *sorghum*. They also spread technical knowledge of processes such as sugar refining and **distillation**.

From Persia, Europeans gained Islamic insight into mathematics, astronomy and science. From China, they adopted the technical, medical and scientific advances pioneered by the Song dynasty, including:

- printing
- new methods of paper-making
- the magnetic compass
- gunpowder
- porcelain.

distillation the purification or concentration of a substance

DID YOU KNOW?

It was not until 1707 that the Europeans were able to imitate the Chinese process of producing porcelain.

SOURCE 2 A traditional Mongolian artwork showing polo, a game played by the Mongols to develop their horsemanship skills. This sport is still played today.



The Mongols created the first paper money accepted by any government as payment for tax, and the value of Yuan dynasty paper money was guaranteed through exchange for gold or silver. The long-distance trade of the Pax Mongolica introduced new ways for people to do business:

- merchants could use bills of exchange rather than having to carry metal coins
- a banking system that allowed deposit and withdrawal of money
- insurance for valuable cargo.
- a 'lost and found' system for stolen goods and livestock.

The cities of the Pax Mongolica trading empire grew rapidly in size, prospering from the influx of European money. Within the multicultural Mongol empire, freedom of religion was guaranteed, as was the safety of envoys or **ambassadors** from foreign lands. The Yassa provided the principles of law and order that governed Mongol territory. With each Mongol victory, civilisations were joined, new trade routes established and new technological and economic advances made. In bringing together these diverse people and cultures, the Mongol Empire began to shape the modern world.

However, not everybody was guaranteed safety within the realm of the khans. The suffering of the Chinese people under Mongol rule can be judged by the number of people who did not survive. The total population of China is estimated to have been approximately 120 million when the Mongol invasion began in 1225; by the end of the Yuan dynasty, it had fallen to 85 million.

ambassador an authorised messenger or representative

aud-0452

SOURCE 3 Marco Polo describes the making and use of paper money in Yuan China.

In this city of Kanbalu is the mint of the grand khan, who may truly be said to possess the secret of the alchemists, as he has the art of producing money by the following process. He causes the bark to be stripped from those mulberry-trees the leaves of which are used for feeding silk-worms, and takes from it that thin inner rind which lies between the coarser bark and the wood of the tree. This being steeped [soaked], and afterwards pounded in a mortar, until reduced to a pulp, is made into paper . . . but quite black. When ready for use, he has it cut into pieces of money of different sizes, nearly square, but somewhat longer than they are wide . . .

The coinage of this paper money is authenticated with as much form and ceremony as if it were actually of pure gold or silver; for to each note a number of officers, specially appointed, not only subscribe their names, but affix their signets also; and when this has been regularly done by the whole of them, the principal officer deputed [appointed] by his majesty, having dipped into vermillion [red] the royal seal . . . stamps with it the piece of paper, so that the form of the seal tinged with the vermillion remains impressed upon it, by which it receives full authenticity as current money, and the act of counterfeiting it is punished as a capital offence.

5.9 SKILL ACTIVITY: Communicating

As a class, **discuss** how a flourishing dynasty like the Song were able to be overcome by a supposedly barbaric tribal people like the Mongols.

Questions to consider:

- Why were the Mongols considered barbaric?
- In what ways were the Song and the Mongols different from one another?
- How were the Song different from previous dynasties?
- What were the advantages and disadvantages of the Song and/or the Mongol armies?
- Was the Mongol victory inevitable?

5.9 Exercise

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5.9 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
3, 5, 6	1, 2, 4, 7, 8,	9, 10, 11, 12

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Check your understanding

1. **Explain** the term *Pax Mongolica*.
2. **Identify** what China learnt from European travellers.
3. What did the European world learn from China because of trade? **Select** all that apply.
   - A. Printing
   - B. New methods of paper-making
   - C. Painting
   - D. Magnetic compass
   - E. Gunpowder
   - F. Porcelain
4. **Describe** the benefits of the creation of paper money.
5. What were two benefits of the multiculturalism of Mongol China?
   - A. Everyone obeyed the laws.
   - B. There was freedom of religion
   - C. New cultural traditions were created
   - D. Safety of traders or ambassadors from other countries increased
6. Evidenced by a fall in population, the **Mongols** / **Chinese** / **Japanese** /**Europeans** suffered under Mongol rule.

Apply your understanding

Using historical sources

7. **Explain** what **SOURCE 1** reveals about the trade routes under Mongol rule.
8. **Identify** the Mongol sport, depicted in **SOURCE 2**, which is still played today.
9. Read **SOURCE 3**.
   - a. **Identify** what the 'secret of the alchemists' is. You may need to refer to other sources to find this out.
   - b. Marco Polo seems to see money-making as an almost mythical process. What words and phrases contribute most to this sense? **Quote** them.

Communicating

10. **Describe** who gained the most from the Mongol expansion. Who lost the most?
11. Was the term *Pax Mongolica* an appropriate description for the Mongol Empire? **Discuss** why or why not.
12. Was the legacy of the Yuan dynasty positive or negative? **Explain**.

LESSON
5.10 How did the empire end?

LEARNING INTENTION

By the end of this lesson you should be able to describe the many factors that led to the collapse of the Yuan Empire.

TUNE IN

To many cultures, the Mongols always remained 'barbarians'. Countries that managed to avoid conquest, such as Japan, depicted them as ruthless and uncultured. **SOURCE 1** was a form of **propaganda**, as the Japanese managed to avoid invasion by the Mongols.

SOURCE 1 A depiction by Japanese artists of samurai fighting against the Mongol invasion of their homeland.



Study **SOURCE 1** and consider the following:

- How can you identify which figures are Japanese and which are Mongolian?
- What weapons are being used by each side?
- Describe the ships which the Mongolians have arrived on.

propaganda information, especially of a biased or misleading nature, used to promote a political cause or point of view

5.10.1 A failing leadership

From its humble beginnings on the steppe, the Mongol Empire grew to become the largest land empire the world has ever seen. Although its beginning was marked by military conquest and unity between the tribes, its end was marked by corruption, in-fighting and the rebellion of its citizens.

When Kublai Khan died in 1294 he was succeeded by his grandson Temur, who called himself Emperor Chengzhong. He ruled according to his belief in the principles of Confucianism and worked towards establishing a more just society:

- he brought northern and southern Chinese leaders into the government
- he held an investigation into government corruption and found 18 473 officials guilty of stealing from the state.

Following Temur's death in 1307, the Yuan leadership was in an almost-constant state of flux, with seven emperors taking the throne within 25 years. These emperors lacked Kublai Khan's strength and vision and were increasingly distrusted by Mongolians because they were seen as being too Chinese. In trying to re-establish their Mongolian identity, these emperors distanced themselves from Chinese society by passing harsh laws discriminating against the Chinese. The Chinese continued to regard the Yuan emperors as foreigners heading an occupying army. Over time, Yuan government became weak and corrupt.

For generations, Mongol women had been noted for their independence and the influence they held within traditional Mongol society. By the fourteenth century, however, the granddaughters of Kublai Khan no longer played a prominent role in government. Although the binding of the feet practiced by the Song Chinese women was never accepted by Mongol rulers, life for the women at the Yuan court had become more limited, reflecting the adoption of Imperial Chinese traditions. As the Mongols of Persia embraced Islam, women's traditional Mongolian dress was replaced by the **chador**, a symbol of **piety**.

chador a dark dress or cloak that covers the body and face below the eyes
piety religious devotion

5.10.2 Rebellion

With their leadership weakening, the powerful Mongol clans began fighting with each other and disobeying the emperor. During the fourteenth century, there were numerous Mongolian rebellions against the Yuan and China was hit by a series of natural disasters. The Yellow River broke its banks, thousands drowned and China starved in the terrible famine that followed the flood. The Yuan government increased the suffering of the Chinese people when it forced armies of Chinese peasants to work on the rebuilding of the Yellow River's **dykes** and waterways. As conditions worsened, rebellion spread. In addition to this, it is believed that the bubonic plague started somewhere in China during the fourteenth century and had a significant negative impact on the population of Yuan China.

dyke a barrier or bank of earth for controlling water of the sea or river
mandate a command or order from a superior power

aud-0453

SOURCE 2 In the first century BCE, the historian Yuan Káng explained the Chinese belief in the **mandate** of heaven and the principles of good government. Yuan rulers were far from these ideals.

The king Tsu Chia [from the Shang dynasty] had been one of the ordinary people. When he came to the throne he knew what the people needed and so was kind and protective towards them. He didn't dare treat with contempt those who needed him. He remained on the throne for 33 years . . .

The kings of the later Shang dynasty did not know anything of the hardships of the peasants and so did not know their people. They didn't know anything except the pursuit of pleasure; and so not one of them had a long life. They only ruled for three or four years.

Zhu Yuanzhang

Chinese hatred of Mongol rule led to the growth of Chinese secret societies and rebellions against the Yuan dynasty. The most successful rebel leader was a peasant named Zhu Yuanzhang. After his family died in the famine, he became a bandit and rebel leader.

In 1356, Zhu Yuanzhang led an army of rebels to capture the strategically important city of Nanjing. Over the next decade, from his stronghold in Nanjing, Zhu Yuanzhang used his knowledge of military strategy and government policy to extend his control over all of southern China.

In 1368, he moved his army north and captured Beijing without a fight. Victorious, Zhu Yuanzhang declared himself the first emperor of the Ming dynasty, meaning 'brilliance'.

The last Yuan emperor, Toghun, fled Beijing and the Mongols retreated with him to the vast grasslands and open plains of their homeland. Only a century after the death of Genghis Khan, the mighty Mongol Empire had fallen.

SOURCE 3 Zhu Yuanzhang rose from humble beginnings to lead the rebellion that destroyed the rule of the khans.



5.10 SKILL ACTIVITY: Using historical sources

Cultures outside of Mongol rule considered them to be 'barbarians'. **Write** an explanation supporting or refuting this claim using evidence from this topic.

Consider the following:

- Where the Mongols came from
- How Mongol culture and society was different from Chinese culture and society
- Nomadic life compared to an agricultural life centred around large-scale cities.
- How the Mongols fought.

5.10 Exercise

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5.10 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
4, 5, 6	1, 2, 3, 7, 9	8, 10, 11, 12

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Check your understanding

1. **Explain** what happened to the Yuan leadership following Kublai Khan's grandson Temur's death.
2. **Discuss** how the Chinese viewed their Yuan leaders. How did this lead to a weakening of their leadership?
3. **Explain** how the role of Mongol women changed over the generations.
4. Why did the Mongol tribes start fighting among themselves?
   - A. They were fighting over land.
   - B. There was no emperor.
   - C. There were peasant uprisings.
   - D. Their leadership was weakening.
5. The flooding of the Yellow River caused famine that ultimately strengthened the rule of the Yuan government as the people were unable to rebel. True or false?
6. Zhu Yuanzhang was from a **royal** / **wealthy** / **peasant** / **upper** class family.
7. **Explain** what happened to the Mongol rulers after Zhu Yuanzhang started the new dynasty.

Apply your understanding

Using historical sources

8. There are many Chinese artworks similar to **SOURCE 1** that depict Mongols in unflattering ways. **Describe** what you can see them doing here. Do you think that this is an accurate portrayal?
9. Read **SOURCE 2** carefully. **Explain** what the Chinese belief of the mandate of heaven and the principles of good government were.
10. Examine **SOURCE 3**. **Describe** the pattern on Zhu Yuanzhang's robe. What might it symbolise? (You may wish to refer to **SOURCE 2** in lesson 5.7).

Communicating

11. Write a paragraph **explaining** how and why the Yuan dynasty fell. **Identify** where you have outlined the main reasons for the retreat of the Mongols back to their homelands.
12. **Examine** the background and life of Zhu Yuanzhang in the lead-up to becoming emperor. What did he do that supported his rise from peasant to emperor?

LESSON
5.11 INQUIRY: Conquering and controlling

LEARNING INTENTION

By the end of this lesson you should be able to explain how the Mongolian armies conquered and controlled foreign societies and how they influenced each other.

Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

Inquiry steps

Step 1: Questioning and researching

Mongolian armies swept across most of Asia and bordered eastern Europe. Some modern ethnic borders still reflect this boundary. **Research** what modern-day countries in eastern Europe came under the control of the Mongolians and whether there are any cultural ties to this time.

Step 2: Using historical sources

Use **SOURCES 1** and **2** to **consider** the different form of warfare Mongolian soldiers were using compared to what Europeans would have been familiar with, and likewise the tactics or weapons Europeans had which Mongolians would not have encountered before. What challenges may this have posed for both sides?

SOURCE 1 This illustration shows Mongolian and Hungarian warriors fighting for control of a bridge over the Saho river.



SOURCE 2 This illustration is from the *Chronicum Pictum*, made in the mid-1300s. On the left Mongols have several women captive while on the right a woman has just been rescued by the Hungarian soldiers.



Step 3: Historical perspectives and interpretations

Consider the Mongolian Empire's influence on other societies. Many Christian kingdoms were afraid of invasion – why do you think they were concerned? What steps might they have taken to reduce the chance of this happening?

Step 4: Communicating

Draft a letter from the king of a region bordering Mongolian territory. You must **convince** the Mongolians not to attack while not becoming their subject or using up all of your resources. Consider what you have learned or investigated in the rest of this inquiry task.

Complete your self-assessment using the **Inquiry rubric** or access the 5.11 exercise set to complete it online.

on Resources

Digital document Inquiry rubric (doc-39401)

LESSON
5.12 Review

Hey students! Now that it's time to revise this topic, go online to:

Review your results

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5.12.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

5.2 How do we know about the Mongol expansion?

- There are a number of primary and secondary sources from which historians draw their knowledge of the Mongols of the thirteenth and fourteenth centuries.
- There are official records such as the official history commissioned by the khan, as well as the writings of explorers who visited the Mongol Empire from Europe, such as Marco Polo.
- There is a lot of surviving artwork, from calligraphy to paintings that depict both ordinary life and famous battles. Some of these were painted at the time and some in the centuries after.
- There are many artefacts such as jewellery, tools and other everyday objects.

5.3 What was China like before Mongol conquest?

- The ruling family before the Mongols were the Song who ruled from 960 CE.
- Under the Song a strong civilian government was built up, leading to a period of peace during which the population grew significantly.
- As a result of the peace under the Song, the cities became busy and bustling places, with a lot of trade.
- Song cities were built in the shape of a square with strong defensive walls. The houses were grouped together and there was organised rubbish and waste collection.
- There were many peasants living traditional agricultural lives, who were bound to the land through farming.
- The family was a strong unit, with loyalty to the family coming before loyalty to even the government.
- During the Song dynasty inventions flourished, many of which eventually spread to the Western world such as gunpowder and printing.
- The peace of the Song dynasty opened it to weakness, as their enemies grew stronger through war with other tribes.
- Eventually the Jurchen invaded and drove the Song dynasty out of northern China, establishing their dynasty in Beijing and leaving southern China to the Song until eventually they were defeated by the Mongols.

5.4 Who were the Mongols?

- The Mongols were a nomadic tribal people from the cold and barren lands of Mongolia to the north and west of China.
- The Mongol region was too cold and dry for crops so the tribes raised animals, such as herds of cattle, goats, yaks and sheep.
- The lives of the Mongol people were harsh, with few luxuries, and shaped by the seasons.
- The Mongols used camels and oxen for carrying things. However, horses were their most treasured asset, used for transport, hunting and warfare.
- The Mongols were powerful and seasoned warriors.
- They lived in small clans who formed a tribe, ruled by a chieftain, or khan.
- Many of the links within the tribe were formed by marriage connections.
- Women managed the daily camp life and were valued for this.

5.5 How did Temujin come to power?

- Temujin was born around 1162, the son of a warrior and minor chieftain.
- Temujin's father died when he was young and his mother Yulun raised Temujin, instructing him in the skills of a warrior.
- Temujin became tribal chief and in 1206 was elected the khan, leader over his fellow tribal chieftains, taking the name Genghis Khan, meaning the 'universal ruler'.
- To ensure stability, Genghis Khan used the three ties that held these nomadic warriors together: marriage, sworn brotherhood and friendship.
- Genghis Khan began a military campaign that saw him control a major section of the trading route, the Silk Road, and gave his army direct access to China.

5.6 How did the Mongols conquer the world?

- The Mongol tribes made up a mighty army of tough and disciplined horsemen.
- Genghis Khan successfully invaded China in 1211.
- Mongol soldiers were equipped with a variety of weapons, such as lances, bows, swords and daggers, as well as a shield, helmet and armour made of leather and iron.
- Their horses were stout and hardy animals who could survive bitter winters and each soldier had five, which meant that they could travel long distances rapidly.
- Genghis Khan reorganised the army, increasing its strict discipline, creating tightly drilled units. This strict code of discipline was written onto a scroll called the Yassa.
- The Mongols moved across western Asia, defeating all who resisted, beginning with northern China and moving west.
- When Genghis Khan died in 1227 his empire was divided between four of his sons and grandsons.
- Kublai Khan advanced further into southern China, defeating the Song.
- In 1276 the final victory was complete. The Mongol Empire stretched from the Arctic Ocean to the Persian Gulf, and from Hungary to Korea.

5.7 What was China like under Mongol rule?

- When he became emperor of China, Kublai Khan named his new dynasty Yuan, meaning 'creative force'.
- He established the capitol in what is now Beijing and established a government that blended the Mongol and Chinese traditions.
- He appointed a General Secretariat to enforce his laws and ensure efficient government.
- He worked hard at rebuilding China after the decades of war and conquest and he rebuilt trade connections out of China.
- He encouraged the printing of books and the spread of knowledge.
- Kublai Khan built himself a magnificent palace on the site of the ancient city of Chung-tu, and a summer palace in Mongolia in Xanadu.
- In 1260 two Italian brothers travelled from Venice and took the long and dangerous journey along the Silk Road to China.
- The brothers were welcomed at the court of Kublai Khan and eventually returned home as ambassadors for the Yuan dynasty.
- In 1271, the Polo brothers returned, this time with Nicolo's son Marco.
- Marco spent the next seventeen or so years of his life as the khan's trusted advisor and ambassador, travelling around the Yuan empire on the khan's business.
- When he eventually returned to Europe, he joined the Venetian navy. During a skirmish with the Genoese he was taken prisoner and it was here that he told the tale of his travels to the writer Rusticello of Pisa, who went on to write *The Travels of Marco Polo*.
- Many people questioned the truth of Marco's stories but he stuck by them, inspiring many others who followed him in later years.

5.8 What was the Yuan court like?

- Kublai Khan's wife and mother both influenced him in accepting the Chinese belief system in order to rule over the 100 million people of Yuan China.
- His court became a place where scholars and religious leaders debated matters and ideas, and where art and culture flourished.
- The three main religions in the Song dynasty were Confucianism, Daoism and Buddhism; these were all tolerated in the Mongol court.
- Painting, poetry and calligraphy flourished as well. A group of painters known as the *literati* depicted nature as they experienced it and were very influential on future artists.
- The court was a vibrant place, welcoming of visitors and the khan encouraged free exchange of ideas, making it quite multicultural and tolerant for its time.

5.9 Was there peace under Mongol rule?

- Western scholars refer to the period of the Mongol dynasty as *Pax Mongolica*, or Mongolian Peace, because the period of relative peace allowed the barrier between the East and the West to be crossed by trade and an exchange of ideas.
- Under the rule of the khan, different ideas were tolerated and many different belief systems were brought together.
- Ideas from China were passed to Europe, such as printing, new methods of paper-making, the magnetic compass, gunpowder and porcelain, as well as the concept of paper money.
- The Mongol Empire flourished in many ways, but there were still many Chinese people who suffered under the Mongol rule, with the Chinese population dropping from 120 million at the start of the Mongol Empire to 85 million by the end of the Yuan dynasty.

5.10 How did the empire end?

- In the years following Kublai Khan's death, the Yuan leadership was constantly changing and this weakened the empire.
- The Mongols thought the Yuan leaders too Chinese and the Chinese thought them too Mongol.
- The leaders became corrupt and weak. With the leadership weakening, the Mongol clans began fighting with each other again.
- China was also hit by a series of natural disasters that led to great suffering for the Chinese peasants. As the Chinese hatred of the Mongols grew, there was a growth in planned rebellions.
- A peasant rebel leader Zhu Yuanzhang began a takeover of strategically important cities, eventually capturing Beijing and declaring himself the first emperor of the Ming dynasty, meaning 'brilliance'.
- The mighty Mongol Empire had fallen only a century after the death of Genghis Khan.

5.11 INQUIRY: Conquering and controlling

- As the Mongolians engaged with different cultures, they came across many new forms of warfare and weaponry.
- Many European nations were terrified of invasion by the Mongols who were seen as an unstoppable force.

5.12.2 Key terms

ambassador an authorised messenger or representative
blockade the shutting off of a location to prevent entry or exit
cavalry a unit of the army mounted on horseback
chador a dark dress or cloak that covers the body and face below the eyes
civil servant a person who works for the public
civilian an ordinary citizen
courier a messenger, often carrying important government documents
distillation the purification or concentration of a substance
dyke a barrier or bank of earth for controlling water of the sea or river
dynasty a sequence of rulers from the same family
granary a storehouse for grain
imperial the rule of an emperor or something belonging to an empire
lacquer a hardened layer of made of tree sap which could be applied to surfaces to add strength
literacy the ability to read and write
magistrate a court official who hears cases in the lowest court in the legal system
mandate a command or order from a superior power
mercenary soldier who fights for money rather than for ideals or patriotism
mutton the flesh of a mature sheep used as food
occupation invasion, conquest, and control of a nation or territory by foreign armed forces
piety religious devotion
porter a person who carries luggage and heavy loads
propaganda information, especially of a biased or misleading nature, used to promote a political cause or point of view
reconnaissance a search made to gain military information
rickshaw a small two-wheeled vehicle pulled by a man
siege capturing a protected place by surrounding it and cutting off supplies
sinew the tissue that binds bones and muscle together
steppe a vast plain without trees
tribute a tax or regular payment given to ensure protection or peace
ward a district in a city or town

5.12.3 Reflection

Revisit the inquiry question posed in the Overview:

The Mongol Empire stretched from Europe to the Pacific Ocean. What allowed them to spread their influence so widely, and what impact did they have on the world around them?

1. Now that you have completed this topic, what is your view on the question? Discuss with a partner. Has your learning in this topic changed your view? If so, how?
2. Write a paragraph in response to the inquiry question, outlining your views.

on Resources

eWorkbooks Customisable worksheets for this topic (ewbk-10692)
Reflection (ewbk-10694)
Crossword (ewbk-10695)

Interactivity Mongol expansion crossword (int-7589)

5.12 Review exercise

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Multiple choice

1. It was said that the Mongols could live in the saddle for up to how many days?
   - A. Three
   - B. Five
   - C. Seven
   - D. Ten
2. Who was Temujin raised by?
   - A. His father
   - B. His mother
   - C. Both his mother and father
   - D. A neighbouring clan after he was orphaned
3. What roles were Mongol women tasked with? Select all that apply.
   - A. Herding and milking all the livestock
   - B. Arranging marriages within clans
   - C. Rearing the children
   - D. Cooking and sewing animal skins into warm winter clothing.
4. Kublai Khan divided China into four different groups. Which of these groups suffered the most under the Yuan dynasty? Select all that apply.
   - A. Southern Chinese
   - B. Northern Chinese
   - C. Non-Chinese allies and mercenaries
   - D. Mongols
5. Which of these was ***not*** an invention that originated during the Song dynasty?
   - A. The wheelbarrow
   - B. The clock
   - C. The compass
   - D. Paper money
6. The Mongol warrior code was known as
   - A. Yaza.
   - B. Yassa.
   - C. Yama.
   - D. Yada.
7. Which of the following is not true about the Mongol homelands?
   - A. The climate was harsh.
   - B. It was too cold and dry to grow crops.
   - C. The people lived in small cities.
   - D. The best way to survive was by being nomadic.

8. Why did the Chinese regard the Mongols as 'barbarians'?
   - **A.** The Mongols led poor and simple lives.
   - **B.** The Mongols ate mutton, which the Chinese hated.
   - **C.** The Mongols spoke a different language.
   - **D.** The Mongol women had much more freedom.
9. Who was at the bottom of the social hierarchy in Yuan China?
   - **A.** Mongols
   - **B.** Northern Chinese
   - **C.** Southern Chinese
   - **D.** Non-Chinese allies
10. The Mongols were accepting of which of the following faiths? Select all that apply.
   - **A.** Shinto
   - **B.** Daoism
   - **C.** Buddhism
   - **D.** Christianity

Short answers

Communicating

11. **Describe** what life was like in China before the Mongol invasion.
12. **Explain** why Genghis Khan's army was so effective.
13. **Identify** what the cultural achievements of the Mongol Empire were.
14. **Summarise** the role of the Mongols in making connections between Europe and Asia.
15. **Outline** the reasons for the decline of the Mongol Empire.

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Online Resources

on Resources

This is a summary of the digital resources you will find online for topic 10 to help support your learning and deepen your understanding. When you see these icons next to an image or paragraph, go to learnON to access video eLessons, interactivities, weblinks and other support material for this topic.

5.1 Overview

eWorkbook
- Customisable worksheets for this topic (ewbk-10692)

Video eLesson
- Mongol expansion (eles-1830)

Interactivity
- A timeline of the Mongol expansion (int-8977)

5.2 How do we know about the Mongol expansion?

Video eLesson
- Discussing a sixteenth-century illustration of the Mongol army engaged in battle with Chinese Song dynasty forces (tlvd-10591)

Audio
- Marco Polo's descriptions of the khan's prowess on and off the battlefield helped to make the Great Khan a celebrity in Europe (aud-0449)

5.4 Who were the Mongols?

Audio
- An extract from a first-hand report written by European Giovanni da Pian del Carpini, who visited the Mongols between 1245 and 1247 at Pope Innocent IV's command (aud-0450)

5.5 How did Temujin come to power?

Audio
- Genghis Khan met with a Taoist holy sage, or holy man, in 1221. The record of his conversation with Ch'ang-Ch'un presents a different image of the Great Khan (aud-0451)

5.6 How did the Mongols conquer the world?

Video eLesson
- Discussing the Yassa (tlvd-10592)
- Exploring a map of the Mongol Empire near its peak in 1280 (tlvd-10593)

Interactivity
- A map of the Mongol Empire near its peak in 1280 (int-8978)

5.7 What was China like under Mongol rule?

Interactivity
- The coat worn by the emperors showing the 12 symbols of power in China (int-7823)
- Polo's work for the khan would take him around Asia and Europe and through many of the lands conquered by the Mongols (int-4110)

5.8 What was the Yuan court like?

Interactivity
- A modern artist's impression of the court of Kublai Khan (int-8979)

5.9 Was there peace under Mongol rule?

Audio
- Marco Polo describes the making and use of paper money in Yuan China (aud-0452)

5.10 How did the empire end?

Audio
- The Chinese belief in the mandate of heaven and the principles of good government (aud-0453)

5.11 INQUIRY Inquiry: Conquering and controlling

Digital document
- Inquiry rubric (doc-39401)

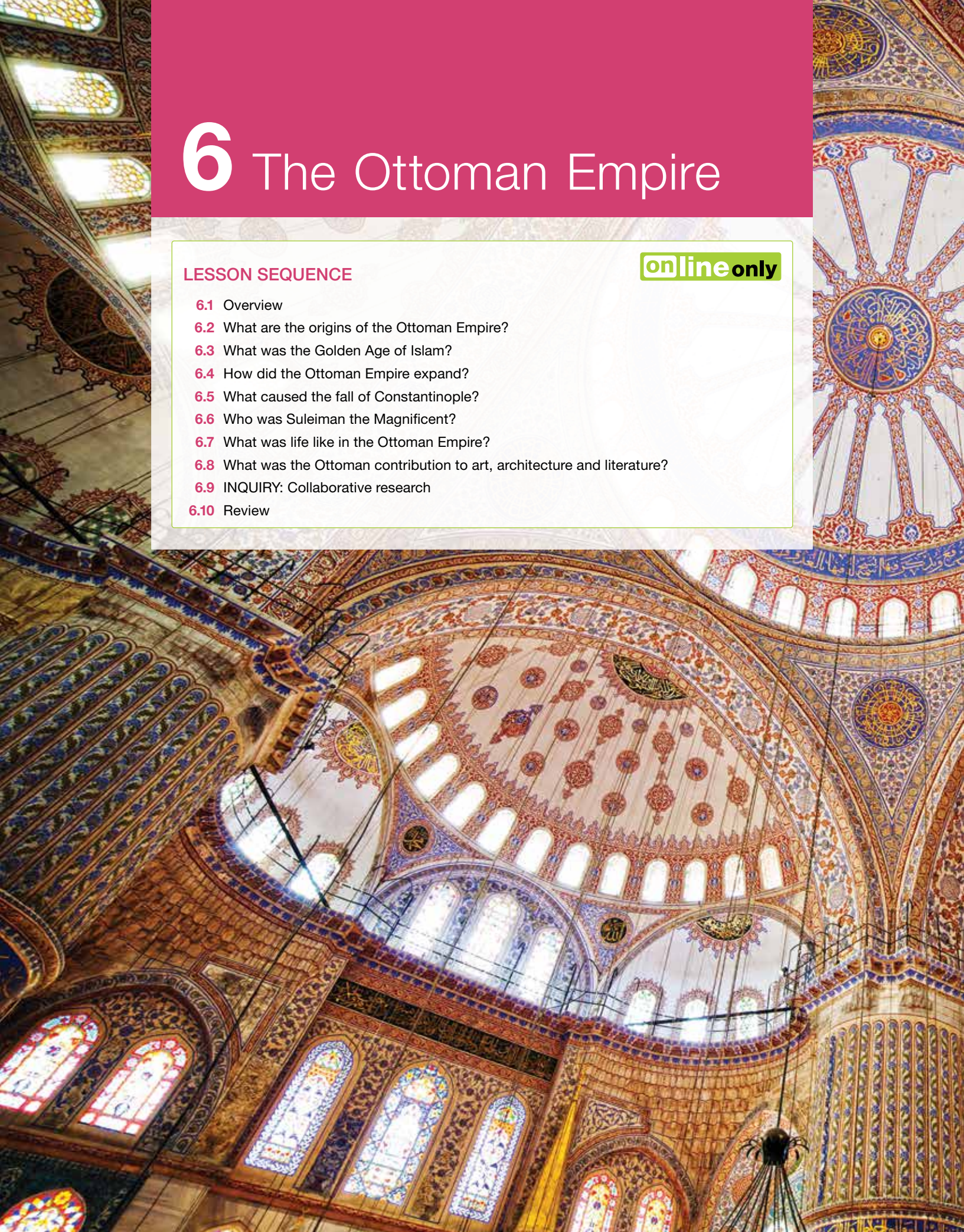
5.12 Review

eWorkbooks
- Customisable worksheets for this topic (ewbk-10692)
- Reflection (ewbk-10694)
- Crossword (ewbk-10695)

Interactivity
- Mongol expansion crossword (int-7589)

To access these online resources, log on to **www.jacplus.com.au**.

6 The Ottoman Empire



LESSON SEQUENCE

online only

6.1 Overview
6.2 What are the origins of the Ottoman Empire?
6.3 What was the Golden Age of Islam?
6.4 How did the Ottoman Empire expand?
6.5 What caused the fall of Constantinople?
6.6 Who was Suleiman the Magnificent?
6.7 What was life like in the Ottoman Empire?
6.8 What was the Ottoman contribution to art, architecture and literature?
6.9 INQUIRY: Collaborative research
6.10 Review

LESSON
6.1 Overview

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What factors influenced the development of the Ottoman Empire's march into Europe?

6.1.1 Introduction

Every year, thousands of Australians travel to Gallipoli in Türkiye (formerly known as Turkey) to commemorate the landing there of the Anzac troops in 1915 during World War I. While visiting Gallipoli, many travel around Türkiye. When they do this, they are travelling through the lands of what was one of the world's great empires — the Ottoman Empire. This empire began in the thirteenth century, and it was against the Ottoman Empire that Australian troops fought at Gallipoli.

The Ottoman Empire lasted for more than 600 years and had a huge impact on the modern world. In this topic you will learn about the Ottoman Empire and its dominant religion, Islam. This empire played an important role in shaping history and left a significant legacy.

SOURCE 1 The Sultan's Hall in the Topkapi Palace



on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10696)

Video eLesson The Ottoman Empire (c. 790–1066) (eles-1825)

int-4281

SOURCE 2 A timeline of the Ottoman Empire

CE

500

610
Mohammed experiences visions and begins Qur'an (sacred text of Islam).



600

570
Birth of Mohammed

632
Death of Mohammed

711
Islamic forces conquer Spain.

700

7th century
Expansion of Islam across the Middle East and Africa

717
Advancing Islamic forces defeated at Constantinople



800

8th century
Early Islamic Empire at its peak; beginning of the 'golden age of Islam'

900

732
Islamic forces defeat France at the Battle of Tours.



1000

1100



1200

1298
Osman I founds the Ottoman Empire.



1300

1402
The Ottomans are defeated by the Mongols.

1400

1452–53
Sultan Mehmet II of the Ottoman Empire captures Constantinople.

1459
Construction of the Topkapi Palace begins.

1500





1600

1529
Advancing Ottoman forces defeated at Vienna

1683
Ottoman forces again defeated in Vienna. This is seen by many as the beginning of the decline of the Ottoman Empire.

1700

CE

LESSON
6.2 What are the origins of the Ottoman Empire?

LEARNING INTENTION

By the end of this lesson you should be able to provide a historical context for a discussion of the Ottoman Empire.

TUNE IN

Our investigation of the Ottoman Empire actually begins with the origins of the Islamic religion.

Either by yourself or with a partner, create a brainstorm that lists what you already know about Islam, including important people, places and customs.

Alternatively, you could create a list of things you would like to learn about Islam.

SOURCE 1 The Ottoman Empire was greatly influenced by its main religion, Islam.



6.2.1 Mohammed, the prophet

Before we can learn about the achievements and influence of the Ottoman Empire, we first need to understand how this incredible civilisation came to be. In many ways, the rise of the Ottoman Empire can be linked directly to the increase in popularity of its main religion, Islam. In turn, the beginning of Islam with its current teachings can be traced to one man — Mohammed. Mohammed founded the religion and is believed by Muslims to be the prophet who communicates the will of God to all people.

int-4087

SOURCE 2 A map of the world of Islam in 750 CE



Source: Map drawn by Spatial Vision.

DID YOU KNOW?

The name Mohammed, when taking into account the 14 varieties of its spelling, is believed to be the most common name in the world.

Mohammed was born in approximately 570 CE in the town of Mecca. As a young man, Mohammed worked for a widow named Khadija. Mohammed was placed in charge of a camel caravan that carried goods from Mecca to Damascus. Khadija was so impressed by Mohammed that, despite being 15 years older than him, she proposed to him when he was 25 and they were married.

During this time, trade in the Arabian Peninsula was changing. Rather than trading in just basic necessities, merchants traded in luxury goods such as incense, spices and silks. A few people became very rich through this trade. However, they tended to neglect traditional family responsibilities.

Through their involvement in trade, the Arabians came into frequent contact with Christians and Jews. Mohammed saw the contrast between the practices of these religions, particularly their belief in one god (monotheism), and the practices in Mecca, where people worshipped many gods (polytheism) and made sacrifices to idols.

As per the teachings of Islam, Mohammed started to receive **revelations** from God. Once collected in written form, these revelations become known as the Qur'an (or Koran), the Islamic sacred text.

revelation a communication or message from God

Mohammed began to preach to the people of Mecca. Instead of worshipping many idols, he asked them to worship the 'one true God', known in Arabic as Allah. *Islam* means 'submission' to the will of Allah. Although the message was originally conveyed to the Arabic people, it was a universal message and Mohammed became a prophet of all mankind.

SOURCE 3 A sixteenth-century illustration of the Prophet Mohammed splitting the moon; the crescent moon is a symbol of Islam. It is claimed he performed this miracle to prove he was the true Prophet of God. Note that Mohammed's face is covered, as Islamic teachings prevent any images of his face being shown.

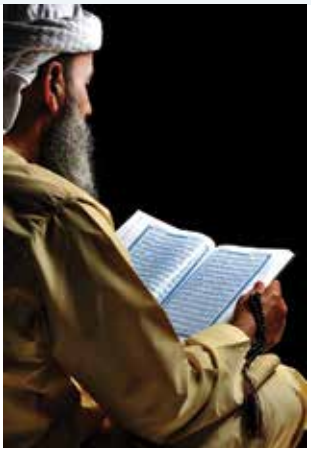


6.2.2 Mohammed in exile

Many people in Mecca came to accept Mohammed's teachings, and a community of Muslims developed. However, other groups felt threatened by these teachings. Rich merchants were worried about the impact of this new religion on their power and influence. Followers of other religions were also concerned about the future of their faiths.

For some time, Mohammed displayed patience and resisted the opposition of these critics, but after the death of his uncle and then his wife, Khadija, Mohammed moved north to Medina in 622 CE to escape persecution. This migration, or *Hijrah*, marks the beginning of the Muslim calendar. Mohammed eventually returned to Mecca in 630 CE and set about turning the city into the religious centre of Islam. However, only two years later, Mohammed died.

SOURCE 4 A Muslim man reads the Qur'an in the al-Aqsa Mosque, Jerusalem.



SOURCE 5 A modern view of the Quba Mosque, Medina. It is believed that, while in exile, Mohammed laid the first stones of the religious centre.



6.2.3 The spread of Islam

SOURCE 6 Some important events in the spread of Islam

Year (CE)	Event
632	Arabia conquered
635	Syria and Palestine conquered
637	Persia (Iran) and western India conquered
638	Jerusalem conquered
639	Egypt conquered
680	North Africa conquered
711	Spain conquered
717	Defeat at Constantinople
732	Defeat in France

A large range of religious, military, economic, political and social factors contributed to the expansion of Islam:

- Islam was warmly welcomed across Africa because the Arabs were seen to be more like the Africans than previous rulers.
- The two powers most able to resist the spread of Islam, the Byzantine and Persian empires, had both been weakened by centuries of warfare.
- Muslim missionaries were very persuasive and successful in converting people and rulers. The converts were impressed by the zeal of the Muslims, who believed they were inspired by the will of Allah.
- Muslim traders established strong relationships with their neighbours built on trust and honesty, which spread the word of Allah.
- The leader of the Muslim world, the **caliph**, was both a spiritual and a political leader. This increased his prestige and authority and made him very difficult to challenge. Many of the early caliphs were very capable rulers.
- Using camels as cavalry meant that Muslim forces could travel long distances through difficult terrain, often allowing them to attack with little or no warning.

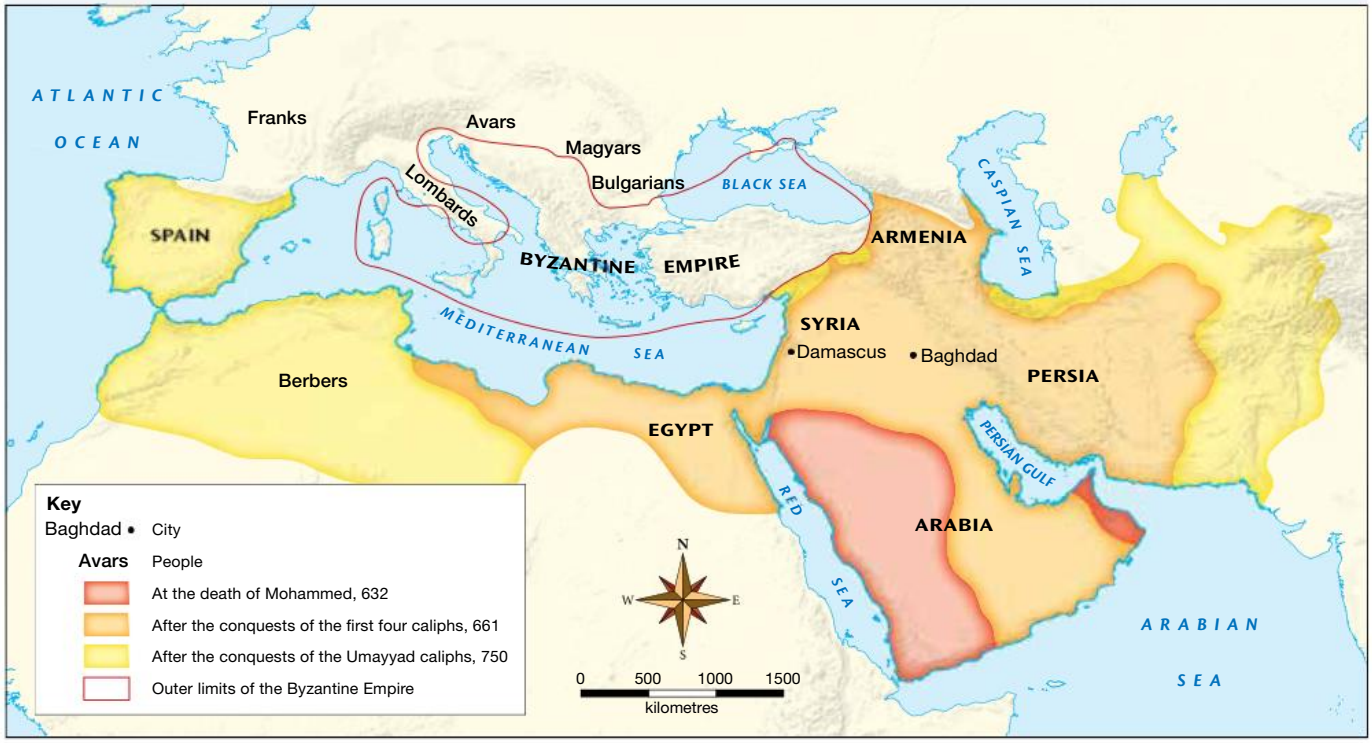
caliph in Islamic countries, the chief civil and religious ruler and a successor to the Prophet Mohammed

- The word *Islam* means to ‘submit’. By submitting to Allah, the Arabic people became a more disciplined and inspired group. This showed in their lives and military victories.
- Conquered peoples were allowed to keep their own religion and were usually only required to pay extra tax. This kept local populations content, so resources were not needed to control societies and maintain law and order.

tlvd-10588

int-4088

SOURCE 7 A map showing the spread of Islam by 750 CE. The Byzantine Empire was an Orthodox Christian empire.



Source: Map drawn by Spatial Vision.

Political divisions emerge

The first four caliphs are known as the ‘Rightly Guided Caliphs’. But, with the assassination of Caliph Ali in 661 CE, divisions began to emerge.

One denomination, the Sunnis, believed that the caliph was the keeper of the faith set out by Mohammed and could not alter it. They believed the caliph could be chosen and any heirs of the first four caliphs could rightly be called the caliph.

However, the other denomination, the Shi’ites, believed only blood relatives and descendants of Mohammed and the fourth caliph, Ali, could be called the caliph. The Shi’ites rejected the legitimacy of the first three caliphs.

SOURCE 8 The Great Mosque in Damascus, built by Caliph al-Walid in 706 CE



6.2 SKILL ACTIVITY: Using historical sources

1. Copy and complete the table below to **identify** the historical sources presented in this lesson.

Source	Primary or Secondary	Justification

2. **Determine** whether they are primary or secondary sources.
3. **Justify** your decision for each.

6.2 Exercise

learnon

6.2 Exercise

Learning pathways

■ LEVEL 1	■ LEVEL 2	■ LEVEL 3
1, 2, 4, 6	3, 5, 9	7, 8, 10

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Check your understanding

1. Mohammed was born in **Damascus / Jerusalem / Medina / Mecca**.
2. What event in Mohammed's life formed the basis of the Qur'an?
   - A. His time as a trader
   - B. His time in exile
   - C. Revelations directly from God
   - D. Revelations during his travels from Mecca to Damascus
3. **Explain** how Mohammed first came into contact with Jews and Christians.
4. **Polytheism / Monotheism** is the belief that there is only one God, whereas **polytheism /monotheism** contends that there are many divine beings.
5. **Explain** the event that marks the beginning of the Muslim calendar.

Apply your understanding

Using historical sources

6. Study the map in **SOURCE 2**. **Identify** the major powers in the Mediterranean region in 750 CE.
7. **Examine SOURCE 5**. **Describe** the layout of the mosque as shown in the photograph. What do you think the open area in the centre of the mosque is used for?
8. Using information from **SOURCES 2** and **7**, **describe** the speed and extent of the spread of Islam during the seventh and eighth centuries. Include a description of how you believe Islam moved from one country to another as it spread through the Middle East, Africa and Europe.

Communicating

9. **Create** a timeline using the events shown in **SOURCE 6**.
10. **Evaluate** the importance of trade in the rise of the Islamic Empire.

LESSON
6.3 What was the Golden Age of Islam?

LEARNING INTENTION

By the end of this lesson you should be able to understand the academic achievements of the Golden Age of Islam.

TUNE IN

Imagine you are an archaeologist and you come across a mysterious artefact that has been buried for centuries.

You have no idea what this mystery object is and need to use your historical insight and powers of observation to determine what it is and what it was used for. **SOURCE 1** is an example of one such mystery object.

Write a description of the object and try to determine its function.

SOURCE 1 A mysterious object that has been buried for centuries



6.3.1 The quest for knowledge

From its beginning, the Islamic Empire turned its mind and creative energies towards the study of the world in which we live. Developments in the arts, philosophy, science, medicine and mathematics led many to refer to this time as the Golden Age of Islam. Islam drew on the knowledge of the Greeks and Romans in the west and from India and China in the east to make important contributions to human knowledge, the legacies of which we still see in contemporary society.

Education

One of the main reasons for the achievements of the Islamic people was their love of learning and their focus on education. The Islamic world built many universities where law, languages, mathematics, science and medicine were studied. Great works of literature were written, such as *One Thousand and One Nights*, which includes the famous stories of Ali Baba and Sinbad the Sailor. Perhaps the highest point of Islamic learning came in 832 CE when the House of Wisdom (*Bayt al-Hikma* in Arabic) was established in Baghdad as a collection of global knowledge. It was one of the great libraries of history until it was destroyed by Mongol invaders in 1256.

SOURCE 2 Some sayings of the Prophet Mohammed that encouraged learning

He who pursues the road of knowledge Allah will direct to the road of Paradise . . . The brightness of a learned man compared to that of a mere worshiper is like that of a full moon compared to all the stars . . . Obtain knowledge; its possessor can distinguish right from wrong; it shows the way to Heaven; it befriends us in the desert and in solitude, and when we are friendless; it is our guide to happiness; it gives us strength in misery; it is an ornament to friends, protection against enemies . . . The scholar's ink is holier than the martyr's blood . . . Seeking knowledge is required of every Muslim . . .

Medicine

Islamic scholars studied the works of the Greeks and Romans as the basis for their medical knowledge. Some of the main medical texts that were used until recently were written by Muslims during this time. Al-Rhazi was one of the great Islamic doctors. He lived from 865 to 925 CE and studied medicine at Baghdad University. He was later put in charge of the hospital in Baghdad. Al-Rhazi wrote more than 100 books on medicine, including the medical encyclopaedia *al-Hawi*. In it, he recorded the opinions of Greek, Syrian, Hindu and Persian writers on how to treat various conditions. He then added his opinions. This inclusivity shows that he and other Islamic doctors had open minds about medicine — something that was not reflected by some other cultures of the time.

Astronomy and geography

Inspired by earlier works, Arabic scientists were fascinated by the stars and the planets. In 771 CE, the caliph of Baghdad built an observatory to study the stars. By learning more about the stars, Islamic scientists could develop charts that helped their sailors navigate and enabled their traders to travel more quickly by sea.

Mathematics

The development of the Arabic numeral system (see **SOURCE 3**) enabled Islamic mathematicians to make more complex mathematical discoveries.

Great advances were made in the use of algebra and trigonometry. One of the most famous mathematicians was Mohammed ibn Musa al-Khwarizmi (c. 780–850 CE) (see **SOURCE 4**), who wrote a famous text on algebra and geometry. As well as advancing mathematics, these writings were important to developments in navigation and sea travel.

SOURCE 3 A table of various number systems

Roman	Arabic	Western
	٠	0
I	١	1
II	٢	2
III	٣	3
IV	٤	4
V	٥	5
VI	٦	6
VII	٧	7
VIII	٨	8
IX	٩	9
X	١٠	10
XI	١١	11
XII	١٢	12
XV	١٥	15
XX	٢٠	20
L	٥٠	50
C	١٠٠	100

SOURCE 4 Al-Khwarizmi, depicted in this nineteenth-century woodcut, was a famous Islamic mathematician and astronomer.



DID YOU KNOW?

The mathematical term ‘algebra’ comes from the Arabic word *al-jabr* (try saying it out loud), meaning ‘restoration’. Algebra was widely used by Muslim mathematicians.

SkillBuilders to support skill development

- 1.8 Evaluating Ottoman Empire sources

6.3 SKILL ACTIVITY: Using historical sources

Refer to **SOURCE 5**, an image depicting the famed House of Wisdom. The caption of this source claims that the image shows a teacher instructing students in the House of Wisdom, but how do we know that this is the correct interpretation of the image?

SOURCE 5 A thirteenth-century illustration showing a teacher instructing students in the House of Wisdom. Note the stacks of books in the background.



When we analyse historical sources, particularly paintings and illustrations, historians make educated assumptions based on the information that can be identified. Historians also rely on secondary sources, which explain and attempt to interpret the primary source. However, as logical as these assumptions may be, the fact remains that our assumptions and interpretations may not always be accurate.

Taking this into consideration, answer the following questions about **SOURCE 5**.

1. **Identify** the evidence in **SOURCE 5** that suggests that it *does* depict a teacher and students in the House of Wisdom.
2. **Propose** another explanation of what is happening in this image. Provide evidence for your explanation.

6.3 Exercise

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6.3 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 5	4, 7, 9	6, 8, 10

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Check your understanding

1. Islamic scholars studied the works of which two societies as the basis for their medical knowledge?
   - A. Egyptian
   - B. Roman
   - C. Chinese
   - D. Greek
   - E. American
2. What was built in 771 CE by the caliph of Baghdad?
   - A. A hospital
   - B. A school
   - C. An observatory
   - D. A university
   - E. A library
3. **Explain** why the term 'the Golden Age of Islam' was used for this period.
4. **State** the years that the House of Wisdom was established and then destroyed.
5. The development of the Arabic **medical / numerical** system enabled Islamic mathematicians to make more complex discoveries. One of the most famous mathematicians was **Musa al-Khwarizmi / Al-Rhazi**.

Apply your understanding

Using historical sources

6. Read **SOURCE 2**. **Explain** which of these sayings you believe gives the best reason for why you should study and learn.
7. Study **SOURCE 3.** Do you think the Western number system is a closer match to the Roman or Arabic system? **Justify** your response.
8. **Examine SOURCE 4**. From the evidence presented, **identify** what conclusions can be drawn about the Islamic interest in astronomy.

Communicating

9. **List** four civilisations that influenced Islamic science.
10. **Evaluate** the following statement: 'The House of Wisdom was the most significant academic legacy of the Ottoman Empire.'

LESSON
6.4 How did the Ottoman Empire expand?

LEARNING INTENTION

By the end of this lesson you should be able to track the early expansion of the Ottoman Empire and examine the key achievements of early rulers.

TUNE IN

Empires have appeared in many forms throughout history. The empires we see in the modern world differ significantly to those that existed in past. However, the reach and power of modern empires is stronger than their historical counterparts.

SOURCE 1 Do you think we have any modern empires?



1. Can you think of a modern example of an empire? (*Hint:* Try not to think of empires in terms of one country controlling other countries, but instead think of different ways you may see 'empires' in modern society). List as many examples as you can.
2. Do you believe we will ever return to the Age of Empires? Discuss your responses as a class or with a partner.

6.4.1 The battle for power in the Middle East

About 1200 CE, the Middle East was made up of a series of states competing for dominance. The major powers of Persia and Byzantium were being affected by a variety of new forces. To understand the success of the Ottomans in dominating this area, it is important to look at both of these older powers, as well as some of the forces that helped to destabilise the region.

In the fourth century, the Roman Empire was divided in half and Constantinople became the capital of the Eastern Empire. This empire was known as the Byzantine Empire (from Byzantium, the old name for Constantinople). Based in modern-day Iran, the Persian Empire had existed in various forms for over a thousand years. A series of wars between these two empires significantly weakened both of their armies and left them vulnerable to outside forces.

The situation in the region was changing, driven by a number of factors. The spread of Islam and its impact on the Middle East has already been examined. Other factors included:

- *Venetians*. Venice is an island city in the north-east of Italy. A flourishing trade was developing between China and India in the east and western Europe. Due to the city's importance on this trade route, Venice found itself under constant threat of foreign invasion.

SOURCE 2 A map of major trade routes in the Middle East around 1200 CE



Source: Map drawn by Spatial Vision.

- *Crusaders*. The Crusades were a series of wars initiated by the European Christian Church, who wanted to reclaim holy lands taken by the Islamic Empire. Pope Urban II called for support by citing violent acts committed by some Muslim groups. Soldiers in France and Germany responded to Pope Urban's call and left to help defend Constantinople and reclaim other territories. As well as fighting to take the Holy Land from the Muslims, the Crusaders took the opportunity to attack Jews and Orthodox Christians.

DISCUSS

As a class, discuss the impact of the Crusades on the Ottoman Empire. You may need to undertake some additional research to help with the discussion.

6.4.2 The expansion begins

The Ottoman Empire was founded by the Seljuk Turk Osman I, who ruled from 1298 to 1326. The word 'Ottoman' was based on a European form of his name. Due to the lack of primary sources surviving from this time, little is known about Osman I. The only information we have about Osman's reign are secondary sources written several hundred years after his death. What we do know is that Osman I was the first ruler to implement a plan of expansion, because he recognised that the Byzantine Empire had begun to show signs of weakness. Osman I began his conquest on a local scale, slowly taking control of neighbouring **beyliks**. Osman I extended his rule in all directions, but it was his movement into north-west Anatolia (what we now call Türkiye) that proved the most significant. At the Siege of Bursa, Osman I succeeded in capturing the city previously controlled by the

beylik a small territory in Anatolia

Byzantines. This was the first Ottoman victory against a rival empire and, although Osman I died shortly after this victory, the siege became a turning point in Ottoman history.

Osman I was succeeded by his son Orhan, who continued to develop the Ottoman Empire. Orhan spent time improving the organisation of his military and set his sights on the next major target of Ottoman expansion, the city of Nicaea. Initially settled by the Greeks, Nicaea has a colourful history and was involved in one of the first battles of the crusades. Centuries later, it had become a key strategic outpost of the Byzantine Empire because it protected a route to Constantinople.

Osman I first laid siege to Nicaea but had been unable to take the city during his reign. After years of slow progress, Orhan finally took Nicaea and then the nearby city of Nicomedia, which strengthened the Ottoman grip on north-west Anatolia. Orhan was also able to expand to the west, capturing Karesi and gaining important access to the Dardanelles Strait. After his expansion, Orhan oversaw a period of consolidation, during which he again strengthened his military position and planned further conquests.

Expansion into Europe

The next significant expansion of the Ottoman Empire was achieved by Orhan's successor, Murad I. Using the newly acquired access to the Dardanelles, Murad I was able to bypass Constantinople and launch a campaign into the Balkans. This move was extremely significant from a strategic perspective because it isolated Constantinople from the rest of the Byzantine Empire.

Murad I used a combination of strategies to establish control of this area, including combat, diplomacy and the use of politically motivated marriages. This last technique was particularly useful to gain the loyalty of local communities and rulers. With a strengthened army in the north-west of Anatolia and a new stronghold in Europe, the stage was finally set for the greatest conquest of the Ottoman Empire to this point, the final bastion of the Byzantines — Constantinople.

SOURCE 3 A map of the Ottoman Empire in 1400, showing some of the major battles



Source: Spatial Vision

6.4 SKILL ACTIVITY: Questioning and researching

1. **Select** one of the battles mentioned in this lesson and **conduct research** to find more information about it.
2. Take notes to answer the following questions.
   a. Who was the battle fought between?
   b. Why was the battle fought?
   c. What tactics were used in the battle?
   d. Why was the victorious side able to win?
   e. What was the significance of this battle?
3. Using your research notes, write a few paragraphs **describing** the battle in your own words. Your paragraphs can be structured using the questions above.

6.4 Exercise

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6.4 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 6	4, 5, 7	8, 9, 10

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Check your understanding

1. Which two of the following were major powers in the Middle East during the Early Middle Ages?
   A. Armenia
   B. Persia
   C. Byzantium
   D. Arabia
   E. Egypt
2. What was the capital of the Byzantine (Eastern Roman) Empire?
   A. Damascus
   B. Baghdad
   C. Venice
   D. Constantinople
3. The founder of the Ottoman Empire was **Osman I / Osman II / Orhan / Suleyman Pasha**.
4. **Explain** how Murah I contributed to the expansion of the Ottoman Empire.
5. There are three Ottoman rulers mentioned in this lesson. List these rulers and **describe** at least one of their respective accomplishments.

Apply your understanding

Using historical sources

6. Using **SOURCE 3**, **name** the two earliest Ottoman capitals and the date each city became the capital.
7. Place the following dates on a timeline and **match** them with an event examined in this lesson: 1298, 1326, 1354, 1389, 1393.
8. **Examine** the maps shown in **SOURCES 2** and **3**. **Describe** the connection between trade routes and the major battles discussed in this lesson.
9. As the influence of the Ottoman Empire continued to grow, **explain** what happened to the other major powers in this region.

Communicating

10. Several factors that assisted the spread of the Ottoman Empire are listed in this lesson. **Identify** and **explain** these factors with evidence from this lesson.

LESSON
6.5 What caused the fall of Constantinople?

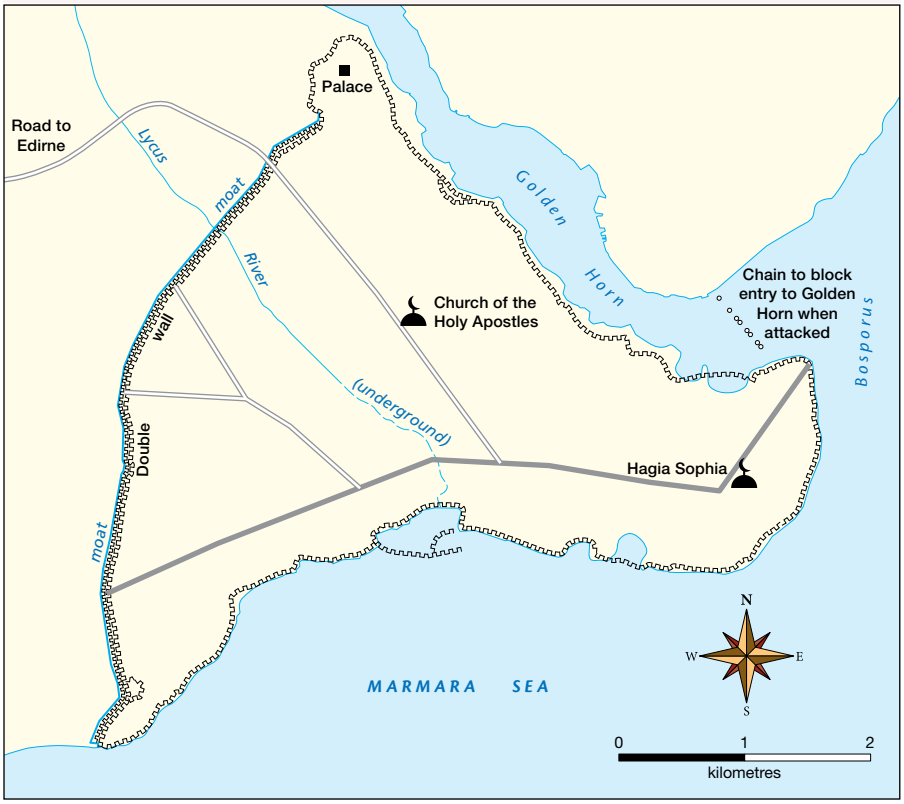
LEARNING INTENTION

By the end of this lesson you should be able to describe the technical and strategic aspects of the Siege of Constantinople.

TUNE IN

The rulers of Constantinople had built and maintained strong defences, which were constantly being improved and strengthened. **SOURCE 1** shows the major defences protecting the city.

SOURCE 1 A map of Constantinople showing its major defences



Source: Map drawn by Spatial Vision.

Study **SOURCE 1** and imagine you are planning to attack the city. Discuss some initial thoughts about how you might overcome the defences and consider why they have been placed where they are.

6.5.1 Defences at Constantinople

After a brief period of instability at the beginning of the fifteenth century, the influence and power of the Ottoman Empire continued to spread. By the time **Sultan** Mehmet II gained control in 1444, the Ottomans occupied much of eastern Europe, including the land around the Byzantine capital of Constantinople. The jewel of the Byzantine Empire, Constantinople had been controlled by the Byzantines for nearly thirteen

sultan the king or sovereign of an Islamic country

centuries. The city held strategic importance in the region and was also a symbol of Christianity in eastern Europe. For these reasons, it was a city that Mehmet II simply had to capture.

For more than a thousand years, the rulers of Constantinople had built and maintained strong defences. The famed walls of Constantinople were first constructed by Emperor Constantine the Great (see **SOURCE 2**). When rebuilding the city's initial fortifications, Constantine added more complex structures to the city's defences. These included towers at regular intervals and heavily protected gates and passages. Constantine the Great also increased the number, thickness and height of the original walls. On the seaward sides, steep cliffs and sea walls made access difficult. The Golden Horn (the strip of water north of Constantinople) could be closed off in times of attack by a heavy chain running from shore to shore. Subsequent emperors such as Theodosius II made further improvements to the fortifications of Constantinople, including a system of double walls.

SOURCE 2 The walls of Constantinople



While the walls of Constantinople had provided protection for a very long time, their effectiveness was diminished by the Ottoman army's use of cannons.

Gunpowder and use of the cannon had originated in China and were probably brought to the area by the Mongols. The Ottomans were quick to adopt them in warfare. They used one cannon in November 1452 to sink a Venetian ship sailing along the Bosporus Strait, but for the attack on Constantinople, a larger cannon was needed and built. It was 8.4 metres long with a wall 20 centimetres thick. It could fire a cannonball of 600 kilograms a distance of 1.6 kilometres.

SOURCE 3 The Dardanelles Gun. This cannon, built in 1464, was cast in bronze and weighed 18.4 tonnes. It was built in two parts that could be screwed together using a large lever as a spanner.



DID YOU KNOW?

The Dardanelles Gun was still in use in 1807 when it was fired at British ships, killing 28 British sailors.

6.5.2 The siege

At the time of the Ottoman conquest, Constantinople was far from the once-great city it had been. Years of tension and hostility between Rome and the Byzantine capital had taken its toll on the city and its people. Constantinople had also never truly recovered from the social and economic impact of the Black Death. These factors left Constantinople vulnerable and the Ottomans planned on taking full advantage of the city's weakened state. Before the siege began, Mehmet II tried to tempt Constantine XI into surrendering. Mehmet offered freedom of religion as well as territory in Greece to the Byzantine Emperor, but the proud Constantine refused, plunging his city into war with the Ottomans.

SOURCE 4 Sultan Mehmet II gives his reasons for attacking Constantinople.

The ghaza [holy war] is our basic duty as it was in the case of our fathers. Constantinople, situated in the middle of our domains, protects our enemies and incites them against us. The conquest of the city is, therefore, essential to the future and the safety of the Ottoman state.

SOURCE 5 Candarli Halil, adviser to the sultan, warns Constantinople that Sultan Mehmet is more of a danger to them than the previous sultan.

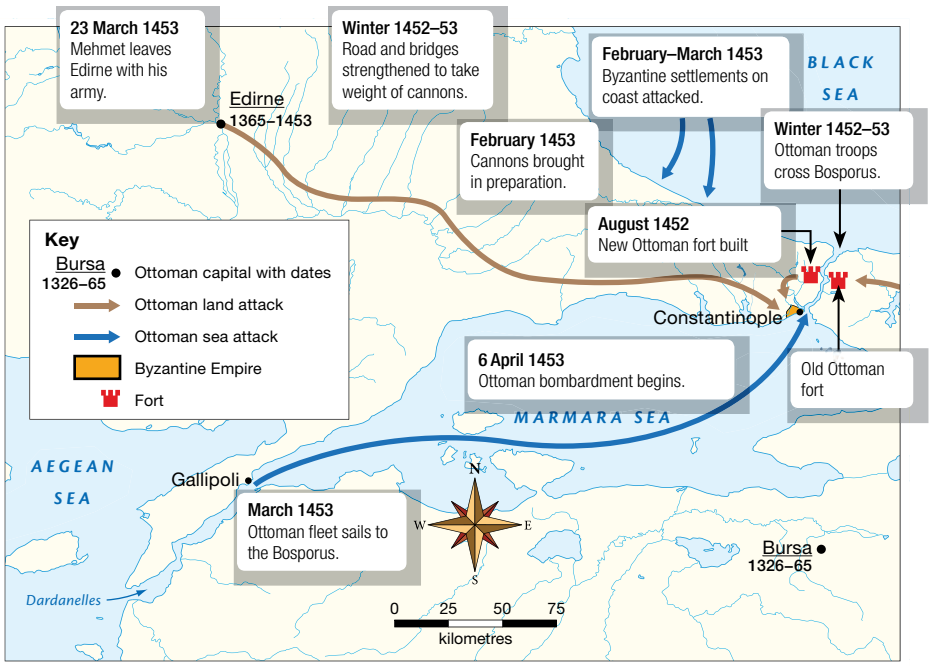
You stupid Greeks . . . I have known your cunning ways long enough. The late Sultan [Murad] was a tolerant and conscientious friend of yours. The present Sultan Mehmet is not of the same mind. If Constantinople eludes his bold and impetuous grasp it will only be because God continues to overlook your wicked and devious schemes.

During the siege, Mehmet's base was the Ottoman fortress of Rumeli Hisar on the western bank of the Bosporus Strait. Though hastily constructed, this military centre enabled Mehmet to command his forces from a tactically strong position.

Over the winter of 1452/53, Constantinople prepared for a siege by reinforcing its walls and bringing in extra supplies of food, while Mehmet strengthened the roads between his capital of Edirne and Constantinople so that he could bring in his cannons to attack the walls of Constantinople. Mehmet positioned his naval fleet in both the Black and Marmara seas to isolate the Byzantines within their own city. On the ground, Mehmet used his Janissaries — elite and often brutal soldiers — to attack the walls of Constantinople.

int-4090

SOURCE 6 Map showing preparations for the attack on Constantinople



Source: Map drawn by Spatial Vision.

int-4091

SOURCE 7 A modern artist's impression of the attack on Constantinople



A Cannons could be fired only about eight times a day because they took so long to prepare.
B The attack on Constantinople lasted many weeks.
C Ottoman armour was made from interlocking rings of metal.

Ottoman attacks continued through April and early May but the defenders of Constantinople held out, despite being outnumbered by ten to one. Towards the end of May, the Ottomans heard rumours that a European relief army was approaching the city and Mehmet decided to launch a final attack. Cannons were brought closer to the walls and, on the night of 28–9 May, Ottoman ships were brought as close as possible to the sea walls. By early morning on 29 May, the walls had been breached and defences collapsed.

DID YOU KNOW?

The city of Constantinople eventually became known as Istanbul. Medieval travellers would sometimes use the phrase 'είς τὴν Πόλιν' [is tin polin], meaning 'into the city'. However, this change didn't come about until the late 1920s.

6.5.3 After the fall of Constantinople

The fall of Constantinople was a significant event in medieval history. Not only does it mark the official end of the Eastern Roman Empire, but some historians see it as the end of the entire medieval period. Losing Constantinople was also a great blow for Christianity in Europe. The greatest symbol of this change was the conversion of the great Hagia Sophia church into a mosque. However, there were also several positive outcomes from the fall of Constantinople.

- *The Age of Exploration.* The Ottomans now controlled the major trade link between Europe and Asia. This forced European powers, including Spain and Portugal, to consider different methods of reaching the Far East. It is thought that the journeys of the great European explorers may have occurred because of this need.

- *The Renaissance*. The Islamic focus on academic pursuits (especially maths and science) is well documented. After the fall of Constantinople, Ottoman traders and scholars began to interact with their European counterparts more frequently. These interactions are thought to have directly influenced the development of the Renaissance in Europe.

SOURCES 8 and **9** show two different trade routes between Europe and the East. **SOURCE 8** shows the journey of famed Portuguese explorer Vasco de Gama, while **SOURCE 9** shows the Silk Road, which stretched from Istanbul to China.

SOURCE 8 Vasco de Gama's first voyage to India



Source: Based on http://media.web.britannica.com/eb-media/21/144621-050-B67E1FE0.gif

SOURCE 9 The Silk Road trade route



Source: Spatial Vision

6.5 SKILL ACTIVITY: Communicating

In a historian's perfect world, there would be an equal amount of information available about all people, groups, places and events. In a historian's perfect world, finding information would be as simple as using a search engine. Sadly, this is far from a historian's perfect world! It can often be extremely challenging to find historical information, especially about minority groups or smaller players in historical events. In this activity, you will investigate one such group, which existed during the Ottoman Empire — the Janissaries.

1. Conduct research to find out some facts on the Janissaries. Try to find information that:
   - **explains** who the Janissaries were and when this group was established
   - **explains** the role that the Janissaries played in the Ottoman Empire
   - **discusses** what made the Janissaries unique in the Ottoman military and how they were encouraged to stay loyal to the Empire.

SOURCE 10 Who were the Janissaries?



2. **Summarise** the information in your own words. Make it brief and interesting to keep people's attention.
3. **Create** a fact sheet that will give another Year 8 student a useful description of the Janissaries and their role in the Ottoman Empire.

6.5 Exercise

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6.5 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 4	3, 6, 9	5, 7, 8, 10

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Check your understanding

1. Why was Constantinople so important to the Byzantines? **Select** all that apply.
   - A. It held strategic importance in the region.
   - B. It was at its social and economic peak.
   - C. It was a symbol of Christianity in Eastern Europe.
   - D. It had been controlled by the Byzantines for nearly thirteen centuries.
2. How did Sultan Mehmet II try to tempt Constantine XI into surrendering? **Select** all that apply.
   - A. Mehmet II offered ships for Constantine XI to leave in.
   - B. Mehmet II offered freedom of religion.
   - C. Mehmet II offered Constantine XI territory in Greece.
   - D. Mehmet II offered his own capital of Edirne.
3. Consider the attack on Constantinople.
   - a. **Identify** the Ottoman army's main weapon against the walls of Constantinople.
   - b. **Explain** how this technology made its way into Ottoman hands.
4. **Determine** whether the following statements are true or false.
   - a. Sultan Mehmet II was *not* tolerant of other religions.
   - b. Gunpowder and the use of the cannon were originally from China and brought to the Ottoman Empire by the Mongols.
   - c. The famed walls of Constantinople were first constructed by Emperor Theodosius II.
5. **Explain** how Islamic scholars could have influenced the development of the Renaissance.

Apply your understanding

Using historical sources

6. Carefully read **SOURCES 4** and **5**.
   - a. **Identify** the reasons Sultan Mehmet II gave for attacking Constantinople.
   - b. Candarli Halil warned the people of Constantinople that Sultan Mehmet II had quite a different attitude from that of his father, Murad. **Explain** what this different attitude was.
7. **Examine SOURCE 6**.
   - a. **Create** a timeline covering the period from August 1452 to May 1453 that shows the major stages in the Ottoman attack on Constantinople.
   - b. **Explain** the strategies Sultan Mehmet II used to isolate Constantinople from the rest of Europe.

Historical perspectives and interpretations

8. **Examine SOURCE 6**. Why do you think Constantinople was such an important city to control?
9. The Byzantines held Constantinople for more than a thousand years. **Explain** how the tactics used by Mehmet II differed to those used by other armies in the past.
10. 'The fall of Constantinople was the most significant event to occur during the reign of the Ottoman Empire.' **Evaluate** the accuracy of this statement.

LESSON
6.6 Who was Suleiman the Magnificent?

LEARNING INTENTION

By the end of this lesson you should be able to reflect on the achievements of Suleiman the Magnificent and compare his leadership strategies to other Ottoman rulers.

TUNE IN

Suleiman the Magnificent, Alexander the Great and the less impressive, Vasili the Cross-Eyed (a fifteenth century Russian ruler) — many leaders throughout history have used nicknames to represent their physical, philosophical or political characteristics.

For this activity, develop a nickname that *you* would use if you were the ruler of a country.

You'll need to first consider what kind of a ruler you would be, what your reputation would be like, what you would be known for and how you would want to be remembered.

SOURCE 1 Suleiman 'the Magnificent' is a nickname that suggests a lot about this leader



6.6.1 Extending the empire

The Ottoman Empire continued to expand following the conquest of Constantinople in 1453. Under Selim I (1512–20), the empire had almost doubled in size; it included the territories of Syria and Egypt, parts of Persia and the Islamic holy places of Medina and Mecca, as shown in **SOURCE 2**. Selim I claimed the title of caliph of the Islamic world. But it was Selim's son, Suleiman, who was to become one of the most famous rulers of the Ottoman Empire.

Suleiman became sultan in 1520 at the age of 29. Under his rule, the Ottoman Empire became the largest empire of the time and Suleiman was greatly respected and admired by the kings of Europe. A gifted poet and craftsman, Suleiman's rule saw great developments in art, literature and science, but it was for his military accomplishments that Suleiman is more well-known (see **SOURCE 2**). To the west, Suleiman pushed the Ottomans' territory further into Europe, toward the Christian strongholds of Belgrade and Vienna. To the east, he conquered Persia and to the south, the important port city of Aden. Suleiman's forces also captured significant territory in North Africa.

A significant campaign in the early years of Suleiman's rule was his attack on the island of Rhodes in 1522. The knights of the Order of St John, successors to the early Crusaders, had seized the island from the Byzantines in 1309. The knights had been a constant thorn in the side of the Ottomans, attacking ships and thwarting Suleiman's advances across the Mediterranean. After an exhausting five-month siege, Suleiman signed a truce with the knights that gave him control of the island. This victory was strategically crucial for Suleiman and his empire because the Ottomans could now use Rhodes as a base for further campaigns across the Mediterranean and North Africa.

int-4092

SOURCE 2 A map showing the expansion of the empire under Selim I and Suleiman



Source: Map drawn by Spatial Vision.

Suleiman's next target was eastern Europe. A series of successful campaigns gave him control of Serbia and Hungary. This brought Suleiman face to face with his long-time rivals, the Hapsburg Empire.

The Hapsburg dynasty was based in Austria but, through wars and marriage alliances, they controlled a large part of western Europe, including Spain, Portugal, Poland and Hungary, as well as sections of the Netherlands and Italy. Suleiman laid siege to Vienna, Austria, in 1529. After 19 days, sections of the walls had been pierced and some of the outer suburbs burned.

However, a long and costly siege followed and, ultimately, Suleiman withdrew his forces. Three years later, Suleiman launched another failed attempt at taking Vienna. This failure marked the end of the sultan's period of empirical expansion and Suleiman instead focused on administering the territory he had already gained.

SOURCE 3 A statue of Suleiman the Magnificent in Istanbul, Türkiye



6.6.2 Life and law under Suleiman

In Türkiye, Suleiman is known as Sultan Suleiman el-Kununi — the Lawgiver — because he organised a large-scale rewriting of the legal code. This was necessary because the empire contained many new regions and different ways of life.

SOURCE 4 An inscription in which Suleiman describes his power, from M. Guboglu, *Palaeografia si diplomatica Turco-Osmana, Bucarest*, 1958, p. 167, facsimile no. 7, quoted in H. Inalcik, *The Ottoman Empire*, Phoenix Press, p. 41

I am God's slave and sultan of this world. By the grace of God I am head of Mohammed's community. God's might and Mohammed's miracles are my companions. I am Suleyman, in whose name the hutbe [religious sermon] is read in Mecca and Medina. In Baghdad I am the shah, in Byzantine realms the Caesar, and in Egypt the sultan; who sends his fleets to the seas of Europe, the Maghrib and India. I am the sultan who took the crown and throne of Hungary and granted them to a humble slave. The voivoda [governor] Petru raised his head in revolt, but my horse's hoofs ground him into the dust, and I conquered the land of Moldavia.

SOURCE 5 Portrait of Suleiman, attributed to the Venetian Renaissance painter Titian. There is no evidence that Titian ever met or saw Suleiman.



The challenges

The new legal system had to take into account the complex structure of the Ottoman Empire.

- Almost all of the empire, except parts of Africa, was mountainous. Communities were isolated from each other and had developed their own laws.
- There were many different lifestyles in the empire. Some Ottomans lived in great cities while others were nomads or merchants who travelled long distances.
- The empire was made up of people with many different faiths, including Christianity and Judaism. In some parts of the empire, Muslims were in the minority.

The solutions

When a new territory was captured, Ottoman officials tried to preserve as many of the local laws as possible, as long as these did not contradict the religious law or general legal principles of the empire. This strategy was incredibly progressive for a time when many other empires would simply enslave the people they conquered, forcing them to adopt new religions and customs. The system, known as a *millet*, essentially provided the conquered community a degree of **autonomy**. This practice reduced opposition to Ottoman rule, ensured laws suited local conditions and also made collecting taxes easier.

The timing of the first official millet remains debated by historians. Some historians believe that the practice was established during Suleiman's reign; others claim it existed previously, while a third group argue that the millet system developed later in the Ottoman period. Even if it wasn't an official millet, this strategy had a critical role in strengthening support for the Ottoman Empire.

autonomy the ability to self-govern

Christians and Jews

In Islamic belief, Jews and Christians were grouped with Muslims as 'people of the book'; that is, people who shared the background of the Jewish bible with its narratives of Abraham, Moses and the Prophets. As the territory controlled by the sultans expanded, increasing numbers of Christians and Jews were living under Muslim rule. Although executions and forced conversions may have taken place occasionally, most people were generally left to practice their own religion under the millet system.

SOURCE 6 An Islamic painting from c. 1588 showing the army of Suleiman the Magnificent in front of Vienna



SOURCE 7 A sixteenth-century illustration showing an Ottoman Jew from Constantinople and an Arab merchant



6.6 SKILL ACTIVITY: Historical perspectives and interpretations

Suleiman the Magnificent is remembered for his diplomacy and creative policy reforms, especially when dealing with the beliefs and customs of conquered peoples. Through the millet system, Jews and Christians were allowed to keep practising their religions if they paid a tax to Suleiman.

In small groups, **discuss**:

- the purpose of the millet system, including its advantages and disadvantages.
- whether the millet system could work in a modern context. Identify and explore any possible positive and negative implications of such a system in modern society.
- whether it is necessary for all the citizens of a country to follow the same religion.

6.6 Exercise

learnon

6.6 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 4	3, 5, 7, 8	6, 9, 10

These questions are even better in jacPLUS!



- Receive immediate feedback
- Access sample responses
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Check your understanding

1. When Suleiman came to revise the legal code, what three special features of the empire's structure did he have to take into account?
   - A. The demands of the people
   - B. The isolation of communities
   - C. Different lifestyles of communities
   - D. His popularity
   - E. Different religious faiths throughout the empire
2. **Determine** whether the following statements are true or false.
   - a. The Ottomans let local people keep their own laws wherever possible.
   - b. Suleiman successfully conquered Vienna and expanded the Ottoman Empire into Austria, Spain, Portugal, Poland and Italy, securing his place in history as one of the most successful conquerors of all time.
   - c. Suleiman became the sultan of the Ottoman Empire in 1520, expanding the empire to become the largest in the world at the time.
3. a. **Identify** the group that ruled over the island of Rhodes.
   b. **Explain** why Suleiman wanted these people removed.
4. The main rivals to the Ottomans in Europe were the _____ Empire. They controlled territory in much of _____ Europe.
5. **Discuss** why you think people have chosen to describe Suleiman as 'the Magnificent' or as 'the Lawgiver'.

Apply your understanding

Using historical sources

6. In **SOURCE 4**, **identify** what links Suleiman makes with earlier empires. What is he claiming for himself by doing this?

Historical perspectives and interpretations

7. **Examine SOURCE 5**.
   - a. **Identify** what impression of Suleiman is presented in the painting.
   - b. Can this picture be trusted to give an accurate depiction of Suleiman? **Explain** why or why not.
   - c. If Titian did not actually see Suleiman, **identify** where he might have gathered the references from which to paint him.

Communicating

8. **SOURCE 6** is a representation of the Siege of Vienna.
   - a. Is it a primary or secondary source? **Justify** your response.
   - b. **Describe** the military tactics used by both sides.
   - c. **Explain** why you think Suleiman's attack on Vienna was unsuccessful.
   - d. **Explain** how useful **SOURCE 6** is in providing evidence of the siege.
9. **Identify** and **explain** the ways in which the Ottoman Empire changed under Suleiman's command.
10. **Explain** what Suleiman hoped to achieve by granting religious freedom to the territories he conquered.

LESSON
6.7 What was life like in the Ottoman Empire?

LEARNING INTENTION

By the end of this lesson you should be able to describe what daily life would have been like for people living in the Ottoman Empire.

TUNE IN

Many history resources, including this one, contain chapters that discuss the daily lives of people who lived in different periods and in different societies throughout history. These chapters frequently talk about a society's socioeconomic characteristics, the status of women, children and education, music, food and fashion.

The question that you need to consider for this Tune In activity is simple — why? Why do we spend time investigating the daily life of historical societies? Why do we, as historians in the twenty-first century, need to understand what life was like for people during the Ottoman Empire?

Create a brainstorm that unpacks these starter questions or discuss the questions as a class or with a partner.

SOURCE 1 One of the highly decorated rooms in the **harem**'s courtyard in the Topkapi Palace



6.7.1 Daily life

Life within the Ottoman Empire varied greatly between people, usually depending on a person's social and economic status. The empire included many Christian and Jewish, as well as Muslim, communities. Most of the population lived as peasants in small villages, and in the north-east there was a large nomadic population. As long as each community paid its taxes to the sultan, the communities were generally free to continue their own lifestyles.

Housing

Most homes in the towns were made of timber, although richer people might have had their bottom floor built with stone walls. Wooden houses meant fewer injuries during earthquakes, but also increased the danger of fire, especially as houses were built very close together and streets were very narrow.

Houses of the upper class usually had separate rooms for men and women. A space at the front, called the selamlik, was for men, and a space at the back, called the haremlik, was where women gathered. There were

SOURCE 2 A traditional-style Ottoman house in Antalya, Türkiye



no chairs in the rooms. Boxes around the wall served as seats when covered with cushions. For meals, food was placed on large trays on a low platform in the centre of the living room and people squatted around this. At night, some rooms could be converted to bedrooms.

Peasants' houses usually had only three rooms — one for sleeping, one for cooking and one as a sitting/dining room. The material they were built from depended on the material available locally, so they could be of timber, stone or mud brick.

Women and children in society

Clothing

Clothing styles and customs evolved significantly throughout the Ottoman Empire. During the rule of Suleiman the Magnificent, women would wear *salvar* (light, baggy trousers), a *golmek* (a long, thin undershirt that stretched down to the calf), a long *entari* (outer robe) and a *yelek* (vest). The material used for the yelek, as well as its design, often denoted the status of its wearer. When within their own homes, these garments would remain overcovered.

However, when women were in public or in the presence of males who were not of a close blood relation, they were to cover their clothes with another outer robe. Women also covered their hair and wore veils when in public, as per the teachings of Islam. The veil has a long history dating back to the era of Prophet Mohammad. The types of veils worn by Islamic women differ between and even within countries. Wearing of a veil was, and still is, seen as a sign of devotion and submission to God and to the teachings of Prophet Mohammad.

Marriage

Most marriages were arranged, but the wife retained control of any property she had. The husband's family provided a **dowry**. Half of this went to the wife to set up her home while the other half was retained to be given to her in the case of her husband divorcing her.

dowry a payment of money or goods as part of a marriage agreement

Divorce was easier for the husband — all he had to do was repeat three times, 'You are divorced'. If a woman wanted a divorce, she had to go to court, accompanied by two witnesses who would testify to her mistreatment or abandonment. In a few cases, Jewish and Christian women took their case for divorce to a Muslim court, which indicates they felt that Muslim women had more rights in this area.

Occupations

Women in the cities could be involved in trade by appointing a male agent to act on their behalf. In the villages, women would work on a farm or be employed in the textile industry. Children could also be involved in spinning and weaving. The earliest textiles were linen, and this was followed first by silk and then by cotton.

As in other cultures in the Middle Ages, most children were employed as early as possible. This could be on a farm, in textile production or as an apprentice to a craft or trade (see **SOURCE 3**).

SOURCE 3 This court case concerns a father who, in 1656, complained that his son had been employed against his will by the barber Yusuf. The father brought his case to a judge, called the qadi.

Master barber Yusuf, questioned on this matter, said that the boy joined his employ of his own free will and wishes to stay with his master and learn the trade. The boy was therefore summoned and questioned, and he too replied that he wishes to stay with his master in order to learn the barber's profession.

In view of these declarations the qadi informed the plaintiff [the father] that he is not to get custody of his son unless the son himself so wishes, since the boy is now a mature companion. He warned the plaintiff against trying to harm the defendant [the barber] or harass him.

Slavery

Like other civilisations at the time, slaves existed in the Ottoman Empire, but they had more opportunities and greater legal protection than many other slaves in the Middle Ages. While the Qur'an recognised slavery, it did recommend kindness to slaves and eventual liberation. Christians who had been captured and brought to work in the sultan's palace could eventually obtain high positions in the empire. The case of the Russian slave Roxana, who eventually became the legal wife of Suleiman the Magnificent, shows the possibilities available to some.

However, most slaves were women who worked as domestics. Their situation depended very much on the attitudes of the master and mistress of the house. If a domestic slave had a child by her master, the child was a free person. Slaves could also acquire their freedom when their masters died.

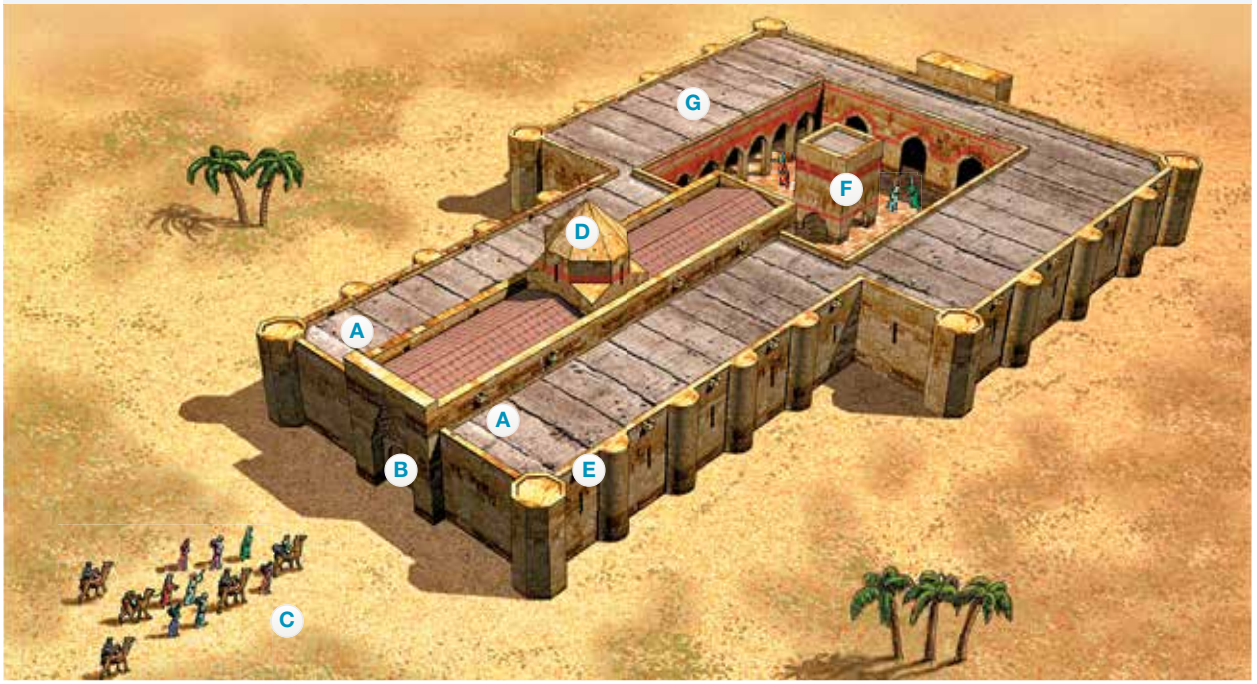
6.7.2 Trade and the marketplace

Trade

Trade was a large part of Islamic culture. Large caravans of camels carried goods long distances, often across difficult terrain such as deserts and mountains. Sultans organised the building of depots about 30 kilometres apart along these routes where the cameleers could rest from the long journey and be protected from thieves. These depots were called *caravanserai*. They were surrounded by strong walls and towers with a relatively small entrance. Each contained rooms for travellers to rest and, in the centre, there was a small mosque for the daily prayers.

int-4093

SOURCE 4 An artist's reconstruction of a *caravanserai*



- **A** Winter quarters provided protection from cold weather.
- **B** The narrow entrance gate protected against thieves.
- **C** Camel caravans move in to rest for the night.
- **D** Domes allowed light into the rooms. This idea was further developed in the domes for mosques.
- **E** Gutters redirected water away from the building.
- **F** Raised mosques were important for prayers, usually made five times a day.
- **G** This accommodation was suitable for summer.

Bazaars

Once goods reached the major cities they were sold in bazaars (markets). The Kapali Carsi, or Covered Bazaar, in Istanbul is typical of these. Although it has undergone many changes due to earthquakes and fires, it has still preserved the same basic layout. It is located just one kilometre from the shore and at the start of the major road running east through the city.

As well as being a centre for trade, the bazaar also played an important role in bringing the local community together and became a place for meeting and socialising; a modern example is shown in **SOURCE 5**.

SOURCE 5 The Kapali Carsi in Istanbul



DID YOU KNOW?

The Kapali Carsi, which still operates today, contains more than 4000 shops. The largest shopping centre in Australia, Chadstone Shopping Centre in Melbourne, contains over 550 shops.

At the heart of a bazaar was the bedestan. This was a stone building with a domed roof. The bedestan had doors that could be locked at night; this ensured the safe storage of luxury goods such as precious metals, gems and silk.

aud-0441

SOURCE 6 An account of a bedestan in Bursa, written by Turkish traveller Evliya Efendi (1611–1682), from Joseph von Hammer's translation of *Narrative of travels on Europe, Asia and Africa in the Seventeenth Century* by Evliya Efendi, London, 1855, p. 12

The Bedestan is a large building with four iron gates secured with iron chains; its cupola is supported by strong columns. It contains three hundred shops in each of which merchants reside, who are as rich as the kings of Egypt. The market of the goldsmiths is outside the Bedestan, and separate from it; the shops are all of stone. There are also the markets of the tailors, cotton-beaters, cap makers, thread merchants, drapers, linen merchants, cable merchants, and that called the market of the bride, where essence of roses, musk, ambergris, etc are sold.

Coffee houses

The first coffee came from the seeds of a tree in Ethiopia. Sufis — Islamic mystics — used a brew from the seeds in their devotional practice. In a ceremony called 'Remembrance of God', Sufis would go through long night sessions, reciting or chanting their love of God. Coffee was used as a stimulant to keep them awake.

Coffee was introduced to Istanbul in the early seventeenth century and men gathered in coffee houses to drink coffee, smoke tobacco and be entertained (see **SOURCES 7** and **8**).

Coffee houses were also centres of political discussion and, frequently, sultans would have

SOURCE 7 A nineteenth-century illustration of a coffee house in Constantinople



them closed down or even burned down if their spies reported that mutinous talk was going on. Examples of this occurred during the reign of Murad IV (1623–1640).

The drinking of coffee and the café society spread from the Ottoman Empire to Vienna, Paris and London and is very popular in Australia today.

aud-0466

SOURCE 8 Turkish traveller Evliya Efendi (1611–1682) writes about coffee houses. He is describing a coffee house in Bursa, the former capital of the Ottoman Empire.

There are seventy-five coffee-houses each capable of holding a thousand persons, which are frequented by the most elegant and learned of the inhabitants; and three times a day singers and dancers execute a musical concert in them . . .

. . . All coffee-houses, and particularly those near the great mosque, abound with men skilled in a thousand arts. Dancing and pleasure continue the whole night, and in the morning everybody goes to the mosque. These coffee-houses became famous only since those of Constantinople were closed by the express command of Sultan Murad IV. There are also no less than ninety-seven Buza-houses, which are not to be equalled in the world; they are panelled with faience [coloured tiles], painted, each capable of accommodating one thousand men.

6.7 SKILL ACTIVITY: Historical perspectives and interpretations

You have just spent time investigating what daily life would have been like in a society that existed 700 years ago. Imagine that historians in the 2720s are studying what daily life was like in the 2020s and complete the following activities.

1. Write a summary of your daily life using the same or similar headings as this lesson. Include images to assist your **explanation**.
2. Complete a table that **compares** and **contrasts** daily life in the Ottoman Empire and your life today. Use the headings ‘Similarities’ and ‘Differences’ to help structure your analysis.

6.7 Exercise

learnon

6.7 Exercise

Learning pathways

■ LEVEL 1	■ LEVEL 2	■ LEVEL 3
1, 3, 4, 7	2, 5, 10	6, 8, 9

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Check your understanding

1. What role did children play in Ottoman society?
   - **A.** Children were expected to go to school.
   - **B.** Children were slaves.
   - **C.** Children were expected to work.
   - **D.** Only adults had a role in society.
2. In a wealthy Ottoman house, the **haremlik / selamlik** was the part of the house reserved for the men, while the **haremlik** / **selamlik** was where the women met.
3. **Summarise** what the Qur’an says about slavery.
4. Coffee was used as part of religious practice in the Ottoman Empire. True or false?
5. **Identify** the reasons sultans might have had for closing down coffee shops.

Apply your understanding

Using historical sources

6. **Examine SOURCE 3**. What evidence does it provide about:
   a. the rights of children in the Ottoman Empire
   b. the legal system in the Ottoman Empire?
7. **Study SOURCE 4**.
   a. What evidence is there that the *caravanserai* was built to accommodate prayer?
   b. What other feature common to mosques was often seen in *caravanserai*?

Historical perspectives and interpretations

8. **Compare** the accounts provided in **SOURCES 6** and **8**. Which do you believe is more accurate and why?
9. **Describe** the effect that the Ottoman marketplace had on the empire's ability to acquire new territories.
10. **Explain** how a simple coffee shop could have a key role in Ottoman politics.

LESSON
6.8 What was the Ottoman contribution to art, architecture and literature?

LEARNING INTENTION

By the end of this lesson you should be able to state the contributions that Ottoman scholars and artists have made to society.

TUNE IN

You have already learned that the pursuit of knowledge and artistic endeavours flourished during the Ottoman Empire. **SOURCE 1** shows the skill of artists in a tile from a mosque.

1. Before we investigate the accomplishments of Ottoman artists, scholars and architects in more detail, suggest reasons why these areas developed so much during the Ottoman Empire.
2. What features of Ottoman culture do you think enabled these achievements?

SOURCE 1 A tile from an Istanbul mosque



6.8.1 Art and architecture

The modern world owes much to the Ottoman Empire. We have already discussed the achievements that occurred during the 'Golden Age of Islam'. While most of Europe was in chaos for much of the Middle Ages, the Ottoman Empire continued to be a centre of learning and advancement. Without the achievements of the Ottoman Empire during the first millennium, much of the learning from ancient Greece, Rome and Egypt would have been lost forever. Many of the later advances in European philosophy and science either occurred because the Ottomans collected and translated the works of the ancients or were based on advances made by the Islamic people.

Ottoman architects continued traditions started by the Seljuk Turks. Tall doorways and pointed arches were common to Seljuk mosques, schools and caravanserai. Blue, white and black designs with floral or geometric patterns were often used to decorate walls. Often a complex of buildings, called a *kulliye*, surrounded a mosque. As well as the mosque, a *kulliye* in the former capital of Edirne contained separate buildings including a hospital, a mental asylum and a bakery. A windowed dome over the mosque allowed the use of light to become a feature of Ottoman architecture.

It was under Suleiman and his architect Sinan (1489–1588) that Ottoman architecture reached its peak. One of Sinan's greatest achievements is the Suleiman Mosque, built in Istanbul from 1550. Its design mirrored that of the Christian church Hagia Sophia. In the structural features of the mosque, Sinan improved on the original. Sinan had discovered ways to incorporate supports within the structure so that fewer columns were needed. The Hagia Sophia had eight columns on each side but the Suleiman Mosque had only two. Sinan also made extensive use of windows, giving a light-filled weightlessness to the building. Sinan's contributions also included great public works such as aqueducts that brought water into the city for fountains and Turkish baths.

SOURCE 2 An aqueduct designed by Sinan



Another common feature of Ottoman architecture, geometric design, can also be found in art from the same period. Islamic art rarely featured images of real life. Instead, circles, squares and pentagons are repeated in carefully arranged sequences. Examples of Islamic geometric design can be seen in **SOURCE 3**. With clear links to mathematics, these designs were meticulously painted onto mosques, libraries and other important buildings.

SOURCE 3 The interior of the Shahzade Mosque in Istanbul. The construction of this mosque was ordered by Suleiman the Magnificent in 1543.



SOURCE 4 A painting by Bihzad showing the construction of a fort



Another popular form of art was calligraphy. The Qur'an was written in Arabic, so letters themselves were seen to have a sacred quality, and lettering became an art form.

6.8.2 Literature

Although most regions that converted to Islam adopted Arabic as their language, the Ottomans were different. They kept their Turkish language for day-to-day use but used Arabic script for writing. Their literature was, therefore, influenced by their traditional Turkish language, the Arabic language of Islam and the Persian language of neighbouring regions. Some Ottoman poets such as Fuzuli (c. 1483–1556) could write fluently in all three languages, while others who wrote mainly in Turkish would borrow words from Persian and Arabic.

The epics

One favourite form of literature was the epic. They were written down in the thirteenth century but were based on an oral tradition going back over hundreds of years to when the Turks were nomads in Central Asia. One of these epics was called *The Book of Dede Korkut*. It includes the story of a young prince, Uruz, who was captured by Georgians when his father was out hunting near the Georgian border (see **SOURCE 5**).

These works were usually in Turkish and were meant to be sung. Poetry dealt with basic human emotions; some common themes were the value of country life, the search for love and homesickness. However, some of the songs were religious. One of the most renowned composers was Yunus Emre (c. 1238–1320) (see **SOURCE 6**). He still influences Turkish poetry today.

aud-0442

SOURCE 5 An extract from *The Book of Dede Korkut*. Kazan returns from a hunting expedition without his son, and his wife questions him.

My prince, my warrior, Kazan!

You rose up from your place and stood,

With your son you leaped on to your black-maned Kazilik horse,

You sent out [to] hunt over the great mountains with their lovely folds,

You caught and laid low the long-necked deer,

You loaded them on to your horses and turned homeward.

Two you went and one you came; where is my child?

Where is my child whom I got in the dark night?

My one prince is not to be seen, and my heart is on fire.

Kazan, have you let the boy fall from the overhanging rocks?

Have you let the mountain-lion eat him?

Or have you let him meet the infidel of dark religion?

aud-0443

SOURCE 6 A devotional poem by Yunus Emre

Knowledge is to understand
To understand who you are.
If you know not who you are
What's the use of learning?

The aim in learning is
To understand God's Truth.
Because without knowledge
It is wasted hard labour.

Do not say: I know it all,
I am obedient to my God.
If you know not who God is
That is sheer idle talk.

Twenty-eight syllables
You read from end to end.
You name the first 'alpha'
What can it possibly mean?

Yunus Emre says also
Let me receive what I need.
The best possible thing
Is to find perfect peace.

Translated by Taner Baybars

6.8.3 Modern influence

Modern-day Türkiye is the country most heavily influenced by the Ottoman Empire. The influence of the Ottomans can be seen in its architecture, culture and political system. Although the Ottoman Empire was based on Islam, it showed tolerance of other religions; this is also reflected in Türkiye's modern-day beliefs in secularism and tolerance. The vast extent of the Ottoman Empire has allowed its influence to spread to many other countries in the Middle East, and the Ottoman practice of allowing the common people a degree of self-government has influenced some modern governments. While it was far from perfect, the Ottoman Empire ranks alongside the Roman and Byzantine empires as one of the most powerful and long-lasting empires in world history. For many centuries, it was a major point of connection and interaction between the East and the West.

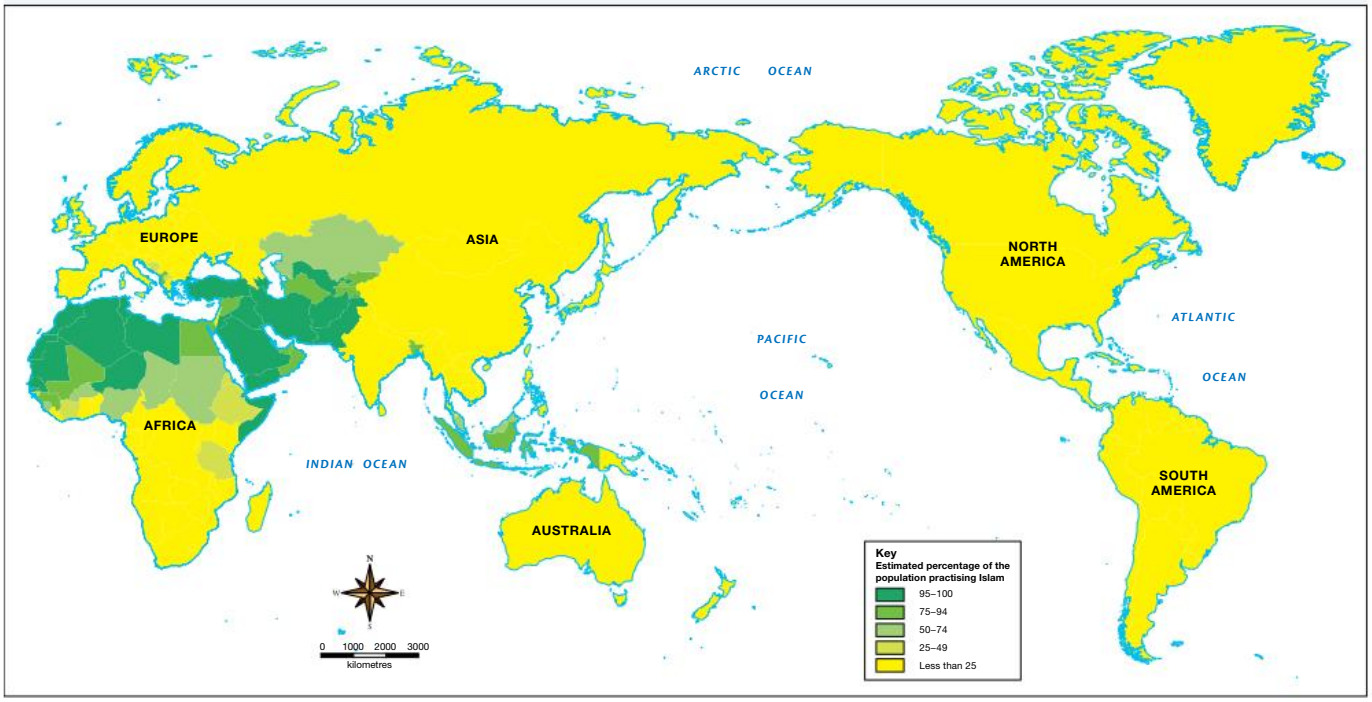
SOURCE 7 The Auburn Gallipoli Mosque in Sydney. The Ottoman-style mosque has been listed by the National Trust as an architecturally and culturally significant building.



Islam is one of the world's great religions. It has more than one and a half billion followers, making it the second largest religion in the world. As can be seen in **SOURCE 8**, most followers of Islam live in the Middle East and Africa, but the religion is practised right around the world, including in Australia. An understanding of Islam is essential if we are to be active participants in our community. Islam has a great influence on Australian society and on international relations. Now you have an understanding of how Islam began and some of its important beliefs, and you can appreciate some of the great advances made by Islam and the Ottoman Empire.

int-7822

SOURCE 8 A map showing Islam in the modern world



Source: Map drawn by Spatial Vision.

6.8 SKILL ACTIVITY: Using historical sources

SOURCE 6 contains a poem by the famous Ottoman poet, Yunus Emre. In this activity you will **analyse** Emre's poem and discuss its connection to the key themes of the Ottoman way of life.

a. In the first stanza, what does the poet say is the main reason for learning?
b. How is the second stanza connected with religion?
c. What does the poet include in the first line of the last stanza? (This was a common practice in Ottoman poetry of this period.) Why might this have been done?
d. Do you believe that poems are *accurate* historical sources? **Explain** your response.
e. Do you believe that poems are *useful* historical sources? **Explain** your response.

6.8 Exercise

learnon

6.8 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 5	4, 7, 9	6, 8, 10

These questions are even better in jacPLUS!



- Receive immediate feedback
- Access sample responses
- Track results and progress

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Check your understanding

1. A *kulliye* is a form of writing. True or false?
2. **Identify** the two main forms that poetry and song took in Ottoman literature.
   A. Sonnets
   B. Epic poems
   C. Folk poetry and songs
   D. Lullabies
3. **Identify** the two main languages used by Ottoman poets and writers.
   A. Turkish
   B. Persian
   C. Greek
   D. Arabic
   E. Latin
4. **Describe** the architectural features that were shared by Seljuk and Ottoman architecture.
5. **Identify** how modern Türkiye's secularism and religious tolerance is influenced by the Ottomans.

Apply your understanding

Using historical sources

6. **Examine SOURCE 3**. **Identify** any shapes can you see repeated in this image. What evidence is there that suggests art and mathematics were closely linked?
7. **Describe** some of the activities being conducted in **SOURCE 4**. What does this tell us about the Ottomans?
8. Carefully **analyse SOURCE 6**.
   a. In the first stanza, what does the poet say is the main reason for learning?
   b. How is the second stanza connected with religion?
   c. What does the poet include in the first line of the last stanza? (This was a common practice in Ottoman poetry of this period.) Why might this have been done?
9. **Compare SOURCE 8** with some of the maps from lesson 6.2 that show where Islam originated.
   a. Is Islam still prevalent in the areas where it started?
   b. Where has Islam spread to since 750 CE?
10. 'The Ottoman Empire does not deserve to be remembered in the same way as the empires of Rome and Greece.' Do you agree or disagree with this statement? **Justify** your response.

LESSON
6.9 INQUIRY: Collaborative research

LEARNING INTENTION

By the end of this lesson you should be able to work as part of a team to research and analyse sources to determine and discuss significant legacies of the Ottoman Empire.

Background

Collaborative research and writing is a key part of professional historical practice. Historians often work in teams to investigate and analyse sources and to prepare their findings for other historians to read and use. In this inquiry, you will work as a team to investigate the legacies of the Ottoman Empire.

Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

In groups of three or four, investigate the legacies of the Ottoman Empire.



Inquiry steps

Each group member **identifies** and **describes** (in paragraph form) what they believe to be the most significant contribution or aspect of the Ottoman Empire. Consider its legacy and the way it influenced Ottoman culture and the wider world. Each group member **justifies** their opinion with evidence from this topic or from additional sources.

Step 1: Questioning and researching

Working in groups, you will investigate the legacies of the Ottoman Empire. Before you begin your research, it is crucial that you develop the parameters or boundaries of your investigation. The best way to do this is to develop guiding research questions. Examples of such questions may include:

- What is a legacy?
- What aspects of Ottoman culture are still seen today?
- Why do these aspects of Ottoman culture still exist?

For example, what do they have in common with contemporary society?

Step 2: Using historical sources

Each group member identifies and describes (in paragraph form) what they believe to be the most significant contribution or aspect of the Ottoman Empire. Consider its legacy and the way it influenced Ottoman culture and the wider world. Each group member justifies their opinion with evidence from this topic or from additional sources.

Each group member then reads their response to the group. The other group members take their own notes and observations to be provided as feedback. This process is repeated until all group members have presented their opinions.

Step 3: Historical perspectives and interpretations

After you have heard from each group member, hold a group discussion. In this discussion, you should ask each other questions about your findings. Ask your classmates to justify their legacies and why they choose them over your chosen legacy.

Step 4: Communicating

Using the feedback from group members, each student rewrites their paragraphs and submits them to their teacher. Include the notes you took from your group discussions in your submission.

Complete your self-assessment using the **Inquiry rubric** or access the 6.9 exercise set to complete it online.

on Resources

Digital document Inquiry rubric (doc-39402)

LESSON
6.10 Review

Hey students! Now that it's time to revise this topic, go online to:

Review your results

Watch teacher-led videos

Practise questions with immediate feedback

Find all this and MORE in jacPLUS



6.10.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

6.2 What are the origins of the Ottoman Empire?

- The origins of the Ottoman Empire can be traced back to the spread of the Islamic religion throughout what is now Türkiye and parts of the Middle East.
- The prophet Mohammed is said to have received revelations from God and devoted his life to teaching the word of God through the Qur'an.
- A large range of religious, military, economic, political and social factors contributed to the expansion of Islam.
- The spread of Islam coincided with the decline of the Byzantine Empire.

6.3 What was the Golden Age of Islam?

- The pursuit of knowledge and an understanding of the natural world was a key feature of the Islamic empire.
- Important academic and scientific achievements, many of which are still used today, were made during this period of history.

6.4 How did the Ottoman Empire expand?

- By the thirteenth century, the Middle East was made up of a series of states competing for dominance. The emerging Ottoman Empire took advantage of this political uncertainty to expand its influence.
- Osman I is credited as being the first ruler of the Ottoman Empire.
- Osman's successor, Orhan, solidified the Ottoman's status and laid the foundation for further expansion by subsequent rulers.
- Murad I successfully conquered parts of the Balkan States, providing the ability for the Ottomans to attack its key rivals in Europe.

6.5 What caused the fall of Constantinople?

- After a brief period of instability at the beginning of the fifteenth century, the influence and power of the Ottoman Empire continued to spread. Soon, the Ottomans were ready to launch an attack on the capital of the Byzantine Empire, Constantinople.
- For more than a thousand years, the rulers of Constantinople had built and maintained strong defences, mainly through the construction of thick, fortified walls.
- The siege lasted 53 days and is seen by historians as the event that signifies the end of the Roman Empire.

6.6 Who was Suleiman the Magnificent?

- Under the rule of Suleiman, the Ottoman Empire became the largest and most powerful empire at the time.
- Suleiman's rule oversaw significant developments in art, literature and science, yet he was also known for his military accomplishments.
- Followers of Christianity and Judaism were offered significant religious freedom under Suleiman.
- Suleiman attempted to conquer his biggest European rival, the Habsburg Empire, but his failure to do so marked the end of Ottoman expansion into Europe.

6.7 What was life like in the Ottoman Empire?

- Life within the Ottoman Empire varied greatly, usually depending on a person's social and economic status.
- Houses of the wealthy usually had multiple rooms, whereas the houses of poorer groups of society were usually single-room, multi-purpose dwellings.
- Clothing, and particularly headwear and belts, was a sign of status in the community.
- The status of women during the Ottoman Empire was inconsistent. While women had some civil and property rights, they were still not considered equal members of society.
- Trade was a significant part of Ottoman culture, with large caravans of camels and traders travelling large distances to exchange goods.
- *Caravanserai* were protected trading stations built by sultans to protect traders and their goods from thieves.
- Bazaars and coffee houses were important social and political hubs.

6.8 What was the Ottoman contribution to art, architecture and literature?

- While most of Europe was focused on political and military struggles during the Middle Ages, the Ottoman Empire continued to be a centre of learning and advancement.
- Many of the later advances in European philosophy and science either occurred because the Ottomans collected and translated the works of the ancients or were based on advances made by the Islamic people.
- A common feature of Ottoman architecture, geometric design with circles, squares and pentagons are repeated in carefully arranged sequences.
- The Ottomans kept their Turkish language for day-to-day use but used Arabic script for writing. Their literature was, therefore, influenced by their traditional Turkish language, the Arabic language of Islam and the Persian language of neighbouring regions.
- The influence of the Ottoman Empire is responsible for the presence and popularity of Islam in modern society.

6.9 INQUIRY: Collaborative research

- Several aspects of Ottoman culture still exist in contemporary society.
- Collaborative research can be used to determine and discuss history.

6.10.2 Key terms

autonomy the ability to self-govern
beylik a small territory in Anatolia
caliph in Islamic countries, the chief civil and religious ruler and a successor to the Prophet Mohammed
dowry a payment of money or goods as part of a marriage agreement
harem the women in a Muslim household, including the mother, sisters, wives, concubines, daughters, entertainers and servants
revelation a communication or message from God
sultan the king or sovereign of an Islamic country

6.10.3 Reflection

Complete the following to reflect on your learning.

Revisit the inquiry question posed in the Overview:

What factors influenced the development of the Ottoman Empire's march into Europe?

1. Now that you have completed this topic, what is your view on the question? Discuss with a partner. Has your learning in this topic changed your view? If so, how?
2. Write a paragraph in response to the inquiry question, outlining your views.

Resources

Digital document	Customisable worksheets for this topic (ewbk-10696) Reflection (doc-10698) Crossword (doc-10699)
Interactivity	Ottoman Empire crossword (int-7587)

6.10 Review exercise

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Multiple choice

1. In which city was the prophet Mohammed born?
   - A. Mecca
   - B. Constantinople
   - C. Jerusalem
   - D. Medina
2. What name was given to the leader of the early Islamic Empire?
   - A. Prophet
   - B. Sultan
   - C. Caliph
   - D. Mufti
3. The Golden Age of Islam was driven by knowledge from which two previous civilisations?
   - A. Egyptians and Greeks
   - B. Egyptians and Romans
   - C. Greeks and Romans
   - D. Greeks and Turks
4. A famous pre-Ottoman academic institution was called
   - A. the House of Islam.
   - B. the House of Learning.
   - C. the House of Knowledge.
   - D. the House of Wisdom.
5. Which of the following was an achievement of Osman I?
   - A. Gained access to the Dardanelles
   - B. Led the Siege of Constantinople
   - C. Founded the Ottoman Empire
   - D. Extended the Ottoman Empire to its furthest reach
6. The fall of Constantinople marked the
   - A. beginning of the true Ottoman Empire.
   - B. fall of the Ottoman Empire.
   - C. fall of the Roman Empire.
   - D. end of Christianity in Europe.

7. What kind of freedoms did Suleiman provide to followers of Christianity and Judaism?
   - **A.** Freedom from taxation
   - **B.** Freedom of religion
   - **C.** Freedom from slavery
   - **D.** Freedom from military service
8. Which of the following provides the best definition of *caravanserai*?
   - **A.** Fortified mosques
   - **B.** Fortified trading stations
   - **C.** Fortified palaces
   - **D.** Fortified jails
9. What kind of artistic design is featured heavily in Ottoman art and architecture?
   - **A.** Geometric patterns
   - **B.** Realism
   - **C.** Religious paintings
   - **D.** Stone cuttings
10. Which modern country is most heavily influenced by the Ottoman Empire?
    - **A.** Türkiye
    - **B.** Iran
    - **C.** Greece
    - **D.** Lebanon

Short answer

Communicating

11. Although this topic is about the Ottoman Empire, it begins with an explanation of the spread of Islam. Why do you think the author chose to start the topic in this way?
12. The Qu'ran urges people to acquire knowledge in order to bring them closer to god. **Describe** how this direction influenced education during the Ottoman Empire.
13. Numerous Ottoman rulers attempted to take control of the Byzantine capital, Constantinople. **Explain** why this city was so important to the Ottomans.
14. If Islamic religion was such an important part of Ottoman life, why would rulers like Suleiman the Magnificent allow Jews and Christians to keep practising their own religions?
15. 'The Ottoman Empire may not have been the biggest empire in history, but it was the most important.' To what extent do you agree with this statement?

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Online Resources

on Resources

This is a summary of the digital resources you will find online for Topic 6 to help support your learning and deepen your understanding. When you see these icons next to an image or paragraph, go to learnON to access video eLessons, interactivities, weblinks and other support material for this topic.

6.1 Overview

eWorkbook
- Customisable worksheets for this topic (ewbk-10696)

Video eLesson
- The Ottoman Empire (c. 790–1066) (eles-1825)

Interactivity
- A timeline of the Ottoman Empire (int-4281)

6.2 What are the origins of the Ottoman Empire?

Video eLesson
- A map showing the spread of Islam by 750 CE. The Byzantine Empire was an Orthodox Christian empire (tlvd-10588)

Interactivity
- A map of the world of Islam in 750 CE (int-4087)

6.5 What caused the fall of Constantinople?

Video eLesson
- Map showing preparations for the attack on Constantinople (eles-6030)

Interactivity
- A modern artist's impression of the attack on Constantinople (int-4091)
- A map showing the expansion of the empire under Selim I and Suleiman (int-4092)

6.7 What was life like in the Ottoman Empire?

Audio
- An account of a bedestan in Bursa, written by Turkish traveller Evliya Efendi (1611–1682) (aud-0441)

Interactivity
- An artist's reconstruction of a caravanserai (int-4093)

6.8 What was the Ottoman contribution to art, architecture and literature?

Audio
- An extract from The Book of Dede Korkut. Kazan returns from a hunting expedition without his son, and his wife questions him (aud-0442)
- A devotional poem by Yunus Emre (aud-0443)

Interactivity
- A map showing Islam in the modern world (int-7822)

6.9 INQUIRY: Collaborative research

Digital document
- Inquiry rubric (doc-39402)

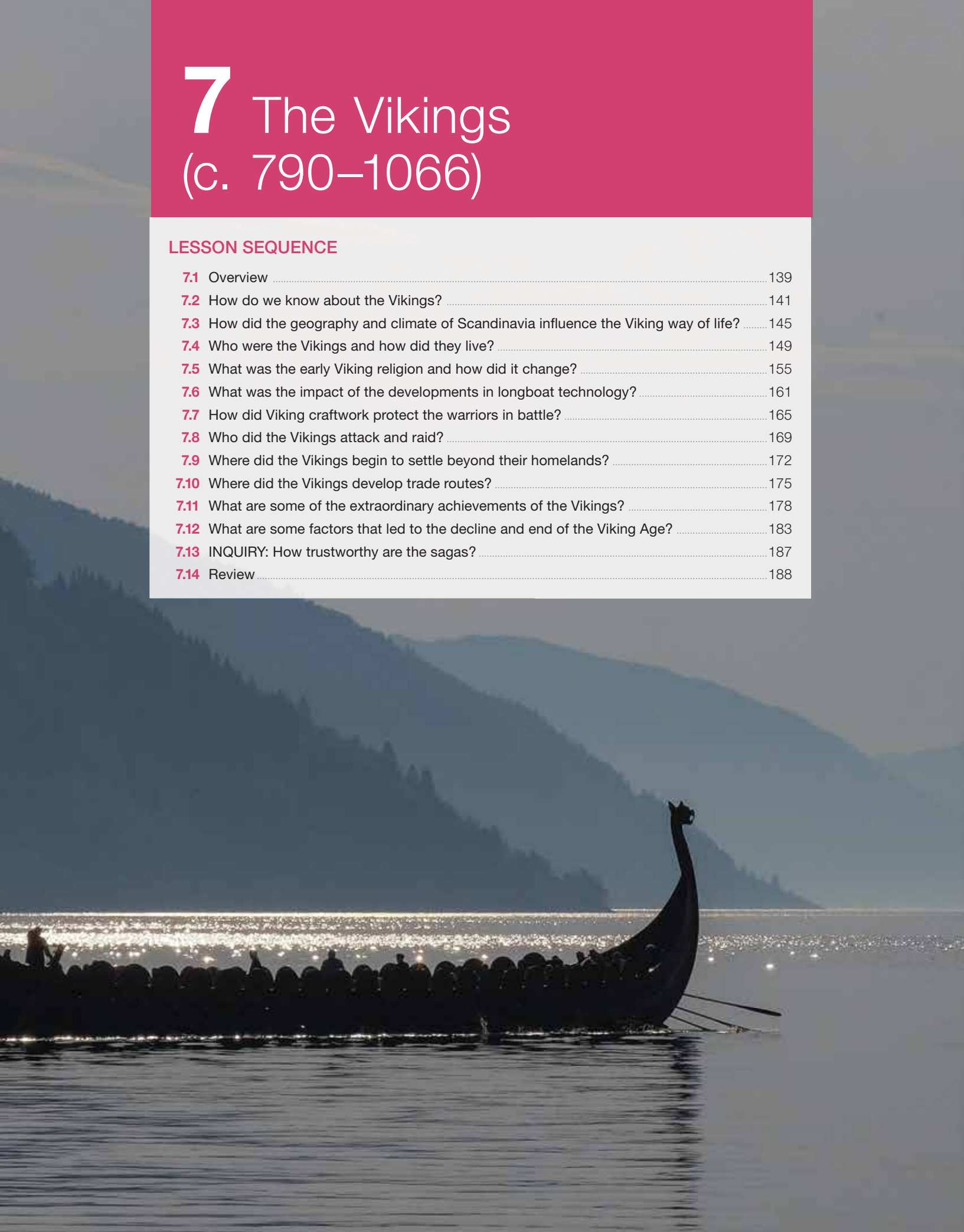
6.10 Review

Digital documents
- Customisable worksheets for this topic (ewbk-10696)
- Reflection (doc-10698)
- Crossword (doc-10699)

Interactivity
- Ottoman Empire crossword (int-7587)

To access these online resources, log on to **www.jacplus.com.au**.

7 The Vikings (c. 790–1066)



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LESSON
7.1 Overview

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What were the key beliefs and values of Viking society and how did this influence their society?

7.1.1 Introduction

From recent popular culture we gain the impression that the Vikings were the bullies of the medieval world, crazed warriors who swung swords and axes and threw lightning bolts.

But did you ever wonder what lies behind that image? Were they the victims of Middle Ages propaganda created by the people who hated them?

The Vikings had a complex belief system and a sophisticated society. Vikings were also farmers, explorers, inventors and traders. They enjoyed games and telling stories during their long, cold winters and they had a fair society that was governed by rules and regulations.

Not only was Viking society varied, but some of what we think we know about the Vikings is just not true. Many people think that Vikings wore horned helmets but this is made up. Horned helmets would have been impractical in battle and a real Viking helmet actually looked much more terrifying and protected the wearer's head a lot better. As you find out more about this fascinating society, ask yourself, why do we still find the Viking Age so interesting?

SOURCE 1 The Vikings have been portrayed throughout history as violent bullies, but what were they really like?



on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10700)

Video eLesson The Vikings (c. 790–1066) (eles-1823)

int-4279

SOURCE 2 A timeline of the Viking Age

CE

700



787
First recorded Viking raid in Wessex, England.

793
Vikings raid monastery in Lindisfarne, England.

795
Vikings raid monastery in Iona, Scotland.



800

Eighth century
Advancements in shipbuilding allow Vikings to raid distant lands.



c. 850
Vikings begin to build permanent settlements in raided lands.



900



930
Althing is established in Iceland.

985
Harald Bluetooth dies.

995
King Olaf Tryggvason imposes Christianity on Norway.

1000
Christianity is adopted in Iceland.

1000

1000
Leif Eriksson reputedly sails from Iceland to North America.



1014
Vikings lose Battle of Clontarf, ending their hold on Ireland.

1016
Danish forces conquer England.

1066
Battle of Hastings and the last true Viking attack on England.



1100

CE

LESSON
7.2 How do we know about the Vikings?

LEARNING INTENTION

By the end of this lesson you should be able to identify the origin, content, context and purpose of primary and secondary sources.

TUNE IN

Did you know that the Vikings hardly used written language and rarely wrote anything down? So how do we know about them today?

The answer lies in a mixture of runestones, sagas from their oral language, artefacts, buildings and archaeological findings. Most of what was written about them was from the people they attacked which might lead to all kinds of questions. **SOURCE 1** is an example of runes being carved into stone.

SOURCE 1 A stone from Lingsberg, Sweden, with runes carved on it. The words commemorate a Viking called Ulfrik 'who took two payments of geld in England'.



1. What are some of the questions that you might ask to identify what its purpose was and who produced it?
2. List these questions and brainstorm where you might be able to find the answers to any of them to explain how useful this stone is to us as historians.

7.2.1 Runes and sagas

The Vikings did not record much in writing until Christianity arrived in the eleventh century. During the Early Middle Ages, it was usually only members of the Church who had the skills to write. The Vikings were **pagans** and so there were no Christians living among them to record events in writing. Rather, their storytelling was an oral tradition. However, Viking writing, called runes, did exist; **runes** were inscribed on bone or carved on rock.

By the time the Viking Age had ended, stories began to appear in writing. These stories are known as the **sagas**. The sagas were tales and legends about Viking heroes.

Although the heroes of the sagas were sometimes based on real people, the sagas themselves were largely fictional tales. They encouraged a romantic and heroic image of the Vikings.

The only written saga dating back to the Viking Age is not of Scandinavian origin but written by an English poet. This is the oldest-known story written in Old English (see **SOURCE 2**). This saga is called *Beowulf* and is set in Sweden and Denmark. It tells of the Viking hero Beowulf who sets out to kill a monster ravaging the kingdom of Denmark. Beowulf also kills the monster's mother and a dragon. The fact that this tale is written in English demonstrates the significant presence Viking culture had in Britain. Despite being largely fictional, such sagas give historians some insights into Viking culture.

Vikings attacked groups of people throughout Europe and raided their property between the ninth and the eleventh centuries. It is these attacks that gained the Vikings a reputation for being violent and ferocious. The people they attacked were **literate**.

pagan someone who is not a Christian, Jew or Muslim, but who worships many gods

runes letters of the Scandinavian alphabet based on Roman or Greek letters but modified to be easily carved on wood or stone

saga a medieval Scandinavian tale about exploits and adventures in the life of a hero or his family

literate able to read and write

SOURCE 2 An illustration showing a scene from the saga *Beowulf*. It shows Beowulf dying from his wounds after slaying a dragon.



BEOWULF DYING.

7.2.2 Early records of Viking raids

In 787 CE, about 400 years after the Romans left Britain, the country's first recorded Viking raid took place (see **SOURCE 3**).

SOURCE 3 An excerpt from the *Anglo-Saxon Chronicle*, written in Old English in the eighth century. The passage reads, 'And during his reign [King Beorhtric of Wessex] there first came three ships . . . Those were the first ships of the men of Denmark that attacked the people of England.'

And on his dagum cuomon ærest Þreo scipu . . . Þæt wæron Þa ærestan scipu Deniscra manna Þe Angel-cynnes land gesohton.

Viking raids soon became much more frequent and by around 850 CE the Vikings were using bigger raiding fleets and beginning to occupy permanent settlements. These settlements served as trading posts and as bases from which further raids could be launched against monasteries and villages that were far from the coasts. Dublin in Ireland, for example, began as a Viking settlement.

7.2.3 Archaeological discoveries

The Viking Age is shrouded in legend and coloured by the gruesome accounts of victims of Viking raids. This is because, unlike the Greeks and Romans, the Vikings left few visible monuments. These were mostly mysterious standing stones. Some were carved with runes, signs and images; others were arranged to outline the shape of boats.

In the nineteenth century, archaeologists began digging at sites believed to harbour relics of the Viking Age. These included mounds and the sites of settlements. Some of the mounds had folktales associated with them. One such mound, in the middle of a farm field in Gokstad, Norway, was called the King's Mound. It was believed a king was buried there with his hoard of treasure.

SOURCE 4 The King's Mound in Gokstad, Norway



When archaeologists dug into the mound in 1880, it turned out to be just what the folktale had said: the remains of a Viking king with his hoard of treasure, although most of it had been stolen by grave robbers centuries before. More spectacularly still, the king and his hoard lay in a huge Viking ship, made mostly of oak. Until then, there had been only pictures of such dragon ships on rocks and in tapestries. In the last 150 years, other such archaeological digs have given us a greater insight into how the Vikings lived.

SkillBuilders to support skill development

- 1.9 Interpreting sources on the Vikings

7.2 SKILL ACTIVITY: Questioning and researching

1. **Examine SOURCES 1** and **2**.
2. **Create** your own historical questions to **analyse** each of these two sources. Try to come up with at least five questions for each source.
3. **Conduct** research to answer at least two of your questions for each source.

7.2 Exercise

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7.2 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 4	5, 7	6, 8, 9, 10

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Check your understanding

1. The Vikings came from Scandinavia. Which of the following correctly describes them? **Select** all that apply.
   - **A.** Merchants
   - **B.** Farmers
   - **C.** Traders
   - **D.** Seafarers
   - **E.** Raiders
2. In what year did the first recorded Viking raid in Britain occur?
   - **A.** 787 BCE
   - **B.** 400 BCE
   - **C.** 400 CE
   - **D.** 787 CE
3. The Vikings were Christians prior to the eleventh century. True or false?
4. **Recall** the tradition Vikings used to pass on their stories.
5. **Explain** what the sagas are.

Apply your understanding

Using historical sources

6. Read **SOURCE 3**.
   - **a. Describe** its origins (where and when it was written).
   - **b. Explain** whether it should be considered to be a primary source or a secondary source, and why.
   - **c. Describe** its perspective (point of view) on the Vikings.
   - **d. State** the conclusions you could draw about one aspect of the Viking Age from this source.
7. **Propose** a reason that the Vikings left fewer visible monuments than the ancient Greeks or Romans.
8. **Discuss** why folktales have developed around some of the sites of Viking settlements.
9. **Evaluate** the importance of the discovery of Viking ships in burial mounds. What knowledge would archaeologists have gained from this discovery?
10. **Discuss** whether you believe that the history of the Vikings may focus on the experiences of other cultures that came into contact with them. Why or why not?

LESSON
7.3 How did the geography and climate of Scandinavia influence the Viking way of life?

LEARNING INTENTION

By the end of this lesson you should be able to explain the geography and climate of the Viking homelands and connect to their way of life.

TUNE IN

This large, modern cruise ship is touring some of the spectacular scenery in Norway.

1. Using **SOURCE 1**, list four geographical features that you can observe.
2. Norway is in northern Europe. Predict what this same scene might look like in winter.

SOURCE 1 A modern cruise ship in Geiranger fjord, Norway



7.3.1 Geography and climate

The geography and climate in Scandinavia meant that life was often harsh for the Vikings. There were limited areas where they could farm and it was sometimes bitterly cold. Geography and climate affected the Viking way of life immensely because it dictated where they lived and what they ate. Geography and climate, ultimately, drove their endeavours, which are arguably their greatest legacies — travel, trading and conquest.

Much of Norway and parts of Sweden are very mountainous and rocky. Mountainous and rocky land is not suitable for farming because crops need **arable** land and animals need accessible food sources.

arable land that can be ploughed for crops

In Norway, only 3 per cent of land was appropriate for farming. This meant that the Vikings could only produce food on a small proportion of the land they controlled, and as people need food to survive, Viking populations centred on food-producing areas.

For example, Swedish Vikings tended to live in the southern and central parts of the region where the best farmland was to be found.

The Danes also had problems with arable land, but for different reasons than their northern neighbours. Occupying the Jutland Peninsula, they lived on low-lying land. They tended to use the eastern part of the peninsula for farming because the western part was too sandy.

SOURCE 2 A map of Scandinavia at the time of the Vikings



Another geographical factor that influenced the Viking way of life was the prevalence of water. Norse Vikings occupied the deep-sea canyons called **fjords**, which are protected from Atlantic storms by an extensive buffer of as many as 50 000 tiny islands. Islands surrounding Denmark have a similar effect. Bodies of water also provided the Vikings with seafood — a culinary inheritance that is still significant in Scandinavian cuisine today.

Water kept the Vikings relatively isolated from the rest of Europe. This meant that the Vikings developed their own distinct culture, including religious and legal practices. Finally, the prevalence of water, as well as forests, meant that the Vikings became skilled boat builders and seafarers. Over time, this technological innovation allowed the Vikings to access the riches available to them through raiding distant lands.

The Scandinavian climate was a little kinder than the geography. Although days are short during winter, there may be as many as 20 hours of sunlight a day in summer. The **Gulf Stream**, a warm ocean current, helps keep temperatures mild and, more importantly, prevents harbours from freezing in winter.

This was vital for seafaring people like the Vikings, because the inland regions were far too mountainous for travel.

fjord long, narrow inlet flanked by high cliffs and slopes

Gulf Stream great warm current of water flowing from the Caribbean Sea all the way to northern Europe

SOURCE 3 Translated extract from the *Orkneyinga Saga*, an Icelandic saga written in the 1100s

Winter he would spend at home on Gairsay; where he entertained some 80 men at his own expense . . . In spring he had . . . a great deal of seed to sow . . . Then when his job was done he would go off plundering in the Hebrides and in Ireland on what he called his 'spring-trip', then get back home just after mid-summer where he stayed until the cornfields had been reaped and the grain was safely in. After that he would go off raiding again and never come back until the first month of winter had ended.

SOURCE 4 Sognefjord, Norway. This fjord is 160 kilometres long.



7.3.2 Beyond Scandinavia

Many historians have questioned why the Vikings left their homelands to go on raids and establish colonies in other regions. A range of perspectives have emerged:

- There was not enough farmland to support a growing population. Vikings had to raid, trade and explore just to survive.
- The Vikings left their homelands because they were searching for more arable land. This led them to migrate to places like Greenland, the Faroe Islands and Iceland, and conquer places like Normandy and Russia.
- Some Vikings fought against their own kings and chieftains and fled overseas as a result. With their kings owning most of what little land was available, some Viking people might have desired to search for their own land.
- Vikings noticed and took advantage of the bickering among the states of Europe, raiding them and eventually seizing land that the states could not defend.
- There was great wealth in many of the places that the Vikings raided. When they took these goods, they gained the wealth and associated higher social status.

With few written records from the Vikings' perspective, it is difficult to say which of the many theories is the most accurate. It could even be a combination of many of the reasons.

7.3 SKILL ACTIVITY: Questioning and researching, Using historical sources

In many medieval societies, the places they lived in shaped the way the people lived as they adapted to surviving and thriving there. Think about what you have learned about the factors that shaped Viking life and how you can represent this visually.

1. Use **SOURCE 2**, the internet and your library to **create** a map that shows geographical features of Scandinavia. Your map should include mountain ranges, key bodies of water and significant forests.
2. a. Below your map, **draw** symbols or images that represent how different geographical factors influenced the Viking way of life.
   b. **Explain** what each of your symbols or images demonstrates about how the geography and climate patterns of the Viking homelands influenced their way of life.

7.3 Exercise

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7.3 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 4, 5	6, 7	8, 9, 10

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Check your understanding

1. How did the mountainous landscape affect Viking farms?
   - **A.** The Vikings invented 'vertical farms'.
   - **B.** It meant that there was not much land available for growing crops
   - **C.** It meant that crop yields per acre were very low
   - **D.** It resulted in the Vikings not establishing farms
2. The Vikings became expert boat builders because the inland regions were too mountainous to travel. True or false?
3. **Identify** what fjords protected the Vikings from.
   - **A.** Flooding because of their depth.
   - **B.** Attacks
   - **C.** Tsunamis
   - **D.** Atlantic storms
4. **Identify** what arable land is.
5. **Recall** what benefits the Scandinavians gained from the Gulf Stream.

Apply your understanding

Using historical sources

6. **Compare SOURCES 2** and **4**.
   Which source is the most useful? **Justify** your response.
7. **a.** Using the information in **SOURCE 3**, **explain** how the Vikings used their time in the different seasons by filling out the table below.

Season	General activity
Winter	
Spring	
Summer	
Autumn	

   b. **Explain** how the climate and associated seasons affected the Viking way of life.

Communicating

8. **Analyse** to what extent a lack of arable farmland was the cause of Viking movement beyond Scandinavia.
9. Imagine that you are a Viking from the ninth century CE. **Create** a speech persuading your fellow Vikings to embark on a raid on a nearby country. The elements of the speech should include:
   - a clear opening
   - addressing fellow Vikings
   - clear arguments
   - closing.
10. **a.** **Explain** why the Vikings were isolated from the rest of Europe.
    b. **Discuss** the effects that this had on the development of their culture.

LESSON
7.4 Who were the Vikings and how did they live?

LEARNING INTENTION

By the end of this lesson you should be able to identify and explain the roles and relationships in Viking society, as well as describe their way of life.

TUNE IN

SOURCE 1, from a Viking village museum in Denmark, shows actors representing Viking people who are getting on with their daily life.

SOURCE 1 A recreation of daily life as a Viking



Using the following thinking routine, explore what they are doing in the photograph.

See: What you can see in the image?
Think: What does it makes you think about what they are doing?
Wonder: What questions about their lives does this raise in your mind?
Share your ideas in a small group or a class discussion.

7.4.1 Viking social structure

Although Vikings did participate in raids, the majority of Vikings were primarily farmers who lived in **longhouses** with their families. The family's survival depended on the stocking up of enough food to see the Vikings and their animals through the long, cold, harsh winter. The Vikings lived in farmsteads that were spread out over an area. The group had a fairly clear social structure, with the wealthier powerful jarls (leaders) having the largest farms and multiple buildings.

longhouse a Viking farmhouse with a curved shape like an upturned boat. Particularly large longhouses meant for 30–50 people are often called halls.

Viking society was structured into three main layers: earls or jarls (the king and lords), karls (freemen such as farmers and skilled men) and thralls (slaves). The jarls were usually wealthier, owned land and could command raids. Next down the hierarchy were the karls. They were the freemen and were usually farmers. They could vote, hunt, own slaves and participate in raids. At the bottom of the social ladders were the thralls, the slaves.

Although sometimes they were born into slavery, they were more often taken during raids or trades. They could not own land, move freely from place to place or choose their own work. They were considered their owner's property and they could do with them what they wanted, even kill them without consequences. The Vikings believed that the god Rig created all three classes, as described in the saga *The Lay of Rig* (see **SOURCE 2**).

aud-0444

SOURCE 2 The *Lay of Rig* in which the creation of the thralls is described

Great-grandmother bore a swarthy boy; with water they sprinkled him, called him Thrall. Forthwith he grew and well he throve, bur tough were his hands with wrinkled skin, with knuckles knotty and fingers thick; his face was ugly, his back was humpy, his heels were long. Straightway'gan he to prove his strength, with bast a-binding loads a-making, he bore home faggots the livelong day. There came to the dwellings a wandering maid, with wayworn feet and sunburned arms, with down-bent nose,- the Bond-maid named. She sat her down in the middle of the floor; beside her sat the son of the house: they chatted and whispered, their bed preparing — Thrall and Bond-maid — the long day through. Joyous lived they and reared their children. Thus they called them: Brawler, Cowherd, oor and Horsefly, Lewd and Lustful, Stout and Stumpy, Sluggard, Swarthy, Lout and Leggy. They fashioned fences, they dunged the meadows, swine they herded, goats they tended and turf they dug. Daughters were there, — Loggy and Cloggy, Lumpy-leggy and Eagle-nose, Whiner, Bondwoman, Oaken-peggy, Tatter-coat and the Crane-shanked maid. Thence are come the generations of thralls.

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SOURCE 3 The hierarchy in Viking society: the jarl, the karl and the thrall



7.4.2 Equal rights?

Women played a key role in Viking communities and some had a degree of control over their communities. There is much evidence of Viking kings and leaders, and likewise we have excavated several sites of important women being buried with their belongings in longboats. The most spectacular example of these is the Oseberg ship burial (see lesson 7.5). A woman was buried in one of the most spectacular longships we have found, and is sometimes called 'the Oseberg Queen'. We do not know her true role, but she was certainly a respected and important figure.

SOURCE 4 An illustration of a Viking grave



Many common Viking women were buried with keys, suggesting that they held control over the most important place on the farm — the pantry. In their harsh homeland's climate, surviving the winter often came down to careful rationing of supplies, and women seem to have been responsible for that.

However, they didn't just stay at home. There is evidence that women accompanied men on rough sea voyages, even to uninhabited places like Iceland and Greenland, and that they went on Viking raids. A grave excavated in 1878 displaying all the symbols of a high-status warrior burial was, in 2017, proven to be the body of a woman. She was buried with a horse, her weapons and a strategic board-game. The *Saga of the Volsungs* (thirteenth century) also tell of women warriors fighting alongside the men.

Viking women enjoyed rights that women in other European nations at the time did not. For example, they could own property, including land. Women married as equals, could divorce if they wished and were protected from the unwanted advances of men by law. There is some evidence of women warriors as well, although this is not conclusive or extensive.

Of Viking children, there is barely any evidence. It can be hypothesised that girls and boys would have helped with chores around the farm, such as making linen garments, milking cows, preparing food and hunting. In a society which Scandinavians themselves regard as prehistoric, school did not exist. It is likely that in such a warrior society, a young boy's practical education came in the form of learning the skills of warfare: handling a bow or a sword. Probably he was also trained in the construction and sailing of boats.

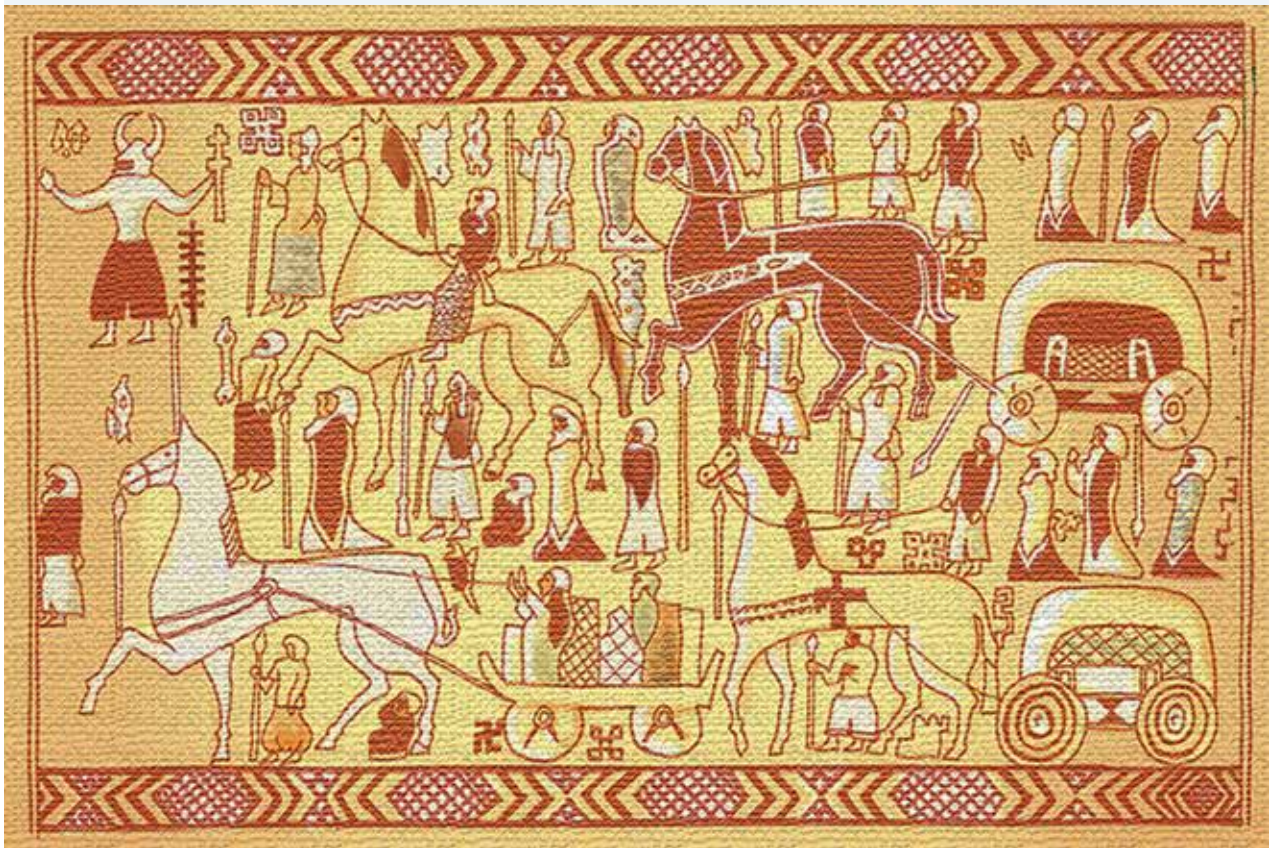
7.4.3 What were Viking farms like?

Generally, Viking farms tended to be a huddle of buildings around the longhouse where the family lived. Archaeologists have found that longhouses in the early part of the Viking Age included not only the living quarters for the family, but also stalls for animals, a workshop, and stores for food and tools. Later, the longhouse was used only as living quarters for the family; everything else was moved to other buildings. Hired hands were often employed to help run the farm. Slaves were also used, probably in the least desirable jobs, such as looking after sheep.

Villages were rare. Where there was a prosperous trade route, farms may have grouped together as a village. Generally, however, Viking farms were isolated. For this reason, they had to be **self-sufficient**, producing all their own food and tools. The Viking farmer had to be a good carpenter, blacksmith, cultivator of crops and breeder of animals. This is because he had to build his own longhouse and any boats or carts he may have needed. He also had to make his own tools.

self-sufficient able to provide for its own needs
reconstruction rebuilding or re-making: in archaeology, rebuilding an artefact using archaeological remains as a guide
tapestry carpet-like wall-hanging

SOURCE 5 A **reconstruction** of a Viking **tapestry** showing various everyday activities. The tapestry was reconstructed from pieces that were found buried with the Oseberg ship.



SOURCE 6 Reconstruction of a Viking longhouse in Stöng, Iceland. The original building is fairly well-preserved because it was buried under volcanic ash when Mount Hekla erupted in 1104.



7.4.4 Livestock and crops

Viking farmers kept cattle, horses, sheep, goats and pigs for meat, dairy products, wool and skins. Horses and oxen were also used for transport. In summer sheep and cattle were taken to higher pastures. But winter was severely cold, so livestock tended to be kept indoors and fed with hay. A poor harvest could mean starvation for both the animals and the Vikings. Besides hay, archaeologists have also found evidence of grain crops like barley, rye and oats, as well as such vegetables as onions, peas and cabbages. **Flax** and **hemp** were grown to make **linen** and rope for the rigging of boats.

7.4.5 Going on a viking raid

Because of the challenging environment the Vikings found themselves in, they often sailed out to raid what they needed from others. Those that went on these journeys were called vikings, and it has been suggested that this is where the name originates from. During these raids, the Vikings would gather precious items such as gold to trade with, but also captives who would become thralls upon return to Scandinavia.

flax plant cultivated for its seeds and fibres, which can be used to produce many things such as textiles

hemp plant favoured for its tough fibre, useful in the making of rope

linen cloth made from flax

SOURCE 7 An archaeological site showing the foundations of a Viking longhouse



7.4 SKILL ACTIVITY: Using historical sources, Questioning and researching

The Lay of Rig (extract in **SOURCE 2**) is an old Norse poem, originally from an oral story-telling tradition. It has been hypothesised that it is from between the tenth to thirteenth century CE, but was around in oral form for much longer.

The poem tells the story of the birth of the Viking humankind from the God Rig. It describes the creation of the different classes, from Earls to Karls (or Churls) to the lowest group, the Thralls. Its greatest value is in what it allows historians to infer about the different social classes and attitudes towards them.

1. In dot point form, **create** a series of questions that you could ask about this source to **determine** its historical significance. There are two listed for you already:
   - Is it a primary or secondary source?
   - What words are used to describe the baby Thrall? What do these imply?
2. When you have listed your historical investigation questions, swap with another student or group and see if you can work out some answers. These will give you an insight into the writer's views of the Thralls.
3. If you are interested, you can find many versions of this poem on the internet and you can ask and answer questions about the Karls and Earls as well.

7.4 Exercise

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7.4 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 5, 8	3, 6, 9	4, 7, 10

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Check your understanding

1. Viking society was structured into three main layers. Which of the following are the three main classes of Viking society?
   - **A.** Jarls (or Earls)
   - **B.** Karls
   - **C.** Fjords
   - **D.** Thralls
   - **E.** Monarchs
   - **F.** Rigs
2. Which of the following statements describe the limits that a thrall faced? **Select** all possible answers.
   - **A.** The thralls were slaves and therefore their owners' property.
   - **B.** Thralls could not own land.
   - **C.** Thralls could not move freely from place to place or choose their own work.
   - **D.** Thralls could buy their freedom, but usually could not afford it.
   - **E.** Thralls owners could kill them without consequences.
3. **Recall** what type of work the karls did.
4. **Consider** the places where Vikings lived.
   - **a.** Why did Vikings have to be self-sufficient?
   - **b.** What did they need to be able to do to survive?
5. Complete the following sentences.
   Viking farmers kept a range of animals including sheep and _____ for food and products such as dairy and leather. They grew _____ such as barley, rye and oats as well as plenty of _____ to make sure that they did not starve. They also grew crops such as _____ to make the linen and ropes for their boats.

Apply your understanding

Using historical sources

6. **Examine** the tapestry in **SOURCE 5.**
   - **a.** Where was it discovered?
   - **b. Identify** four things we are able to find out from this source about how the Vikings lived.
7. **SOURCE 6** is a reconstruction of a Viking longhouse. **Determine** what might be problematic about reconstructions for historians.
8. **Examine SOURCE 7**.
   - **a. Determine** whether **SOURCE 7** is a primary or secondary source.
   - **b. Explain** what we can learn about Viking farms from **SOURCE 7**.
9. Refer to **SOURCES 6** and **7**.
   - **a.** To what extent do these sources provide supporting evidence about longhouses?
   - **b.** Which source do you see as the most reliable? **Justify** your answer.
10. **Compare** the role of Viking women to that of contemporary Australian women. Write a list of the similarities and the differences.

LESSON
7.5 What was the early Viking religion and how did it change?

LEARNING INTENTION

By the end of this lesson you should be able to outline the key roles of the early Viking gods. You should also be able to understand the impact of introducing Christianity to Viking society.

TUNE IN

Viking gods, heroes and mythology have fascinated people for many years, right up to the modern day.

1. Brainstorm the different films, TV shows, games or literature you can name that might be based on Viking mythology.
2. Why do you think Viking mythology is still so popular today?
3. Discuss how historically accurate the depiction in **SOURCE 1** is. From where might the artist have developed their ideas?

SOURCE 1 An artist's recreation from the myth of a frost giant attacking Norse warriors



7.5.1 Early Viking pagan religion

The Europeans who suffered raids and conquests at the hands of the Vikings saw them as **heathens** — people who did not believe in God. Viking brutality was seen as a mark of paganism. The Vikings certainly followed a pagan religion in the earlier phases of their history, but they were gradually influenced by Christianity. Whether this lessened their perceived 'brutality' is a matter of debate. Therefore, there are two parts to Viking religion: paganism and Christianity.

Not much is known about pagan Viking religion because evidence is scarce. The sagas appear to give us some details. However, the sagas were written two hundred years after the Viking Age and so likely contain exaggeration and misinformation. We know for certain that pagan Viking religion was **polytheistic**; that is, the Vikings worshipped numerous gods. The Vikings believed their good fortune in life depended on the gods. Animals and people — even chieftains — were sacrificed to keep the gods happy.

Viking myths are full of their gods who lived in a place called Ásgarðr, today known as Asgard. They also abound with stories of birds and animals with human qualities, and giants, dwarves and trolls. Similar to most other cultures and their myths, these tales were meant to help explain the world around them and inspire people. They had stories explaining the seasons, the stars and why people were different to animals.

heathen one who is neither Christian, nor Jewish nor Muslim, and is often seen as therefore being uncivilised

polytheistic the belief in or worship of more than one god

SOURCE 2 Line drawing detail of all of the images on the Ramsund Rock. The runes on the dragon's body are a woman's dedication to the memory of her husband.



7.5.2 Early Viking gods

Two of the main Viking gods were Óðinn, called Odin today and Þórr, today named Thor. Odin figures prominently in the sagas as a deity who rules from Valhöll, the Hall of the Slain, who would send his Valkyrja (Valkyries) to choose great warriors who died on the battlefield and bring them to him. Thor was the god of thunder and farming and was represented by the hammer he wielded. However, beyond this the sagas contradict each other. Some accounts place Odin as the ruling god, while others put Thor as the ruling god.

Scenes from Viking myths and legends, some of them later retold in the sagas, appear as stone carvings.

However, many of these were in temples that have long since disappeared. Travellers from other lands sometimes made passing reference to Viking worship but gave few details.

SOURCE 3 Part of the Ramsund Rock, showing a scene from a Viking myth about a hero called Sigurd who slew a dragon



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SOURCE 4 Some of the more significant pagan deities were Odin, Freya and Thor.

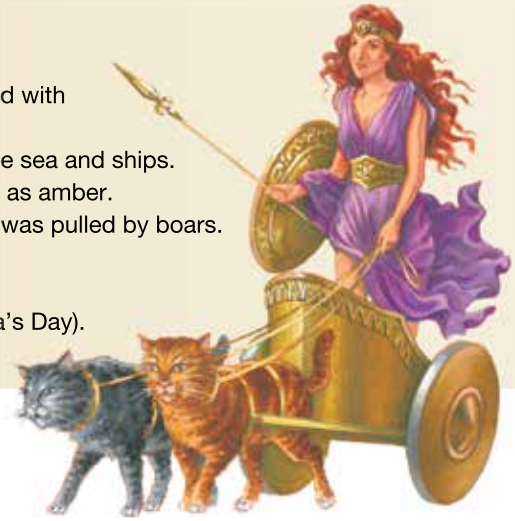
ODIN

- Chief god; and god of wisdom, war, death and poetry
- Married to Frigg. Sons included Thor (god of thunder and lightning) and Balder (god of light).
- Long grey beard and one eye. He traded one eye to drink at the well of wisdom.
- Invented the runes, using them to communicate and to do magic tricks
- Rode an eight-legged horse called Sleipnir
- Had a spear that always hit its target, and a bow that fired ten arrows at once
- Had two ravens which flew into the world every day to collect information
- Thought to have inspired the name 'Wednesday' (Woden's Day)



FREYA AND FREY

- Freya was the goddess of love, fertility and war.
- Frey was the god of crops and fertility and was associated with prosperity and abundance.
- The twin siblings were the children of Njord, the god of the sea and ships.
- When Freya lost her husband, her tears fell to the ground as amber.
- Freya drove a chariot pulled by cats, while Frey's chariot was pulled by boars.
- Freya wore a feather coat when she wanted to fly.
- Frey had a ship that he could fold up into a bag.
- Freya is thought to have inspired the name 'Friday' (Freya's Day).
- Frey lived in the homeland of the elves.



THOR

- The eldest son of Odin, and god of thunder and lightning
- Made crops grow and fought giants to protect people from evil
- A quick-tempered, very strong and tall man, with red hair and beard and wild eyes
- Drove a cart pulled by two giant goats. Vikings believed that thunder was the sound of its turning wheels.
- Threw a hammer called Mjollnir (caused lightning) which always hit its target and returned to his hand
- Wore iron gloves so he could throw and catch his mighty hammer
- Wore a belt called Megingjard, which made him ten times as strong
- Married to Siv, the goddess of the cornfields
- Thought to have inspired the name 'Thursday' (Thor's Day)



7.5.3 Death — beliefs and practices

As pagans, the Vikings believed that death marked the start of a journey to another world. A warrior slain in battle with a sword in his hand travelled to Valhöll — the great hall of the supreme god Odin. There, he would fight by day and feast by night until Ragnarök. On the day of Ragnarök, there would be a terrible war, followed by the death of the gods and a new order of peace.

Vikings who died a less noble death than warriors went to a place called Hel. For most, this was a bit like life on Earth. For the wicked, however, it was a place of punishment.

The Viking saga *The Seeress's Prophecy* describes how people such as **oath breakers** were made weak and sick with poison in Hel, and had to trudge through rivers filled with sharpened swords and knives.

Wherever they went after their life on Earth, the pagan Vikings believed the dead would need things they used or enjoyed in life. Hence, the dead were buried (or burned) with items such as food and drink, eating utensils, weapons, tools, combs, jewellery, horses, dogs, wagons or boats — even their slaves. Funeral rituals were often very elaborate.

SOURCE 5 Some grave sites are marked by runestones arranged in the outline of a ship's hull. These were probably the graves of those who could not afford a boat.



Burial and cremation

Evidence indicates that, at different times in history, Vikings buried their dead in mass graves, in deep pits, in wagons — even in boats. Given the importance of the sea to the Vikings, it is not surprising that ships played an important part in some of their funeral practices. They also provided a symbolic means for a person's journey in the afterlife.

oath breaker someone who goes back on their word

It was important to Vikings that their name be remembered after death, as this provided a way in which they could live forever.

Hence, burial sites were often marked with a runestone, a cairn (pile of rocks) or, more commonly, a large earth mound called a howe.

Cremation was another common burial practice for pagan Vikings. The Arab traveller Ibn Fadlan, who attended a ship-burning funeral on the Volga in 922, wrote that Vikings believed that burning a body released the dead person's spirit faster than burying it could do. Hence it was a kind act. The sagas describe tales in which the dead were cremated in treasure-filled ships pushed out to sea. There is as yet no archaeological evidence to confirm this practice.

SOURCE 6 Many Viking funeral ships were buried whole. Some, however, were first burnt. Then the charred remains were covered with a mound of earth.



7.5.4 The influence of Christianity

Gradually, the Vikings became more and more exposed to Christianity. Initially, they were happy to accept the Christian God into their range of gods and eventually most Viking leaders adopted Christianity as their sole religion. Early records written by Anglo-Saxon monks show that the Vikings savagely attacked monasteries across English, Scotland and Ireland, robbing them of valuable items, such as silver plates, golden crucifixes and goblets, as well as gifts of coins. These attacks on monasteries were not motivated by religion, but did bring the Vikings into contact with Christianity. The captured slaves must have brought their beliefs in their god with them to their new lands.

SOURCE 7 An extract from Alcuin of York's letter to the Bishop of Lindisfarne consoling him on the terrible Viking raid

The intimacy of your love used to rejoice me greatly when I was with you; but conversely, the calamity of your tribulation saddens me greatly every day, though I am absent; when the pagans desecrated the sanctuaries of God, and poured out the blood of saints around the altar, laid waste the house of our hope, trampled on the bodies of saints in the temple of God, like dung in the street.

SOURCE 8 A Viking gravestone from Yorkshire in England. It combines both Christian and pagan symbols.



The coming of Christianity to Scandinavia

By the end of the Viking Age most of the Scandinavian countries had adopted Christianity as their main religion. Evidence suggests the conversion to Christianity was a gradual process. There was a long period of overlap where old pagan and Christian practices mingled.

7.5.5 Christian leadership

Kings and chieftains taking up the new Christian faith also did much to hasten the path to conversion. With many of the powerful leaders of Europe already converted to Christianity, it made political sense for Scandinavian rulers to convert to the religion of their allies. King Olaf Tryggvason imposed Christianity on Norway in 995 CE. The sagas tell of him destroying pagan temples. Such aggression suggests there was resistance to the spread of Christianity. By the time Tryggvason's successor, St Olaf, had finished his work of converting Norway and Iceland to Christianity, the Christian faith had taken firm root in the Viking world.

7.5 SKILL ACTIVITY: Communicating

Empathy task — written narrative

Imagine you are one of the gods featured in this lesson. **Create** a short tale that describes one day in your life where you visit Midearth and meet some Viking warriors. **Describe** the social group and lives of the people that you meet, as well as where they come from and what they are doing on this day. What is their reaction to you?

Your tale should be consistent with the description given above for your character. Don't mention your name in the story. Put completed stories in a box. Select one that is not your own and see how long it takes you to recognise the Viking god.

7.5 Exercise

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7.5 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 7, 8, 9	5, 6, 10

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Check your understanding

1. **Identify** what influence the raids on monasteries had on the Vikings in terms of religion.
   - **A.** The raids brought the Vikings into contact with Buddhism.
   - **B.** The raids brought the Vikings into contact with atheists.
   - **C.** The raids brought the Vikings into contact with Christianity.
   - **D.** The raids brought the Vikings into contact with Zen.
2. **Match** the Viking god to their purpose by placing the corresponding letter in the answer column.

Viking god		Responsibility
Odin		**a.** Goddess of cornfields
Thor		**b.** God of light
Freya		**c.** God of thunder and lightning
Balder		**d.** God of wisdom
Siv		**e.** Goddess of love and fertility

3. **Determine** whether the following statements are true or false.
   - **a.** Polytheistic means the worship of a single god.
   - **b.** Those who were victims of the Vikings' violent raids believed them to be uncivilised heathens.
   - **c.** Vikings had strict burial rituals and every fallen Viking was buried in a boat.
4. **Explain** how we know what we do about pagan Viking religion. Should we trust these sources?
5. **Explain** whether the conversion to Christianity was a slow process or a fast change. Support your answer with an explanation.

Apply your understanding

Using historical sources

6. **SOURCES 2** and **3** show the Ramsund Rock, which contains a scene from Viking mythology carved into a slab of rock in Sweden.
   - **a. Summarise** the purpose of this carving.
   - **b. Clarify** why the Vikings told tales about heroes such as Sigurd.
7. **Demonstrate** how historians know about Viking burial practices.
8. **Examine SOURCES 5** and **6**. **Determine** how we can tell that the person buried in the boat in **SOURCE 6** is likely to have been wealthier than the person buried in the runestone 'boat' in **SOURCE 5**.

Communicating

9. **Describe** how Christianity spread throughout Scandinavia. What methods were used to spread the religion?
10. **Evaluate** the significance of the adoption of Christianity during the Viking period. In your answer, support your ideas with specific examples of how it affected Viking actions and beliefs.

LESSON
7.6 What was the impact of the developments in longboat technology?

LEARNING INTENTION

By the end of this lesson you should be able to explain the advantages in the innovative construction of Viking longboats.

TUNE IN

The Oseberg ship was found in a large mound on farmland in Norway. When archaeologists excavated it early in the twentieth century, they discovered that it was a ninth-century CE burial site. Found buried with the ship were the skeletons of two women and many artefacts from the time.

SOURCE 1 The Oseberg ship in display in the Viking Museum in Norway



1. Brainstorm all the reasons why you think the ship was buried on the farmland.
2. The two skeletons were women, one of whom appeared to be about 50 and the other about 80 years old. The older woman's clothes were quite luxurious. What can you hypothesise about the two women?
3. Looking at **SOURCE 1**, what conclusions can you draw about Viking ship building?

7.6.1 Technological developments

Vikings are well known for their participation in raids, but raids could not have occurred without innovation and invention. It was technological advancements that allowed the Vikings to develop longboats and it was these longboats that meant Vikings could travel to, and raid, distant shores.

For centuries, Scandinavians sailed in craft that were essentially giant rowboats. Then, in the eighth century CE, they devised several innovations: a **keel**, a great woollen or linen sail and an oar used as a **rudder** for steering. With this new technology, they could make longer ocean voyages. It also gave them the means by which to attack lands a long way away.

keel lowest timber running along the length of a vessel, and upon which the framework of the whole boat is built

rudder broad wooden or metal piece at the end of a boat used for steering; on a longship, it was a broad oar attached to the tiller

In 1893, and again in 1998, a replica of the Gokstad ship (see **SOURCE 2**) demonstrated how quickly such longships could sail across the sea. In both cases, it sailed from Norway to Canada in under a month.

At 23 metres long and 5 metres wide, manned by 32 rowers, its size was impressive. It demonstrated that tales about Viking dragon ships were not exaggerated. Since then, the remains of an even longer dragon ship have been found in Roskildefjorde, Denmark. This ship was over 30 metres in length and would have had 60 men manning its oars.

As big as these ships were, their hulls were only about two metres deep. This meant they could be rowed not only at sea but in lakes, fjords, rivers and even shallow creeks. They could be easily dragged up onto a beach like rowboats. There is even evidence that smaller ships were carried overland. This was how Swedish Vikings travelled from one waterway to another in Russia.

Such Viking vessels were built for raids and warfare. They are called longships because of their slender shape. Sometimes they are called dragon ships because the carved head of a mythical monster was occasionally mounted on the prow of the boat. It is remarkable that the timber for these ships was cut with only an axe. Unlike modern shipbuilding, the Vikings constructed the hull first and then cut and inserted the frame.

SOURCE 2 The Gokstad ship, which was excavated from a burial mound in Norway in 1880



SOURCE 3 A reproduction of a dragon ship carved on stone from Gotland, Sweden, in the eighth century CE



DID YOU KNOW?

The longest Viking ship ever found, described in this section, was sunk deliberately in Roskildefjorde along with other ships. It is believed this was an attempt to create a barrier against enemy ships trying to attack the harbour. Although it was sunk in Denmark, evidence suggests the boat was built in Dublin, Ireland.

7.6.2 Design and navigation

The prows of Viking ships were often elaborately decorated with figureheads representing dragons (see **SOURCES 2** and **3**) or serpents (see **SOURCE 1**). However, the Oseberg ship, shown in **SOURCE 1**, may not be a typical longship because it was found in the excavated burial site of a Norwegian Viking queen. If you look closely, you will see that its stern also features a finely carved pattern of smaller dragons and vines. Another important feature of the longship is that the woollen sails had patterns, as can be seen in **SOURCE 3**. It is likely this criss-cross stitching had a practical purpose — it gave the sails the strength to withstand strong winds.

SOURCE 4 From the saga *Beowulf*, translated into modern English

Under the sea-girt cliffs the shining ship was readied, laded with coats of mail, swords and gleaming war harness. Bidding farewell to their king, the sturdy warriors embarked . . . [leaning] to the oars.

Like a bird, like a swallow, the glistening ship sped forward. She cut a path through the clear, green sea, her prow wreathed in bubbles and foam. Across unknown waters the light floater lunged and ploughed into the swells. The salt spray blew strong on the warriors' foreheads.

What is even more amazing is that Viking ships could cross vast seas without any of the navigation instruments used today. Vikings knew enough about the weather patterns to know when to put to sea, and they navigated by the positions of the stars and by the height of the sun above the horizon.

7.6 SKILL ACTIVITY: Using historical sources

1. Using the information conveyed in the sources in this lesson, **create** a labelled image of a Viking longship. Label the following parts of the Viking longship, clearly identifying the innovations that were specifically Viking: keel, rudder, oars, hull, prow, sails.

SOURCE 5 Viking ship replica, Pegwell Bay, Kent, UK



2. a. After this, as a class, **create** the shape of the longest Viking ship found so far. It is 30 metres long and 3.2 metres wide. Do this outside using school bags. Students should sit in places where the rowers would have sat. One bag in the middle of the ship will represent the position of the mast. Don't forget to have someone controlling the tiller. Vikings and their ancestors used rocks in an exercise similar to this to begin creating their ships.
   b. **Discuss** what you found interesting or surprising about the size and shape of the longship.

7.6 Exercise

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7.6 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 4, 5	3, 6, 8	7, 9, 10

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Check your understanding

1. Select the correct options to complete the sentence.
   The longest Viking longship found so far is **10** / **20** / **30** / **40** metres and **20** / **30** / **40** / **60** oarsmen would have been needed to man its oars.
2. **Identify** which of the following were the three most important developments in Viking shipbuilding in the eighth century.
   A. The keel
   B. Woollen or linen sails
   C. Steering wheels
   D. An oar that could be used as a rudder to aid steering
3. **Explain** why it was a benefit for Viking longboats to have hulls that were only two metres deep.
4. The Vikings cross-stitched their sails because it strengthened the wool or linen and prevented it from tearing apart in strong winds. True or false?
5. **Recall** how the Vikings navigated across the seas.

Apply your understanding

Using historical sources

6. **Compare** the photo of the excavated Gokstad ship in **SOURCE 2** with the replica in **SOURCE 5**. **Propose** how you think the people who built the replica knew what the details of this ship would look like.
7. Read **SOURCE 4** From the saga *Beowulf*, translated into modern English.
   a. Select the information we can gather from **SOURCE 4** about Viking longships and **interpret** it.
   b. **Decide** what the benefits are of reading a translated version of a text. What might be some of the limitations or problems?
8. **Compare SOURCE 3** and **SOURCE 1**. **Explain** how the discovery of the Oseberg ship demonstrates that the carving in **SOURCE 3** is a fairly accurate representation of at least one type of Viking ship.
9. Using **SOURCE 4** as a reference, **describe** your impression of the beginning of a voyage in a Viking longship. Be sure to mention what the Vikings brought on their journey, how the ship was powered and how it performed in the water.
10. **Evaluate** the importance of the innovations in the construction of the longboats in the Vikings being able to explore further afield from their homelands.

LESSON
7.7 How did Viking craftwork protect the warriors in battle?

LEARNING INTENTION

By the end of this lesson you should be able to describe Viking craftwork in designing and making weaponry and armour, as well as its innovative effectiveness in battle. You should also be able to use primary historical sources to add to your understanding of Viking craftwork.

TUNE IN

Viking warriors were particularly terrifying to their enemies, but none more so than the berserkers, a small subgroup of Viking warrior.

According to the sagas and poems, these crazed warriors dressed only in animal skins and charged screaming into battle while biting the rim of their shields. They were known to be completely fearless, fighting while filled with a trance-like rage, foaming at the mouth and killing indiscriminately.

SOURCE 1 An 8-foot copy of a twelfth-century chess piece based on a Viking berserker



1. What berserker features can you identify on the image of the chess piece?
2. Discuss whether you believe that the berserkers were real Viking warriors, or whether they were just made up for Viking sagas.
3. What might you need to find out more about to be able to answer question 2 more accurately?

7.7.1 Viking armour

The Vikings have often been considered **barbarians**, particularly by historical European sources. Some Viking raiders took their reputation to extremes, such as the **berserkers** who are described as barbarous and ferocious. However, the term 'barbarian' is misleading. When considering their weapons and ships, the Vikings can be said to have been at the cutting edge of technology.

The Viking helmet began as an ornate mask constructed of **bronze** and iron, at least among those who could afford it. By the Viking Age, the helmet had become more simplified. The only authentic helmet from the Viking Age so far discovered by archaeologists is shown in **SOURCE 2**.

SOURCE 2 An actual Viking helmet found in Gjermundbu, Norway



However, pictorial evidence from the Viking Age suggests that the iron, conical helmet with a bar extended over the nose to protect the face was common. Its shape helped deflect the blows of weapons and remained popular among knights well into the Middle Ages.

The shield was held close to the body to protect the warrior from arrows, spears and swords. About a metre wide, it was round and constructed from timber planks. An iron **boss** reinforced the centre. By the end of the Viking Age, kite-shaped shields became more common. These protected the thighs, especially when the warrior mounted a horse.

Body armour could be a shirt of stiffened leather, overlapping metal scales known as **lamellar** or **mail**. Mail was made up of links of chain and was very expensive because it was woven by hand using a pair of pliers and a pile of chain links. Longer mail coats are called hauberks and became more popular towards the end of the Viking Age.

barbarian uncultured and uncivilised; not Christian

berserker Viking warrior who fought naked or near-naked and rushed wildly into battle. The word 'berserk' is derived from this.

bronze metal alloy mainly of copper and tin

boss metal bulge used as reinforcement in the centre of a shield

lamellar made up of overlapping metal plates or scales

mail armour comprising chain links

pommel rounded knob at the end of a sword hilt

7.7.2 Viking weapons

The Vikings used a full array of weaponry: bow and arrow, spear, axe and sword. The battleaxe shown in **SOURCE 4** is called the bearded axe, and was used almost exclusively by the Vikings. The Viking sword was not used by all warriors, but was a symbol of status for those who carried it. It typically had a broad, double-edged blade, a cross-guard to protect the hand and a **pommel** on the end, which could be used for punching at close quarters.

Viking swords were very ornate, sometimes gilded with precious metals. Vikings even gave names to their swords. For example, the fictional Beowulf's sword was called Hrunting. Another saga tells of King Magnus of Norway having a sword gilded with gold and with a grip made from walrus ivory, which he called Leg-biter. The Vikings certainly placed great importance on their swords and the rest of their war gear.

SOURCE 3 A memorial stone from Lindisfarne showing what appear to be Vikings



int-8972

SOURCE 4 A modern artist's impression of a Viking raid



- **A** Contrary to popular belief, Viking helmets did not have horns attached. They would have been very impractical in battle!
- **B** Viking raiding parties struck quickly and unexpectedly, often at dawn, when it was hard for victims to escape or defend themselves.
- **C** The iron-headed battleaxe was so sharp and heavy it could cut through armour.
- **D** Sometimes Vikings used the 'svinflyking', or V-shaped boar formation, when attacking. This ensured that their victims were quickly swamped by numbers.
- **E** Swords were a status symbol among Viking warriors. They were double-edged and often had a highly decorated hilt. Sometimes they were even given grisly nicknames such as 'Leg-biter'.
- **F** As a refuge, some monks built tall, round towers of stone. Rope ladders hung down from openings at the top. After climbing into the tower, monks pulled the ladders up. They stayed there until a Viking attack was over.
- **G** Usually only raid leaders wore expensive chain mail tunics. Thick padded clothing was worn underneath.
- **H** The circular wooden shields were about one metre in diameter. They featured brightly painted designs. A metal boss covered the hole in the centre to which was attached an iron hand grip.
- **I** Spears comprised a slim iron blade connected to a long wooden shaft. Some Vikings were so skilled that they could catch spears in mid-flight and toss them back.

SOURCE 5 An extract from The *Battle of Maldon*, a late tenth- or early eleventh-century poem written in Old English about a battle where the Anglo-Saxons were defeated by the Vikings.

Then was the fight near, glory in battle. The time had come when fey men must fall there. Clamor was raised there. Ravens circled, eagles, eager for carrion. There was uproar on earth. From hands then they released file-hard spears; ground spears [grim ones] flew. Bows were busy; shield took spear-point. Bitter that battle-rush! Warriors fell; on either hand young men lay.

7.7 SKILL ACTIVITY: Questioning and researching

As historians, it is important that we ask the right questions about sources to understand what they can teach us.

1. **Propose** at least five questions you could ask about the artefacts in **SOURCE 6** that would help you decide on their usefulness for giving you information about the Viking Age.
   Example: Where were they found?
2. For each question, **create** a brief explanation about why it is important to ask it.
3. **Communicate** your questions and your explanations. Pretend you are speaking as part of a panel at a university history department evening on Viking Archaeology.

SOURCE 6 Viking weapons from the tenth century CE



7.7 Exercise

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7.7 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 7	4, 5, 6, 8	9, 10

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Check your understanding

1. Vikings were very fierce fighters. Why have Vikings been regarded as barbarians?
   - **A.** The Vikings had minimal dress codes and manners.
   - **B.** The Vikings have been stereotyped as savage raiders.
   - **C.** The Vikings killed mainly for pleasure.
   - **D.** The Vikings took no prisoners.
2. The most popular weapon among the Vikings was the battle axe. It was used the most because it could be used in a variety of situations. True or false?
3. **Select** the correct words from the options below to complete the following sentences.

mail	half a	bone	square	hide	round
iron	conical	one	bronze	linen	one and a half

   - **a.** Evidence suggests that the Viking helmet was a _____ shape.
   - **b.** Viking shields were about _____ metre(s) wide and were made of timber and _____.
   - **c.** Viking armour was made of leather or _____.
4. **Explain** how berserkers might have added to the Vikings' barbarous image.
5. **Explain** why the conical helmet, as depicted in **SOURCE 2**, was useful to its wearer in battle.

Apply your understanding

Using historical sources

6. **Examine SOURCE 4**. **Describe** the sort of evidence that the artist who created it would have needed to accurately draw Viking warriors.
7. **Identify** what **SOURCE 4** tells us about the variety of Viking weaponry in battle.

8. Refer to **SOURCE 3**.
   a. **Identify** the types of weapons and armour that are visible.
   b. **Describe** what the figures appear to be doing.
9. **Evaluate SOURCES 4** and **5**.
   a. To what extent do these two sources provide supporting evidence on what took place during Viking raids?
   b. Which source is the most useful for a historian studying Viking raids? Why is it the most useful?
10. Using evidence from **SOURCES 4** and **5**, **propose** why it was challenging to defend oneself from a Viking attack.

LESSON
7.8 Who did the Vikings attack and raid?

LEARNING INTENTION

By the end of this lesson you should be able to explain what happened in the Viking raids on Britain and Ireland. You should also be able to describe why there are conflicting views of the Vikings from historical sources.

TUNE IN

In learning about the Viking attacks and raids, it is important that historians think about the sources of their information carefully. The Vikings did not have a detailed written language at this stage so the information that we do have has usually come from other sources with their own biases.

The remote Scottish island of Iona had a flourishing monastic order begun by St Columba. Sometime in the ninth century the Vikings discovered its wealth and started a series of attacks. The monks recorded these in their Annals.

SOURCE 1 The *Annals of Ulster* lists some of the attacks by Vikings on the monastery on the Scottish island of Iona.

802: Coluim Chille was burned by the heathens.

806: The community of Í, to the number of sixty-eight, was killed by the heathens.

825: The violent death of Blamac son of Flann at the hands of the heathens in Í Coluim Chille.

Coluim Chille = St Columba's **Í** = Iona

Discuss the following:
1. Whether it should be considered a primary source or a secondary source, and why?
2. Its perspective (point of view) on the Vikings and how you can tell this.
3. What conclusions you could draw about one aspect of the Viking Age from this source.

7.8.1 Viking attacks in Britain and Ireland

The exact reasons why the Vikings began their movement out from their homelands is unknown. However, it seems certain to have been a combination of the pressures of growing populations, a lack of arable lands, fighting among the different groups and an awareness of the availability of the wealth of foreign lands. Combined with their skill in shipbuilding, this allowed for an expansion into other lands.

The early raids late in the eighth century were focused on the short trip from Scandinavia across the North Sea and were concentrated in Northern England, Scotland and Ireland.

7.8.2 Vikings raid the monasteries

The first recorded Viking attacks on Britain started in the coastal regions at the monasteries in the north of England and Scotland in the latter part of the eighth century and picked up again by the middle of the ninth. Two of the most well-known raids were the monasteries of Lindisfarne in Northumbria in 793 CE and Iona off the coast of Scotland in 795. Here, the Vikings launched successful hit-and-run raids taking off with valuable church goods, such as works of art and valuable church icons, as well as slaves, leaving in their wake a trail of dead and dying monks who got in their way. Their longships were the perfect vehicles for attacking these coastal communities and getting away with their riches.

SOURCE 2 Illustration of a Viking attack from the twelfth century *Miscellany on the Life of St. Edmund*



aud-0445

SOURCE 3 A description of the Viking attack on Lindisfarne in *History of the Church of Durham* by the monk Simeon

On the seventh of the ides of June, they reached the church of Lindisfarne and there they miserably ravaged and pillaged everything; they trod the holy things under their polluted feet, they dug down the altars and plundered all the treasures of the church. Some of the brethren they slew, some they carried off with them in chains, the greater number they stripped naked, insulted and cast out of doors and some they drowned in the sea.

aud-0446

7.8 SKILL ACTIVITY: Using historical sources

Individual accounts of Viking raids reveal much to historians about what the Vikings (the 'heathen men') did, but also about the values and attitudes of the writers themselves. When weighing up the reliability of a source, it is important to view the whole context.

SOURCE 4 An extract from the *Anglo-Saxon Chronicle* which describes the first Viking raids on the monastic isle of Lindisfarne.

Year 793.

Here were dreadful forewarnings come over the land of Northumbria, and woefully terrified the people: these were amazing sheets of lightning and whirlwinds, and fiery dragons were seen flying in the sky. A great famine soon followed these signs, and shortly after in the same year, on the sixth day before the ides of January, the woeful inroads of heathen men destroyed god's church in Lindisfarne island by fierce robbery and slaughter. And Sicga died on the eighth day before the calends of March.

1. **Analyse** the source to answer the following questions.
   a. What is this writer's view of the Vikings?
   b. What are some of the factors that may have influenced their point of view?
   c. What is happening in this description?
   d. Can you trust it to be a reliable source of information? Why or why not?
2. As a class, **discuss** some of the other evidence we can use about the Vikings in this period to give a more balanced view.

7.8 Exercise

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7.8 Exercise

Learning pathways

■ LEVEL 1	■ LEVEL 2	■ LEVEL 3
1, 2, 3	4, 6, 7, 9	5, 8, 10

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Check your understanding

1. **Identify** why the early raids tended to be concentrated around the northern parts of England and Scotland.
   A. England and Scotland were traditional enemies of the Vikings.
   B. The Vikings liked the climates of England and Scotland.
   C. Viking maps only detailed these countries.
   D. It was a short trip to England and Scotland.
2. Select the correct options to complete the following sentence.
   Lindisfarne in Northumbria was attacked in **739** / **793** / **795** CE and Iona, off the coast of Scotland, in **739** / **793** / **795** CE.
3. On their raids Vikings took valuable church goods, such as works of art and valuable church icons, but not slaves. True or false?
4. **State** why you think the monasteries were such good targets.
5. Connect what you have learnt about Viking longships and weapons to **explain** why the Vikings were able to conduct lighting raids on these monasteries.

Apply your understanding

Using historical sources

6. Carefully read **SOURCE 3**.
   a. **Identify** four actions that the Vikings took during the attack.
   b. What was the writer's view of the Viking attack? How do you know?
7. **Explain** what **SOURCE 2** tells historians about the techniques of Viking sea attacks.
8. Examine **SOURCES 1** and **3**. **Infer** what the monks' perspectives of the Vikings was.

Communicating

9. Imagine that you are an Irish monk. Write a short letter to one of your colleagues in Europe, **describing** the attacks by the Viking invaders.
10. **Reflect** on what you have learned about the Vikings. Do you think the Vikings should be remembered as raiders and pillagers, or do you have other views? Use what you know about them from this lesson and further reading to write your answer.

LESSON
7.9 Where did the Vikings begin to settle beyond their homelands?

LEARNING INTENTION

By the end of this lesson you should be able to trace the reasons for the Viking settlements in Ireland and England and explore the impact on the locals.

TUNE IN

The Vikings invaded and settled some of the countries around them, initially starting with those that were quite close and already had established populations, such as Ireland and England.

The picture in **SOURCE 1** shows a Viking festival in York, UK. It is apparent that these people have much pride in their Viking heritage.

SOURCE 1 Locals enjoying dressing up for the Jorvik Viking Festival in York, England.



1. Brainstorm some ideas about what the Vikings might have added to English culture as they invaded and settled.
2. Why do you think modern English people recognise and celebrate those who invaded them?

7.9.1 Viking longphorts in Ireland

As the Vikings began to voyage further and further away from their original homelands, they set up **longphorts** where they could winter away from home. They were drawn to Ireland as it had a number of monastic communities that had an array of riches which they could plunder. Viking Dublin began as a longphort, established in the ninth century, and developed into a thriving settlement from which they traded goods and slaves. It was one of the most established urban communities of its time, with craftsmen and merchants running flourishing trades.

Archaeological excavations over the years have shown the remains of houses, streets and city walls. A Viking burial ground was found in Kilmainham in modern central Dublin and the dig revealed a large number of bodies of men, women and children, as well as many Viking artefacts buried with them, telling historians much about the society of the time.

longphort a fortified base

SOURCE 2 An extract for the year 841 from the *Annals of Ulster*, a list of the year's events kept by monks and clergy

There was a naval camp at Linn Duachaill from which the peoples and churches of Tethba were plundered. There was a naval camp at Duiblinn from which the Laigin and the Uí Néill were plundered, both states and churches, as far as Sliab Bladma.

Dublin's Viking age was at its peak from the ninth to twelfth centuries. One of its major industries was shipbuilding. At some stage during 1070–1090 CE, five Viking ships were sunk at Skuldelev, Denmark, to make a protective barrage. One of these sunk ships, a well-made 30-metre longship, was discovered to have been made in Dublin. Eventually the Vikings and their allies were challenged by the Irish King Brian Boru and they lost to him in the Battle of Clontarf in 1014, ending their hold on Ireland. The settlements that they had created and the people who lived in them, however, remained.

SOURCE 3 Artefacts from the excavation discoveries of Viking Dublin



7.9.2 Viking farming settlements in England

From the mid-ninth century, Danish Vikings overran much of England. But in 878 CE, after several battles, Alfred, the Saxon king of Wessex, forced the Danes to accept a treaty under which the Danish leader, Guthrum, agreed to withdraw to the eastern part of the country. This part of the land was known as the Danelaw. The centre of the Danish rule was the city of York, known to the Vikings as Jorvik. Alfred's son later conquered the Danelaw. However, in 1016 Danish forces conquered England. Under the Danish king Canute, England formed part of a Scandinavian empire until 1042.

SOURCE 4 A silver coin from King Eric of Jorvik from the tenth century



7.9 SKILL ACTIVITY: Using historical sources

This collection of silver jewellery and coins was found buried in a field in England by a metal detectorist in 2011. It dates from the ninth century CE and is of Viking origin.

TASK: Drawing conclusions from archaeological evidence

1. **Examine** the photograph of the collection.
2. **Describe** what conclusions you can draw about Viking artisanship from this time period. Be very specific in your descriptions.
3. **Infer** what it might suggest about the relationship between the Danish Vikings and Anglo-Saxons of the time. Explain carefully.
4. **Propose** any theories you have about who buried it.

SOURCE 5 A Viking treasure hoard found buried in a field in England.



7.9 Exercise

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7.9 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 5	3, 4, 6, 9	7, 8, 10

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Check your understanding

1. Why did the Vikings establish longphorts?
   - **A.** To use as bases in invaded lands
   - **B.** To use for holidays for their families
   - **C.** To use as storage facilities between raids
   - **D.** To house slaves while they were being trained
2. The Vikings settled in Ireland because it had wealthy monastic communities that the Vikings could raid and it was a particularly good spot to be based for trade. True or false?
3. **State** what evidence there is that Dublin was a thriving community from the ninth to twelfth centuries.
4. **Explain** what the longship found in Denmark shows about the shipbuilding industry in Viking Dublin.
5. England was divided between the Saxons and the Danes (Vikings). The Danes took the eastern part of the country and this area was called the _____.

Apply your understanding

Using historical sources

6. **State** what **SOURCE 3** suggests about the type of people who were likely to have been buried in Viking Dublin.
7. **Explain** how a Viking burial ground or cemetery can provide information for historians and archaeologists.
8. What do the discoveries of Viking settlements like Dublin tell us about the Vikings? **Consider** different ideas such as the expansion of their influence, their interactions with native peoples and the type of settlement they created.
9. **Examine SOURCE 4**. What does the design of King Eric's coinage suggest about the type of image he was keen to promote?

Communicating

10. **Reflect** on what you have learned about the Vikings in this lesson. **Explain** the ways in which power was used in this period in England and Ireland. What was the impact?

LESSON
7.10 Where did the Vikings develop trade routes?

LEARNING INTENTION

By the end of this lesson you should be able to identify the Viking trade routes through Russia and the east. You should also be able to comprehend the impact of trading on Viking and eastern European people.

int-7810

TUNE IN

Maps are very useful to historians as they can show the different layers of expansion and exploration over the years.

Closely examine the map in **SOURCE 1**.

1. Write two sentences on the early expeditions and raids from what you can see here on the map and your background knowledge.
2. Write two sentences on the Viking trading routes, once again using what you can see on the map plus your own knowledge.
3. Discuss your conclusions with the class.

SOURCE 1 A map showing Viking trade and exploration routes until about 1000 CE



Source: Map drawn by Spatial Vision.

7.10.1 Trading settlements

With their ships and excellent navigation tools, the Vikings were able to move around Europe and establish useful trading routes. One of the most significant routes was through Eastern Europe. The Vikings, known here as the Rus, sailed down rivers and across seas to trading towns in Eastern Europe and the Byzantine Empire, making themselves very prosperous; many eventually settled there permanently.

Vikings were ferocious warriors and raiders but they were also successful explorers whose seamanship enabled them to reach places unknown to other Europeans. They became traders in commodities such as fur, timber, metal goods and slaves — the people who were captured during their raids.

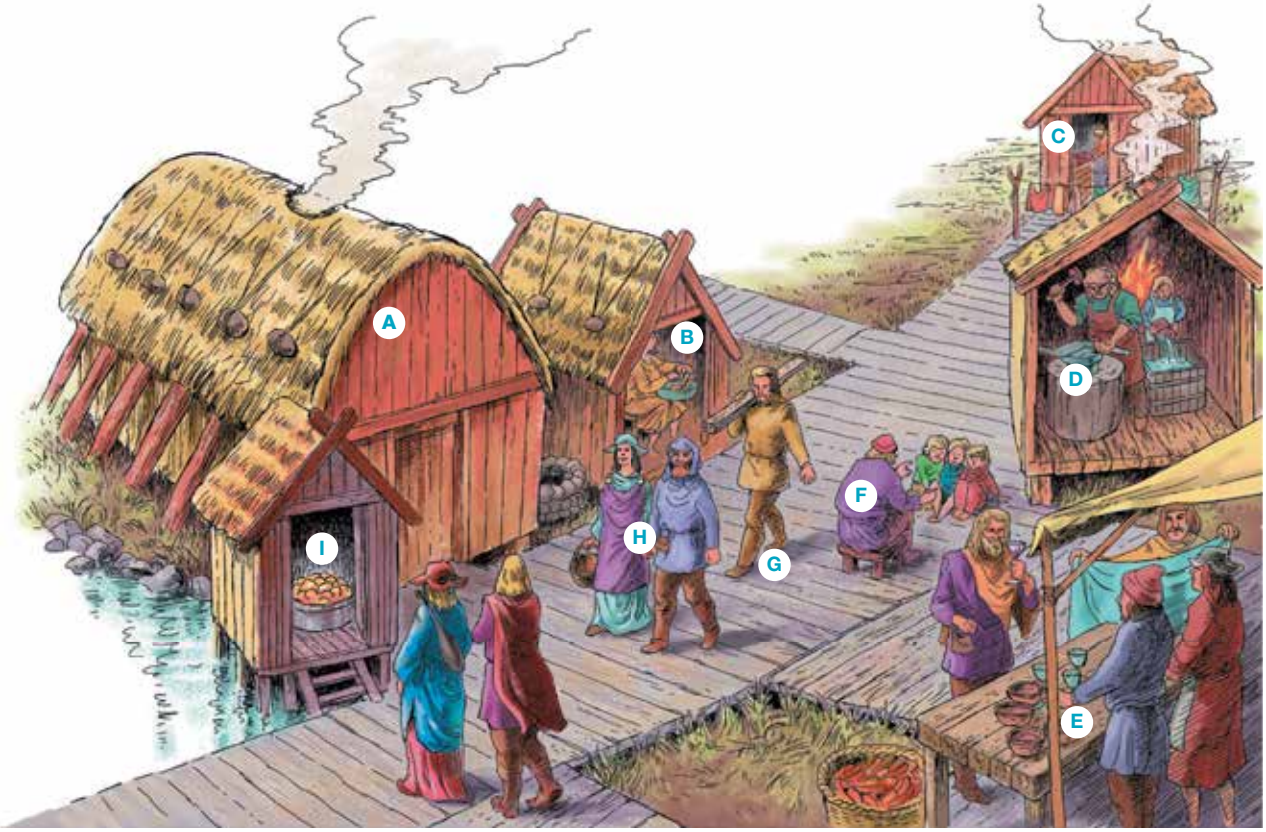
Viking trading towns were built along the coasts of their Scandinavian homelands. At least one of these trading posts, Hedeby, in Denmark, was at the crossroads for trade between the East and the West. It was visited by traders from as far away as Baghdad, in Iraq. Goods exchanged included wine, bronze, iron and glassware.

Viking traders also sold slaves. They were mostly Slavic peoples from Eastern Europe who were captured in Viking raids. They were traded for Arabic silver and gold. This trade was so extensive that in many European languages the modern word for ‘slave’ has stemmed from the word ‘Slavs’.

Viking trading settlements were founded as far west as Ireland and as far east as Russia. Trading posts like Hedeby or Dublin were usually constructed entirely of timber with wooden planks lining the streets, outdoor marketplaces, and earthen ramparts and ditches surrounding the settlements to protect them from attack.

int-7811

SOURCE 2 A modern artist's reconstruction of a Danish trading centre



- **A** Longhouses had an earth floor and a thatch or turf roof. Animals and food stores were kept at one end in winter. Wealthy families may have had a table, storage chests, stools, oil lamps and wall tapestries.
- **B** Women spun wool from sheep and goats into cloth on wooden looms. Vegetable juices and minerals were used to dye the cloth.
- **C** Meat and fish were preserved by being smoked, or pickled in salt. Bread, made from ground grain, was baked in clay ovens.
- **D** Iron weapons and tools were made and repaired in the blacksmith's barn. Sometimes steel (made by adding carbon to molten iron) was welded onto weapons such as axes to make them stronger.
- **E** At the markets, merchants might trade silks from China and glassware from Italy for farm produce or artefacts. Artefacts might include combs (made from deer antlers), skates and musical instruments (made from animal bones), cups (made from cow horns), silver jewellery and tapestries.
- **F** When not working, many Vikings passed the time wrestling, swimming, skiing, playing a board game called hnefnatafl (a bit like chess), and listening to the sagas told by storytellers.
- **G** The Vikings were experts at building both warships and trading vessels.
- **H** Men wore a woollen undershirt and leggings under a belted tunic or coat. Like women, they wore woollen or fur hats, woollen socks and soft leather shoes or boots. Women wore a long linen shift under a woollen tunic, clipped at the shoulders by two brooches.
- **I** To keep clean, Vikings visited the sauna every few days. They sat in a small, enclosed shelter and threw cold water on very hot stones. The steam opened the pores of the skin, helped by slaps from small birch or pine tree branches. Once hot and sweaty, people dived into a nearby source of ice-cold water.

7.10.2 Trading boats

Viking longships were designed for war and long travel, but the Vikings also built another type of ship called a **knarr**. These ships were designed for trade and each could hold around 30 cubic metres of goods. Historians know what they looked like because two knarrs have been found at the bottom of the sea. They were filled with rocks and sunk along with some longboats to block Roskildefjorde in Denmark. This was done to create an underwater barrier against enemy attacks.

SOURCE 3 A modern artist's reconstruction of a knarr, based on a wreck found in Roskildefjorde, Denmark



knarr a Viking trading ship

DISCUSS

'The Vikings deserve to be remembered only as barbaric raiders'. Give your perspective and provide evidence to support your point of view.

7.10 SKILL ACTIVITY: Communicating, Questioning and researching

The knarr and the longship are very similar; in fact, the knarr was really just a more practical longship designed for longer journeys while carrying more objects, which is why it was used by traders and settlers.

Imagine that you are a boat builder and you have been asked to improve the design of the longship to make it better for traders and settlers.

1. Return to the list of features of the longship from lesson 7.6.
2. Brainstorm the following:
   - What features you would keep to make it better for traders and settlers? Provide reasons why.
   - What you would change or include to make it better for traders and settlers? Provide reasons why.
3. **Communicate** your findings to the Vikings who employed you (the class). Explore the similarities and differences between everyone's plans.
4. Combine the best ideas of the class and **present** your final design for the knarr.
5. When you have finished, **conduct research** online and **investigate** what the actual differences were between a longship and a knarr. How close were you?

7.10 Exercise

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7.10 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 5, 7	6, 8, 9, 10

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Check your understanding

1. Why was Hedeby's geographical position good for trade?
   - A. It was at the crossroads of East and North
   - B. It was at the crossroads of North and South
   - C. It was at the crossroads of East and West
   - D. It was at the crossroads of North and West
2. The term 'slave' comes from 'Slavs', the Slavic people from Western Europe who were taken as slaves by the Vikings. True or false?

3. **Identify** how Hedeby was defended.
   - **A.** Walls built around the trading post
   - **B.** A moat around the trading post
   - **C.** Towers around the trading post
   - **D.** Earthen ramparts and ditches to protect them from attack
4. **Explain** the purpose of the knarr.
5. **State** why the Danes sunk ships in Roskilejorde.

Apply your understanding

Using historical sources

6. **Examine SOURCE 2. Explain** why there are very few remains of Viking settlements.
7. **Examine SOURCE 3. State** two advantages of transporting trade goods in this type of boat.
8. Archaeologists have found only the foundation timbers of towns like the one shown in **SOURCE 2. Determine** how they might have decided how the rest of the town might have looked, as shown in the illustration.

Historical perspectives and interpretations

9. **State** three causes and/or effects of Viking trade and settlement.
10. The eastern Vikings developed a very distinct culture from those who went west, and they eventually became known as the Rus people. Reading back through section 7.10.1 and examining **SOURCE 2** again, choose a type of person and write a short paragraph about a morning in their life.
    Think about **describing** the following areas:
    - what they might have eaten
    - the type of work they were doing in the village
    - what they might have worn.

LESSON
7.11 What are some of the extraordinary achievements of the Vikings?

LEARNING INTENTION

By the end of this lesson you should be able to describe the Viking settlements of Iceland and Greenland and explain the extraordinary exploration of North America.

TUNE IN

While many Vikings were plundering and settling in established areas of Europe, there were also those who set off in search of uninhabited new lands to explore and perhaps settle for farming.

The Vikings explored, expanded, raided and settled many places in Western and Eastern Europe. They were a very hardy people. Curiosity as well as a desire of resources saw them also head west into the unexplored Atlantic Ocean.

1. Look at a map of Scandinavia and the Atlantic Ocean.
   - What land is north–west of Norway?
   - What is west of that country?
   - What happens if you keep going further west, and a little south?
2. Map this route and discuss what it might be like in a longship.
   Hint: It would be around 2000 km.

SOURCE 1 Rugged Scandinavian landscape



7.11.1 A Viking republic?

Iceland was originally a colony of Norwegian settlers. Most of them had settled Iceland as a result of feuding with the king of Norway. These first arrived in around 874 CE and over the next century the entire island was settled, as Norse people took up farmland there. They fled to Iceland where they hoped to live free of the Norwegian king's authority.

By 930 CE Iceland had set up its own system of government. Like Norway, Iceland was divided into a series of regional assemblies called **things**. Each thing was ruled by a local chieftain called a godar. As the population grew, these things combined to create a national governing assembly, the **Althing**. It was a unique form of government because it rejected the rule of a king. This was probably the result of the Icelandic settlers' dissatisfaction with the way they had been treated by the king of Norway and is sometimes seen as Europe's first version of democracy.

thing regional meeting held to decide local issues in Norway and Iceland during the Viking Age

Althing Iceland's parliament; Icelandic governing national assembly formed during the Viking Age, which met once a year

SOURCE 2 One of the earliest written versions of the Icelandic legal code. It dates from 1260, two centuries after the end of the Viking Age. Because the Vikings did not keep records in the form of a book, the code was originally recited by heart.



7.11.2 Greenland

According to the sagas Erik the Red, the son of an exiled Norwegian, was himself exiled from Iceland for three years for murder. During this time, he explored a largely unsettled land and returned to Iceland with tales of this fertile 'green' land. Legend has it that he gave it this attractive name to encourage as many settlers to come with him as he could, knowing that their survival was dependent on numbers. He was successful in this, and in 985 CE headed back to Greenland accompanied by other eager settlers. Together they settled the two areas with the most arable land, the Western and Eastern settlements. The Vikings flourished in their colony for about 500 years until, it is suspected due to a change in climate and possibly an epidemic, it was abandoned.

SOURCE 3 An extract from Erik the Red's saga, an Icelandic saga from around the thirteenth century

Now, afterwards, during the summer, he proceeded to [go back to] Iceland, and came to Breidafjordr (Broadfirth). This winter he was with Ingolf, at Holmlatr (Island-litter). During the spring, Thorgest and he fought, and Eirik met with defeat. After that they were reconciled. In the summer Eirik went to live in the land which he had discovered, and which he called Greenland, 'Because,' said he, 'men will desire much the more to go there if the land has a good name.'

7.11.3 The discovery of Vinland

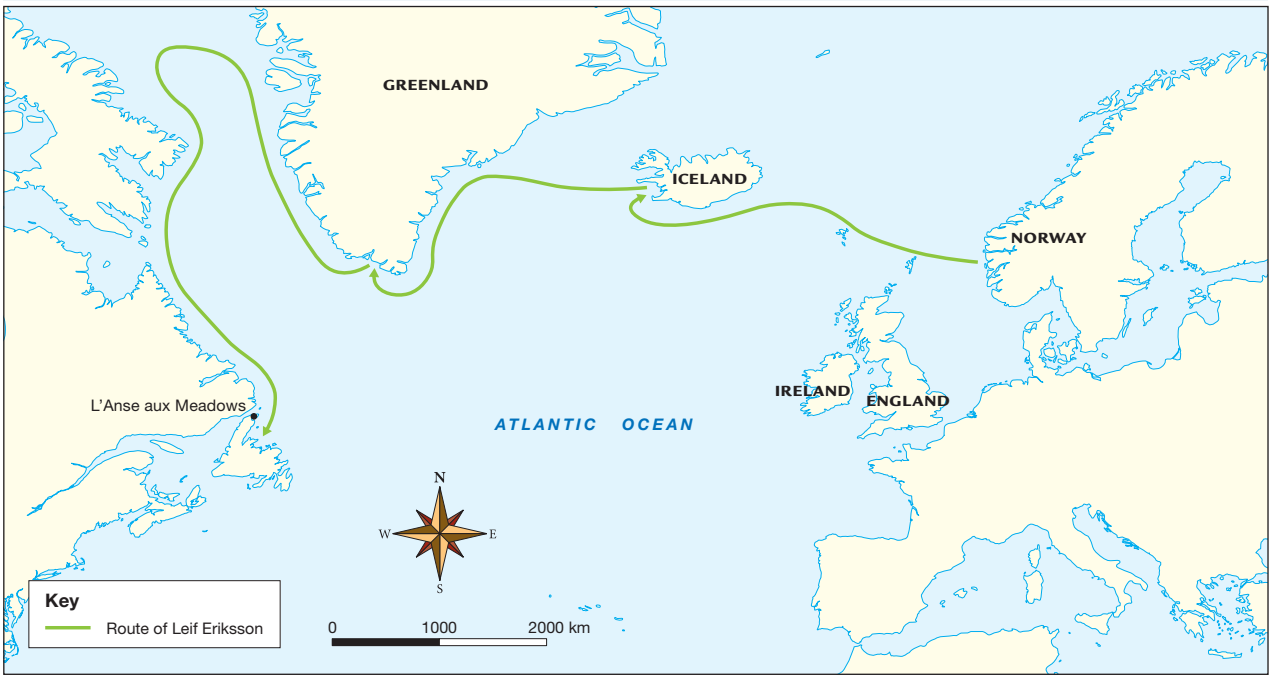
For many years, people wondered about the truth of the great sagas which told of the Viking discoveries of the Americas. The Icelandic sagas of *Erik the Red* and *The Greenlanders* both told of a discovery of a place called Vinland by the adventurer Leif Eriksson, son of Erik the Red. Although they differ on a number of details, they both relate the story of this young man heading across the ocean in search of new lands for timber and other resources, until he reaches a fertile land of 'vines' where he set up a base from which the Vikings explored other regions as well as fishing, whaling and repairing their ships. After a few seasons, they returned to Greenland, perhaps driven out by conflicts with the original occupants, or other unknown reasons.

In the years long after this time, people largely considered this fanciful storytelling rather than truth; but in more modern times, people have searched the coastline of North America for evidence of these Norse settlers, wondering if there was truth in the sagas. In 1960 a couple of archaeologists, the Ingstads, came across what had once been believed to be an abandoned Inuit settlement in remote Newfoundland in Canada. As they excavated, they realised excitedly that they were looking at artefacts and the remains of medieval buildings of Viking design. The sagas were right! This settlement was discovered in L'Anse aux Meadows on the tip of Newfoundland in Canada, and was a base for Norse explorers moving down the coast.

SOURCE 4 A statue of Leif Erikson, Reykjavik, Iceland



SOURCE 5 A map of Leif Eriksson's journey to Vinland



Source: Map drawn by Spatial Vision.

The settlement appears to have been for a significant group of people of around 85–90 people. There were once seven buildings in three different groups, generally consisting of a longhouse, a hall-type building and smaller houses. There was also an iron-smelting furnace and charcoal pit, suggesting that the Vikings used it for making nails and repairing their ships, as well as making weapons and other items. If the sagas can be believed, the settlement lasted for only around three years before it was abandoned and Leif Eriksson and his explorers returned to Greenland.

7.11 SKILL ACTIVITY: Using historical sources

The **SOURCE 6** and **SOURCE 8** extracts from two well-known Icelandic sagas are believed to have been written in the thirteenth century, centuries after the events that they recount. It is therefore assumed that they are based on a mixture of true events and storytelling. But they are quite different in significant sections of their accounts.

aud-0447

SOURCE 6 *Erik the Red* saga

After this there was much talk about making ready to go to the land which Leif had discovered. Thorstein, Eirik's son, was chief mover in this, a worthy man, wise and much liked. Eirik was also asked to go, and they believed that his luck and foresight would be of the highest use. He was [for a long time against it, but did not say nay], when his friends exhorted him to go. They made ready the ship which Thorbjorn had brought there, and there were twenty men who undertook to start in her. They had little property, but chiefly weapons and food. On the morning when Eirik left home he took a little box, which had in it gold and silver; he hid the money, and then went forth on his journey. He had proceeded, however, but a little way, when he fell from his horse, and broke his ribs and injured his shoulder, and cried out, 'Aiai!' At this accident he sent word to his wife that she should take away the money that he had hidden, declaring his misfortune to be a penalty paid on account of having hid the money. Afterwards they sailed away out of Eiriksfjordr with gladness, as their plan seemed to promise success.

aud-0448

SOURCE 8 *The Greenlanders* saga

There was now much talk about voyages of discovery. Leif, the son of Erik the Red, of Brattahlid, went to Bjarne Herjulfson, and bought the ship of him, and engaged men for it, so that there were thirty-five men in all. Leif asked his father Erik to be the leader on the voyage, but Erik excused himself, saying that he was now pretty well stricken in years, and could not now, as formerly, hold out all the hardships of the sea. Leif said that still he was the one of the family whom good fortune would soonest attend; and Erik gave in to Leif's request, and rode from home so soon as they were ready; and it was but a short way to the ship. The horse stumbled that Erik rode, and he fell off, and bruised his foot. Then said Erik, 'It is not ordained that I should discover more countries than that which we now inhabit, and we should make no further attempt in company.'

SOURCE 7 Statue of Erik the Red in the South Greenland region.



Complete the following to **compare** and **contrast** these accounts.

1. Carefully read both sources. You may want to make notes on each one as you go.
2. **Describe** what similarities they have.
3. **Describe** any differences they have.
4. **Propose** your own explanation for the differences.
5. **Evaluate** whether or not you believe that one might be more reliable than the other.

7.11 Exercise

learnon

7.11 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 4	5, 6, 9	7, 8, 10

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Check your understanding

1. **Determine** whether the following statements are true or false.
   a. The Althing was set up in Iceland in 930 CE. Its purpose was an early kind of parliament.
   b. Greenland was named by Erik the Red to make it seem more attractive to other Vikings.
   c. It is believed that even though the Vikings lived successful lives for 500 years in Greenland, they were most likely driven out of the area due to the unfertile land.
2. From what country did most Icelanders originate and why did they leave their original home?
   A. They were from Europe, which they left because they were feuding with the king.
   B. They were from Sweden, which they left because they were feuding with the king.
   C. They were from Denmark, which they left because they were feuding with the king.
   D. They were from Norway, which they left because they were feuding with the king.
3. **Define** what is means to be exiled in reference to Erik the Red.
4. **Recall** why the new land explored by Leif Eriksson was called 'Vinland'.
5. **Explain** why there was an iron-smelting furnace and charcoal pit found in the excavation in L'Anse aux Meadows in Canada.

Apply your understanding

Using historical sources

6. **Examine SOURCE 2**. Why was the written Icelandic legal code dated 1260 CE when the Althing actually began in 930 CE? What did they do before this?
7. **Explain** what made the Icelandic thing a unique form of government for its time.
8. **SOURCE 4** and **SOURCE 7** are modern statues commemorating Leif Eriksson and Erik the Red. **Analyse** their stance and posture, **explaining** what the sculptors might have been trying to convey.

Communicating

9. The archaeological findings unearthed at L'Anse aux Meadows in Canada included the remains of seven buildings in three different groups, consisting of a longhouse, a hall-type building and smaller houses. There was also an iron-smelting furnace and charcoal pit, as well as other artefacts and weapons. **Discuss** the type of settlement that this was and suggest the original purpose of these artefacts.
10. Imagine that you are a journalist in 1960 and you are covering the discovery in L'Anse aux Meadows in Canada. **Write** a brief article that you would include on the front page of the newspaper that day, highlighting the historical significance of the find. Ensure you include a suitable headline.

LESSON
7.12 What are some factors that led to the decline and end of the Viking Age?

LEARNING INTENTION

By the end of this lesson you should be able to describe and explain the factors that led to the end of the Viking Age.

TUNE IN

The chalkstone church in **SOURCE 1** is almost a thousand years old and there is evidence of three other wooden churches having been in the same place dating back to Danish King Harald Bluetooth.

1. Brainstorm three questions that this source raises about Viking religion and beliefs around the tenth century CE.
2. Share these questions as a class and see if you can come up with any hypotheses to answer them.

SOURCE 1 The Christian Church at Jelling, Denmark, is recognised as having had over 1000 years of continuous use.



Historians generally recognise that the end of the Viking Age was around the eleventh century. There are several factors that appear to have contributed to this.

Keep in mind, however, that the Norse people themselves did not go away; what ended was this period of rapid expansion, of raids and attacks. Settlement in the Scandinavian homelands has been continuous for thousands of years.

7.12.1 The spread of Christianity

Gradually, the Vikings became more and more exposed to Christianity. Initially they were happy to accept the Christian god into their range of gods but eventually most Viking leaders adopted Christianity as their sole religion.

Evidence suggests the conversion to Christianity was a gradual process. There was a long period of overlap where Christian and old pagan practices mingled. For the Christian missionaries who spread the faith throughout Scandinavia, this may have been seen as a practical tactic. By not completely overthrowing the old gods and the old pagan rituals, Christianity was able to get a foothold in Viking lands. There may also have been some degree of sentimental attachment to the old pagan religion. The sagas, products of a later Christian age, dwell at length on the myths and legends of the pagan past.

7.12.2 Christian leadership

Kings and chieftains taking up the new Christian faith also did much to hasten the path to conversion. With many of the powerful leaders of Europe already converted to Christianity, it made political sense for Scandinavian rulers to convert to the religion of their allies. King Olaf Tryggvason imposed Christianity on Norway in 995 CE. The sagas tell of him destroying pagan temples. Such aggression suggests there was resistance to the spread of Christianity.

With some parts of the Scandinavian world remote from the rest of Europe, and therefore having little, if any, contact with the Christian faith, this seems a reasonable assumption, especially in far-flung regions such as northern Norway, Iceland and Greenland. By the time Tryggvason's successor, St Olaf, had finished his work of converting Norway and Iceland to Christianity, the Christian faith had taken firm root in the Viking world.

SOURCE 2 St Olaf with his axe, depicted on a fifteenth-century Bishop's crozier from Norway



7.12.3 Peace settlement in France

Vikings had raided the land of the Franks regularly over the centuries. In the ninth and tenth century a group of Vikings, led by the warlord Rollo, were once again carrying out an attack. The King of the Franks, Charles III, came up with a solution to stop this and any future attacks from other Vikings. In 911 they signed the Treaty of Saint-Clair-sur-Epte which was gave an entire Frankish region including the city of Rouen to the Vikings. In return, Rollo and his descendants agreed to protect them from any further Viking attacks. Rollo integrated into French society and becoming the Duke of Normandy. The age of Viking attacks in France was over.

7.12.4 The last Viking attack on England

When England's King Edward the Confessor died in 1066, he had no direct heir to the throne. A powerful earl, Harold Godwinson, saw the opportunity to take the crown himself. But he had competition. King Harald Hardrada of Norway, as a descendant of the Danish king Canute who had once ruled England, believed he had a right to the throne. Harold Godwinson's own brother, Tostig, joined forces with Harald Hardrada. Finally, Duke William of Normandy also tried to claim the throne because he said Harold had sworn an oath promising to support him in becoming king after Edward's death.

Harald Hardrada and his Norwegian army landed in the north of England. They met Harold Godwinson's army on the battlefield at Stamford Bridge. They were defeated in a bloody battle and as few as 25 of their 300 longships returned to Norway. Hardrada and Tostig were both killed. Some historians consider this the last true Viking attack on England.

However, William of Normandy, whose great-great-great-grandfather was the Viking Duke Rollo of Normandy, was now sailing to England in a fleet of longships. Harold's weary troops marched southwards 700 kilometres to meet the Norman force. After a long battle, Harold was killed and they were eventually beaten by the Normans in what is known today as the Battle of Hastings. William was crowned King of England at Westminster Abbey on Christmas Day, 1066. He became known as William the Conqueror. A Norman duke with Viking blood had become the King of England.

int-8973

SOURCE 3 Contenders for the English throne jostle for power.



A **Harold Godwinson** 'I should be king! Edward was my brother-in-law, and even though I rebelled against him in 1051 we've put aside our differences.'

B **William, Duke of Normandy** 'Edward promised me the throne because I helped him crush Harold's rebellion in 1051. Harold even swore to me that he'd let me be king!'

C **Harald Hardrada** 'We should not let Viking influence in England disappear. I'm a descendant of King Canute and that's why I should be king!'

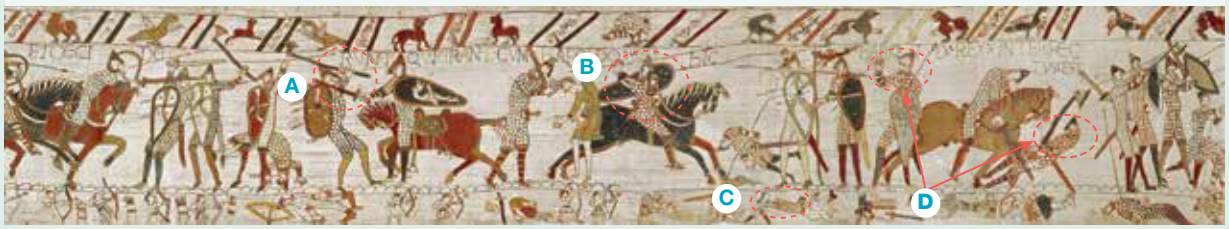
D **Tostig Godwinson** 'My brother Harold is a power hungry, ambitious swine! I want the throne for myself, and I'll use King Harald Hardrada of Norway to my advantage to get it!'

7.12 SKILL ACTIVITY: Using historical sources

The Bayeux Tapestry is a long and detailed tapestry showing scenes celebrating William the Conqueror's victory in the Battle of Hastings and success in winning the English throne. It is believed to have been produced in France in the eleventh century by William's half-brother, Bishop Odo, to decorate his newly-built cathedral.

int-8974

SOURCE 4 A scene from the Bayeux Tapestry — Harold's death



A An English huscari — the elite bodyguard of Harold's army

B A mounted Norman knight. His armour is similar to the huscari's. His kite-shield is favoured over Viking round shields.

C Stripping troops of their expensive armour

D Harold is killed. He is either shot with an arrow or cut down by Norman sword — or perhaps both.

TASK: The tapestry is recognised as a primary source of the Conquest of England and it gives us details that historians would otherwise not have known. But exactly how trustworthy a source is it?

1. **Conduct research** to find more information on the Bayeux Tapestry. You might like to use the **Bayeux Tapestry** weblink in the Resources panel.
2. Make notes on things like:
   - theories about its accuracy
   - information about who created it
   - information about why it was created
   - any debates that contest its accuracy.
3. **Summarise** your findings, supporting your ideas with evidence from the information you found.

Resources

Weblink Bayeux Tapestry

7.12 Exercise

learnon

7.12 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 5, 6	7, 8, 9, 10

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Check your understanding

1. **Select** the correct options to complete the following sentences.
   The Battle of **Normandy in 1066** / **Hastings in 1066 / Hastings in 1606** is the famous event in medieval history shown on the Bayeux Tapestry. It shows the perspective of the **Vikings** / **Normans** / **Saxons**.
2. **Identify** Duke William of Normandy's connection to the Vikings.
   - **A.** He was the great-great-great grandson of the Danish Viking Rollo Duke of Normandy.
   - **B.** He was the great-great-great grandfather of the Danish Viking Rollo Duke of Normandy.
   - **C.** He was the great-great-great grandson of the Leif Eriksson.
   - **D.** He had no connection to the Vikings.
3. Complete the following sentences.
   - **a.** Changing from one religion to another is called _____.
   - **b.** King _____ imposed Christianity in Norway.
   - **c.** The _____ parts of Scandinavia were probably most resistant to the new Christian religion.
   - **d.** King Olaf Tryggvason's successor was _____.
4. **Explain** Charles III's method of defending his Frankish kingdom from further Viking attacks.
5. **Explain** why there was more resistance to the conversion to Christianity in some places than others.

Apply your understanding

Using historical sources

6. Look closely at **SOURCE 2**. **Identify** what historians can learn from sources like this.
7. Study **SOURCE 4**. **Compare** and **contrast** what you know about the Viking style of battle with what you can see in this scene? Is there any evidence of William's Viking heritage?
8. The chalkstone church in **SOURCE 1** is almost a thousand years old and there is evidence of three other wooden churches having been in the same place dating back to Harald Bluetooth. **Create** a short speech, defending its inclusion in the UNESCO World Heritage List.

Communicating

9. After reading the annotations in **SOURCE 3**, **evaluate** who had the strongest claim to the English throne. **Justify** your answer.
10. **Summarise** how events such as the Norman Conquest contributed to ending the Viking Age and Viking raids in particular.

LESSON
7.13 INQUIRY: How trustworthy are the sagas?

LEARNING INTENTION

By the end of this lesson you should be able to discuss the accuracy and usefulness of primary sources as well as the difficulty in distinguishing between fact and opinion.

In this inquiry, you will compare sections of two Icelandic sagas, the saga of Erik the Red and the saga of the Greenlanders.

Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

Inquiry steps

Step 1: Questioning and researching

Access the ***Erik the Red*** **saga** and ***The Greenlanders*** **saga** weblinks in the Resources panel, and choose brief sections to focus on.

Write your inquiry questions. This is what you would like to learn about the sources; for example:

a. Who told the sagas and when did they tell them?
b. Who wrote the sagas down and when was this likely to have happened?

Research the answers to your question(s).

- To develop some background into the sagas including who told them and who wrote them down and why, you could use the **Sagas history** weblink in the Resources panel.
- To gain a shorter overview of the reliability of the sagas you could use the **Sagas reliability** weblink in the Resources panel.

Step 2: Using historical sources

Analyse your short section of each saga to explore the differences in key points.

Step 3: Historical perspectives and interpretations

Evaluate by comparing the two sections that you chose, annotating the text with different colours to show differences and similarities. What do the differences suggest about the saga writers and their values and beliefs?

Step 4: Communicating

What is the answer to your research question(s)? **Present** your findings in a format of your choosing. Support your answer with examples from your research, analysis and evaluation.

Complete your self-assessment using the **Inquiry rubric** or access the 7.13 exercise set to complete it online.

on Resources

Digital document	Inquiry rubric (doc-39403)
Weblinks	*Erik the Red* saga
	The Greenlanders saga
	Sagas history
	Sagas reliability

LESSON
7.14 Review

Hey students! Now that it's time to revise this topic, go online to:

Review your results

Watch teacher-led videos

Practise questions with immediate feedback

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7.14.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

7.2 How do we know about the Vikings?

- The Viking civilisation that we study existed over one thousand years ago.
- Although a written language called runes existed, these were mainly for stone or bone inscriptions. It was not until the Vikings became Christian later in the Viking Age that written language was used to record things.
- Historians discover information from this period through the examination of artefacts and other archaeological discoveries.
- There have been significant discoveries of burial sites such as the King's Mound in Gokstad in Norway and many archaeological sites where there were settlements.
- The Vikings had a great oral storytelling culture.
- Late in the Viking Age, the stories of heroes and gods were written down and are known as the sagas. There was also much written about the Vikings by monks and others like the Anglo-Saxons who were their enemies, such as the Old English story, *Beowulf*.

7.3 How did the geography and climate of Scandinavia influence the Viking way of life?

- Much of the land in the Viking areas was rocky and mountainous and only a small percentage was suitable for farming. Because of this the Vikings lived mainly around the coastal areas of their lands where the climate was milder and land more fertile.
- Although the winters were very cold, the water around the Viking homelands was prevented from freezing by warm currents, like the Gulf Stream. This was important for a seafaring people.
- From around the eighth century the Vikings started to raid and later settle other areas.
- There are a number of theories about why the Vikings started to move away from home. For example, it is possible that they needed more farming land because the population was growing. Another theory is that the Vikings fought among themselves and some fled overseas. There is also the hypothesis that they took advantage of weaknesses among the rulers of European countries to conquer and settle. It is likely to be a combination of a number of these theories.

7.4 Who were the Vikings and how did they live?

- Although Vikings are known as pirates and raiders, for the most part they were farmers. Viking society was stratified, into kings or lords known as jarls, freemen called karls and slaves known as thralls. The slaves were usually people who had been brought back after raids and battles. They were needed for their labour on the farms.
- Viking farms were a series of buildings huddled around a longhouse and were often quite isolated, meaning the people relied only on themselves and the farms were often self-sufficient.
- Vikings kept livestock and crops of grains, such as barley and rye, as well as flax and hemp for linen sailcloths.
- Viking women ran the farms as the men tended to be away for long periods on raids.
- Children would most likely have helped out on the farm.

7.5 What was the early Viking religion and how did it change?

- Early Vikings followed a pagan religion.
- Viking myths are full of giants and of their gods who lived in a place called Asgard, which is high up in the sky.
- They worshipped many gods, the most significant of whom were Odin, Freya and Thor.
- Odin features in many of the sagas as the god who ruled from Valhöll, the Hall of the Slain, where the warriors who died in battle were welcomed by the Valkyries, or war-maidens.
- Vikings believed that death marked the beginning of a journey to another world and their burial practices reflected this. The dead were buried with the things the Vikings believed they would need in the next life or had enjoyed in this one, with archaeological finds of burial mounds providing evidence of this.
- Over time the Vikings became more and more exposed to Christianity through their travels and trade with countries, as well as from missionaries.
- Eventually, most Viking leaders adopted Christianity as their sole religion and imposed it on their subjects.

7.6 What was the impact of the developments in longboat technology?

- In the eighth century CE developments in Viking boat design technology, such as innovations in the keel, the rudder and the sail, enabled them to make longer ocean voyages.
- The remains of several ships have been found and replicas have been built that demonstrate how quickly the ships were able to sail across the seas, which is also quite remarkable considering that they only had the sun and stars for navigation.
- Viking ships were large but quite narrow and shallow, which enabled them to be pulled up close to shore during raids.
- There is evidence that the ships were carried overland from one waterway to another.
- At times Viking ships were known as dragon ships because a carved head of the mythical monster was sometimes mounted on the prow of the ship.

7.7 How did Viking craft protect the warriors in battle?

- Viking weapons and armour were extremely well-constructed and effective.
- For protection the Vikings wore body armour usually made of leather and chain mail, as well as a conical iron helmet.
- They carried timber shields to protect their bodies.
- They used an array of weapons such as bows and arrows, spears, axes and swords.

7.8 Who did the Vikings attack and raid?

- Around the eighth century CE, the Vikings began their expansion into other lands.
- Monastery records from England, Scotland and Ireland show that the Viking raids started as hit-and-run raids where they attacked and took with them the monastery's precious artefacts and money, killing and maiming monks and others as they attacked.

7.9 Where did the Vikings begin to settle beyond their homelands?

- As time went on and the Vikings travelled further from their homelands, they set up winter camps in some of these places because it was too far to get home for the winter. Eventually some of these became permanent settlements, such as Dublin in Ireland.
- The Vikings settled much of England, dividing the country between them and the Anglo-Saxons. The northern part of the country, known as the Danelaw, was ruled by the Vikings until it was conquered by Alfred the Great.

7.10 Where did the Vikings develop trade routes?

- As well as longships, Vikings had trading ships called knarrs.
- The Vikings also founded trading posts and settlements, including one called Hedeby that was on the crossroads of the East and West and settlements in Russia and Ireland. Many goods were exchanged including slaves, wine, bronze, iron and glassware.

7.11 What are some of the extraordinary achievements of the Vikings?

- In their search for new lands, the Vikings colonised Iceland and Greenland. Erik the Red is remembered as the Viking who settled Greenland.
- His son, the explorer Leif Eriksson made it as far as North America in about 1000 CE. He established a settlement there called Vinland.

7.12 What are some of the factors that led to the decline of the Viking Age?

- The French King Charles III ended the Viking raids in France through a diplomatic deal with the Viking Rollo, in making him Duke of Normandy in exchange for protection for other Vikings.
- The Battle of Hastings ended the Viking Age in England.
- When England's Edward the Confessor died in 1066 he left no direct heir to the throne.
- Three main contenders came forward to replace Edward the Confessor: a powerful earl, Harold Godwinson; the Norwegian king Harald Hardrada, a descendent of the Danish king Canute who once ruled England; and William of Normandy, who said that he had been promised the throne after Edward's death.
- Godwinson and Hardrada fought, with the Viking king eventually being killed. After this, Harold Godwinson had to face the Normans who had sailed from France.

7.13 INQUIRY: How trustworthy are the sagas?

- Determining the accuracy and usefulness of primary sources relies on distinguishing between fact and opinion.
- The sagas were written by people with different views, beliefs and biases.

7.14.2 Key terms

Althing Iceland's parliament; Icelandic governing national assembly formed during the Viking Age, which met once a year
arable land that can be ploughed for crops
barbarian uncultured and uncivilised; not Christian
berserker Viking warrior who fought naked or near-naked and rushed wildly into battle. The word 'berserk' is derived from this.
boss metal bulge used as reinforcement in the centre of a shield
bronze metal alloy mainly of copper and tin
fjord long, narrow inlet flanked by high cliffs and slopes
flax plant cultivated for its seeds and fibres, which can be used to produce many things such as textiles
Gulf Stream great warm current of water flowing from the Caribbean Sea all the way to northern Europe
heathen one who is neither Christian, nor Jewish nor Muslim, and is often seen as therefore being uncivilised
hemp plant favoured for its tough fibre, useful in the making of rope
keel lowest timber running along the length of a vessel, and upon which the framework of the whole boat is built
knarr a Viking trading ship
lamellar made up of overlapping metal plates or scales
linen cloth made from flax
literate able to read and write
longhouse a Viking farmhouse with a curved shape like an upturned boat. Particularly large longhouses meant for 30–50 people are often called halls.
longphort a fortified base
mail armour comprising chain links
oath breaker someone who goes back on their word
pagan someone who is not a Christian, Jew or Muslim, but who worships many gods
polytheistic the belief in or worship of more than one god
pommel rounded knob at the end of a sword hilt
reconstruction rebuilding or re-making: in archaeology, rebuilding an artefact using archaeological remains as a guide
republic a state in which the head of the government is not a ruler who inherits his position as might a king or emperor
rudder broad wooden or metal piece at the end of a boat used for steering; on a longship, it was a broad oar attached to the tiller
runes letters of the Scandinavian alphabet based on Roman or Greek letters but modified to be easily carved on wood or stone
saga a medieval Scandinavian tale about exploits and adventures in the life of a hero or his family

self-sufficient able to provide for its own needs
tapestry carpet-like wall-hanging
thing regional meeting held to decide local issues in Norway and Iceland during the Viking Age

7.14.3 Reflection

Revisit the inquiry question posed in the Overview:

What were the key beliefs and values of Viking society and how did this influence their society?

1. Now that you have completed this topic, what is your view on the question? Discuss with a partner. Has your learning in this topic changed your view? If so, how?
2. Write a paragraph in response to the inquiry question, outlining your views.

on Resources

eWorkbooks Customisable worksheets for this topic (ewbk-10700)
Reflection (ewbk-10702)
Crossword (ewbk-10703)
Interactivity The Vikings crossword (int-7585)

7.14 Review exercise

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Multiple choice

1. Which one of the following was *not* a reason that the Vikings may have started their raids?
   - **A.** They took advantage of the bickering among some European countries to raid them and seize their lands.
   - **B.** They wanted to spread Christianity.
   - **C.** They had a growing population and needed more farming land.
   - **D.** They had been fighting among themselves and some had to flee overseas as a result.
2. Which three countries were the Viking homelands?
   - **A.** England, Ireland and France
   - **B.** Denmark, Norway and Sweden
   - **C.** Denmark, Norway and Russia
   - **D.** Norway, Sweden and England
3. Consider the following statements about Viking longships:
   - **i.** The Vikings carried them from one waterway to another.
   - **ii.** They all had dragon carvings on the prow.

A. Both statements are true.
B. Both statements are false.
C. Statement i is true and Statement ii is false.
D. Statement i is false and Statement ii is true.

4. What is a berserker?
   A. A Viking dance
   B. A Norse god
   C. A type of battle axe
   D. A ferocious warrior
5. Which of the following is *not* a Norse pagan god or goddess?
   A. Odin
   B. Thor
   C. Freya
   D. Shiva
6. Identify the correct Viking social hierarchy from highest to lowest in order.
   A. Jarl, karl, thrall
   B. Karl, jarl, thrall
   C. Thrall, karl, jarl
   D. Thrall, jarl, karl
7. Which of the following statements about the Vikings is true?
   A. Vikings mainly lived in isolated farms rather than villages.
   B. The Vikings raided in winter.
   C. Viking women were treated like slaves.
   D. It was too cold for Viking farmers to grow crops.
8. What are runes?
   A. Large mounds of sand
   B. Early Viking writing
   C. An Icelandic tribe
   D. Pictures carved on the Jelling stones
9. The Battle of Hastings was won by
   A. Harold Godwinson.
   B. Harald Hardrada.
   C. William of Normandy.
   D. Tostig Godwinson.
10. For what reason is it suspected that the Vikings eventually abandon their settlements in Greenland?
    A. War
    B. Climate change and an epidemic
    C. Distaste for cold weather
    D. Lack of food sources

Short answer

Using historical sources

11. Study **SOURCE 1**.
    a. **Describe** the features of a Viking ship you can see in **SOURCE 1**.
    b. Do you think this image is historically accurate? **Explain** why or why not.

SOURCE 1 A scene from the Bayeux Tapestry, showing Norman ships invading England in 1066. Although built in Normandy, the boats are clearly Viking longships.



Communicating

12. **Describe** the ways in which Viking mythology reflects Viking society. How did their beliefs connect with their way of life? Use specific examples of gods, goddesses and myths.
13. **Consider** reasons the Vikings became Christians.
14. **Describe** reasons for the early Viking raids on monasteries.
15. The Viking Age, as we study it, was from c. 790–1066 CE. In an extended paragraph, **discuss** why such a brief period of history has had such a large impact on our imaginations. Use examples of how the Vikings have been shown in popular culture over the last 50 years.

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8 The Spanish conquest of the Americas (c. 1492–1572)

LESSON SEQUENCE

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LESSON
8.1 Overview

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How did the Americas change as a result of the Spanish conquest?

8.1.1 Introduction

At the start of 1492 the three most powerful civilisations in the Americas were the Aztec, Inca and Maya empires.

The Inca people lived on the western side of South America, in the region that is now Chile and Peru. The Maya lived in eastern present-day Mexico, on what is called the Yucatan Peninsula, and bordering them to the west were the Aztecs. The two civilisations of the Aztecs and Maya make up the region known as Mesoamerica, a region of spectacular temples, architecture and a proud heritage. This topic focuses on how the Spanish conquest affected the Aztec civilisation. Within two centuries all three of those civilisations had collapsed and the American continent had changed forever.

SOURCE 1 On this parking meter in Berkeley, California, the name of the public holiday Columbus Day has been officially changed to Indigenous Peoples Day, in acknowledgement of the consequences of the European colonisation of the Americas. Are there any significant dates elsewhere around the world that have similar discussions and multiple perspectives?



Each year in October, much of the United States observes the holiday of Columbus Day, in recognition of the explorer who became synonymous with the discovery of the Americas. However, over the last century more and more people have begun to question whether Columbus Day is an appropriate celebration, given the subsequent effect European exploration had on the American continents and peoples.

on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10704)

Video eLesson The Spanish conquest of the Americas (c. 1492–1572) (eles-1832)

int-4288

SOURCE 2 A timeline of the Spanish conquest of the Americas

CE

1250

1250
Aztecs settle near Lake Texcoco.





1300

1325
City of Tenochtitlan is founded by the Aztecs on an island in Lake Texcoco.



1350

1350
Causeways and canals of Tenochtitlan are built.



1400

1400
Aztecs expand their empire by defeating the Tepanecs.

1440
Montezuma I begins his rule.

1450

1506
Columbus dies.

1469
Montezuma I dies and is succeeded by Ahuizotu.

1492
Columbus 'discovers' the Americas.



1500

1502
Montezuma II becomes the ruler of the Aztecs.
The Aztec Empire is at its most powerful.

1519
Cortes and the Spanish conquistadors arrive at Tenochtitlan.

1520–1
An outbreak of smallpox, introduced by the Europeans, sweeps through the population of Tenochtitlan, killing up to half the population.

1521
Cortes claims the city of Tenochtitlan for Spain.



1522
Tenochtitlan is rebuilt and named Mexico City. Declared the capital of the Spanish colony in the Americas — 'New Spain'.

1550

CE

LESSON
8.2 How do we know about the Spanish conquest of the Americas?

LEARNING INTENTION

By the end of this lesson you should be able to explain how different sources help us understand the Spanish conquest of the Americas, and how those sources changed over time.

TUNE IN

With the following words from Pope Alexander VI in 1493, the world changed. With these words, permission was granted for Spanish explorers to claim, control and exploit land in the Americas.

SOURCE 1 These words come from Pope Alexander VI's decree of 1493 in which he authorised Spanish explorers to colonise the Americas.

> We assign to you and your heirs and successors . . . all islands and mainlands found and to be found, discovered and to be discovered . . . distant 100 leagues towards the west and south from any of the islands commonly known as the Azores and Cape Verde.

1. Discuss what impact you think these words would have had on the people who already lived in the Americas. Do you think they were consulted? What does that suggest to you about the views of the Spanish explorers to the people living in the Americas?
2. Predict what might happen when they come into contact with each other.

8.2.1 European sources

It has been said that 'history is written by the winners'. This is certainly the case with the Spanish conquest of the Americas. Both during and after the period of the conquest, many of the **conquistadors** maintained detailed accounts of their experiences. They were eager for their actions to be remembered. Hernan Cortes, who led the Spanish against the Aztecs, wrote many letters to King Charles V of Spain, providing a valuable eyewitness account of the events. However, these letters tended to glorify Cortes's victories and downplay his failures.

Some first-hand accounts of the time have been recognised as highly important and less biased. For example, **missionary** Bernardino de Sahagun worked to compile a series of texts that would become known as the Florentine **Codex**. The original was written in the Aztec language of Nahuatl. De Sahagun learned to speak Nahuatl and could communicate with many surviving Aztec wise men. The Florentine Codex provides a remarkable history and description of the Aztec civilisation prior to the Spanish arrival.

Another useful source is the writing of Bartolome de las Casas. He was a Spanish priest who was appalled at the treatment of the Native Americans by the Spanish colonists. He wrote to King Charles V of Spain defending the rights of the indigenous peoples. However, no matter how sympathetic to the Aztec people these sources are, they are **subjective** because they were written by the European settlers and therefore from a European perspective.

conquistador one of the Spanish conquerors of Mexico in the sixteenth century

missionary a person sent on a religious mission, especially one sent to promote Christianity in a foreign country

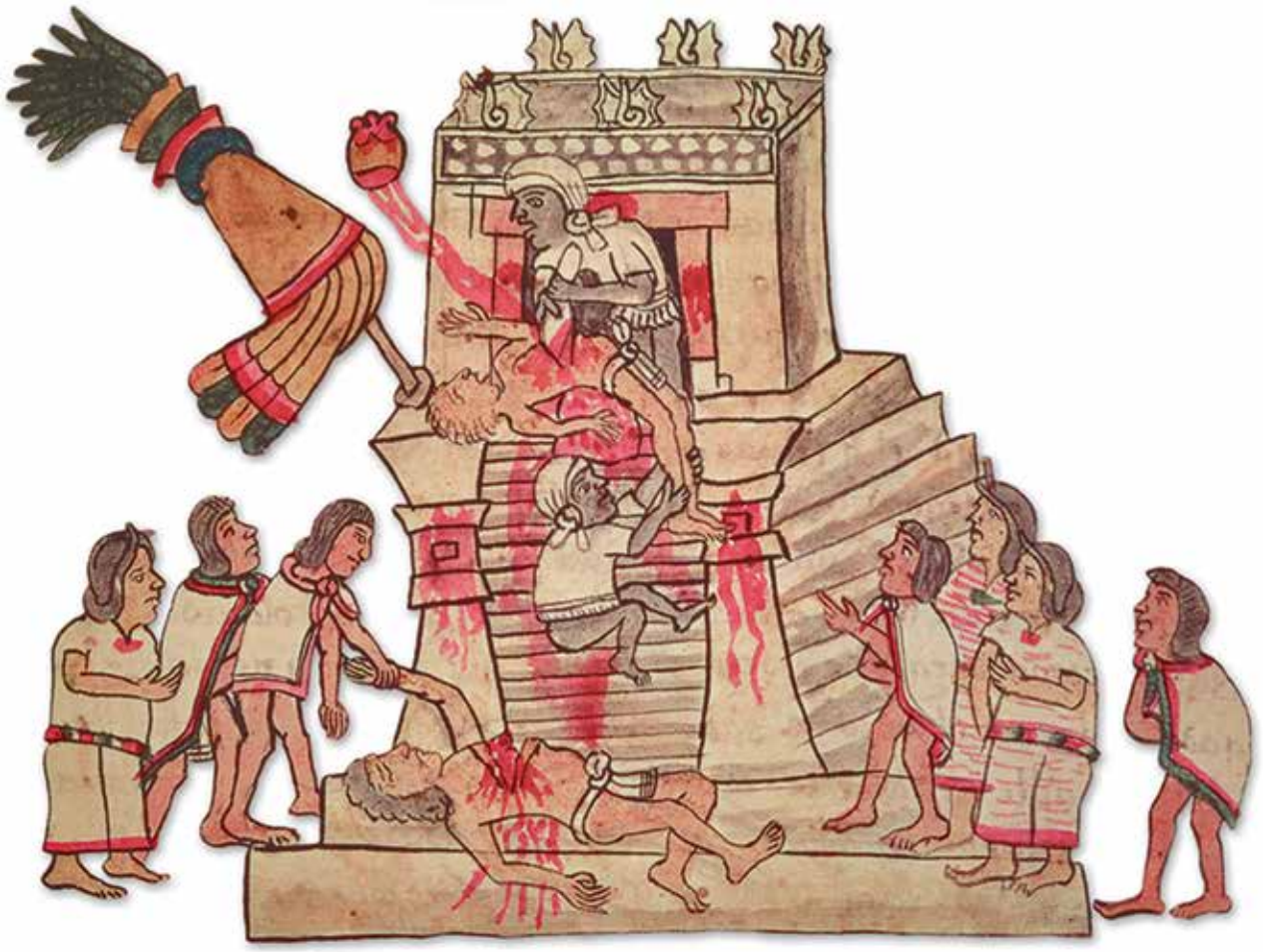
codex a pictorial book

subjective based on personal feelings rather than on facts

8.2.2 Aztec sources

There are very few surviving written Aztec sources from before the conquest because many of them were destroyed by the Spanish, either intentionally or during the fighting for Tenochtitlan. Most of the sources that were created after the conquest can be useful to historians, but they were created under the supervision of the Spanish. This means that surviving Aztec sources may still suffer from Spanish subjectivity. In the following decades, some descendants of those who experienced the conquest began to record the events from an Aztec point of view.

SOURCE 2 A scene from an Aztec codex showing ritual human sacrifice. Such practices were part of Aztec religion.



8.2.3 How reliable are the sources?

All historical sources are subjective to a certain extent. This means that the authors of the sources are influenced by their own personal beliefs and feelings, rather than purely by the facts. An example of this would be the different attitudes the Spanish and Aztecs had toward human sacrifice. The Aztecs believed that their gods remained strong only through offerings of blood and human hearts, and so human sacrifice was one of the core aspects of their religion. On the other hand, the Spanish felt that the act of human sacrifice was barbaric and demonstrated the inferiority of the Aztec people compared with Europeans.

8.2 SKILL ACTIVITY: Using historical sources

Consider SOURCE 2 to think about what primary sources can tell us about the past. Use the 'W's' to see how it can help **explain** something about the past.

WHO: Who created this?

WHY: What was the purpose of the codex?

WHAT DOES IT SHOW: What does your knowledge of the content tell you about the past? What does it suggest about the practices of Aztec religion?

Keeping questions like these in mind will help you unpack some key points about the past which you can then use to deepen your understanding.

8.2 Exercise

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8.2 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 7	4, 6	3, 5, 8

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Check your understanding

1. **Determine** whether the following statements are true or false.
   a. All Spanish accounts of the conquest of the Americas glorified themselves.
   b. The Spanish priest Bartolome de las Casas wrote to King Charles V of Spain defending the rights of the indigenous peoples during the Spanish conquest of the Americas.
   c. The Spanish and Aztec attitudes towards human sacrifice were similar, as they both believed that their gods grew stronger through sacrifices.
2. Which of the following explain why few Aztec sources from before the conquest survived?
   A. Aztec records were passed on verbally and not recorded
   B. They were destroyed by the Spanish
   C. They may have been destroyed during the fighting for Tenochtitlan
   D. They were lost at sea during transportation to Europe
3. **Explain** how a historical source is 'subjective'.
4. **State** the ways in which recording of events in the Aztec world changed after the arrival of the Spanish.
5. **Explain** why the perspectives of the Spanish missionaries might differ from those of the conquistadors.

Apply your understanding

Historical perspectives and interpretations

6. a. **Explain** why there are differences between Cortes' and de Sahagun's accounts of the Spanish conquistadors.
   b. **Identify** how both Cortes' and de Sahagun's accounts could be useful to historians, despite their differences.

Communicating

7. Why might historical sources be destroyed intentionally?
8. What strategies could be used to minimise the effect of subjectivity when studying particular sources?

LESSON
8.3 Who were the Aztecs?

LEARNING INTENTION

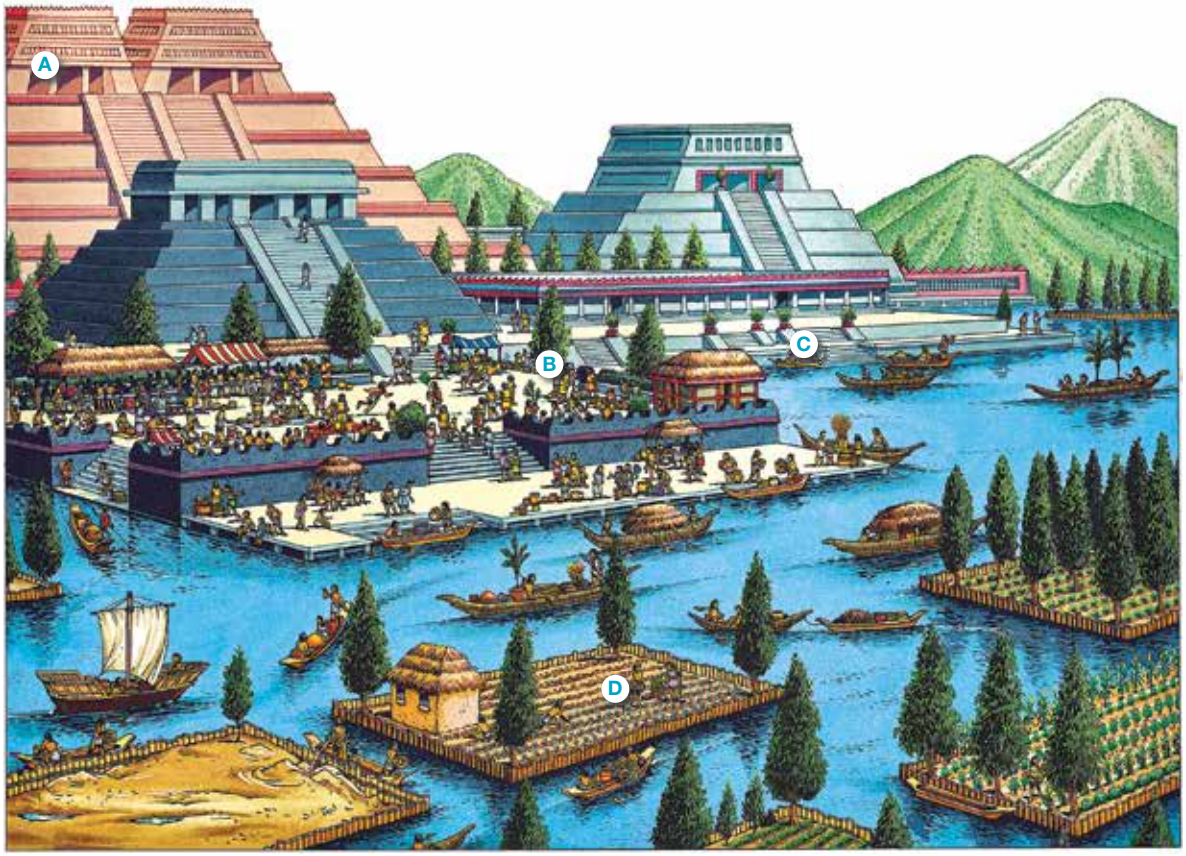
By the end of this lesson you should be able to describe the key features of Aztec society, culture and religion.

TUNE IN

For more than three hundred years prior to the arrival of the Spanish conquistadors, the region that is now central and southern Mexico was dominated by the Aztecs. The structure of Aztec civilisation and culture was complex and highly organised with sophisticated architecture and well-developed agriculture.

int-4119

SOURCE 1 A modern artist's impression of the city of Tenochtitlan



A The Aztec step pyramids dominated the skyline of Tenochtitlan. When it was decided that a larger pyramid was needed to honour the gods, the Aztecs would simply build on top of the existing pyramid.

B The streets of Tenochtitlan were free from vehicles. Although they had knowledge of the wheel, it was applied to little more than children's toys. Large-scale transport was impractical because there were no pack animals that could pull carts or wagons.

C The canals of Tenochtitlan were the highways of the city, with boats being the primary form of transport.

D The *chinampas*, or 'floating islands', were used for growing crops.

1. What impression do you get from **SOURCE 1** about the Aztec civilization?
2. What type of transport appears to be important for the Aztec people?
3. Use three words to describe your thoughts about the city of Tenochtitlan. Discuss your ideas and give reasons for your thoughts.

8.3.1 Everyday life in Tenochtitlan

The Aztec people arrived in what is now Mexico in the late 1100s. By 1250, they had settled near the shores of Lake Texcoco, and by 1325 they had begun building the magnificent city of Tenochtitlan.

The city of Tenochtitlan, one of the best planned and most elaborate cities anywhere in the world at the time, was built in the middle of Lake Texcoco on five swampy islands. Three long causeways connected the city to land around the lake's edge. The city itself had a network of both canals and roads so that all sections could be accessed either on foot or by canoe.

School

The Aztecs were a highly organised society. They led rewarding lives, particularly the noble classes. Young boys went to school to learn to live prudently, govern, and understand history and the ways of the elders. Girls were mainly taught at home. At 15 years old, boys could attend one of two types of school: children of the nobility went to the *calmecac*, which had a focus on advanced learning, administrative skills and religion, or commoners went to the *telpochcalli*, which was basically a military school. However, all boys learned some fighting skills, regardless of the direction their working life took.

Food

There were generally two main meals a day, with one meal being eaten during the hottest part of the day. A staple of Aztec diet was maize but this was supplemented with a large variety of meat and vegetables. The Aztecs are famous for introducing the world to chocolate; however, this was reserved for warriors and nobility, and was mixed with ground maize to make a drink. Alcohol came in the form of a drink called *octli*. The sap from the maguey plant was fermented but, like chocolate, this was a drink strictly for nobles, royalty and warriors, with commoners being permitted to drink it only on special occasions.

Crime and punishment

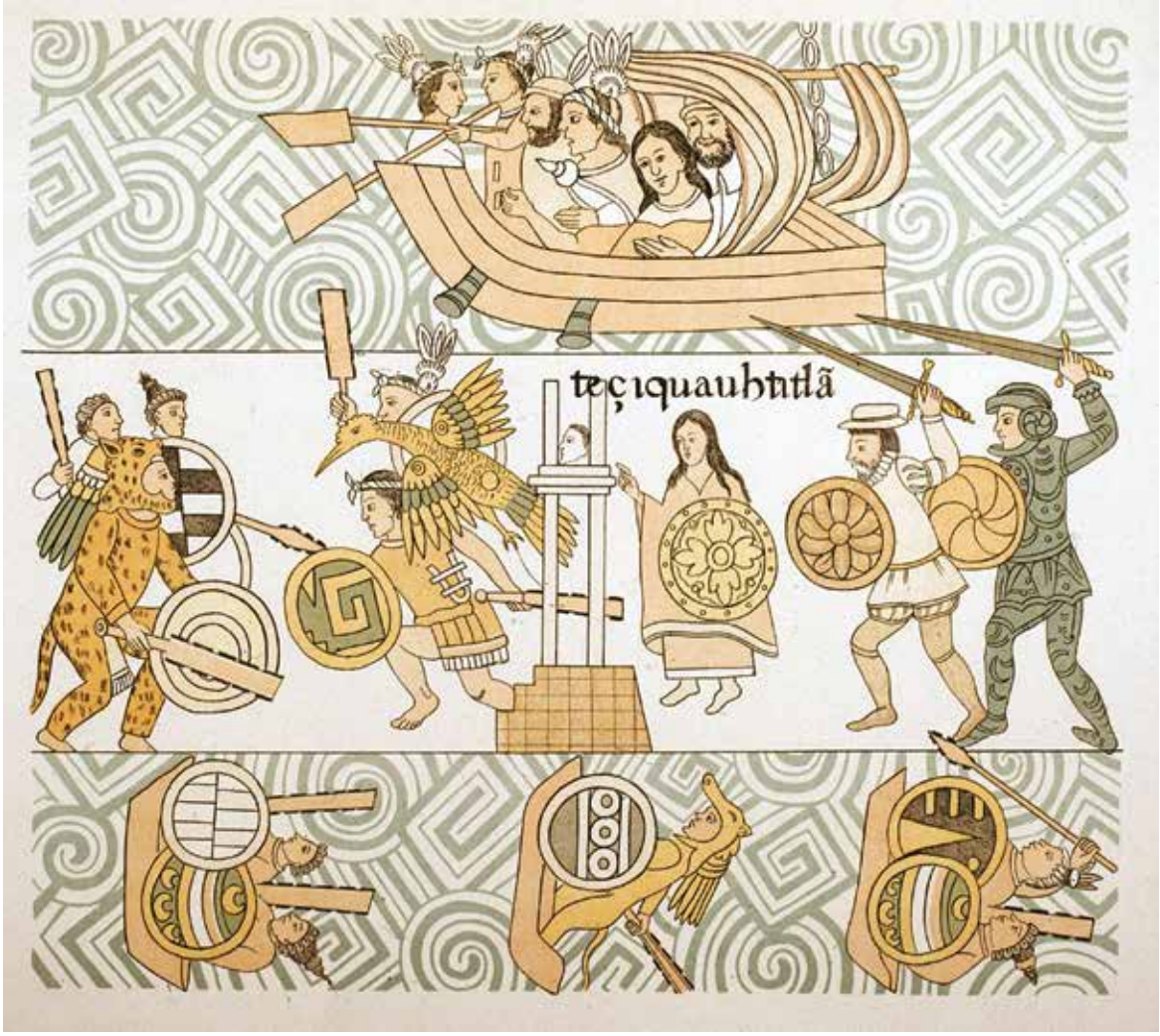
By today's standards, Aztecs had incredibly harsh punishments for most crimes. For example, if a commoner was found wearing cotton clothes, the punishment was death. Likewise, a death sentence was possible if someone was found guilty of adultery or even cutting down a living tree. The accused would be sentenced by a group of judges in a way that is not so different from Australia's justice system today. Although the punishments seem harsh from our modern-day perspective, it is important to remember that Europeans from that period would not have been as shocked because punishments were equally harsh in Europe at that time.

8.3.2 Aztec warfare

Life in the Aztec Empire was not peaceful; in fact, the Aztecs were in a state of perpetual war with the Tlaxcala people who also lived in the region that is now Mexico. The Aztec army was broadly organised into two layers. One was made up of commoners who were trained in basic fighting skills. The other consisted of the professional warrior class. Among the bravest and most skilled of these were the eagle and jaguar warriors, so named because of the distinguishing and fearful uniforms they wore.

In the average battle, there were fewer casualties than compared with European battles because prisoners were highly valued as slaves or victims for human sacrifice. Most soldiers would try to disable rather than kill their opponent. This technique was used by the Tlaxcalans and other enemies, and it is likely that the Tlaxcalans used Aztec prisoners for human sacrifice just as the Aztecs did with Tlaxcalans.

SOURCE 2 An illustration from an Aztec codex showing jaguar warriors, who were the elite soldiers in the Aztec army. On the right, Spanish conquistadors are visible.



8.3.3 Mythology and religion

Religion played a very important role in the lives of the Aztecs. They were a polytheistic culture, meaning they worshipped more than one god. In fact, they worshipped many hundreds of gods. They had wide-ranging religious beliefs, including some that were similar to those of Europeans at the time. They believed the Earth was flat and the Sun fought darkness every night so it could rise each morning.

The importance of religion to the Aztecs was expressed in their art and architecture, with enormous and elaborate temples built to worship the hundreds of gods that ruled over different aspects of nature and human activity.

Central to Aztec religion was the belief in human sacrifice to please the gods. As many as 20 000 people a year were sacrificed to the gods at a temple built specifically for that purpose. Most of those sacrificed were slaves or prisoners captured in wars with surrounding

SOURCE 3 A gold pendant representing Mictlantecuhtli



cities. The ritual involved priests stretching the subject over an altar and then lighting a fire on the victim's heart. The priest then tore out the heart and placed it in a sacred dish before the bodies were rolled down the steps of the temple to lie in a heap. Many Aztecs believed that dying this way would ensure a quick passage to heaven.

Like many other civilisations, the Aztecs believed in the afterlife. They believed that the key to reaching the afterlife quickly was in the way they died rather than the way they lived. Someone who died quietly of old age would have to pass through the underworld before reaching the realm of the dead. But a warrior who died in battle or a mother who died in childbirth would go straight to heaven.

int-7824

SOURCE 4 Some of the most important Aztec gods



A Mictlantecuhtli — god of the dead
B Quetzalcoatl — god of knowledge, creation, priesthood and wind
C Tlaloc — god of rain
D Huitzilopochtli — god of war, sun and the nation
E Xipe Totec — god of spring, new life and suffering

8.3.4 Agriculture

Built in the middle of a lake, Tenochtitlan did not have easy access to any farmland, so the Aztecs had to use a special method to grow crops. This method involved using *chinampas* or 'floating gardens', although this second name is misleading.

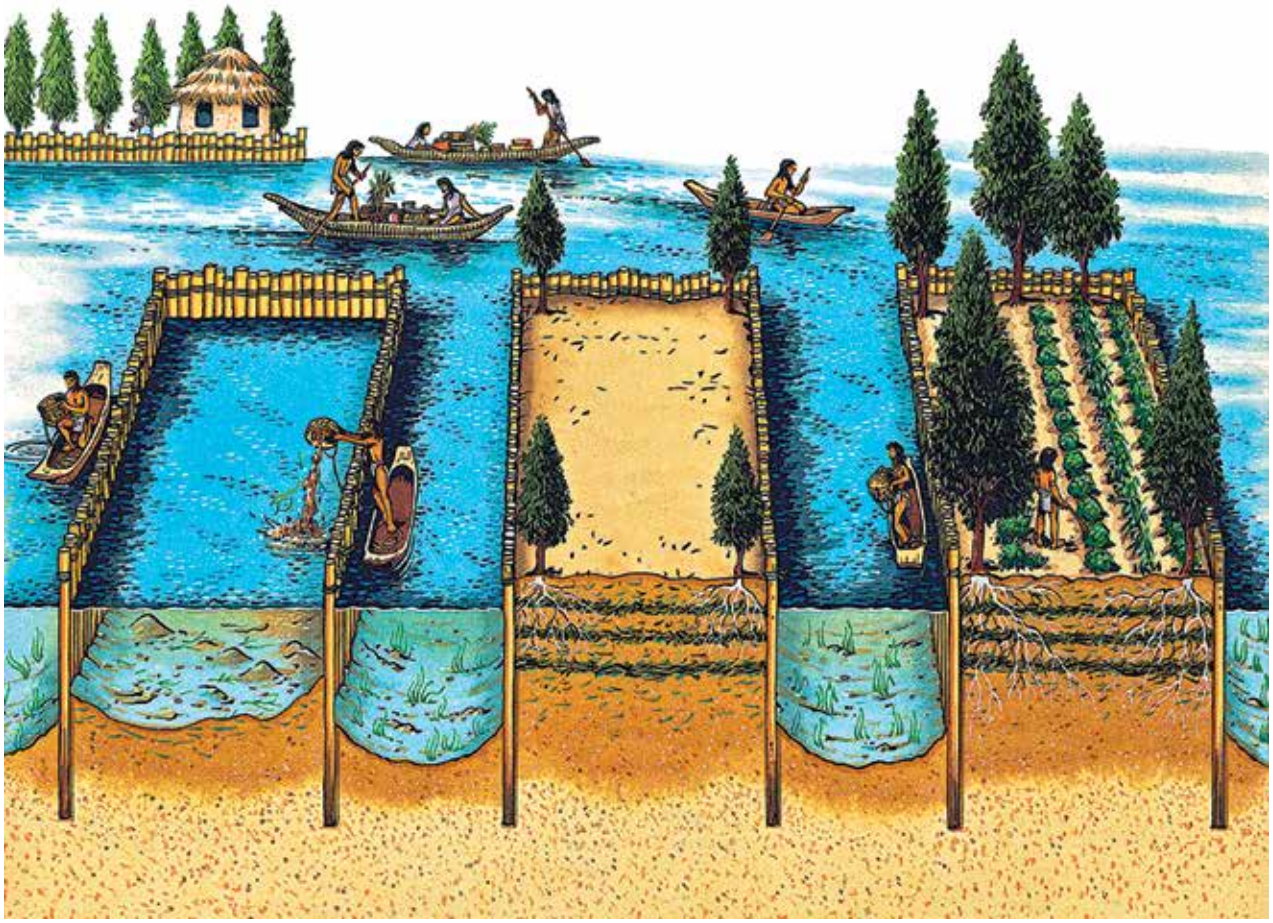
Chinampas were small man-made islands used for crops. An area of shallow lake bed was fenced off and gradually filled with mud, sediment and decaying vegetation until it rose above the water level. This provided a very fertile bed in which to plant a range of crops. This technique is still occasionally used today in some areas of Mexico.

SOURCE 5 A modern-day *chinampa* in use in Mexico



tlvd-10595

SOURCE 6 An illustration showing the cross-section of *chinampas*. Each is at a different stage of development.



on Resources

Weblink Mexico Lore

8.3 SKILL ACTIVITY: Questioning and researching

In pairs, conduct some further **research** into one of the following topics:

- Modern-day use of *chinampas* in Mexico. Why are they used today? Do you think much has changed about them over the centuries? How important are they to modern agriculture in Mexico?
- Religion in current-day Mexico. What festivals are observed in Mexico? Are they similar to those of the time of the Aztec Empire? What similarities and differences can you identify?

Use a table like the one below to **summarise** the similarities and differences you find as a starting point for your discussion. The table uses religion but can be easily adapted if you choose to research chinampa use.

You might want to use the **Mexico Lore** weblink in the Resources panel which contains lots of information that can help with your research:

What types of change have occurred in Aztec religion?	What continuities are there between Aztec and modern-day religion in Mexico?	Explain the importance of religion in Aztec and modern Mexico, and if you think that importance has changed over time.
* * *	* * *	*Use this space to express your ideas in a paragraph.*

As a class, **discuss** how much the Aztec culture influences modern-day Mexico.

8.3 Exercise

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8.3 Exercise

Learning pathways

■ LEVEL 1	■ LEVEL 2	■ LEVEL 3
1, 2, 3	4, 6	5, 7, 8

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Check your understanding

1. Using **SOURCE 1** and your understanding from reading the text, **identify** which of the following statements does NOT accurately describe the city of Tenochtitlan.
   - **A.** Tenochtitlan was a city built on five swampy islands in the middle of Lake Texcoco.
   - **B.** Tenochtitlan was connected to the lake's edges by three causeways and all parts of the city could be accessed by either roads or canals.
   - **C.** People travelled on foot or by bike and goods were transported by horse-drawn carriages.
   - **D.** Pyramid style buildings dominated the skyline and chinampas were used to grow crops to feed the city.
2. Some key differences between the diet of the nobility and that of the commoners were that the nobility had a drink made from chocolate and an alcoholic drink called *octli* made from the sap of the maguey plant. True or false?
3. Why might the Aztecs' common use of the death penalty not have shocked the Spanish?
   - **A.** The Spanish didn't believe that it occurred
   - **B.** The penalty was hidden from the Spanish
   - **C.** Spanish law was also harsh
   - **D.** The penalty was never actually carried out
4. **Recall** three key aspects of Aztec religion.

Apply your understanding

Using historical sources

5. **Explain** how **SOURCE 3** supports the argument that religion was important to the Aztecs.
6. **Analyse SOURCE 4**. **Identify** features of the illustrations that could help you identify the different gods if there were no labels.
7. **Explain** why the battles between the Tlaxcalans and the Aztecs left fewer casualties than European battles.
8. **Compare** and **contrast SOURCES 3** and **6** with reference to the image they portray of Aztec culture.
   a. If you referred to only one image, how accurate and reliable do you think your impression of the Aztecs would be?
   b. Using your responses to part **a**, **explain** the importance for students of history to refer to a number of different sources.

LESSON
8.4 How did the arrival of the conquistadors change the Americas?

LEARNING INTENTION

By the end of this lesson you should be able to explain what happened when European and American civilisations came into contact.

TUNE IN

The fifteenth and sixteenth centuries were a time of exploration and discovery for Europeans. These discoveries were driven by the desire for wealth and resources and while they made many European nations very wealthy they would have a devastating impact on the indigenous civilisations of the Americas.

1. Consider the elements of the painting. Pay attention to how the different people are portrayed.
2. Discuss how accurate you think this image might be compared with the actual event.

SOURCE 1 Columbus taking possession of the New World for Spain. This artwork was created in 1862, more than 300 years after the event it shows.



8.4.1 European expansion

History is full of tales about conquest and colonisation. The fifteenth and sixteenth centuries saw a rapid expansion of European colonies throughout the world, particularly in the Americas. The Europeans clashed, often violently, with the indigenous inhabitants they encountered. In most cases, the two cultures could not **coexist** peacefully — one would dominate the other. The most well-known example is arguably that of Hernan Cortes and the Aztecs.

coexist live together at the same time in the same place

8.4.2 Columbus sets the scene

With financial backing from Spain, Christopher Columbus, an Italian explorer, set out in August 1492 to find a western route to Asia. At that time, nobody in Europe knew that the Americas existed. So when he reached land in October, he believed he had reached Asia but in fact made landfall in what is now the Bahamas. Between 1493 and 1504, Columbus made three more voyages to the '**New World**', as the Americas were called. He established Spain's first American colony on the island of Hispaniola, and was the first of many who would follow and bring with them ideas of conquest and control.

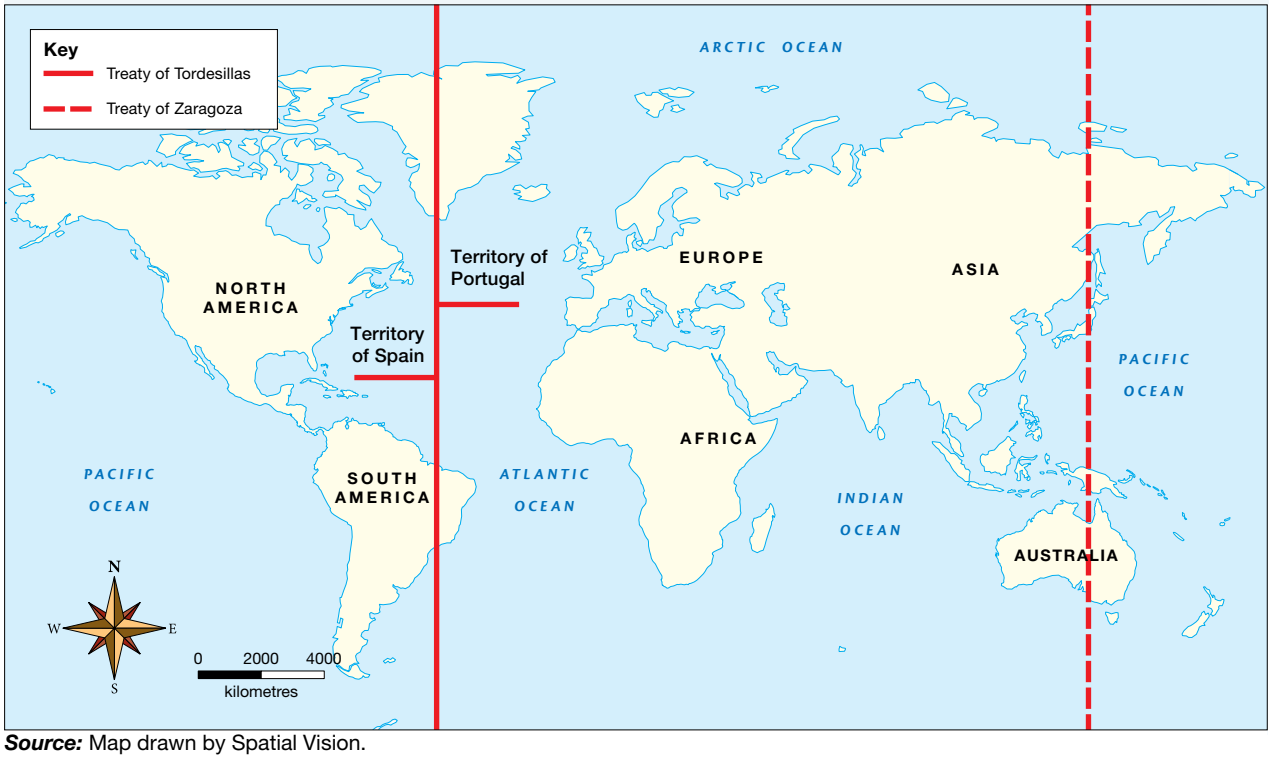
New World a term for the Americas during Early Modern Times

8.4.3 The 'legal' conquest

At the time of Columbus' voyage Spain and Portugal were the key rivals in ocean exploration. They shared a tense relationship and Columbus' discovery had the potential to escalate rivalry into conflict. In response, Pope Alexander VI issued a decree in 1493 that authorised Spain's exclusive right to colonise the Americas. Any land that was not inhabited by Christians was free to be 'discovered'. In effect, it authorised the displacement or enslavement of any indigenous people in the Americas. The following year another treaty was signed, this time to clarify the regions in which Spain and Portugal could explore and trade without risking conflict. Known as the Treaty of Tordesillas, it divided the rights to new lands between the two rivals.

tlvd-10596

SOURCE 2 A map indicating the division of the world under the Treaty of Tordesillas. Once Spain and Portugal reached Asia, a second division under the Treaty of Zaragoza was made.



Source: Map drawn by Spatial Vision.

8.4.4 Balboa: First to cross

Remembered today as the first European to cross the Americas, Spanish explorer Vasco Nunez de Balboa was one of many who were inspired by the news of Columbus' discoveries. In 1500 he travelled to the New World and helped establish settlements in areas around the Caribbean. In September 1513 he crossed the isthmus of Panama and became the first European to see the Pacific Ocean.

8.4.5 Cortes: Man of ambition

Born in 1485, Hernan Cortes was the son of a Spanish nobleman. He attended university at Salamanca but had a reputation for not working very hard. When he was 19, he moved to the Caribbean island of Hispaniola, which was then a growing Spanish settlement. About 6 years later, he took part in the conquest of Cuba under the command of Diego de Velasquez.

Cortes came to believe that the Aztecs in Mexico had much to offer the Spanish conquistadors. He was obsessed with claiming land for Spain and glory for himself. He was also looking for gold and had heard rumours that the Aztecs had lots of it. In February 1519, Cortes set sail for Mexico. Upon reaching the coast he destroyed his ships to ensure his men did not have any thoughts about desertion. He began marching inland to the Aztec capital, Tenochtitlan. On the way, Cortes made contact with Tlaxcala, which was a kingdom that resisted the rule of the Aztecs.

The Spanish found themselves in trouble because the ground was broken and uneven, so they could not effectively use their horses and cannons. But as they fought their way to level ground the balance shifted in their favour. After the early violent encounters, the Tlaxcalans permitted the Spanish to enter their territory — no doubt they were terrified by the Spanish firearms and horses, neither of which they had ever seen before. For their part, the Spanish granted them a truce in return for their support against the Aztecs.

As he moved further inland, Cortes avoided the well-travelled route to Tenochtitlan to minimise the possibility of ambush. He was also trying to recruit more allies against the Aztecs. For three months the conquistadors made their way through a variety of terrain, from arid mountains to fertile valleys. They were forced to adapt to the daytime heat as their armour was not practical for a climate that was much hotter than what the Spanish were used to. On the journey they saw strange plants and animals that were completely different to what they knew in Europe.

SOURCE 3 A map of the Aztec capital, Tenochtitlan, attributed to Hernan Cortes



Upon arrival at Tenochtitlan in November 1519, the Spaniards discovered a thriving, highly organised city. Built on the islands in the middle of Lake Texcoco, the city would have appeared to the approaching Spaniards as almost floating on an inland sea. The city had a population of about 250 000 people, and it controlled much of the surrounding countryside. It was from these lands that the city drew its wealth in the form of gold, jewels and crops.

SOURCE 4 A colour lithograph, created in 1892, showing Montezuma greeting Cortes in Tenochtitlan



Cortes was welcomed by Montezuma II, emperor of the Aztecs. One theory suggests that Montezuma thought Cortes was the god Quetzalcoatl, who was said to have fair skin and a beard, just like Cortes. However, Cortes' own letters make no mention of his being thought of as a god so this theory is probably untrue. After establishing a headquarters in Tenochtitlan, Cortes attempted to strengthen his position by taking Montezuma hostage. This was a common tactic in Europe but was seen as unacceptable to the Aztecs, who attacked and drove the Spanish from the city. During this uprising Montezuma himself was killed, possibly by his own people who thought him weak in the face of the Spanish. Cortes returned in 1521 and laid siege to the city before attacking. The battle lasted for two months and the Spanish were forced to fight fiercely for every street. Tenochtitlan was reduced to rubble and many thousands of Aztecs were killed. On 13 August 1521 Cortes was able to claim the city for Spain.

aud-0457

SOURCE 5 '*Lament on the Fall of Tenochtitlan*', a poem by an anonymous Aztec poet

How can we save our homes, my people?
The Aztecs are deserting the city
The city is in flames and all
is darkness and destruction
Weep my people
Know that with these disasters
We have lost the Mexican nation
The water has turned bitter
Our food is bitter
These are the acts of the Giver of Life

It took about two years for the Spaniards to destroy the indigenous civilisation of the Aztecs. Many Aztecs died directly at the hands of the conquistadors. But thousands of others died not from violence but from famine and diseases that were introduced by the Europeans.

Those who survived lost their dignity. Their wealth was stolen and their temples were destroyed. Because the Spaniards believed it was their duty to convert the Aztecs to Christianity, the Aztecs also lost much of their culture.

DID YOU KNOW?

Iron was a key factor behind the successful Spanish conquest of the Aztecs.

The indigenous peoples of the New World did not use iron; they still used old technologies for weapons. Iron was so important because it formed the principal component in swords, daggers, lances and knives, and was a crucial element in the workings of crossbows.

It was central to cannons and other firearms and it contributed to the effectiveness of armour, helmets and shields. Iron gave the Spanish an important advantage that helped ensure the defeat of the Aztecs.

SOURCE 6 An Aztec illustration of the Spanish conquest



8.4.6 Pizarro

The success of Cortes over the Aztecs led to an unprecedented period of European expansion in the Americas. The following two centuries saw the Spanish consolidate their rule over many Native American societies, including the Inca and Maya civilisations.

The Inca civilisation occupied roughly the area of present-day Peru and Chile, which is one of the most mountainous regions in the world. The Spanish conquistador Francisco Pizarro first made contact with the Inca in 1526, but it took longer to conquer them than the Aztec Empire, largely because of the harsh geographical features. The tropical jungle and mountainous terrain hampered the progress of the conquistadors, who found their armour torturous in such a hot and humid climate.

Ultimately though, the combination of superior Spanish weaponry and the longer-term effect of introduced diseases meant that the Inca could not resist indefinitely. The city of Lima was founded by Pizarro in 1535 and the Viceroyalty of Peru, which was the name given to the region of South America ruled by Spain, was created in 1542.

The Maya proved more of a challenge for the Spanish, despite the fact that they were located in a less harsh geographical region. Occupying much of the Yucatan Peninsula in what is now southern Mexico, the Maya civilisation consisted of a number of independent city-states. There was no single capital city like the Aztec capital Tenochtitlan so the individual states had to be overpowered one by one, making the conquest a long and arduous one for the Spanish. It took more than 150 years before the last Mayan city was conquered.

8.4 SKILL ACTIVITY: Evaluating historical significance

Select one of the following individuals and **consider** the significance of their role in the colonisation of the Americas: Columbus; Balboa; Cortes; Pizarro.

PART 1: Consider the following questions to guide your thinking and make some notes:

- To what extent were people's lives changed due to the individual?
- How long-lasting were the consequences of their impact?
- How can the consequences still be felt today?

PART 2: When you have recorded some thoughts for the questions above, **compare** them with a classmate who selected a different individual. As a pair, or in small groups, try to rank the different individuals. Can you make a claim about which are more significant? How have you reached your conclusions?

8.4 Exercise

learnon

8.4 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
x, x	x, x	x, x

These questions are even better in jacPLUS!



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Check your understanding

1. What were the two main reasons for Spanish settlements in the New World?
   - A. Silver
   - B. Gold
   - C. To convert the Aztecs to Christianity
   - D. To convert the Aztecs to Buddhism
2. Why did Cortes follow an indirect route from the coast to Tenochtitlan?
   - A. To fill in the time her needed to gather his army
   - B. To take in the scenery of the journey
   - C. To capture enemy soldiers in towns on the way
   - D. To minimise the possibility of ambush
3. **Identify** the correct options to complete the sentence.
   In addition to violence, **hunger** / **disease** / **fear** killed many thousands of **Europeans** / **Aztecs** because they had little resistance to the **crops** / **animals** / **germs** introduced by the **Europeans** / **Aztecs**.
4. Study **SOURCE 3**. What might have been the advantages and disadvantages of the layout of Tenochtitlan if the city was under attack?
5. **Examine SOURCE 4**. **Describe** what impression you get about the initial meeting between Cortes and Montezuma. **Justify** your viewpoint with evidence.

Apply your understanding

Using historical sources

6. Study **SOURCE 6**. You will see one of the conquistadors, possibly Cortes himself, embracing two Aztec warriors. **Propose** who these people could be and why they are not fighting against Cortes.
7. Read **SOURCE 5**. 'Lament' can mean a 'passionate expression of grief or sorrow'. **Justify** whether you think it is an appropriate term to use for this poem.

Communicating

8. **Explain** what you think was the most significant advantage the Spanish had over the Aztecs during the conquest. For example, was it technology, or perhaps resistance to disease? **Explain** your reasoning.
9. **Evaluate** the significance of geographic features in the Spanish conquest of the Aztec, Inca and Maya civilisations.
10. What does the Treaty of Tordesillas suggest about the power of Spain and Portugal in the fifteenth century?

LESSON
8.5 What were the effects of conquest and colonisation?

LEARNING INTENTION

By the end of this lesson you should be able to explain the structure and management of New Spain and its impact on the indigenous people of the Americas and on international relations.

TUNE IN

Progress? Exploitation? Opportunity? Oppression? That all depends on your perspective.

SOURCE 1 portrays the construction of Mexico City over the ruins of Tenochtitlan using indigenous slaves.

SOURCE 1 An illustration of sixteenth-century native slaves building Mexico City on the ruins of Tenochtitlan



1. Can you identify each of the words above in this image? Where can you see them?
2. How does perspective play a role in identifying each term?

8.5.1 A new empire

After the defeat of the Aztec Empire, Hernan Cortes founded the colony of New Spain, with Mexico City (formerly Tenochtitlan) as its capital. Over time, the colony would grow to encompass most of the region that is now the United States, Mexico and the islands in the Caribbean Sea. Later, it would extend across the Pacific Ocean as far as the Philippines. The Spanish domination of these regions was to last over four hundred years.

The establishment of New Spain meant the creation of a new part of the Spanish Empire. The lands that were brought under Spanish control after the conquest were very wealthy and complex, providing an opportunity for Spain to establish itself as a world power.

SOURCE 2 A map showing the growth of New Spain in the Americas



Source: Map drawn by Spatial Vision.

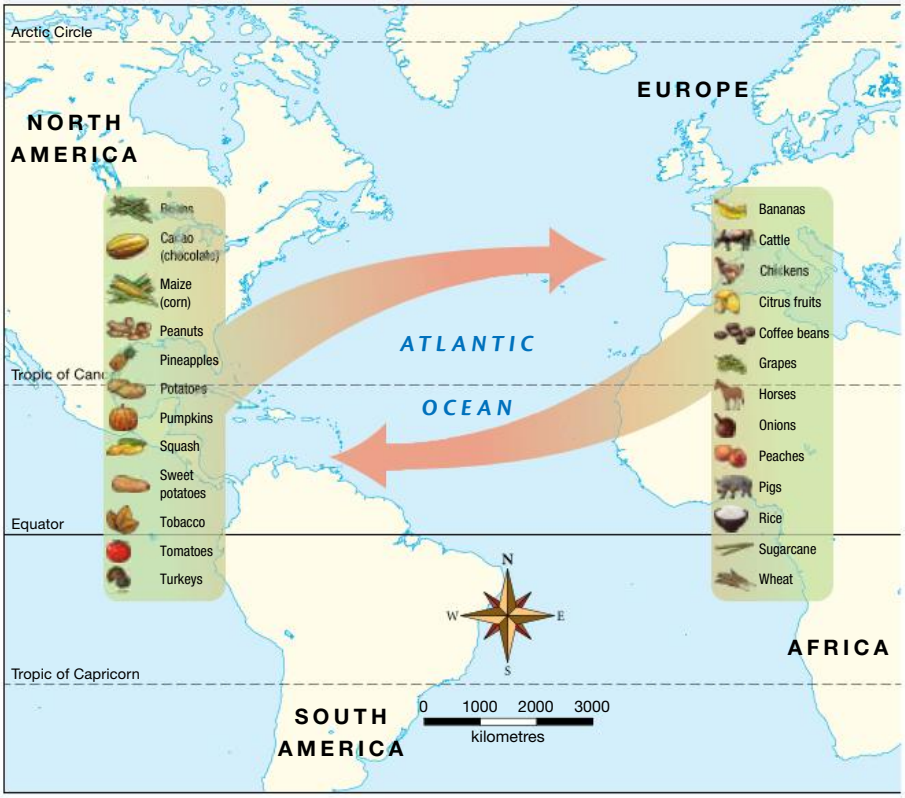
The trade routes that developed between the Americas and Europe became known as the 'Columbian Exchange'. Plants, animals, diseases and technology all criss-crossed the oceans. Tomatoes, for example, now associated with Italian cuisine, were unknown to Europe until they were introduced from the New World. Other new plants included potatoes, corn and tobacco. For their part, the Europeans introduced, among other things, bananas, coffee beans and horses to the Americas.

Internally, the administration of New Spain was structured under the 'encomienda system'. Established in 1521, it was created to regulate labour and behaviour of the indigenous population. The Spanish conquistadors and settlers received a 'grant' of land and labourers who offered tributes in return for protection and 'Christianisation'. The idea was to 'civilise' and employ the indigenous population to work for the Spanish settlers. In reality, however, the encomienda descended into a system of forced labour and land seizure, and resulted in the quick spread of the introduced diseases against which the indigenous population had no resistance.

At the same time as the settlement of New Spain, an attempt was made to establish trade routes with the East Indies (modern-day South-East Asia). The Pacific Ocean had the potential to become a trading 'superhighway' for the Spanish by eliminating the need for the long sea voyage from Europe around the southern tip of Africa. A Spanish settlement was established in the Philippines in 1565 and soon a busy trade route developed. Silk, spices, silver and slaves were all transported from Asia to the Americas and then on to Europe.

tlvd-10597

SOURCE 3 The Columbian Exchange between Europe and the Americas introduced each to a range of new foods and resources, as well as diseases and slavery. Some iconic items, such as tomatoes in Italy or coffee in Brazil, were unknown before the trans-Atlantic trade began.



Source: Map drawn by Spatial Vision.

8.5.2 Expansion and conflict

The signing of the Treaty of Tordesillas in 1494 may have given some decades of peace of mind to the Spanish and Portuguese, but by the late sixteenth century other European nations had begun to establish their own colonies on the American continents. As the various colonies expanded, conflict was inevitable. The countries most active in the expansion and fight for the New World were Spain, Great Britain and France. The Dutch were also influential, but mainly in the north-east of North America. Their most famous act was founding the city of New Amsterdam, which would later become New York. All of these countries saw in the Americas the opportunity for wealth; because they were often at war with each other in Europe, no country wanted any of the others to succeed.

8.5.3 The end of New Spain

Through three centuries of conflict, Spain had established itself as the governing power across much of the North American continent. But by the beginnings of the nineteenth century the first calls for independence began. The colonies that were under Spanish control felt that they were able to rule themselves. They wanted to play a role in the decisions that would affect them. In 1810, Mexico declared independence from Spain, leading to a 10-year war that would end with that independence finally being recognised. This in turn encouraged many other parts of New Spain to seek independence as well. Britain offered support against Spain because they wanted to end the Spanish **monopoly** on trade in the region. By the 1820s, almost all of the Spanish colonies in the Americas had won their independence. New Spain was disappearing.

monopoly an organisation or group that has complete control of something

In 1898, the Spanish were defeated by the United States in a war that would decide who would control the remaining territories. As the victorious power, the United States took control of Cuba, Puerto Rico and the Philippines, ending more than four centuries of Spanish rule in the Americas.

8.5 SKILL ACTIVITY: Using historical sources

Your task is to research the expansion of New Spain as shown in **SOURCE 2**.

1. Using an atlas and information found online, **identify** the year of establishment of the cities labelled on **SOURCE 2**.
2. Add the location of some other cities named after saints. Include their name and year of establishment.
3. After plotting your information, **describe** the expansion of New Spain.

You could refer to one or more of the following:
- the direction of the expansion
- the time taken to establish new cities
- the regions into which New Spain expanded.

8.5 Exercise

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8.5 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 6	5, 7, 8

These questions are even better in jacPLUS!



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Check your understanding

1. Why did Spain want to create an empire in the New World? **Identify** all applicable answers.
   - **A.** To convert people from Christianity
   - **B.** To expand its territories
   - **C.** To expand its wealth
   - **D.** To convert people to Catholicism
2. **Identify** which of the following European powers did not have a presence in North America.
   - **A.** Great Britain
   - **B.** France
   - **C.** The Netherlands
   - **D.** Germany
3. Britain, France and the Dutch may have taken issue with the Treaty of Tordesillas when it was signed because they had all agreed not to explore the New World until the next decade. True or false?
4. **Identify** the key threats to Spanish control over the North American continent.

Apply your understanding

Communicating

5. **Explain** one way that the idea of the encomienda system often different from the reality.
6. **Describe** one long term change you think would occur due to the Columbian Exchange.

Using historical sources

7. **Explain** how the 'encomienda system' benefited the Spanish settlers to the disadvantage of the indigenous population.
8. What challenges would have emerged from the exchange of foods and resources you can see in **SOURCE 3**?

LESSON
8.6 What were the long-term legacies of conquest and colonisation?

LEARNING INTENTION

By the end of this lesson you should understand the broad impacts of conquest and colonisation including those that still affect the world today.

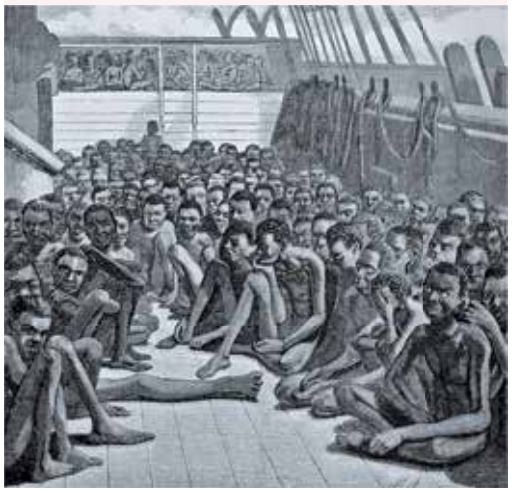
TUNE IN

Read the following quote by Reverend Robert Walsh, who served aboard a ship that intercepted the illegal slave trade:

> The slaves were all inclosed between decks. The space was so low that they sat between each other's legs . . . they were all branded like sheep with the owner's marks. The head was so great and the odour so offensive that it was quite impossible to enter. I was informed by my friends who had visited so many ships that this was one of the best they had seen.

1. What aspects from the quote above can you see in the image?
2. How would you describe the conditions based on what you can see in the image?
3. The image is from 1860. What does this tell you about the long-term consequences of European colonisation of the Americas?

SOURCE 1 A drawing from the magazine 'Harpers Weekly' in 1860 showing slaves on board a ship.



8.6.1 Impact on the Aztecs

The Spanish conquest of the Americas had wide-ranging and long-term impacts. Initially those impacts were felt within the American continent, but as the Columbian Exchange developed, the impact was felt more widely and helped lay the foundations for the creation of the modern world.

The most obvious and significant impact of the Spanish conquest on the Aztec people was the severe decline in population over the years of the colonisation. Diseases introduced by the Europeans and the effects of slavery and malnutrition had serious consequences for the native population. It is estimated that the native population of Mexico had declined by 90 per cent by the early 1600s. **SOURCE 2** discusses additional reasons for the declining population in Mexico.

aud-0458

SOURCE 2 From *The Population of the California Indians, 1769–1970,* written by Sherburne Cook

> The first [factor] was the food supply . . . the second factor was disease . . . A third factor, which strongly intensified the effect of the other two, was the social and physical disruption visited upon the Indian. He was driven from his home by the thousands, starved, beaten, raped, and murdered . . . The utter devastation caused by the white man was literally incredible, and not until the population figures are examined does the extent of the havoc become evident.

The Spanish conquest led to a loss of culture. Traditional art and music, as well as native languages, were under threat of being lost forever. Even the design of the codex, the traditional written record of the Aztecs and one of our few primary sources of information on their culture, changed because of Spanish influence. Codices were originally pictorial; however, after colonisation, Spanish and Latin text was introduced.

As New Spain grew, native labourers travelled with the Spanish so that they could be put to work under the arrangements of the *encomienda* system. By doing this, the Aztec, Mayan and Incan people who had lived apart for centuries were suddenly mixing together. This blurred the distinction between the three previously unique cultures. This loss of culture was exacerbated by the efforts of the Spanish to convert the native population to Christianity. In some cases, rather than converting outright, the native population merely incorporated aspects of Christianity to their pre-existing belief systems. Some of these variations survive to this day, and the Roman Catholic Church is as present and powerful in the Americas as it is anywhere in the world.

8.6.2 Slavery

The Spanish did not bring slavery to the New World; they merely introduced a new form of it. Slavery had been an important part of Aztec culture but it was very different to the form of slavery that the Europeans practised. Aztec slaves could have possessions and often had the opportunity to buy their liberty. If an Aztec slave's master died, the slave would sometimes be freed rather than sold to someone else. People could also sell themselves into slavery as a way of paying debts, and even a murderer could be offered as a slave to the family of the person killed, if requested. One key difference between Aztec and European slavery was its **hereditary** nature. The child of an Aztec slave was not automatically a slave, unlike the European system where a person could be born into slavery.

Technically, slavery was not permitted in New Spain. In 1493, Pope Alexander VI, at the same time as granting Spain the right to colonise the New World, declared the native people were to be converted to Christianity but not enslaved. The *encomienda* system was intended to honour this arrangement by ensuring that indigenous people who were used for labour were protected and converted by missionaries. However, any that resisted the Catholic faith could be subjected to forced labour. For the conquistadors, this provided an easy excuse to declare that any slaves were merely natives who had refused to accept Christianity and had reverted to their own religion.

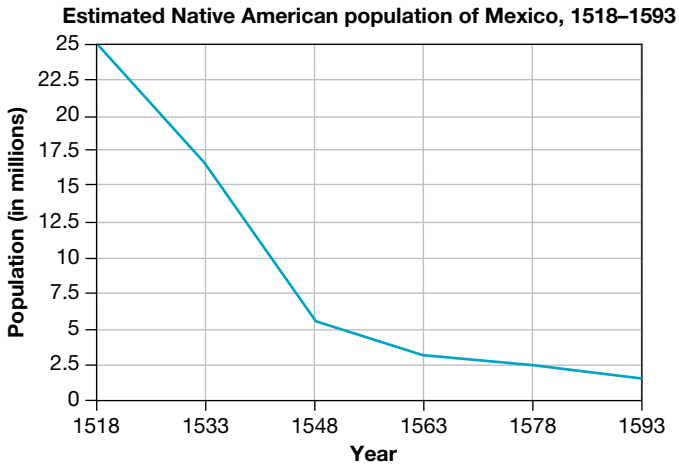
hereditary passed from parent to a child

DID YOU KNOW?

One way for an Aztec slave to win their freedom was to escape from the watch of their master while at the tianquiztli (marketplace) and run to the palace. If they reached the palace without being caught, they became free. Only the master or one of his relatives was allowed to chase the slave — if anyone else interfered, they risked being sold into slavery themselves. Look back at **SOURCE 1** in lesson 8.3 and see whether you can find the slave escaping from his master.

During the conquest of the Aztec Empire, many thousands of native people died not from violence but from diseases that were introduced by the Europeans. The native population did not have immunity to these introduced diseases and died by the hundreds of thousands in much the same way that Europe was ravaged by the Black Death a century earlier. After the establishment of New Spain, disease continued to claim a massive number of native lives as it followed the Europeans across the American continent. To combat the problem of losing workers, the Spanish began to import slaves from Africa. These areas had already been settled by Spain and so the native people had developed immunity from the common, but otherwise deadly, diseases. Over the course of nearly four centuries, approximately 12 million slaves were transported from Africa to the New World.

SOURCE 3 A graph showing the decline of the Aztec population in the sixteenth century



SOURCE 4 A ceramic vase featuring the god Tlaloc from before the Spanish conquest. This artefact is held in the Museum of the Templo Mayor, which used to be a major Aztec temple, in Mexico City.



SOURCE 5 A loss of Aztec culture means that museums are essential for the preservation of many Aztec artefacts. These artefacts are part of the National Museum of Anthropology in Mexico City.



DISCUSS

In groups, consider the challenges for modern historians when confronted with information that reveals historical actions to be what modern society would judge as harsh or inappropriate. Think about how they would need to approach the following topics without using modern standards to judge past practices:

a. the sacrificing of people in the Aztec civilisation
b. the enslavement and transportation of people from Africa to the Americas.

What mindset would a historian need to adopt to ensure they investigated these topics without judgement?

8.6.3 Language and religion

Around the world, Spanish is now spoken by an estimated 550 million people, but less than 10 per cent of these people actually live in Spain. The spread of the language around the globe during the expansion of the Spanish Empire has made it one of the most widely spoken languages in the world. It is the official language of Mexico and most countries in South America, and is spoken widely throughout the United States. In fact, the vast majority of the world's Spanish speakers live in North and South America. One major exception to this is Brazil. Because of the Treaty of Tordesillas of 1494, Portugal was able to colonise the eastern part of South America. This is why Portuguese is the official language of Brazil.

SOURCE 6 When Mexico declared independence from Spain in 1810, the Aztec Empire became the inspiration for the new national flag. The central emblem is based on the founding myth of Tenochtitlan. The migrating Aztec people were directed by the sun god to build a city on the site where they saw an eagle eating a serpent while perched on a cactus growing from a stone. Legend says that Tenochtitlan was that site.



The introduction of the Roman Catholic faith to the Americas was spearheaded by the Spanish. Denounced as heathens, the Aztec, Mayan and Incan people were often forced to convert to Christianity, or face slavery or death. Today, the Roman Catholic Church is as present and powerful in the Americas as it is anywhere in the world.

DISCUSS

Imagine you are a historian who is being interviewed about their work on the Spanish Conquest of the Aztecs. The interviewer asks the following question: In your work on the Aztecs you have had to research human sacrifice and slavery — both of which are topics that present some confronting information. How have you managed to ensure that you remain objective and without judgement when studying these topics?

How would you respond?

8.6.4 Impact beyond the Americas

The colonisation of New Spain meant that the Spanish Empire became one of the world's most powerful empires. The natural resources that the region contained — gold, silver, furs, sugar and cotton — helped Spain become wealthy. As the native population decreased, they were effectively replaced with huge numbers of Europeans who migrated to the region to make money.

New foods, previously unknown to Europeans, were found on the American continents; these included potatoes, tomatoes, avocados and chocolate.

The term 'New World' was originally applied to the Americas by Europeans. The meeting of different cultures and the exploration of new lands by Europeans led to an increase of geographic knowledge. Communication was established between civilisations that previously had no idea of each other's existence, and as the centuries progressed, ideas and knowledge were shared, paving the way for the modern world in which we live today.

SkillBuilders to support skill development

- 1.10 Evaluating roles and achievements

8.6 SKILL ACTIVITY: Using historical sources

In pairs, **consider** the image in **SOURCE 7**. Your job is to **discuss** the value and limitations of the source for historians studying this topic.

SOURCE 7 An illustration from a sixteenth-century codex showing native Aztecs suffering from smallpox.



STEP 1: Consider the following:

- We know that the image is from a sixteenth-century codex, but can we tell from the image who exactly it was who drew it?
- What do you know about how Aztec codices changed after the arrival of the Spanish?
- What other information in this topic can you use to corroborate the information provided in **SOURCE 7**? Does this help its value?

STEP 2: Copy and complete this table to help organise your ideas:

Information presented in the source — What does it show? What does it tell us?	Other information in the topic that can support or challenge that information — do they present similar information?	Values of the source — How is it useful to historians? What can it reveal to us?	Limitations — what can it NOT reveal to us?

STEP 3: Discuss your thoughts as a pair, or **compare** with others in your class.

STEP 4: Answer this question in a paragraph individually: What are the values and limitations of **SOURCE 7** to historians, and how does what we know about the source impact its usefulness?

8.6 Exercise

learnon

8.6 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 5, 7	6, 8, 9, 10

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Check your understanding

1. **Identify** how Aztec codices changed after the Spanish conquest.
   - A. Spanish and Latin text was added to the traditionally pictorial codices.
   - B. Spanish and Latin text was removed from the traditionally pictorial codices.
   - C. Spanish but not Latin text was added to the traditionally pictorial codices.
   - D. Spanish but not Latin text was removed from the traditionally pictorial codices.
2. **Determine** whether the following statements are true or false.
   - a. Spanish is spoken by approximately 550 million people around the world, but less than 10 per cent of those people live in Spain.
   - b. The Spanish conquest of the Americas led to a significant decline in the native population of Mexico due to the introduction of diseases and other factors.
   - c. The Aztecs did not have a form of slavery before the arrival of the Europeans.
4. Why is Portuguese spoken in Brazil, but not elsewhere in South America?
   - A. A vote by the people of Brazil in 1494 changed the official language from Spanish to Portuguese.
   - B. The Spanish language slowly disappeared as new generations preferred Portuguese.
   - C. Both Spanish and Portuguese were taught in school but Portuguese was much easier to learn.
   - D. Brazil was allocated to Portugal as a colony under the Treaty of Tordesillas.
5. **Describe** what might have been done to the indigenous people of the Americas if they had not converted to Christianity.
6. **Explain** why Europeans migrated to the region of New Spain.

Apply your understanding

Communicating

6. **Explain** how the conquistadors defied the law that stated that slavery was not permitted in New Spain.
7. **Propose** why the term 'New World' could be misleading.
8. Read **SOURCE 2**.
   - a. **State** the reasons Sherburne Cook offers for the decline in the Native American population.
   - b. Sherburne Cook was not a historian by training but he did pioneer population studies of the native peoples of the Americas. He wrote widely on the subject of pre-conquest population levels. From this information, **determine** if you think **SOURCE 2** is a reliable source. **Justify** your response.

Using historical sources

9. **Examine SOURCE 3**.
   - a. **State** the estimated Native American population in Mexico in 1518.
   - b. By what year had the population dropped to approximately 3 million?
   - c. According to the graph, in what 15-year time period did the population drop most dramatically?
   - d. **Explain** why this rapid decline might have slowed later.
10. **Explain** what **SOURCES 4** and **5** can tell you about the attitude towards the Aztec culture in modern-day Mexico.

LESSON
8.7 INQUIRY: Spanish conquest exhibition

LEARNING INTENTION

By the end of this lesson you should be able to use primary and secondary sources to explain the Spanish conquest of the Americas.

In this inquiry, you will develop an explanation of the Spanish conquest of the Americas in pairs or small groups using no more than ten primary and secondary sources and express it through the medium of a museum exhibition.

SOURCE 1 An illustration showing the landing of Columbus at San Salvador, October 12th, 1492. Published by Currier & Ives, 1846.



Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

Inquiry steps

Step 1: Questioning and researching

What sources most appropriately reveal the history of the Spanish conquest of the Americas?

What do you see as the key concepts of the topic? Conquest? Resistance? Culture? Change? What concepts will be the focus of your presentation?

Step 2: Using historical sources

Identify the sources you wish to use in your exhibition. You should have no more than ten sources in total, but try to find a range of different sources — written, visual, primary, secondary and so on — to provide as wide a scope as possible.

Step 3: Historical perspectives and interpretations

Compare the sources you have selected with those of your partner or group. **Analyse** your selection to decide which sources work best so that you still have no more than ten as a whole group.

Each source will need a caption. Each caption should be around 100 words and should **describe** not only the source itself but the reasoning for why it is included in the exhibition and why it is an important source for understanding the topic. You could include information about the perspective of the source, for example, if it is a source written by a one of the Spanish conquistadors then your caption should outline how perspective might be influenced.

Step 4: Communicating

Choose a title for your exhibition. It should be one that captures the key idea but also is interesting, exciting and relevant.

Bring your sources together and present them in a way that best captures your themes and ideas. There are any number of ways this could be done, and you may need to discuss some with your teacher, but some options could include printing your images and arranging them on a display board with the captions, or presenting your work online as a virtual museum using an appropriate program.

Complete your self-assessment using the **Inquiry rubric** or access the 8.7 exercise set to complete it online.

on Resources

Digital document Inquiry rubric (doc-39397)

LESSON
8.8 Review

Hey students! Now that it's time to revise this topic, go online to:

Review your results

Watch teacher-led videos

Practise questions with immediate feedback

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8.8.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

8.2 How do we know about the Spanish conquest of the Americas?

- Most contemporary records of the conquest were written by the Spanish.
- The sources were often subjective and focused on only one side of the story.
- Few first-hand accounts of pre-Spanish Aztec life remain.

8.3 Who were the Aztecs?

- Enough Aztec sources remain for us to learn that their culture was sophisticated and organised.
- The Aztec Empire often warred with its neighbours.
- Aztec religion was polytheistic, meaning they worshipped many gods.
- Similar agricultural techniques to those used by the Aztecs are still used in Mexico today.

8.4 How did the arrival of the conquistadors change the Americas?

- Spain and Portugal were the great sea power rivals of the fifteenth and sixteenth centuries.
- Columbus was searching for a new sea route to Asia when he 'discovered' the Americas.
- Columbus was the first person to initiate the spread of knowledge of the 'New World' through Europe but certainly was not the first to discover it.
- The fifteenth and sixteenth centuries was a time of rapid expansion of European empires around the world.
- In most cases, encounters between Europeans and indigenous people ended with conflict.
- For nearly two centuries after the fall of the Aztec Empire other expeditions took place and brought to an end both the Incan and Mayan civilisations.

8.5 What were the effects of conquest and colonisation?

- The Treaty of Tordesillas, signed in 1494, was an agreement between Spain and Portugal to designate regions that each could explore freely.
- The rise of the British, French and Dutch empires brought them into conflict with Spain and Portugal over who would control the world.
- Calls for independence from the regions under Spanish control brought an end to New Spain in the nineteenth century.

8.6 What were the long-term legacies of conquest and colonisation?

- Aztecs practised slavery before the Spanish arrival but it was different to that introduced by the Europeans.
- Officially, slavery of native people in New Spain was only permitted if they refused to convert to Catholicism.
- As disease took its toll on the native people new slaves were transported from Africa through the 'triangular trade'.
- The Spanish conquest of the Americas had short- and long-term impacts on the world; both the Spanish and the American continents and people were changed forever.
- Spain became wealthy because of its colonies in the Americas.
- The 90 per cent decline in the native population of Mexico was due mainly to disease.

8.7 INQUIRY: Spanish conquest exhibition

- Museum exhibitions are one of many ways to share information.
- Different perspectives need to be discussed and acknowledged before deciding on appropriate sources for final displays.

8.8.2 Key terms

codex a pictorial book
coexist live together at the same time in the same place
conquistador one of the Spanish conquerors of Mexico in the sixteenth century
hereditary passed from parent to a child
missionary a person sent on a religious mission, especially one sent to promote Christianity in a foreign country
monopoly an organisation or group that has complete control of something
New World a term for the Americas during Early Modern Times
subjective based on personal feelings rather than on facts

8.8.3 Reflection

Complete the following to reflect on your learning.

Revisit the inquiry question posed in the Overview:

How did the Americas change as a result of the Spanish conquest?

1. Now that you have completed this topic, what is your view on the question? Discuss with a partner. Has your learning in this topic changed your view? If so, how?
2. Write a paragraph in response to the inquiry question, outlining your views.

on Resources

eWorkbooks Customisable worksheets for this topic (ewbk-10704)
Reflection (ewbk-10706)
Crossword (ewbk-10707)

Interactivity Spanish conquest of the Americas crossword (int-7593)

8.8 Review exercise

Students, these questions are even better in jacPLUS

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Multiple choice

1. What is a '*chinampa*'?
   - A. An Aztec weapon
   - B. A type of Spanish ship
   - C. An Aztec agricultural technique
   - D. A slave who has been released
2. Which of the following were the great sea power rivals of the fifteenth and sixteenth centuries?
   - A. Britain and France
   - B. Spain and Portugal
   - C. France and Spain
   - D. Britain and Portugal
3. Which of the following best describes the purpose of Columbus' voyage of 1492?
   - A. To discover a new sea route to Asia
   - B. To sail around the southern tip of Africa
   - C. To make war against the Portuguese
   - D. To locate the American continent
4. Approximately how long did it take for the Spanish to destroy the Aztec civilisation?
   - A. 2 months
   - B. 2 years
   - C. 10 years
   - D. 20 years
5. Chronologically, in which order (from first to last) did the indigenous American civilisations fall?
   - A. Mayan, Incan, Aztec
   - B. Aztec, Mayan, Incan
   - C. Incan, Aztec, Mayan
   - D. Aztec, Incan, Mayan
6. What was the Treaty of Tordesillas?
   - A. A treaty between Britain and France to divide the world
   - B. A treaty between the Spanish and the Aztec civilisation
   - C. A treaty between Spain and Portugal to divide the world
   - D. None of the above
7. Which of the following best describes the 'encomienda' system?
   - A. A system introduced by the Spanish to regulate labour and behaviour of the indigenous population
   - B. A system by which slave traders were compensated for any deaths of slaves at sea
   - C. A system used by the Aztecs to trade captured prisoners after battles with rival empires
   - D. A trade system established by the Spanish to regulate trade across the Atlantic Ocean

8. The trade system that developed across the Atlantic Ocean was named after
   - **A.** Cortes.
   - **B.** Columbus.
   - **C.** Montezuma.
   - **D.** Pizzaro.
9. The sixteenth century saw the Native American population of Mexico fall from
   - **A.** 10 million to 5 million.
   - **B.** 5 million to 2 million.
   - **C.** 35 million to 4.5 million.
   - **D.** 25 million to 2 million.
10. The 'triangular trade' was the trade of slaves most associated with the
    - **A.** Pacific Ocean.
    - **B.** Atlantic Ocean.
    - **C.** Mediterranean Sea.
    - **D.** Indian Ocean.

Short answer

Historical perspectives and interpretations

11. **Discuss** the reasons and consequences of the introduction of slavery to the Americas.

Communicating

12. **Describe** the Columbian Exchange.
13. **Explain** why the Spanish were eager to explore the Americas.
14. **Describe** what the Aztec civilisation was like before the Spanish arrival.
15. **Discuss** why Columbus Day is considered by some to be a day of mourning rather than celebration.

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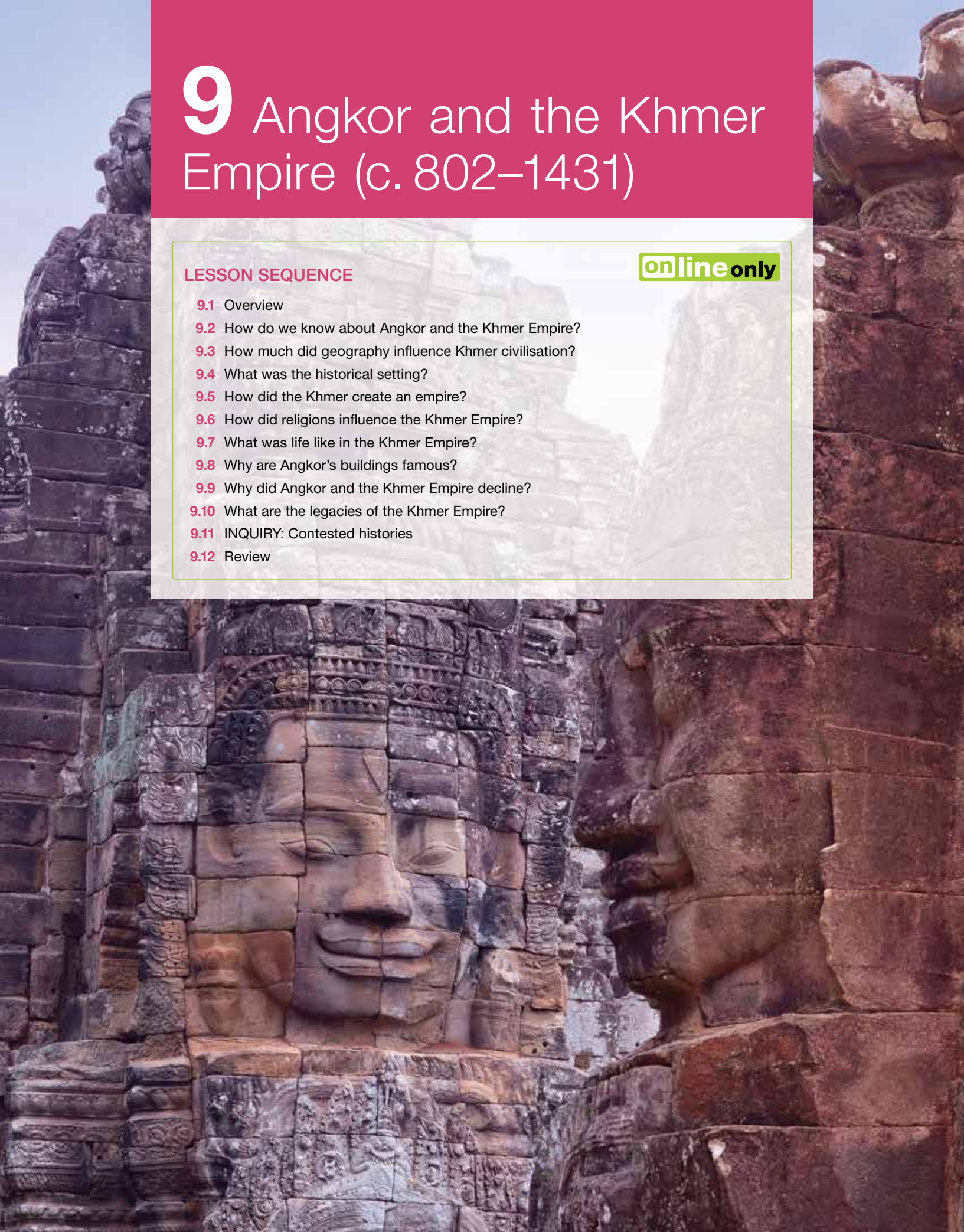
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9 Angkor and the Khmer Empire (c. 802–1431)



LESSON SEQUENCE

online only

9.1 Overview
9.2 How do we know about Angkor and the Khmer Empire?
9.3 How much did geography influence Khmer civilisation?
9.4 What was the historical setting?
9.5 How did the Khmer create an empire?
9.6 How did religions influence the Khmer Empire?
9.7 What was life like in the Khmer Empire?
9.8 Why are Angkor's buildings famous?
9.9 Why did Angkor and the Khmer Empire decline?
9.10 What are the legacies of the Khmer Empire?
9.11 INQUIRY: Contested histories
9.12 Review

LESSON
9.1 Overview

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How did Khmer society change, what were its key beliefs, values and perspectives, and what were the causes and effects of its contacts with other societies?

9.1.1 Introduction

Australia has close ties with several countries in South-East Asia and some are popular destinations for Australian travellers, including Cambodia. You may not know that Cambodia was once the centre of a great empire that controlled most of mainland South-East Asia, an empire that built amazing temple complexes that are now visited by millions of people. To understand any country or region, you need to know its history. In this topic, you will learn about mainland South-East Asia, particularly Cambodia, between the ninth and fourteenth centuries. As you will discover, this region's history is as rich and exciting as that of any place on Earth.

SOURCE 1 South-East Asia is a popular tourist destination.



on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10708)

Video eLesson Angkor and the Khmer Empire (eles-1827)

int-4283

SOURCE 2 A timeline of the Khmer Empire













CE

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

CE

c. 100–300
Traders bring Hinduism and Buddhism from southern India and Sri Lanka to South-East Asia.

c. 550–800
Early kingdoms of Chenla in Cambodia.

802–35
Jayavarman II founds the Khmer Empire in Cambodia.

c. 889–900
Yasovarman I moves the Khmer capital to the Angkor area.

939
Viets expel China from Vietnam.

900–1000
Tai peoples migrate from southern China into northern Thailand, Burma and Laos. Burmese migrate from southern China into northern Burma.

1181–1215
Khmer Empire reaches its greatest extent under Jayavarman VII

c. 1113–50
Suryavarman II builds Angkor Wat.

1238
Thais rebel against Khmer rule and found a kingdom at Sukhothai.

1283
Jayavarman VIII pays tribute to Kublai Khan's Mongols to avoid war.

1295
Srindravarman deposes Jayavarman VIII and introduces Theravada Buddhism.

1296–7
Chinese diplomat Zhou Daguan visits Cambodia.

1431
Thais sack Angkor and it is abandoned by the Khmer rulers.

1327
The Classical Period ends with the last known inscription on a pillar.

LESSON
9.2 How do we know about Angkor and the Khmer Empire?

LEARNING INTENTION

By the end of this lesson you should be able to describe archaeological and written sources for the Khmer Empire and understand why there are gaps in evidence.

TUNE IN

It is amazing that Cambodian sculptors around about eight centuries ago could produce such art as the sculpture in **SOURCE 1**.

SOURCE 1 A stone relief sculpture at the Bayon Temple in Angkor Thom, Cambodia, carved between the end of the twelfth century and the beginning of the thirteenth century.



What event do you think this sculpture could have been depicting?

9.2.1 How do we know about Angkor and the Khmer Empire?

In this topic, we will be studying South-East Asia during the time of the Middle Ages in Europe. Many historians call this the Classical Period of South-East Asia because it was a time when powerful states emerged, along with great achievements in art and architecture. You will notice some remarkable similarities between China, India and some ancient civilisations of the Mediterranean region; however, you will also notice great differences.

The main focus of this topic will be on the Khmer Empire, which was based in Cambodia from about 802 to 1431. To understand how Khmer society developed, we need to examine the bigger picture and study how this civilisation fits in the history of South-East Asia as a region. Khmer society both influenced and was influenced by neighbouring civilisations. This is because at its height the Khmer Empire controlled much of modern Thailand, Laos and Vietnam.

Legendary history

Many details of the history of South-East Asian societies are still a mystery. Like the ancient Greeks, Romans, Chinese and others, these societies had legends about their origins. However, these legends are sometimes contradicted by other sources. For example, there are legends that place **Tai** peoples in northern Thailand long before archaeological evidence does.

Inscriptions and other written sources

The only written primary sources from most South-East Asian societies during this period are inscriptions on materials such as stone pillars and gold foil. Sources from other societies can provide more information. For example, Chinese records discuss contact with parts of South-East Asia. The most useful of these is an account written by Zhou Daguan, a Chinese diplomat who stayed at the **Khmer** royal court at Angkor in 1296–97. Also, from the sixteenth century, we have records from European contacts.

Archaeological evidence

The most striking evidence comes from archaeological sites, especially temples. The most impressive of all the temple complexes is at Angkor, the capital of the Khmer Empire at the height of its power. Angkor's temples were originally **Hindu** temples, but they later became **Buddhist** temples and had images of the **Buddha** added to them. Inscriptions in the Angkor temples tell us about religion and rulers. Relief sculptures, such as the one in **SOURCE 1**, show scenes that include peasants ploughing fields, women in childbirth, market scenes, palace life and soldiers going to war. Evidence from Angkor also helps us to gain an understanding of neighbouring societies such as the emerging kingdoms in Thailand that were influenced by Angkor.

Tai ethnic groups that migrated from southern China into northern mainland South-East Asia from the tenth century

Khmer the Cambodian people

Hindu the most ancient of all the main world religions; originated in India

Buddhist to do with Buddhism; a follower of Buddhism

Buddha Siddhartha Gautama who founded Buddhism in the sixth century BCE

SOURCE 2 Enormous sculpted faces tower over the Bayon Temple at Angkor.



SOURCE 3 A relief sculpture at Angkor



9.2 SKILL ACTIVITY: Using historical sources

1. Study **SOURCE 2** in this lesson. Make notes on anything interesting you notice or would like to know about it.
2. Answer the following questions.
   a. When do you think these enormous sculptures were created?
   b. **Describe** what you think they depict.
3. Propose three other historical questions you could ask about the source to learn more.

9.2 Exercise

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9.2 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 5	4, 6, 7, 8	9, 10

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Check your understanding

1. The Khmer Empire was dominant in Cambodia from about _____ to _____ CE.
2. Which of the following is *not* an important source of information regarding South-East Asian societies?
   A. European contacts
   B. Written inscriptions
   C. Archaeological sites
   D. Australian records
   E. Chinese records
3. The only written primary sources from most South-East Asian societies during this period are inscriptions on materials such as stone pillars and gold foil. True or false?
4. **Explain** why we should be careful about trusting stories in legends.
5. **Identify** what kinds of evidence can be found at the archaeological site at Angkor.

Apply your understanding

Using historical sources

6. Look again at **SOURCE 1**.
   a. **Describe** the details of this relief sculpture.
   b. **Describe** how the Khmer soldiers are dressed and armed.
   c. Who or what rank do you think the figure on the elephant could most likely be? **Justify** your response.
   d. **Identify** what role you think elephants could have played in such wars.
   e. **Explain** what attitude to war is conveyed in this sculpture.
7. **Identify** what kinds of craft or skills would have been needed to create **SOURCES 1, 2** and **3**.
8. **Explain** how a society would have to be organised to enable it to create such works as those shown in **SOURCES 1**, **2** and **3**.
9. **Identify** what kind of commodity Khmer society would have needed to produce a surplus to enable vast numbers of people to work creating **SOURCES 1**, **2** and **3**.

Questioning and researching

10. Based on the sources in this lesson, **propose** three questions you could ask to investigate what changed in Cambodia between the rise and fall of the Khmer Empire.

LESSON
9.3 How much did geography influence Khmer civilisation?

LEARNING INTENTION

By the end of this lesson you should be able to explain how the geography of South-East Asia influenced the development of Khmer civilisation.

TUNE IN

These children were photographed in Cambodia during the late twentieth century.

SOURCE 1 Cambodian children playing



1. What do you see in this photo? Describe what they are wearing and their environment.
2. In what ways do you think this scene would have appeared much the same and how would it have looked different before and during the time of the rise of the Khmer Empire?

9.3.1 Geographical features

South-East Asia consists of the countries north of Australia, south of China and east of India. Although Vietnam was strongly influenced by Chinese culture, Indian influences dominated in Burma (now Myanmar), Thailand, Laos and Cambodia. The geography of this region played a key role in shaping its history.

Almost all of South-East Asia lies in the tropics and most of the region has a hot and humid monsoon climate. This means it has wet and dry seasons; a cool season generally occurs only in upland areas.

It is a region of geographical contrasts. There are heavily cropped river valleys such as the Mekong delta in Vietnam. There are dense rainforests such as those in western Malaysia, and there is a dry zone in Burma and north-eastern Thailand. Traditionally, populations have been most concentrated in lowlands and along rivers, lakes and coasts. Such places provided fresh water, fertile soils for growing crops and access to the sea for trading.

Maritime South-East Asia

Geographers divide South-East Asia into two broad areas: maritime and mainland. Maritime South-East Asia is made up of Indonesia, Malaysia, Brunei, Singapore, the Philippines and Timor-Leste (East Timor). Hinduism was the first major religion in maritime South-East Asia with Hindu states in Java and Sumatra (now parts of Indonesia). However, Muslim traders brought Islam to Indonesia and Malaysia in the thirteenth and fourteenth centuries and it quickly became the dominant religion. The Philippines and Timor-Leste have mostly Roman Catholic populations because they were colonised by the Portuguese and the Spanish.

Mainland South-East Asia

This is made up of Burma, Thailand, Laos, Cambodia and Vietnam. In these countries the dominant religion is **Theravada Buddhism**, which will be explored later in this topic.

Theravada Buddhism one of the two main forms of Buddhism that influenced mainland South-East Asia

SOURCE 2 A map of modern-day South-East Asia showing landforms, rivers and cities with a population of over 1 million people



Source: Spatial Vision.

9.3.2 Peoples in South-East Asia

Many different peoples and cultures have shaped the history of South-East Asia.

- Austro-Melanesian peoples arrived about 70 000 years ago. They are now only a tiny minority in South-East Asia.
- Malays probably migrated from southern China from about 2500 BCE, settling in the Philippines, Malaysia and Indonesia.
- Vietnamese migrated from China to northern Vietnam before the second century BCE.
- The Chams probably migrated from Borneo to southern Vietnam before the second century BCE (see **SOURCE 3**).
- Mon peoples and related Khmers spread across South-East Asia from southern Burma into Thailand, Cambodia and southern Vietnam in the early centuries CE.
- Tai peoples migrated from southern China mainly into Thailand, Laos, northern Burma and north-western Vietnam in the tenth century CE (see **SOURCE 4**).

SOURCE 3 The Ponagar Towers in Nha Trang, Vietnam, were built by the Chams between the seventh and twelfth centuries CE. They are the best-preserved relics of the Champa civilisation, which was often at war with the Khmer Empire.



SOURCE 4 This Buddhist chedhi (tower) in northern Thailand is believed to have been built around 1100 CE.



People and environment of Angkor

The Khmer homeland, Cambodia, receives an enormous amount of rain during its 6-month-long wet season but almost none during its dry season. This meant that settlement was possible only along the rivers. From the ninth century, vast reservoirs were built at Angkor. Over the following centuries, a complicated system of moats and canals was built. The Khmer were able to produce three rice crops each year. This made it possible to feed a large population and to provide the surplus needed to build and maintain Angkor's great temples.

DID YOU KNOW?

The earliest South-East Asian civilisation was the Hindu state of Srivijaya, based on the Indonesian island of Sumatra. Between the sixth and thirteenth centuries, Srivijaya was a trading empire that controlled the Strait of Malacca. Its sailors travelled between India and China exchanging goods from as far as Persia for Chinese silks and porcelains.

9.3 SKILL ACTIVITY: Sequencing chronology

1. **Create** a table with a column for each of the below:
   Malays Khmers Mons Chams Tais Vietnamese
2. For each of the peoples listed, find the following information and add it to the table.
   a. Where they came from
   b. When they settled in South-East Asia
   c. Where they settled in South-East Asia
3. Using the information from your table, **create** a timeline to demonstrate your understanding of where Malays, Khmers, Mons, Chams, Tais and Vietnamese came from and when and where they settled in South-East Asia.

9.3 Exercise

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9.3 Exercise

Learning pathways

■ LEVEL 1	■ LEVEL 2	■ LEVEL 3
1, 2, 3, 4	5, 6	7, 8

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Check your understanding

1. Geographers divide South-East Asia into which two broad areas?
   A. North and south
   B. Inner-land and coastal
   C. Maritime and mainland
   D. Tropical and dry
2. **Identify** the five countries that make up mainland South-East Asia.
   A. Thailand
   B. Indonesia
   C. Burma (Myanmar)
   D. Cambodia
   E. Singapore
   F. Vietnam
   G. Laos
3. **Identify** why South-East Asian populations have been concentrated mainly in lowlands along rivers, lakes and coasts.
4. Where did the Khmer people originate?
   A. Cambodia
   B. Northern Malaysia
   C. Vietnam
   D. Southern Burma

Apply your understanding

Using historical sources

5. Look closely at **SOURCE 2**. **Locate** the capitals and other major cities of mainland South-East Asia and **suggest** why they are all on rivers.
6. Angkor, which became the Khmer capital, is located close to Siem Reap in Cambodia. **Suggest** what geographical feature would have enabled it to develop there.
7. The Ponagar Towers in **SOURCE 3** are some of the very few remaining traces of Cham civilisation. **Identify** what could be a possible cause for few other traces remaining.
8. Using **SOURCES 3** and **4** as your evidence, **discuss** what you can tell about the cultures of the Tais and Chams whose civilisations developed around the same time as the Khmer Empire.

LESSON
9.4 What was the historical setting?

LEARNING INTENTION

By the end of this lesson you should be able to explain how the political situation among its neighbours enabled the Khmer Empire to grow.

TUNE IN

Archaeological remains can reveal a lot about a civilisation.

SOURCE 1 Some remains of the Cham civilisation in southern Vietnam



1. Describe what you can tell about Champa from these remains.
2. How does this suggest that Champa's technological achievements would have made them tough enemies for the Khmer?

9.4.1 Meet the neighbours

In the ninth century, the Khmer king Jayavarman II founded the Khmer Empire in Cambodia. It became the most powerful state in South-East Asia. By the twelfth century it included much of Thailand, Laos and Southern Vietnam. To understand how Angkor was able to hold such power, we need to look at the states around it. There were many kingdoms in mainland South-East Asia during the period of the Khmer Empire.

Burma

- People called the Pyu had kingdoms in upper Burma between the first and eleventh centuries CE. They practised Theravada Buddhism.
- The Mon people in Burma adopted Theravada Buddhism and are believed to have founded the kingdoms of Thaton and Pegu in lower Burma in the ninth century.
- The Bamar (Burman) people founded the city of Bagan in upper Burma in the eleventh century. Its remains include a massive Buddhist temple complex. From 1057 CE, Bagan controlled a vast Burmese empire until it was crushed by invading Mongols in 1287.

Thailand and Laos

- In the sixth century, the Mon founded a network of Theravada Buddhist city-states called the kingdom of Dvaravati along Thailand's Chao Phraya valley. They founded Haripunchai in northern Thailand in the ninth century. When the Khmer invaded, the Mon perished or were assimilated.
- In the thirteenth century, the Tai kingdom of Lan Na came to power in northern Thailand. In central Thailand, Sukhothai was the most powerful of the Tai states from 1238 to 1350. The main threat to these states came from Burma. Tai peoples also occupied the lowlands of Laos.

tlvd-10594

SOURCE 2 A map of civilisations in mainland South-East Asia in 400–700 CE. Over the next few centuries, Dvaravati would expand north. Black line borders show modern states.



Source: Map drawn by Spatial Vision.

Cambodia

- From the third century to the seventh century, the civilisation of Funan covered much of Cambodia. The people of Funan were Khmers and Mons. Funan adopted Hinduism from India.
- From about 630 to 802, a collection of Hindu states called Chenla existed north of Funan in northern Cambodia, southern Laos and eastern Thailand.

Vietnam

- In 207 BCE the state of Nam-Viet was proclaimed in what is now northern Vietnam. A century later, China made it part of its empire. It remained under Chinese control until 939 CE when Vietnam broke away and formed the state of Dai Viet. This state had to resist several Chinese attempts to regain control.
- What is now the coastal part of southern Vietnam was then the Hindu state of Champa. From the eleventh century, Vietnam gradually spread south, taking territory from Champa. Yet in the twelfth century, Champa was powerful enough to attack the Khmer Empire.

Between the ninth century and the twelfth century, most states bordering the Khmer Empire were small and were struggling to establish themselves. The Tai peoples' main enemies were the Burmese, and the Viets were concerned with the Chinese and Champa. This situation helped the Khmer Empire to expand. However, once strong and united states emerged in Thailand and Vietnam, the Khmer Empire would be under threat.

SOURCE 3 A map of civilisations and empires in mainland South-East Asia in 1100–1200 CE. Blackline borders show modern states.



Source: Map drawn by Spatial Vision.

SkillBuilders to support skill development

- 1.12 Making your own notes to analyse relevant sources

9.4 SKILL ACTIVITY: Historical perspectives and interpretations

1. **Compare** the two maps in **SOURCES 2** and **3**.
2. Make brief notes on the following:
   - the territorial changes that took place between around 400–700 CE
   - the territorial changes that took place between 1100 and 1200 CE.
3. Using your notes, **describe** the territorial changes that took place between around 400–700 CE and between 1100 and 1200 CE in one or two paragraphs.
4. **Explain** which South-East Asian states gained territory over this time.

9.4 Exercise

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9.4 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 4, 5	6, 7, 8	9, 10

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Check your understanding

1. Who founded the Khmer Empire in the ninth century CE?
   - **A.** Jayavar
   - **B.** Jayavarman
   - **C.** Javarman
   - **D.** Jayman
2. The Mon established many kingdoms during the time of the Khmer Empire. Which one of the following kingdoms was *not* founded by the Mon in Burma and Thailand in the ninth century?
   - **A.** Dvaravati
   - **B.** Thaton
   - **C.** Pegu
   - **D.** Haripunchai
3. The city of Bagan was in upper _____ and was founded by the _____ people.
4. **Name** the two kingdoms founded by Tai people in the thirteenth century.
5. **Identify** what Khmer states existed in Cambodia before 802 CE.

Apply your understanding

Communicating

6. **Examine SOURCES 2** and **3**. Approximately what proportion of modern Vietnam was in Champa over the period of the two maps?
7. **Describe** the situation in neighbouring countries that enabled the Khmer Empire to expand until the thirteenth century.
8. Referring to **SOURCES 2** and **3**, **describe** the geographical area in which most expansion of the Khmer Empire took place.
9. Briefly **outline** the reason why Champa was a significant enemy of the Khmer Empire.
10. **Identify** civilisations that could threaten the Khmer once those civilisations became strong and united.

LESSON
9.5 How did the Khmer create an empire?

LEARNING INTENTION

By the end of this lesson you should be able to describe how the Khmer Empire grew and expanded its power between the ninth and thirteenth centuries.

TUNE IN

Secondary sources can provide useful information about significant individuals.

SOURCE 1 From Craig A. Lockard, *Southeast Asia and the Kingdom of Angkor*, The New Oxford World History Series

> The largest and most powerful Golden Age state was the Khmer Kingdom of Angkor in Cambodia, established by King Jayavarman II in 802. The name Angkor derives from the Sanskrit term for 'holy city', and Jayavarman considered himself a reincarnation of Shiva, the Hindu god of destruction and fertility. Jayavarman himself had lived for many years at a Hindu court in Java before returning to Cambodia, indicating the widespread contacts among Southeast Asian states.

Discuss what this source tells us about the founder of the Khmer empire. Why do you think that?

9.5.1 The Khmer Empire to the twelfth century

Until 802 CE, Cambodia (then called Kambuja or Kambujadesa) appears to have been a group of weak states ruled by princes and dominated by the Hindu kingdom of Java (in modern-day Indonesia). At the end of the eighth century, a Khmer prince returned to Cambodia from the Javanese royal court. The Khmer kingdom began in 802 when the prince declared Cambodia's independence and proclaimed himself to be the God-King Jayavarman II.

Jayavarman II established four capitals for his kingdom. The most important of these would be Hariharalaya (now called Roluos) on the northern shore of **Tonle Sap** (near the modern city of Siem Reap). He used wars, alliances and marriages to expand the area under his control. He built several Hindu temples. These and the temples built by his successors served as the **mausoleums** of the Khmer kings when they died.

Jayavarman II's successors went on building temples and expanding the empire. Yasovarman I (who ruled from 889 to 900) constructed a new capital called Yasodharapura and a gigantic reservoir measuring 7.5 kilometres by 1.8 kilometres in the Angkor area. In 953, Rajendravarman II (944–968) built a series of temples at Angkor, and during his reign the Khmers had their first war with Champa. Under his son, Jayavarman V (968–1001), the Khmer court became a centre for scholars and artists.

Suryavarman II

The decades after Jayavarman V's death were years of fierce power struggles among the Khmer ruling class in which kings were overthrown by their rivals. According to a Khmer inscription, Suryavarman II (1113–1150) came to power after killing a rival prince in a battle fought on war elephants. He extended the Khmer Empire by conquering Haripunchai and south-western Thailand up to the border with Bagan. In the east and north he took several provinces of Champa and expanded north to the present southern border of Laos. Such expansion did not necessarily mean direct Khmer rule. In many places it was simply a matter of local rulers acknowledging the Khmer king as their overlord.

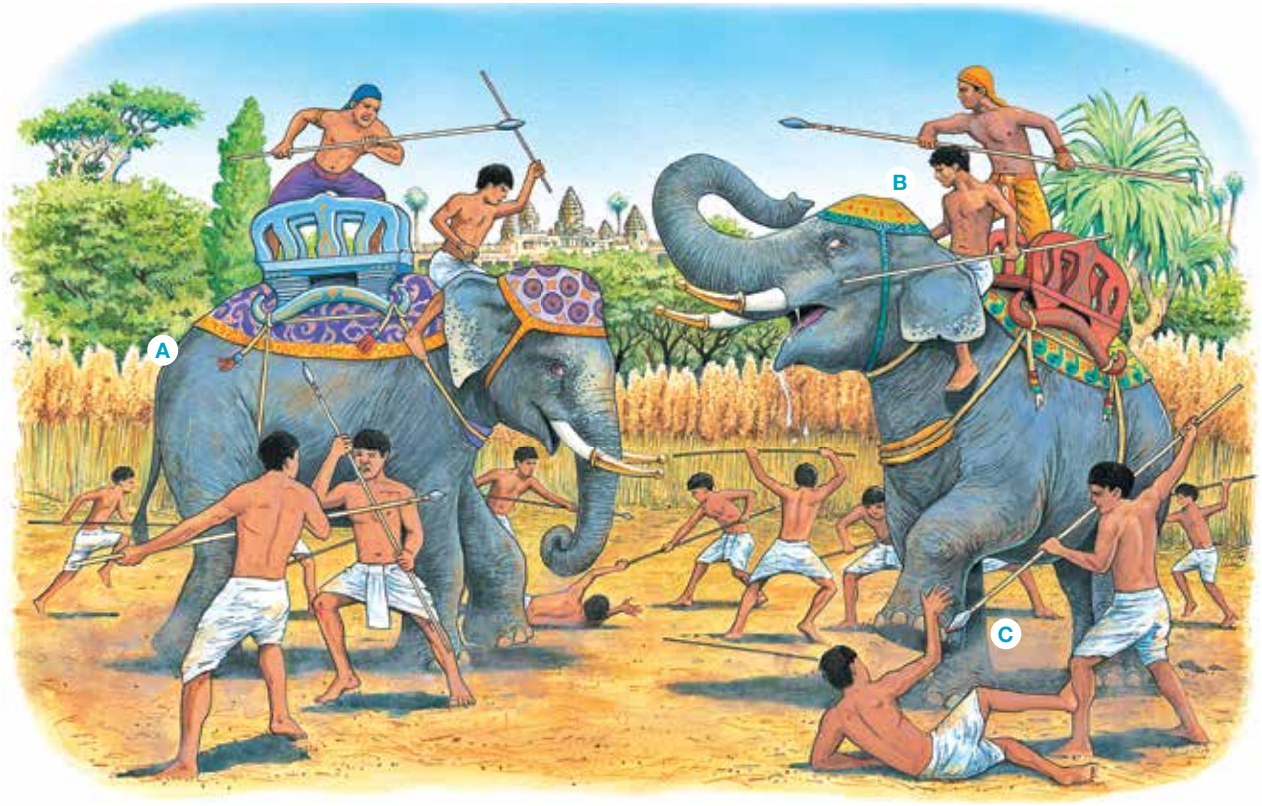
Tonle Sap the largest freshwater lake in South-East Asia
mausoleum a huge tomb

DID YOU KNOW?

Khmer armies used war elephants, cavalry and infantry armed with spears, bows and swords. Elephants were probably first used in war in ancient India. Their use continued in later times because they were effective in breaking up and crushing enemy infantry.

int-4100

SOURCE 2 A modern artist's depiction of Suryavarman II killing his rival during a battle fought on war elephants



- **A** Evidence suggests the Khmer armies used elephants in battle.
- **B** A person called a mahout sat in the elephant's neck and used a stick to control the elephant.
- **C** Spears were one of the types of weapons used by the Khmer.

Suryavarman II also commenced the construction of the greatest of all the Khmer temples, Angkor Wat. It was built in just 37 years and dedicated to the Hindu god Vishnu.

After Suryavarman II's death, the Cham invaded the Khmer Empire in 1177, rowing up the Mekong River and across Tonle Sap in war canoes. They sacked the Khmer capital and killed King Tribhuvanadityavarman.

SOURCE 3 Part of the amazing Angkor Wat, commenced under Suryavarman II



9.5.2 Jayavarman VII, greatest of the Khmer rulers?

The next Khmer king was Jayavarman VII (1181–c. 1218), who is regarded as the greatest of all Khmer rulers. His history is known mainly through inscriptions and works of art. His name means 'victorious warrior'.

In 1178, after the Cham invaders sacked Yasodharapura, the Khmer capital, and killed King Tribhuvanadityavarman, Jayavarman led a Khmer army that fought to drive the Cham out. His battles on land and water are depicted on the walls of the Bayon Temple in Angkor Thom (see **SOURCES 4** and **5**). He put an end to the claims of his rivals for the kingship and was crowned in 1181. He waged war against Champa for 22 years, conquering its land and extending the Khmer Empire to the southern shores of Vietnam (see **SOURCE 6**). During his long rule, the Khmer Empire reached the greatest extent of its territory and the height of its power.

SOURCE 4 A relief sculpture on the Bayon Temple depicting Cham soldiers in war canoes



SOURCE 5 A war scene in a relief sculpture on the Bayon Temple



SOURCE 6 Khmer expansion under Jayavarman VII, from the National Museum of Cambodia

During his reign, the Cambodian kingdom spanned a huge area; extending beyond the Menam Basin to the west (the Bayon inscription mentions the existence of two statues of divinities [gods] guarding the cities of Ratchaburi and Phetburi in Thailand), as far as the seacoast of Champa to the east, as far as the city of Sukhothai . . . in the north, all the way down to the southern sea. At the time the Khmers were trading with China, India and other countries of Asia Minor.

Religious changes

Varieties of Buddhism had long been practiced alongside Hinduism but Jayavarman VII was a follower of **Mahayana Buddhism** and, in a truly revolutionary step, he made this the new state religion of the Khmer Empire. His great building program may have been partly aimed at introducing his mainly Hindu population to the symbols of Buddhism, which were provided in sculptures that adorned his temples.

Mahayana Buddhism one of the two main forms of Buddhism that influenced mainland South-East Asia

A great building program

According to an inscription discovered in Laos, Jayavarman VII wanted to turn his kingdom into an earthly paradise. He conducted a massive program of public works, building 102 hospitals, many reservoirs, roads with 121 rest houses along them and several temples. The temples included Ta Prohm, in honour of his mother, and Neak Khan, to honour his father. His greatest construction was the capital city, Angkor Thom (meaning 'great city'). Angkor Thom included the Bayon Temple (see lesson 9.8). The construction of Angkor Thom was probably partly a reaction to the sacking of the Khmer capital. Angkor Thom was built with massive walls surrounded by a moat to deter any future invaders. Like other Khmer temples, Angkor Thom also provided for agriculture by having ponds and barrays (water reservoirs used for irrigation).

9.5 SKILL ACTIVITY: Historical perspectives and interpretations

1. Carefully read **SOURCE 6**.
2. Read it again, this time making notes on anything you find important that might help answer the following question:
   What can you tell from **SOURCE 6** about the extent of Khmer expansion under Jayavarman VII?
3. Now **discuss** the question above using the notes you made. Remember to keep in mind that you are evaluating the significance of the source.

9.5 Exercise

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9.5 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 4, 5	6, 7, 8	9, 10

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Check your understanding

1. The Khmer kingdom was founded in _____ in _____ CE.
2. Which three of the following did Yasovarman I and Rajendravarman II have constructed in the Angkor area?
   - **A.** Hindu temples
   - **B.** Hospitals
   - **C.** A new capital
   - **D.** A water reservoir
3. Under which ruler was the construction of Angkor Wat started?
   - **A.** Jayavarman II
   - **B.** Suryavarman II
   - **C.** Jayavarman VII
   - **D.** Yasovarman I
4. **Explain** how Jayavarman VII became the Khmer king.

Apply your understanding

Communicating

5. **Compose** an inscription that could have been inscribed to honour Suryavarman II's victory as depicted in **SOURCE 2**.
6. Look at Angkor Wat in **SOURCE 3** and **describe** the features that could justify its reputation as the most spectacular of the Khmer temples.
7. **Explain** how significant the religious changes made under Jayavarman VII were and how his subjects might have felt about such big changes.
8. **Describe** Jayavarman VII's public works programs and how they would have benefited the Khmer people.

Using historical sources

9. Look at what is shown in **SOURCES 4** and **5**. **Explain** how you think Jayavarman VII had these relief sculptures carved on the walls of the Bayon Temple in Angkor Thom.
10. Using evidence from sources in this lesson, **suggest** why you think many historians regard Jayavarman VII as of greater significance than any other Khmer ruler.

LESSON
9.6 How did religions influence the Khmer Empire?

LEARNING INTENTION

By the end of this lesson you should be able to explain how religious changes affected the Khmer Empire, influencing people's beliefs, art and architecture.

TUNE IN

Religion has always been an important aspect of life in South-East Asia. Study the young men in **SOURCE 1** and answer the following questions.

SOURCE 1 Young Buddhist monks at Angkor



1. Do you recognise the clothing of these young men?
2. What religion do you think they belong to?
3. Discuss how and why you think that religion came to Cambodia.

9.6.1 Animism and Hinduism

Religious ideas inspired the Khmer rulers to build great temples. During Angkor's period of power, there were shifts from Hinduism to two different forms of Buddhism. Ideas from these major world religions had co-existed in South-East Asia for centuries and influenced the development of the Khmer Empire.

Animism

From the earliest times, ordinary people worshipped spirits. South-East Asian people were animists before Hinduism and Buddhism arrived in their lands. Animism is the belief that natural phenomena like winds and rain have souls, and that people, animals and objects such as trees are inhabited by spirits. People also believed in life after death and worshipped the spirits of their ancestors. Generally, when ordinary people adopted one of the major religions they blended it with earlier local beliefs and customs.

Hinduism

The first major religion to come into South-East Asia was Hinduism. The ancient Hindu religion has many gods and originated in India. Hindu gods include Vishnu, the supreme god and preserver of the universe, and Shiva, god of destruction and regeneration. Over the centuries, worshippers began to choose to follow only one of the many Hindu gods.

Reincarnation is a key Hindu belief. Hindus believe that a soul exists in each living thing and that performing religious duties and living a moral life leads to being born into a higher class in the next life. Hindus see their goal as the achievement of spiritual joy by eventually being united with Brahma, the universal spirit.

reincarnation being continuously born and reborn in other lives

Hinduism in South-East Asia

Hinduism in India divided society into classes called castes. These are Brahman (priests); warriors and landowners; farmers and craftsmen; and untouchables or outcasts. By the ninth century CE, many rulers of South-East Asian states followed Hinduism, but the caste system was never adopted in South-East Asia.

SOURCE 2 Vishnu is the supreme Hindu god and preserver of the universe



SOURCE 3 Shiva is the Hindu god of destruction and regeneration.



SOURCE 4 A figure from Banteay Srei, a tenth-century Hindu temple on the outskirts of Angkor



9.6.2 Buddhism

Buddhism was founded by the Hindu prince Siddhartha Gautama in the sixth century BCE. He decided to leave his riches and seek truth after observing the suffering in his kingdom. It is said he lived as a hermit for seven years, and then set out to teach people what he called the Four Noble Truths. At this time people began calling him the Buddha, which means 'the Enlightened One'.

The Four Noble Truths are:

- all people, regardless of wealth, suffer pain
- people remain on an endless cycle of reincarnation — they keep being born and reborn, and pain continues
- pain is caused by the desire, or craving, for things
- to overcome desire, a person must follow the Eightfold Path.

The Eightfold Path includes knowing the truth, freeing the mind from evil, serving one's neighbours and meditating to be rid of desire. So long as a person followed this path, the Buddha taught, he could achieve **nirvana**.

nirvana in Buddhism, the perfect state; free of suffering and desire

Buddhism in South-East Asia

After the Buddha died, Buddhism split into two forms. One is Mahayana Buddhism, which says that the Buddha should be worshipped. The other is Theravada Buddhism, which says that it is the Buddha's teachings that should be followed. Mahayana Buddhism was the first form to influence South-East Asian rulers. Theravada Buddhism came to South-East Asia from Sri Lanka. Theravada Buddhist monks were meant to live in a way that supported others on the Eightfold Path. Ordinary people 'made merit' by supporting the monks. Buddhist temples called wats became the heart of communities and many became important places of pilgrimage.

DID YOU KNOW?

Theravada Buddhism was the main form of religious worship in mainland South-East Asia by the fourteenth century and it remains so today. It is the state religion of both Cambodia and Thailand.

Bodhisattvas

In Buddhist belief, a bodhisattva is a being who is working towards enlightenment. In Mahayana Buddhism, Avalokiteshvara is one of the most revered bodhisattvas, one who has vowed to help others to achieve nirvana.

9.6.3 Religious art, architecture and literature

When Indian and Sri Lankan traders and priests brought Hinduism and Buddhism to South-East Asia, they also brought ideas about the arts and architecture. However, like much that came from India, styles of arts, including sculpture and dance, and architecture changed when the Khmer and other South-East Asians adopted them. By about 500 CE, India had given Cambodia its Hindu gods, Buddhist ideas, a writing system (**Sanskrit**) and ideas about how societies should be governed. Angkor would not have been built without Indian influence.

SOURCE 5 A mural on a temple wall in Bangkok depicting a scene from the *Ramayana*



But Angkor had its own Cambodian character that was different from any Indian city. In turn, Angkor's civilisation influenced other mainland South-East Asian societies. Throughout the Buddhist kingdoms, rulers sponsored the building of temples and monasteries and decorated them with religious artworks. In doing so, they believed that they 'made merit' and would be seen as **pious** men who were fulfilling part of their role as **legitimate** rulers.

Sanskrit ancient and sacred language of India
pious devout, very religious
legitimate lawful or proper
epic a long story in verse narrating the deeds of its hero
incarnation the representation of a spirit or quality in a living human

Influence of the *Ramayana*

Indian Hindu literature came to South-East Asia along with Indian religious ideas. The *Ramayana* is one of two great Hindu **epic** stories. The other is the *Mahabharata*. The *Ramayana*'s 24 000 verses were composed in the eighth century BCE. Its hero, Rama, is an **incarnation** of the Hindu god Vishnu. The purpose of the story was to demonstrate the *dharma* (right path that people should take in life). From the eighth century BCE, the *Ramayana* had an enormous influence in South-East Asia, and it has been depicted in temple art, architecture, theatre and dance.

SOURCE 6 One of the many statues of guardian giants at Wat Phra Kaew in Bangkok. These mythical creatures are from the *Ramayana*.



9.6 SKILL ACTIVITY: Questioning and researching, Using historical sources

1. The faces of the Bodhisattva in **SOURCE 7** are believed to be modelled on the face of Jayavarman VII, who made Mahayana Buddhism the state religion of the Khmer Empire. Use the information in this lesson and conduct research to answer the following questions:
   a. What was a Bodhisattva?
   b. Why was Avalokiteshvara revered?
   c. Why would Jayavarman VII have wanted his people to see him as the Bodhisattva Avalokiteshvara?
2. **Communicate** your findings in a paragraph.

SOURCE 7 Giant faces of the Bodhisattva Avalokiteshvara at the approach to the Bayon Temple at Angkor Thom



9.6 Exercise

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9.6 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
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Check your understanding

1. Which of the following religions influenced South-East Asia? **Select** all that apply.
   A. Animism
   B. Christianity
   C. Hinduism
   D. Buddhism
2. From where did the Khmer Empire get its ideas about the arts, architecture and religion?
   A. Chinese and Vietnamese
   B. Indians and Vietnamese
   C. Indians and Sri Lankans
   D. Sri Lankans and Chinese
3. The Hindu belief of reincarnation is that people are continuously born and reborn, and that performing religious duties and living a moral life leads to being born into a higher class/caste in the next life. True or false?
4. Using your knowledge of Buddhist beliefs, **explain**:
   a. what the Four Noble Truths are
   b. what happens when a soul reaches Nirvana.
5. **Explain** the beliefs of animists.

Apply your understanding

Using historical sources

6. Banteay Srei, the Hindu temple in **SOURCE 4**, means 'Citadel of the women' and its fine carvings are said to be the work of a woman. Do you think this is true? **Justify** your response.
7. **Describe** what you see in **SOURCES 5** and **6** and explain what evidence they provide of the influence of ideas that came into South-East Asia from India.

Communicating

8. Using the sources and information in this lesson, **describe** the role that the Khmer Empire played in spreading religious, artistic and cultural traditions from the Indian subcontinent in South-East Asia.
9. **Explain** what benefits rulers would have gained by paying for religious art and architecture.

Historical perspectives and interpretations

10. Should the move in the Khmer Empire from Hinduism to Buddhism be regarded as continuity or change or both? **Justify** your answer.

LESSON
9.7 What was life like in the Khmer Empire?

LEARNING INTENTION

By the end of this lesson you should be able to explain how Khmer society operated and how it differed for men and women and for different social classes.

TUNE IN

Zhou Daguan, the Chinese ambassador who stayed at Angkor between 1296 and 1297, has provided the only written account of life in the Khmer Empire apart from inscriptions on temple walls, which provide very little information about ordinary people.

SOURCE 1 From Zhou Daguan's descriptions of aspects of Khmer life

The dwellings of the princes and principal officials all have a completely different layout and dimension to those of the people . . . The official rank of each person determines the size of the houses.

From the king down, the men and women all wear their hair wound up in a knot, and go naked to the waist, wrapped only in a cloth. When they are out and about they wind a larger piece of cloth over the small one.

The soldiers, too, go naked and barefoot. In their right hand they carry a lance, and in their left hand a shield. They have nothing that could be called bows and arrows, trebuchets, body armour, helmets, or the like. I have heard reports that when the Siamese attacked, all the ordinary people were ordered into battle, often with no good strategy or preparation.

The local people who know how to trade are all women.

1. What does this source tell you about equality and inequality?
2. What does it tell you about clothing, hairstyles and work?

9.7.1 Kings, nobles and officials

During the Middle Ages, European kings claimed to be chosen by God. Chinese emperors meant something similar when they claimed to have the 'mandate of heaven'. In the Khmer Empire and in South-East Asian Buddhist societies, kingdoms were held together by individual rulers who claimed to be semi-divine. This meant that not only were they chosen by the gods but they *were* partly gods and they had magical powers. That was how their people saw them. This created an enormous gap between the **ruling class** and those they ruled.

ruling class kings, nobles and high officials

All Khmer Empire rulers claimed to be semi-divine and they identified themselves with Hindu gods such as Shiva or Vishnu. When Jayavarman II declared Cambodia's independence, he established the **cult** of the devaraja or 'god-king'. This cult centred on the worship of a **linga**. It connected the king with Shiva and represented the king's power to bring fertility to the land.

Despite such claims, Khmer rulers gained power by practical methods. Throughout Angkor's history there were periods of violent power struggles within the ruling families. In such struggles, several Khmer kings came to the throne by overthrowing their rivals.

DID YOU KNOW?

In Vietnam and China, officials were chosen through examinations, and there were very detailed written laws describing the powers of officials at each level. There was no such system in the Khmer Empire or the Buddhist kingdoms in Thailand and Burma.

Kings depended on officials to administer their kingdoms. The larger the Khmer Empire grew, the more power such officials held. It was only at the centre of the kingdom that the ruler had complete power. There, the officials were usually friends or relations of the ruler. They were drawn from the land-owning **nobles** and many of them inherited their positions. However, in the distant provinces, governors had almost complete power as long as they did not threaten the ruler's authority.

SOURCE 2 A relief sculpture on the Bayon Temple depicting the Khmer army going to war against the Chams



9.7.2 Women in Khmer society

The family was the basic unit of society but it is not known how men, women and children lived within their families. Evidence from neighbouring societies suggests that women had a more important position than in India or China. However, society probably became more male-dominated as Hindu and Buddhist ideas about the roles of men and women gained influence over traditional beliefs.

Chinese diplomat Zhou Daguan wrote that women sold products displayed on mats in the market and that all trades were carried out by women.

Many women became dancers. Dance was a religious ritual in Cambodia during the Angkor period. Inscriptions tell of thousands of dancers performing in the temples. These temple dancers were regarded as apsaras, which in Hindu and Buddhist mythology is a female spirit of the clouds.

cult a system of religious worship

linga a phallic symbol that would have originally been a feature of most Hindu temples

nobles the aristocracy; hereditary privileged class

SOURCE 3 A modern Cambodian woman performing a Khmer classical dance



SOURCE 4 Bas-relief of apsaras at the Bayon Temple



9.7.3 The ordinary people

The survival of the Khmer Empire depended on ordinary people. Despite this, there is very little evidence that describes their lives. We know that they provided the surplus of food that supported the ruling classes. The people also provided labour for the rulers' building projects and were soldiers for wars. They included peasants, skilled artisans, fishermen, traders and slaves.

Peasants

Peasants were by far the biggest group among the ordinary people. They did not own land in the modern sense but they had the right to land because they farmed it. Peasants farmed rice fields in the fertile valleys and vegetable gardens on the surrounding slopes. The lives of peasant men and women were controlled by the cycle of work such as ploughing and harvesting that followed the seasons. They made sense of their world through a mixture of Hindu ideas, Buddhism and beliefs about spirits.

Peasants lived in villages among their fields. According to Zhou Daguan, peasants' houses had thatched roofs. They had no tables or chairs. They cooked their food in earthen pots and ate from small bowls made of woven leaves.

SOURCE 5 A relief sculpture at the Bayon Temple depicting Khmers at work, probably on the temple



The headman of any village was usually one of the more prosperous peasants. He was responsible for seeing that the ruler's policies were carried out at the village level. His duties included organising unpaid labour from the village for the ruler's building projects and for maintenance work on the irrigation system. He also had to ensure that taxes were collected and that men went off to fight in the ruler's wars.

Artisans, fishermen and traders

An artisan was a worker who was skilled in a particular craft, for example, sculpture, building, pottery, jewellery or metalwork. Artisans were a small proportion of the population but they were essential for their role in building projects and supplying luxury goods for the ruling class and weapons for war. According to Zhou Daguan, artisans included Thai immigrants who worked in silk production and as tailors.

Fishermen harvested the coasts and rivers and their lives were mostly as unchanging as those of the peasants. Traders sold goods at markets that moved about between villages. There was also long-distance trade. Zhou Daguan described a range of Chinese goods that were sold at Angkor including paper, combs and needles. Many traders knew something of the world beyond the village because they took caravans across South-East Asia. They were a small group that would grow in importance as trade expanded from the eighteenth century.

SOURCE 6 From Milton Osborne, *Southeast Asia: an Introductory History*, Allen & Unwin, Sydney, 2004, pp. 59–60

The courts and kings were separate from the cultivators, fishermen and petty traders over whom they ruled. But all these groups inhabited a single, unified world. Just as the serf and the feudal lord of medieval Europe both, in very different ways, sensed themselves to be part of Christendom, so the cultivators or fishermen sensed themselves as being within the same world as their ruler . . .

Slaves and outsiders

It is impossible to know just how many people were slaves. Most slaves were prisoners of war or the descendants of such people. They were the property of their owners. They included temple slaves who were the property of the temples. There were also debt bondsmen. These people had temporarily given up their freedom to repay debts. Similar to slaves, there were hereditary household servants of rulers and high officials.

Outside the mainstream society were smaller ethnic groups who lived in the hills. Lowlanders regarded them as barbarians. Mostly they were left alone to govern themselves as long as they did not threaten the interests of rulers. These tribes had different beliefs from the lowlanders and most lived by nomadic **slash and burn agriculture**. They traded products of the forest for things that the lowlanders produced. At times they were captured and made slaves. At other times they were recruited as guides, soldiers and suppliers of slaves.

The lives and work of children

We have almost no direct evidence about how children lived and worked in the Khmer Empire. The little evidence that we have suggests that only the sons of the most privileged classes and of scholars received any kind of formal education. Among other sections of Khmer society — peasants, artisans, fishermen and traders — children would have worked alongside their parents, learning their skills, as soon as they were old enough to be useful.

slash and burn agriculture a nomadic form of farming in which people clear part of a forest, grow crops, harvest them and then move on to repeat this in another place

9.7 SKILL ACTIVITY: Historical perspectives and interpretations

Analysing different perspectives

We have almost no evidence of what ordinary people thought about their place in Khmer society.

In groups, **discuss** the following questions:

1. Would the common people have seen things from the same perspectives as their rulers?
2. Do you think the religious beliefs of the people would have encouraged them to rebel or to accept things as they were?

9.7 Exercise

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9.7 Exercise

Learning pathways

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Check your understanding

1. What services did peasants provide for the ruling classes? **Select** all that apply.
   - A. Produced food
   - B. Entertained the rulers with musical performances
   - C. Maintained irrigation systems
   - D. Worked on building projects
   - E. Educated the Khmer ruler's children
   - F. Filled the ruler's army
2. The minority ethnic groups who lived in the mountains had an active role in mainstream society. True or false?
3. **Determine** whether the following statements are true or false.
   - a. The influence of religious ideas decreased the dominance of men over Khmer women.
   - b. The ruling class in South-East Asian Buddhist societies claimed to have magical powers.
   - c. The smaller ethnic groups who lived in the hills were regarded as equal to the lowlanders by the ruling class.
4. State how Khmer kings wanted to be seen by their people and **explain** why they would want to be seen that way.
5. **Explain** why a Khmer ruler usually had control only at the centre of his kingdom.

Apply your understanding

Using historical sources

6. Examine **SOURCE 1** again. **Compare** what this source tells us about the Khmer army with evidence in 9.9 **SOURCE 1**. On what do these sources disagree? If Zhou Daguan was wrong about weapons, to what extent can we trust all the other information he provides?
7. In **SOURCE 2**, which soldiers would probably be the ruler or nobles, and which would be from the ranks of the ordinary people? **Explain** how you can tell.
8. **Explain** what **SOURCES 3** and **4** can tell you about one role for women in Khmer society.
9. **Explain** what the writer of **SOURCE 5** would mean in saying 'the cultivators or fishermen sensed themselves as being within the same world as their ruler. . . .' (*Hint:* What religious beliefs and values would they have shared?)

Communicating

10. **Explain** why it is most likely that the lives of ordinary Khmer people would have changed very little during the period of the Khmer Empire.

LESSON
9.8 Why are Angkor's buildings famous?

LEARNING INTENTION

By the end of this lesson you should be able to identify the major buildings of the city of Angkor and describe the enormous achievement involved in creating these structures.

TUNE IN

The city of Angkor contains many sculptures and carvings (such as in **SOURCE 1**) that serve as valuable historical sources.

SOURCE 1 Wall carvings at Prasat Bayon Temple, Angkor Thom



1. Describe the figures in this relief carving.
2. Who might they be and why do you think they and thousands more were carved on temple walls?

9.8.1 The city of Angkor

In Khmer, *angkor* means 'city' and *wat* means 'temple' so Angkor Wat means 'temple city'. Angkor Wat, found near the Cambodian city of Siem Reap, is the world's largest religious structure and is one of over a thousand temples that make up the huge Angkor temple complex.

In the twelfth and thirteenth centuries, the city of Angkor covered over 1800 square kilometres, making it the largest city in the world before the industrial age. When London had a population of about 40 000, Angkor had over a million people grouped around it. When Angkor was the capital of the Khmer Empire it would also have had many villages and thousands of houses. Today only the temples survive because, unlike houses, they were built of stone and brick. As well as its buildings, Angkor had a system of water reservoirs, called barays, and moats that were probably constructed to irrigate rice crops and to represent seas of the mythical Hindu universe.

Angkor Wat

The building of Angkor Wat was commenced under Suryavarman II (1113–1150 CE). It was a shrine to the Hindu god Vishnu with whom Angkor's kings identified themselves. Its central tower represents Mt Meru, a mountain from Hindu mythology. Angkor Wat is the best preserved of the Angkor temples because, unlike the others, it was never completely abandoned. The temple's rectangular outer walls are surrounded by a huge rectangular moat. The walls measure 1025 metres by 800 metres. Relief sculptures line almost a kilometre of the outer walls. These sculptures include scenes from Hindu mythology including the *Mahabharata* and *Ramayana*, scenes of the king and the Khmer army at war, the Hindu heavens and hells, and over 3000 apsaras. Khmer inscriptions state that 300 000 workers and 6000 elephants were employed during the construction of Angkor Wat.

Angkor Thom

Thom is a Khmer word meaning 'large' so Angkor Thom means 'large city'. Much bigger than Angkor Wat, its area is around ten square kilometres. It was built under Jayavarman VII (1181–c. 1218 CE) and has huge 20-metre-high gates. Above the gates tower giant faces of the Buddhist Bodhisattva Avalokiteshvara. Within the city walls are its most important monuments and buildings, including the Bayon Temple, which stands at the centre of the city. Bayon has over 11 000 carved figures that cover about 1.2 kilometres of walls. They include scenes of battles against the Chams and scenes from everyday life including circus performers and a market.

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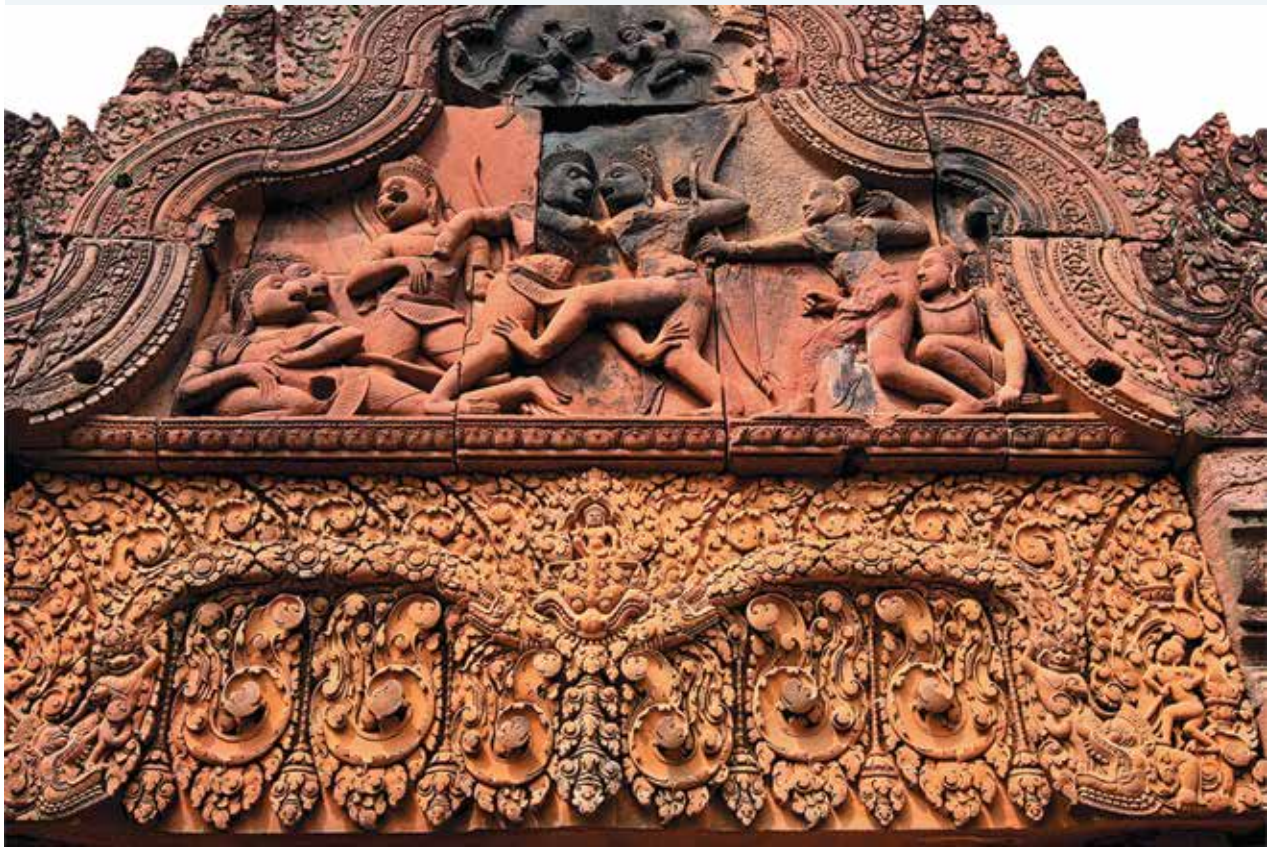
SOURCE 2 A diagram showing some of the most important buildings in Angkor



DISCUSS

In small groups, discuss whether the cost of building such great temples could have contributed to Angkor's decline. In your discussion, consider the number of people and materials needed, as well as the resources required to support such a workforce.

SOURCE 3 Rows of Angkor relief sculptures



aud-0454

9.8 SKILL ACTIVITY: Historical perspectives and interpretations, Using historical sources

Read **SOURCE 4** carefully and make notes on anything that can help you answer the questions that follow.

SOURCE 4 The following extracts are from Alison K. Carter and others, *Temple occupation and the tempo of collapse at Angkor Wat*, Cambodia, PNAS, 2019. Their conclusions are based on excavations and carbon dating.

[Angkor Wat] was initially in use from the 11th century CE with subsequent habitation until the 13th century CE. Following this period there is a gap in our dates. However, Angkor Wat was never completely abandoned, as the dates suggest that the mounds were in use again in the late 14th–early 15th centuries until the 17th or 18th centuries CE. This break in dates points toward a reorganization of Angkor Wat's enclosure space, but not during the historically recorded fifteenth century collapse. . . . Angkor's demise has been conventionally dated to 1431 CE, when Thai chronicles state that the city was attacked by the neighbouring [Thai] kingdom of Ayutthaya and the elites and royals fled south to settle near the modern city of Phnom Penh. . . . In fact, increasing evidence supports the interpretation that the decline of the Angkorian state was prolonged and [complicated].

1. a. Over what centuries was Angkor Wat used before there was a gap in its use?
   b. Over what second period was it used?
   c. What does this research say about the conventional theory that Angkor collapsed soon after it was attacked by Ayutthaya?
2. Compose a brief paragraph **explaining** the changes that occurred to Angkor Wat as outlined in the source.

9.8 Exercise

learnon

9.8 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 4, 5	6, 7, 8	9, 10

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Check your understanding

1. **Determine** whether the following statements are true or false.
   a. Angkor Thom is older than Angkor Wat.
   b. Angkor, when it was the capital of the Khmer Empire, had a population of more than a million people.
   c. Angkor Wat was built for Buddhist worship, while Bayon Temple in Angkor Thom was built to honor a Hindu god.
2. The building of Angkor Wat was commenced under **Jayavarman VII** / **Suryavarman II** and was a shrine to the **Hindu** / **Buddhist** god Vishnu.
3. **Describe** what the words *Angkor, baray, wat* and *Thom* mean.
4. Approximately how many temples are there in the city of Angkor?
   A. Around 10
   B. Around 50
   C. Around 100
   D. More than 1000
5. How many times greater was the population of Angkor than the population of London in the twelfth and thirteenth centuries?
   A. 5
   B. 15
   C. 25
   D. 35

Apply your understanding

Using historical sources

6. Study the map in **SOURCE 2** and **calculate** how many times Angkor Thom is bigger than Angkor Wat.
7. If 300 000 workers and 6000 elephants were needed to construct Angkor Wat, **estimate** how many might have been needed to build Angkor Thom.
8. **Explain** why highly specialised artisans would have been needed to create sculptures such as those in **SOURCE 3**.
9. Several feature films have been made around Angkor. **Describe** what kinds of impacts this could have had on the buildings.
10. **Identify** what evidence in this lesson explains why Angkor Wat is better preserved than most of the Angkor site.

LESSON
9.9 Why did Angkor and the Khmer Empire decline?

LEARNING INTENTION

By the end of this lesson you should be able to explain how Angkor's decline could be attributed to multiple causes, including wars and environmental and climate change.

TUNE IN

SOURCE 1 depicts Khmer soldiers armed with spears and bows and arrows.

1. Describe the figures in this relief carving. How are they armed?
2. Do you think this source contradicts the evidence of Zhou Daguan in lesson 9.7 **SOURCE 1**? Explain your response.

SOURCE 1 A relief sculpture at Angkor



9.9.1 A weakening empire

After Jayavarman VII's death, no more temples were built. The Khmer lost much of the territory they had conquered in Champa to their east. In the west, several Tai nobles rebelled against Khmer authority, establishing the first Tai kingdom at Sukhothai in 1238. These territorial losses and other developments seriously weakened the Khmer Empire.

Religious conflict and external threats

There was also religious conflict within the Khmer ruling family. Jayavarman VIII (1243–1295) wanted a return to Hinduism. He converted Buddhist temples to Hindu temples and destroyed many thousands of Buddha images. During his reign, the Khmer Empire was threatened by a much more powerful empire to its north. This was the mighty Mongol Empire, which conquered China in 1260. In 1283, Jayavarman VIII paid tribute to the Mongols to avoid war. For a time this made the Khmer Empire a **vassal state** of the Mongols but 4years later it proved to be a wise decision when the Mongols defeated and captured Bagan (in modern Myanmar).

SOURCE 2 A modern Khmer worshipping at a huge Theravada Buddhist statue at Angkor



Jayavarman VIII was overthrown by his son-in-law, Srindravarman (1295–1309). In place of Hinduism, he introduced Theravada Buddhism to the Khmer Empire. It was already the dominant religion of South-East Asia and it was adopted quickly by the Khmer. The end of the reign of his successor, Indrajayavarman, in 1327 is regarded as the end of the Khmer Classical Age. There were no more inscriptions telling of the accession of kings and no more temples, possibly because Theravada Buddhism (see **SOURCE 2**) did not demand such building. It has also been suggested that religious changes, including the change to Theravada Buddhism, might have weakened the power of Khmer kings.

vassal state a state whose ruler acknowledges a foreign ruler as his overlord

9.9.2 Why was Angkor abandoned?

From 1352, the Khmer suffered attacks by the Tai kingdom of Ayutthaya. For a while, the Khmer Empire remained powerful but in the 1440s the Khmer rulers abandoned Angkor. The most widely accepted explanation is the one put by Milton Osborne. He stated that the Tais 'threatened and eventually damaged the agricultural system upon which Angkor's very existence depended'. But this may not have been the only reason for Angkor's collapse. Several other hypotheses have been advanced to explain why Angkor was abandoned.

Environmental damage

One theory suggests that environmental damage may have played a role as forests were cut down to clear land for more rice fields. This resulted in topsoil being carried by floods into the barays and canals, causing them to silt up and flood. Once this happened there would have been flooding in the wet season and water shortages in the dry season. The population might have been afflicted with malaria. In any case, Angkor would no longer have been able to support its large population.

SOURCE 3 The base of the Hindu temple called the Eastern Mebon is guarded by carved figures of elephants. The temple is on an island in the Eastern Baray, one of two giant water reservoirs that were created to provide year-round water for farming. The barays were created by building huge dykes to hold floodwaters.



The Black Death

It has been suggested that the Black Death (bubonic plague) could have been a factor in Angkor's decline. The plague, which killed many millions in Asia, Europe, the Middle East and Africa, appears to have originated in Mongolia and central China in the early 1300s and it is known to have spread west along trade routes, including the Silk Road. Although the plague appears in reports from several parts of Asia from the 1330s and it could possibly have reached Cambodia from China, there is no hard evidence of it visiting the Khmer Empire.

Climate change

Another theory suggests that climate change could have caused a shortage of water during the 'Little Ice Age'. This was a period of lower global temperatures.

SOURCE 4 *Climate as a contributing factor in the demise of Angkor, Cambodia*, Proceedings of the National Academy of Sciences, 2010

[Angkor] experienced decades-long drought interspersed with intense monsoons in the fourteenth and fifteenth centuries that, in combination with other factors, contributed to its eventual demise. The climatic evidence comes from . . . tropical southern Vietnamese tree rings . . .

Royal family conflicts and retreat from the Tais

Without doubt, other reasons were ongoing conflicts within the Khmer ruling family and attacks by the Tais. These attacks stripped the city of its wealth and people. After the Tais besieged Angkor for seven months in 1431, a new Cambodian capital was founded in the southeast near the modern capital Phnom Penh. The move was significant as trade became more important to the Khmer economy. The new capital was located on a river much nearer to the sea and was therefore a more suitable site for Cambodia's growing trade with China.

SOURCE 5 Written by the Chinese diplomat Zhou Daguan, who stayed at Angkor in 1296–97

As a result of repeated wars with the Siamese [Tais] the land has been completely laid to waste.

9.9 SKILL ACTIVITY: Historical perspectives and interpretations, Using historical sources

1. **Create** a table with five columns. Label the columns from **SOURCE 1** to **SOURCE 5**. each column will refer to a source in this lesson.
2. Study each source carefully and make notes on what they tell you about the changes that could have contributed to the weakening of the Khmer Empire.
3. Using your notes, write a paragraph **suggesting** four possible changes that could have contributed to the weakening of the Khmer Empire.

9.9 Exercise

learnon

9.9 Exercise

Learning pathways

■ LEVEL 1	■ LEVEL 2	■ LEVEL 3
1, 2, 5	3, 4, 6	7, 8

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Check your understanding

1. In which two places did the Khmer Empire lose territory after the death of Jayavarman VII?
   - A. Champa
   - B. Vietnam
   - C. Thailand
   - D. Indonesia
2. The Khmer Empire was conquered by the Mongol Empire during the reign of Jayavarman VIII. True or false?
3. **Describe** how Khmer religion was changed again under Jayavarman VIII.
4. **Identify** what religious change was made under Srindravarman.
5. The Khmers abandoned Angkor from the year _____.

Apply your understanding

Using historical sources

6. a. **Examine** the Buddha statue in **SOURCE 2**. How do you think the Khmer people would have regarded the sequence of religious changes between the twelfth and fourteenth centuries?
   b. Do you think such changes could have undermined faith in Khmer rulers? **Justify** your response.
7. Angkor's agriculture depended on giant barays like the one in **SOURCE 3**. **Predict** what would have been the impact if these reservoirs failed due to environmental damage.
8. a. Read **SOURCE 4** and briefly **outline** the theory that climate change could have played a role in the weakening of the Khmer Empire.
   b. **Identify** which theory about Angkor's abandonment is supported by Zhou Daguan in **SOURCE 5**.

LESSON
9.10 What are the legacies of the Khmer Empire?

LEARNING INTENTION

By the end of this lesson you should be able to explain why there are many legacies of the Khmer Empire, including its influences on neighbouring societies.

TUNE IN

As suggested by **SOURCE 1**, The late Thai king and his family were much revered in Thailand, much as Khmer kings appear to have been over many centuries.

1. Describe the scene.
2. It has long been a crime punished by imprisonment under Thai law to criticise the monarchy. Why do you think this is?
3. It is only since the king's death that the powers of a Thai royal family have been seriously challenged. Why do you think this has happened?

SOURCE 1 A Theravada Buddhist monk stands before a portrait of Thailand's royal family at fourteenth-century Wat Prathat Doi Suthep in northern Thailand.



9.10.1 Legacies for other South-East Asian societies

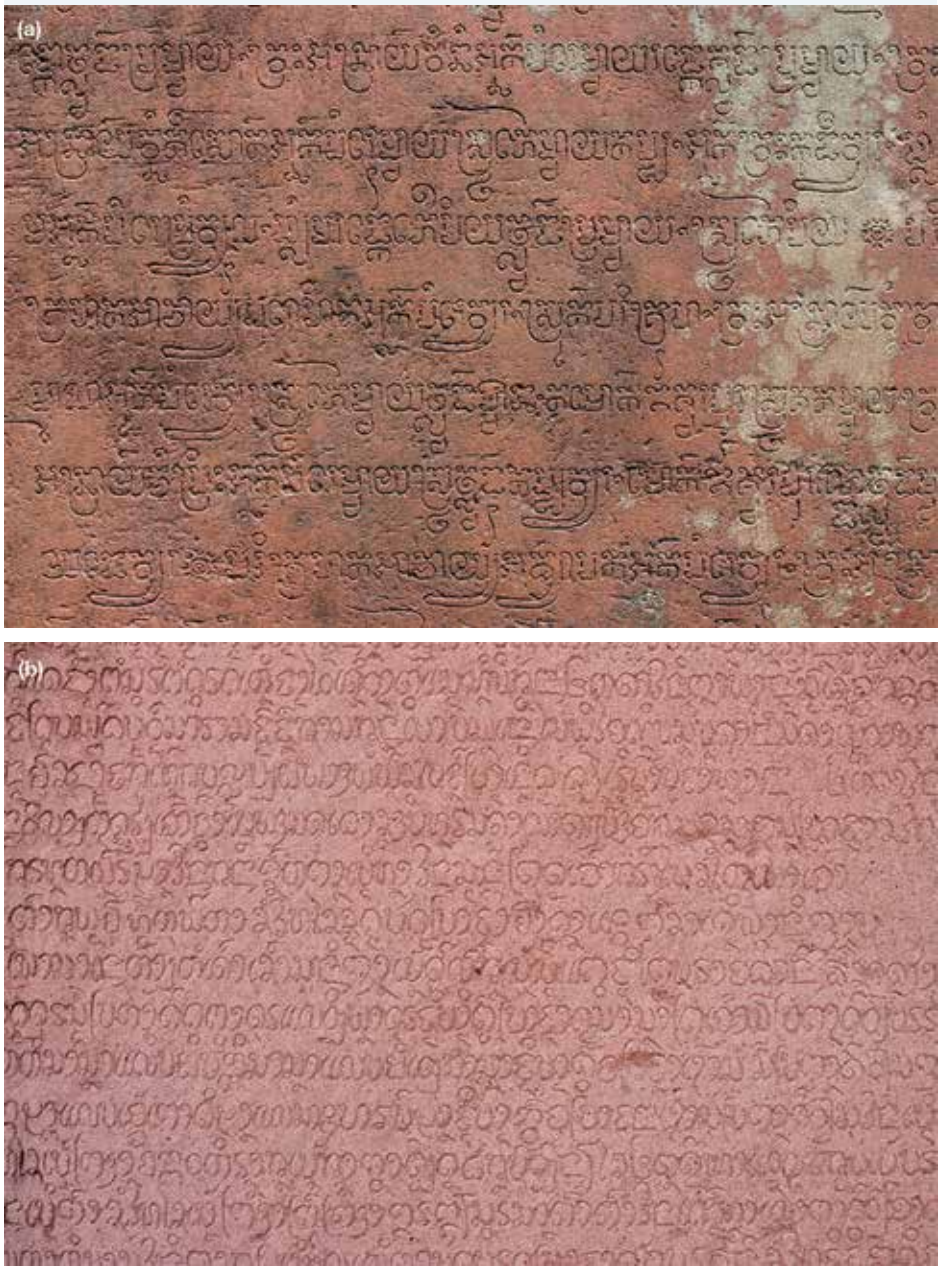
Angkor is the Khmer Empire's greatest legacy. This city was its capital and its central area of settlement. Angkor provides evidence of Cambodia's past wealth, strength, culture and religious beliefs. Many thousands of people visit Thailand, Laos and Cambodia each year to marvel at amazing historical sites. This is called cultural tourism. Of all these historical sites, Angkor is arguably the most spectacular; however, it is not the Khmer Empire's only legacy.

The Khmer Empire had cultural and trade relations with other mainland South-East Asian kingdoms and with the maritime South-East Asian states of Java and Srivijaya. Through trade and cultural exchange, and through its rise and fall, the Khmer Empire influenced much of the region.

Khmer influence in Thailand

Angkor's civilisation influenced Thai systems of ruling, the way Thai society was organised, Thai architecture and arts, and the development of the Thai written language. From the sixteenth century, Europeans knew Ayutthaya's Thai empire as Siam. By 1700, Ayutthaya was a vast city with around a million people that traded with the Dutch, French, Chinese and Japanese. But in the eighteenth century, its power declined and in 1776 the Burmese destroyed the city.

SOURCE 2 The Khmer written language (a) influenced the development of the Thai written language (b).



Khmer influence in Laos

In Laos in 1353, a prince from Angkor named Fa Ngum founded the Theravada Buddhist kingdom of Lan Xang (meaning 'a million elephants'). As Angkor lost its power, Lan Xang came to dominate modern-day Laos, much of north-eastern Thailand and even parts of southern China and north-western Vietnam. In the seventeenth century, Lan Xang reached the height of its power. European visitors were impressed by its prosperity and its great temples. But when its king died in 1694 without an heir to the throne, Lan Xang broke up into rival kingdoms that came under the influence of its more powerful neighbours — Vietnam, Thailand and Burma.

Vietnam after the fall of Angkor

During the early fifteenth century, China regained control of Vietnam until the Vietnamese secured their independence in a rebellion in 1428. Vietnam played no role in the decline of Angkor but it benefited by expanding into territory that had been part of the Khmer Empire. This is because much of Vietnam is mountainous and it needed more farming land. It also took territory from Champa.

9.10.2 Cambodia from the sixteenth century

In the sixteenth century, Europeans came to South-East Asia seeking wealth from the spice trade. However, they had little impact before the mid-eighteenth century. After a devastating attack by Ayutthaya in 1593, the Khmer rulers sought help from the Spanish who had colonised the Philippines. For a few years, the Spanish influenced Cambodia's rulers. However, the Spanish who were in Cambodia were massacred in 1599. In the seventeenth and early eighteenth centuries, Cambodia's rulers turned first to the Thais for support. When that help was not forthcoming, they sought Vietnamese help against the Thais. The result was that both Thailand and Vietnam grew stronger at Cambodia's expense. Thailand extended its territory into Cambodia but lost these areas as European colonisers moved in during the nineteenth century.

SOURCE 3 Tree roots strangling an Angkor temple



The colonial era and the present

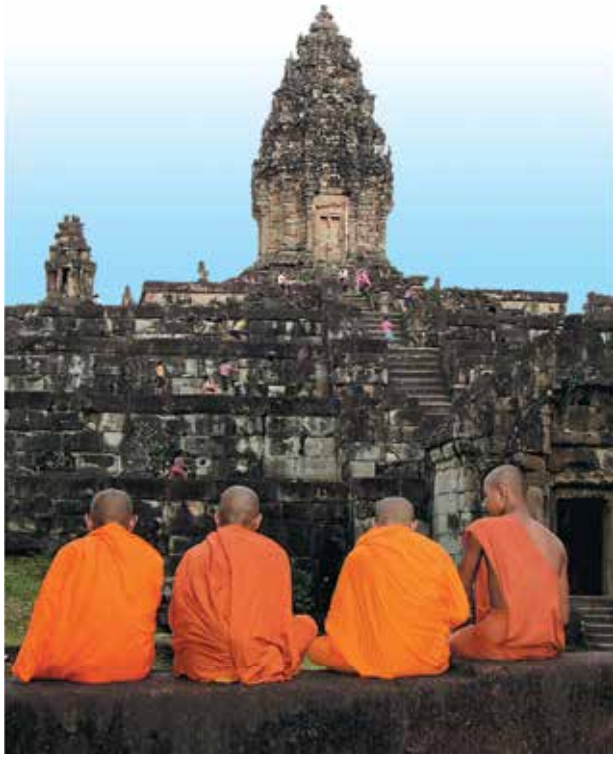
Colonisation by European powers brought many changes to South-East Asia. Only Thailand remained independent. Portugal's capture of Malacca (in modern-day Malaysia) in 1511 and Spain's colonisation of the Philippines were followed by Dutch, British and French empire-building in the region. The Dutch came to control most of modern Indonesia, the British took Burma and Malaya, and the French took Vietnam, Laos and Cambodia in the nineteenth century. The French met strong resistance in Vietnam, but when France declared a **protectorate** over Cambodia in 1862 it had the approval of the Cambodian king who feared losing more territory to Thailand and Vietnam.

The Khmer prince Norodom Sihanouk declared Cambodia's independence in 1953 but Cambodia was to suffer terribly when it was caught up in the Vietnam War in the 1960s and 1970s. It then suffered even more under the secretive Khmer Rouge regime from 1975 to 1979. The Khmer Rouge called the first year of their rule Year Zero. Through forced evacuation of the cities, forced labour and mass murder, they tried to wipe out all traces of the past.

Today, Cambodia is a very poor country. In some ways its distant past continues to shape its present. After years of civil war, Cambodia has returned to its traditional monarchy and once again Theravada Buddhism is its state religion.

protectorate when stronger states protect and control weaker states

SOURCE 4 Buddhist monks look on as visitors explore the ruins of Angkor.



SOURCE 5 An Angkor temple overgrown with tree roots



Angkor rediscovered

Angkor Wat continued to be visited by Buddhist pilgrims after the city was abandoned in the fifteenth century, but the rest of the city was overtaken by the jungle. Gigantic tree roots spread over the temples, which became hidden as they were cloaked by the encroaching forest. However, in the nineteenth century, French archaeologists began the process of rediscovering Angkor, clearing the jungle from temples and restoring the site by repairing foundations and making drains to prevent further damage from water. Since the 1990s, conservation work has been coordinated by UNESCO and government bodies from France, Japan and Cambodia.

SOURCE 6 Tourists visiting Angkor



Over a million overseas visitors come to Angkor each year. They provide additional funds towards the cost of conserving the site, but as they walk and climb over Ankor's sandstone structures they create additional conservation problems.

aud-0455

9.10 SKILL ACTIVITY: Using historical sources

SOURCE 7 A UNESCO World Heritage description of Angkor

Angkor . . . is one of the most important archaeological sites of Southeast Asia. It extends over approximately 400 square kilometres and consists of scores of temples, hydraulic structures (basins, dykes, reservoirs, canals) as well as communication routes. For several centuries Angkor was the centre of the Khmer Kingdom. With impressive monuments, several different ancient urban plans and large water reservoirs, the site is a unique concentration of features testifying to an exceptional civilisation. Temples such as Angkor Wat, the Bayon, Preah Khan and Ta Prohm, exemplars of Khmer architecture, are closely linked . . . The architecture and layout of the successive capitals bear witness to a high level of social order and ranking within the Khmer Empire. Angkor is therefore a major site exemplifying cultural, religious and symbolic values, as well as containing high architectural, archaeological and artistic significance . . .

Criterion (i): The Angkor complex represents the entire range of Khmer art . . .

Criterion (ii): The influence of Khmer art as developed at Angkor was a profound [deep] one . . .

Criterion (iii): The Khmer Empire of the 9th–14th centuries encompassed much of Southeast Asia and played a formative role in the political and cultural development of the region . . .

Integrity

The Angkor complex encompasses all major architectural buildings and hydrological engineering systems from the Khmer period and most of these 'barays' and canals still exist today.

1. Read the text carefully and **discuss** any part you do not fully understand.
2. To **identify** all the reasons why Angkor has many legacies, write one or two sentences under each of the following headings:
   - Size of the Angkor complex
   - Types of structures within the complex
   - Evidence of Angkor's social order
   - Evidence of Khmer art
   - Influence on other South-East Asian societies

9.10 Exercise

learnon

9.10 Exercise

Learning pathways

■ LEVEL 1	■ LEVEL 2	■ LEVEL 3
1, 2, 3, 4, 5	6, 7, 8	9, 10

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Check your understanding

1. The Khmer written language influenced the development of which other written language?
   - **A.** Chinese
   - **B.** Thai
   - **C.** Indian
   - **D.** Mongolian

2. In the years following attacks by Ayutthaya in 1593, who did Khmer rulers turn to for support? **Select** all that apply.
   - **A.** Thais
   - **B.** Spanish
   - **C.** Vietnamese
   - **D.** Dutch
   - **E.** French
3. Which five European powers gained colonies in South-East Asia between the sixteenth and nineteenth centuries?
   - **A.** Germany
   - **B.** Spain
   - **C.** Italy
   - **D.** Portugal
   - **E.** The Netherlands
   - **F.** France
   - **G.** Russia
   - **H.** Britain
4. **Explain** how Angkor influenced Laos.
5. **Propose** why you think Cambodia's rulers sought help from the Spanish in the sixteenth century and from the French in the nineteenth century.

Apply your understanding

Using historical sources

6. **Explain** how **SOURCES 1** and **2** provide evidence of the Khmer influence and continuity of regarding monarchy, religion and written language in South-East Asia.
7. **SOURCES 4** and **6** show tourists visiting Angkor. **Demonstrate** how this might benefit Cambodia and how large numbers might threaten conservation of the site.
8. **Describe** what you see in **SOURCES 3** and **5**.

Communicating

9. Although Cambodia has been receiving much help with conservation and restoration of several temples, some sites, such as those in **SOURCES 3** and **5**, have been left alone to show the power of nature. Do you think this is a good idea? **Justify** your response.
10. From **examining** each of the sources, what conclusions can you draw about continuity and change in Cambodia since the time of the Khmer Empire?

LESSON
9.11 INQUIRY: Contested histories

LEARNING INTENTION

By the end of this lesson you should be able to describe different perspectives and interpretations of the past.

Investigating the role of climate change in the fall of Angkor

Did climate change contribute to Angkor's fall? Today we know a lot about climate change because we live in a time when man-made climate change is threatening to make much of our planet uninhabitable. One hypothesis suggests that a different kind of climate change may have caused a shortage of water in the Khmer Empire during the 'Little Ice Age' of the fourteenth and fifteenth centuries.

As we have seen in lesson 9.9, several factors could have contributed to Angkor's weakening from the mid-thirteenth century. These include the formation of the Tai Kingdom of Sukhothai in 1238, conflict within the Khmer royal family, religious changes leading to the introduction of Theravada Buddhism under King

Srindravarman (1295–1309), environmental damage due to over-clearing, further Tai attacks by the Kingdom of Ayutthaya and prolonged droughts and floods during the fourteenth and fifteenth centuries, leading to the abandonment of Angkor following the Tai sacking of the city in 1431.

Your task is to investigate the part played by climate change.

Reading **SOURCE 2** and others you can find through research will enable you to compare some different judgements that have been made. You can use the internet and your library to find relevant secondary sources.

SOURCE 1 This was once a part of a large water reservoir at Angkor Wat.



aud-0456

SOURCE 2 From *Climate as a contributing factor in the demise of Angkor, Cambodia*, Proceedings of the National Academy of Sciences, 2010

Angkor, the capitol of the Khmer Empire in Cambodia, experienced decades-long drought interspersed with intense monsoons in the fourteenth and fifteenth centuries that, in combination with other factors, contributed to its eventual demise. The climatic evidence comes from . . . tropical southern Vietnamese tree rings. The Angkor droughts were of a duration and severity that would have impacted the sprawling city's water supply and agricultural productivity, while high-magnitude monsoon years damaged its water control infrastructure . . .

Historians and archaeologists have, with a few notable exceptions, only rarely considered the role played by environment and climate in the history of Angkor. However, several studies have now documented the role of regional climate variation in contributing to the eventual demise of other complex agrarian societies. . . .

The Khmer kingdom at Angkor . . . was as a society dependent on the annual monsoon flooding of Cambodia's lowlands to support a vast and complex agricultural system . . . Angkor would have been vulnerable to variability in the strength and intensity of the monsoon at time scales of years to decades.

Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

Inquiry steps

Step 1: Questioning and researching

Write your inquiry question. It could be based on anything like the following:

- What is the evidence for a significant role of climate change in the fall of Angkor?
- Would climate change have added to the environmental damage from excessive land clearing?
- Would such damage have been so bad without the attacks by the Tais from the thirteenth to the fifteenth centuries?
- What views on this issue have been expressed by historians and archaeologists?

Research your question.

Step 2: Using historical sources

Analyse your sources.

Step 3: Historical perspectives and interpretations

Evaluate the arguments in the sources.

Step 4: Communicating

What is your answer to your inquiry question? Present your findings in a format of your choosing. Support your answer with examples from your research, analysis and evaluation.

Complete your self-assessment using the **Inquiry rubric** or access the 9.11 exercise set to complete it online.

on Resources

Digital document Inquiry rubric (doc-39398)

LESSON
9.12 Review

Hey students! Now that it's time to revise this topic, go online to:

Review your results

Watch teacher-led videos

Practise questions with immediate feedback

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9.12.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

9.2 How do we know about Angkor and the Khmer Empire?

- Legends of the rise of South-East Asian states are unreliable.
- Inscriptions provide our only written primary sources from the Khmers.
- Written primary sources from other societies that had contact with the Khmers provide more information.
- Khmer archaeological sources provide much evidence.

9.3 How much did geography influence Khmer civilisation?

- The geographical features of South-East Asia provided conditions necessary for the rise of civilisations along rivers, including Angkor and the Khmer Empire.
- There were many different peoples and cultures in the region.

9.4 What was the historical setting?

- Several states arose in mainland South-East Asia between the first century and the twelfth century.
- There were contacts and conflicts between the South-East Asian states.
- The expansion of the Khmer Empire was aided by conflicts between rival states.

9.5 How did the Khmer create an empire?

- Jayavarman II founded the Khmer kingdom in 802 and built Hindu temples.
- Under his successors, reservoirs were built in the Angkor area and the Khmers began to have conflicts with Champa.
- Angkor Wat was built under Suryavarman II.
- Jayavarman VII defeated the Chams, introduced Mahayana Buddhism, built Angkor Thom and expanded the Khmer Empire to its largest extent. He is regarded as the greatest of the Khmer kings.

9.6 How did religions influence the Khmer Empire?

- Animism, Hinduism and Buddhism all played a part in shaping the beliefs and values of the Khmers.
- Khmer culture was strongly influenced by the art, architecture and literature of Hinduism and Buddhism from India and Sri Lanka but the styles were changed when the Khmers adopted them.

9.7 What was life like in the Khmer Empire?

- Khmer society was very unequal, with kings and nobles having great power.
- Khmer women carried out a huge range of trades and many became dancers.
- The ordinary people provided the food surplus that supported the ruling classes. They also provided soldiers for wars and labour for building reservoirs and temples.

9.8 Why are Angkor's buildings famous?

- The city of Angkor had a million people grouped around it in the twelfth and thirteenth centuries.
- Angkor Wat is the world's largest religious structure.
- Angkor Thom's Bayon Temple has over 11 000 carved figures with scenes of war and everyday life.

9.9 Why did Angkor and Khmer Empire decline?

- After the death of Jayavarman VII, temple-building ceased and the Khmers lost territory.
- There are several factors that could have contributed to Angkor's decline and fall. They include environmental damage, climate change, religious changes and attacks by the Tais.

9.10 What are the legacies of the Khmer Empire?

- The Khmer Empire left significant legacies for Cambodia, including Angkor with its temples and other historical sites.
- The Khmer Empire's legacies also include:
  - its historical influence on neighbouring countries through cultural and trade relations
  - its influence on written languages, arts, architecture and social organisation.

9.11 INQUIRY: Contested histories

- Historians identify a range of factors contributing to the fall of the Khmer Empire.
- Several recent studies now provide evidence for the role of climate change during the fourteenth and fifteenth centuries.

9.12.2 Key terms

Buddha Siddhartha Gautama who founded Buddhism in the sixth century BCE
Buddhist to do with Buddhism; a follower of Buddhism
cult a system of religious worship
epic a long story in verse narrating the deeds of its hero
Hindu the most ancient of all the main world religions; originated in India
incarnation the representation of a spirit or quality in a living human
Khmer the Cambodian people
legitimate lawful or proper
linga a phallic symbol that would have originally been a feature of most Hindu temples
Mahayana Buddhism one of the two main forms of Buddhism that influenced mainland South-East Asia
mausoleum a huge tomb
nirvana in Buddhism, the perfect state; free of suffering and desire
nobles the aristocracy; hereditary privileged class
pious devout, very religious
protectorate when stronger states protect and control weaker states
reincarnation being continuously born and reborn in other lives
ruling class kings, nobles and high officials
Sanskrit ancient and sacred language of India
slash and burn agriculture a nomadic form of farming in which people clear part of a forest, grow crops, harvest them and then move on to repeat this in another place
Tai ethnic groups that migrated from southern China into northern mainland South-East Asia from the tenth century
Theravada Buddhism one of the two main forms of Buddhism that influenced mainland South-East Asia
Tonle Sap the largest freshwater lake in South-East Asia
vassal state a state whose ruler acknowledges a foreign ruler as his overlord

9.12.3 Reflection

Complete the following to reflect on your learning.

Revisit the inquiry question posed in the Overview:

How did Khmer society change, what were its key beliefs, values and perspectives, and what were the causes and effects of its contacts with other societies?

1. Now that you have completed this topic, what is your view on the question? Discuss with a partner. Has your learning in this topic changed your view? If so, how?
2. Write a paragraph in response to the inquiry question, outlining your views.

on Resources

eWorkbooks Customisable worksheets for this topic (ewbk-10708)
Reflection (ewbk-10710)
Crossword (ewbk-10711)

Interactivity Angkor and the Khmer Empire crossword (int-7588)

9.12 Review exercise

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Multiple choice

1. Angkor and other mainland South-East Asian societies developed around which of the following geographical features?
   - A. Rivers, lakes and coasts
   - B. Mountains
   - C. Dense forests
   - D. Dry plains
2. In what modern country did the Angkor civilisation emerge?
   - A. Thailand
   - B. India
   - C. Vietnam
   - D. Cambodia
3. Which three people played significant roles in the rise of the Khmer Empire?
   - A. Jayavarman II, Zhou Daguan and Fa Ngum
   - B. Jayavarman II, Suryavarman II and Jayavarman VII
   - C. Zhou Daguan, Tribhuvanadityvarman and Suryavarman II
   - D. Jayavarman VII, Fa Ngum and Zhou Daguan

4. The Khmer Empire was mainly influenced by the culture of which country?
   - **A.** Vietnam
   - **B.** China
   - **C.** India
   - **D.** Thailand
5. Which one of the following religions was introduced to Cambodia by Jayavarman VII?
   - **A.** Christianity
   - **B.** Hinduism
   - **C.** Theravada Buddhism
   - **D.** Mahayana Buddhism
6. Angkor influenced the culture of which other societies?
   - **A.** India and Sri Lanka
   - **B.** Thailand and Laos
   - **C.** Indonesia and the Philippines
   - **D.** Tibet and Bhutan
7. In the Khmer Empire, what were kings regarded as?
   - **A.** Gods
   - **B.** Devils
   - **C.** Dictators
   - **D.** Semi-divine
8. A *wat* is which of the following?
   - **A.** A palace
   - **B.** A reservoir
   - **C.** A weapon
   - **D.** A temple
9. It is believed that around the twelfth century Angkor had a population of approximately which of the following?
   - **A.** 100 000
   - **B.** 300 000
   - **C.** 1 000 000
   - **D.** 2 000 000
10. Which of the following groups were the main enemies of the Khmers in the period from the tenth century to the thirteenth century?
    - **A.** Burmese
    - **B.** Indians
    - **C.** Chams
    - **D.** Tais

Short answer

Using historical sources

11. Write an analysis of **SOURCE 1** below based on the following questions.

SOURCE 1 A Khmer sculpture



a. What are the main details of the sculpture?
b. What type of skilled craftsmen would have produced it?
c. What level of Khmer society would be occupied by the person who ordered the creation of this relief sculpture?
d. How is it similar to other Khmer sculptures you have seen in this topic?
e. In what ways is it different from those other sculptures?
f. Why would it have been created?
g. Why are sculptures such as this very important as evidence of everyday life? (*Hint:* Most Khmer temple sculptures depict scenes of wars and religious myths.)
h. How reliable would this sculpture be as depiction of the everyday lives of Khmer peasants? (Consider whose perspective the sculpture would represent.)

12. Read **SOURCE 2** below.

SOURCE 2 From *A Record of Cambodia: the Land and its people* by Zhou Daguan, who lived at the Khmer court in Angkor in 1296–1297

> Ordinary families have houses but nothing else by way of tables, chairs, jars or buckets. They use an earthenware pot to cook rice in, and make sauce with an earthenware saucepan. For a stove they sink three stones into the ground, and for spoons they use coconut husks.

Write a half- to one-page explanation of why the Chinese diplomat Zhou Daguan is a most significant individual in Khmer history. In your response, consider his role in providing the only detailed written account of the Khmer Empire. As well as a general statement about Zhou Daguan's connection with Angkor, you should comment on what things we can discover from his writing (in the sources used in this topic and from **SOURCE 2** above) that we would not otherwise know about Khmer society.

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Online Resources

on Resources

This is a summary of the digital resources you will find online for Topic 9 to help support your learning and deepen your understanding. When you see these icons next to an image or paragraph, go to learnON to access video eLessons, interactivities, weblinks and other support material for this topic.

9.1 Overview

eWorkbook
- Customisable worksheets for this topic (ewbk-10708)

Video eLesson
- Angkor and the Khmer Empire (eles-1827)

Interactivity
- A timeline of the Khmer Empire (int-4283)

9.3 How much did geography influence Khmer civilisation?

Interactivity
- A map of modern-day South-East Asia showing landforms, rivers and cities with a population of over 1 million people (int-8980)

9.4 What was the historical setting?

Video eLesson
- A map of civilisations in mainland South-East Asia in 400–700 CE. Over the next few centuries, Dvaravati would expand north. Black line borders show modern states (tlvd-10594)

9.5 What was the historical setting?

Interactivity
- A modern artist's depiction of Suryavarman II killing his rival during a battle fought on war elephants (int-4100)

9.8 Why are Angkor's buildings famous?

Audio
- The following extracts are from Alison K. Carter and others, Temple occupation and the tempo of collapse at Angkor Wat, Cambodia, PNAS, 2019. Their conclusions are based on excavations and carbon dating (aud-0454)

Interactivity
- A diagram showing some of the most important buildings in Angkor (int-4101)

9.10 What are the legacies of the Khmer Empire?

Audio
- A UNESCO World Heritage description of Angkor (aud-0455)
- From Climate as a contributing factor in the demise of Angkor, Cambodia, Proceedings of the National Academy of Sciences, 2010 (aud-0456)

9.11 INQUIRY: Contested histories

Digital document
- Inquiry learning matrix (doc-39398)

9.12 Review

eWorkbooks
- Customisable worksheets for this topic (ewbk-10708)
- Reflection (ewbk-10710)
- Crossword (ewbk-10711)

Interactivity
- Angkor and the Khmer Empire crossword (int-7588)

To access these online resources, log on to **www.jacplus.com.au**.

10 Japan under the shōguns (c. 794–1867)



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10.3 What was life like in early Japan? 238
10.4 How did the shōguns take control? 243
10.5 How did Japanese society organise itself? 252
10.6 Who were the samurai? 259
10.7 How did people express themselves? 263
10.8 How did they use the land? 268
10.9 How did Japan re-join the world? 271
10.10 INQUIRY: Shintō and Buddhism guide 279
10.11 Review 281

LESSON
10.1 Overview

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How has Japanese culture grown both independently and through the influence of others?

10.1.1 Links with our times

Japan is a country steeped in heritage and culture, and over the course of its history the islands that make up the nation have had a strong influence world-wide. Today, Japan is one of Australia's most important trading partners for many goods, including electronics and precious materials.

At various points, Japan has cut itself off from outside influences. Even today, citizenship is only granted to the children of Japanese citizens. This has meant that the country has been able to not only maintain but develop and grow its unique culture and way of life. Today, Japan is known for its traditional arts as much as its modern innovations.

SOURCE 1 Japanese calligraphy is a practice that dates back to the thirteenth century.



on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10712)

Video eLesson Japan under the shōguns (eles-6029)

int-4284

SOURCE 2 A timeline of Japan under the shōguns

CE

700

794
Emperor's court moves from Nara to Heian-kyo (modern-day Kyoto)

800

798
Kyomizu-dera (Pure Water Temple) constructed



Heian period 794–1185
Noble Fujiwara family at the height of its political power
Flowering of art and literature, especially poetry
Use of phonetic kana scripts
Rise of samurai military class
The Pillow Book is written by Sei Shonagon.
The Tale of Genji is written by Murasaki Shikibu.

900

1000



1100

1180–1185
Genpei War

1252
Great Buddha statue installed at Kamakura

1274 and 1281
Unsuccessful attempts by Mongol armies to invade Japan

1200



Kamakura period 1185–1333
Minamoto no Yoritomo becomes shōgun and puts Japan under military control.

1300

1397
Kinkaku-ji (Golden Pavilion) built.

1400

1467–77
Onin War

Muromachi period 1336–1573
Japan under military control of the Ashikaga shōguns

1500

1549
Francis Xavier introduces Christianity to Japan.

1467–1568
Age of the warring states



1600

Azuchi-Momoyama period 1568–1600
Toyotomi Hideyoshi persecutes Christians.
Increase in foreign trade

1600
Battle of Sekigahara

1700

1688–1704
Genroku period brings a flourishing of urban culture

Edo period 1600–1868
Japan under military control of the Tokugawa shōguns
Christians persecuted
Shi-nō-kō-shō organisation of society
Policy of national seclusion isolates Japan from the rest of the world
Edo is the largest city in the world.

1800

1853
Commodore Perry first visits from the US.

1800

1868
The Tokugawa shōgunate is overthrown.
Emperor Meiji is restored to power.

1868–69
Boshin War



2000

CE

LESSON
10.2 How do we know about Japan under the shōguns?

LEARNING INTENTION

By the end of this lesson you should be able to identify the types of sources that can provide evidence of the events and way of life of people within the shōgunate period in Japan.

TUNE IN

The Buddhist temple of Todai-ji shown in **SOURCE 1** is one of the largest structures in the world built without nails.

1. Discuss how you think Japanese builders were able to construct such an impressive building without nails.
2. Do you think many buildings are constructed in this way now? Why or why not?

SOURCE 1 The Buddhist temple of Todai-ji



10.2.1 What evidence is there?

Japanese museums, temples and shrines preserve many relics that tell us about Japan's past. The most precious items are listed as National Treasures. These could be buildings, sculptures, paintings, documents, artefacts or even people.

10.2.2 Architecture

Much can be learnt about Japan's past by examining surviving buildings. Their construction techniques, materials and designs give us valuable information about architecture, technology and the way people lived. Some of the oldest buildings are in the cities of Nara, Kamakura and Kyoto. These three cities were centres of government at various times in Japan's history. They were also religious centres that built shrines for Japan's ancient **Shintō** faith, great **Buddhist** temples and **pagodas**.

The type of architecture from each different period of Japanese history can tell us much about that period. For example, a period in which a large number of temples were built would tell us that religion was very important to the people at that time. A period in which large castles were built would tell us that wealthy families were very significant during that era. Architecture can also tell us about the technology of the time. Large wooden structures built without nails are an indication of the high level of skill among builders of the time.

Shintō an ancient Japanese religion that believes in nature spirits and ancestor worship

Buddhist to do with Buddhism; a follower of Buddhism

pagoda a Hindu or Buddhist temple, typically in the form of a many-tiered tower

10.2.3 Cultural legacies

Many examples of Japanese craftmanship survive today and these provide a great deal of evidence of life in Japan over the centuries. Paintings often provide detail of the way of life for all classes of people, as well as the clothing they wore and

the buildings in which they lived. Many famous events in Japanese history have also been depicted at the time in works of art. Crafts such as **origami**, printmaking and pottery can also give us insights into Japanese life in past centuries.

Japanese artists adopted woodblock printing as early as the eighth century CE, but woodblock art really flourished from the sixteenth century onwards. The different styles and schools of woodblock art over the next three hundred years provide a great deal of insight into the Japanese way of life. Traditional Japanese sculpture evolved from the production of small clay figures in early eras, to the casting of huge bronze statues from the Classical period onwards. Sculptures were often religious in nature, depicting the different gods that were worshipped at different times. Large bronze sculptures of Buddha indicate the importance of the Buddhist religion at different eras in Japanese history.

origami the art of folding paper into different shapes and designs

SOURCE 2 This statue of Buddha is made of bronze and was constructed in the thirteenth century. It is 13.35 metres high and weighs approximately 94 tonnes.



SOURCE 3 This print by nineteenth-century artist Ando Hiroshige shows peasants in paddy fields planting rice.



DID YOU KNOW?

The Japanese language is written with three different sets of characters. These include Chinese characters known as *kanji*, as well as two sets of characters that represent different sounds or syllables. These two sets of characters are known as *hiragana* and *katakana*. *Hiragana* primarily represents Japanese words and *katakana* is used for foreign words. The use of *katakana* immediately lets the reader know that the word is borrowed from another language.

Many great works of early Japanese literature also survive, and these reveal aspects of life in the past. Murasaki Shikibu, sometimes known as Lady Murasaki, was the author of the world's first novel, *The Tale of Genji*, written over ten years between 1000 and 1010 CE. Although this is a work of fiction, it provides us with a great deal of information about the life of the wealthy and influential aristocrats of this time.

In addition to great literary works by Japanese writers, a large number of historical documents have been kept and stored as national treasures. These include letters written by emperors and important officials, the official records of a number of Buddhist and Shintō temples, and some family histories.

One such family collection is that of the Shimazu family, which includes over 15 000 family documents covering over a thousand years from the eighth century to the nineteenth century. These documents can provide historians with great insights into Japanese life over many centuries.

SOURCE 4 Murasaki Shikibu wrote the first great Japanese novel, *The Tale of Genji*. This artwork was created in 1767.



SOURCE 5 A chapter from the *Lotus Sūtra* from the tenth century CE. This text, introduced from China, was an extremely important part of Japanese spirituality during this period.



10.2.4 Tradition

Many traditional festivals and religious ceremonies are still practised in Japan today. Some of these have not changed for many hundreds of years so can provide valuable information about the way of life of Japanese people in past centuries.

Many of the festivals are religious in nature and have their origins in ancient and medieval Buddhist and Shintō ceremonies. Others have artistic and cultural significance, such as the re-enactment of traditional Kabuki theatre performances. These can provide insights into the artistic and cultural activities of the past.

SOURCE 6 The Hollyhock Festival (*Aoi Matsuri*) began as a religious festival in the sixth century CE. It was believed to protect people from disease and help bring good rice harvests.



10.2 SKILL ACTIVITY: Questioning and researching, Communicating

Japanese writing and culture have been heavily influenced by China, both during its inception and as it grew. Likewise, our culture relies heavily on societies before us.

1. **Research** the following cultural expressions and their origins:
   - Christmas, Easter and New Year's Eve
   - handshakes
   - birthday presents
   - Ms / Mrs / Mr / Mx
   - farming cows, pigs and sheep for food (more than other animals)
   - wearing a tie.
2. **Communicate** your findings using either a colourful infographic or a brief oral presentation.

10.2 Exercise

learnon

10.2 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 5	4, 6, 10	7, 8, 9

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Check your understanding

1. **Determine** whether the following statements are true or false.
   a. The two dominant religions that were followed in Japan during the shōgunate period were Shintō and Buddhism.
   b. Japanese woodblock printing was adopted in the eighteenth century.
   c. The Shimazu family collection includes over 15 000 family documents covering over a thousand years from the eighth century to the nineteenth century.
2. Which three of the following are ways that art and crafts can tell us about life in Japan over the centuries?
   A. Hand puppets were used to provide an accurate picture of fashions through the centuries.
   B. Crafts such as origami and pottery can show us various aspects of the lifestyle of people in the past.
   C. Artworks such as paintings can tell us about the way of life of the people.
   D. Sculpture can tell us of the importance of religion, through statues such as the Great Buddha.
3. Why might religious images have been important in Japanese art?
   A. Religious images were always colourful and therefore important to art.
   B. Reproducing religious images provided constant work for artists.
   C. Without religious images, the artwork was bland.
   D. Religious images were important because religion itself was important in feudal Japanese society.
4. **Explain** what the study of architecture tells us about life in Japan in the past.
5. **Recall** what impressive technology was used in the construction of the Buddhist temple of Todai-ji.

Apply your understanding

Using historical sources

6. **Examine SOURCE 1**. **Explain** what this source can tell us about the importance of religion in traditional Japanese society.
7. **Describe** how works of fiction, such as *The Tale of Genji*, that are written by people living at that time might be useful in historical research.
8. **Analyse SOURCE 2**. Alloy bronze is made up of copper and tin. Casting is a manufacturing process in which a liquid is poured into a mould and then allowed to solidify. Looking at the size of this statue, what conclusions can you draw about the metalworking skills of craftsmen in the thirteenth century?
9. **Examine SOURCE 3**. **Infer** what it tells us about farming methods used in Japan in the past.
10. Refer to **SOURCE 6**. The costumes used in the *Aoi Matsuri* procession are copies of garments that no longer exist. **Propose** what historical evidence modern designers could use to find out what the original clothing looked like.

LESSON
10.3 What was life like in early Japan?

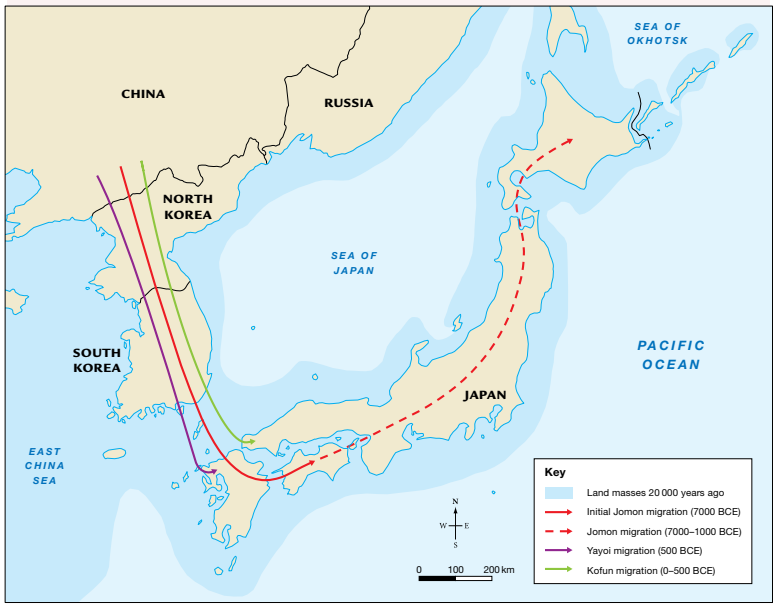
LEARNING INTENTION

By the end of this lesson you should be able to describe the ancient and classical periods of Japanese history. You should also be able to understand the military background to the shōgunate period.

TUNE IN

Thousands of years ago, the sea level around Japan was very different. Nomadic peoples moved across these regions regularly looking for food.

SOURCE 1 A map of Japan as it was settled thousands of years ago. Migrations routes are debated, and settlers may have also come from the north.



Source: Map drawn by Spatial Vision.

1. Discuss why you think the people of this period made the decision to settle near the ocean.
2. Brainstorm examples of other shore-dwelling civilisations versus those that chose to live away from water. Are there any differences in the ways that they developed?

10.3.1 Arriving in a new land

About 12 000 years ago, Japan was joined to the Asian mainland by several land bridges. The nomadic hunters and fishermen who walked across them on expeditions became Japan's first inhabitants, settling on what is now Shikoku island. However, at the end of the last ice age, the Earth's climate warmed and rising oceans covered the land bridges. The islands that formed became the Japanese **archipelago** we know today. Later, attracted by the islands' natural beauty and rich resources, sea-faring peoples from various parts of Asia reached Japan by boat. As their settlements spread, the original inhabitants were gradually driven into the far north wildernesses.

archipelago an area that contains a chain or group of islands scattered in lakes, rivers, or the ocean

clan a large group of closely related people

The first migrants from South-East Asia settled on the southern island of Kyūshū. However, around the fourth century CE, the Yamato **clan** established the first Japanese state in an area around Nara on the island of Honshū. The Yamato rulers set up a central

government based on a legal system and Chinese traditions. With support from other clan leaders, descendants of the Yamato became the first recognised emperors of Japan.

10.3.2 Clans and conquest

Conquering and ruling Japan was always going to be difficult for the emperors. Prior to the establishment of the Yamato state (c. 250 CE), different areas of the Japanese islands had been settled by different ethnic groups over thousands of years. The Emishi people lived in northern Honshū and the Ainu lived in northern Honshū and Hokkaidō. Neither group recognised the authority of the Yamato state and were ultimately conquered by military force. The Japanese imperial state was going to rely on strong military support over the coming centuries to maintain control over all of its territory.

The Yamato Period is often referred to as the beginning of the 'Classical' period of Japanese history. It was during this period that the first great works of Japanese literature were written and Buddhism was firmly established in Japan. Chinese influence was also very strong at this time: Chinese characters were used in Japanese writing, Confucian ideals and religious practices such as Buddhism were shared via trade and contact, and the architecture of the capital, Nara, was modelled on the Chinese city of Xi'an.

SOURCE 2 Japanese emperors were believed to be descended from the sun goddess Amaterasu. This nineteenth-century artwork shows her emerging from *Ama-no-Iwato* (Heavenly Rock-Cave Door) after plunging the world into darkness for a time.



DID YOU KNOW?

The imperial Yamato dynasty claimed descent from Amaterasu, the sun goddess. In Japanese mythology, when the sun goddess hid in a cave the world was plunged into darkness. Eventually she emerged and a number of her ornaments were changed into human form, one of them becoming the ancestor of the Japanese imperial family.

More areas of Japan gradually came under the control of the emperor, but there were struggles for influence in the imperial court. The Buddhist religion became a popular force and Buddhist priests tried to claim powerful positions. It was during this period that the Todai-ji Buddhist temple was built at Nara. Its Great Buddha Hall contains the largest bronze statue of Buddha in the world, completed in 751 CE (see **SOURCE 3**). Noble families like the Fujiwara also wanted power, so the emperor had many challenges to his authority. Nevertheless,

by the eighth century, the capital city of Nara had grown strong and was an urban centre of about 200 000 people. It had a taxation system, many roads and bustling commerce. Outside the capital though, most people still lived in farming villages.

During the seventh century there had been an attempt at land reform, based on a Chinese model of land ownership. Land was to be distributed fairly to peasant farmers and could not be inherited by their children. At the death of the farmer, the land would revert to state ownership and be re-allocated to a new owner.

During the eighth century this system was gradually abandoned as emperors granted lands to members of their extended family, or to friends and loyal officials. Gradually these estates increased in size, with the wealthy nobles gaining great wealth and power, and peasant farmers working the land and paying taxes to the wealthy landlord.

SOURCE 3 The 15-metre-high Great Buddha of Nara (right), completed in 751 CE, indicates the influence of Buddhism in the Japanese Classical period.



10.3.3 Religion and philosophy

Shintō

The focus of Shintō is on cleansing rites which often prepare or absolve an individual or community. This is often referred to as the 'native' religion of Japan. It is a **polytheistic** religion governed by *kami*. These were supernatural beings or entities which inhabited all things, and which had specific characteristics:

- *Of two minds*. When respected they nurtured and loved, but when disregarded brought destruction and disharmony.
- *Not visible to humans*. They inhabited their own realm and were represented through sacred spaces or natural phenomena.
- *Mobile*. They visit their place of worship (there might be many places for one kami) but never stay there.
- *Role-based*. Each *kami* has its own purpose or function for the space it is responsible for, and they fell into different categories depending on their role.

The oldest record of *kami* we have is from 927, when there were 3131 recognised *kami*. Today, there are over eight million.

SOURCE 4 A *torii* gateway and stone *kitsune* (mythical foxes who could shapeshift and held great wisdom). These gateways were found at the entrance to many Shintō shrines and symbolically mark the start of a sacred space.



polytheistic the belief in or worship of more than one god

Buddhism

Buddhism was introduced to Japan via the Silk Road trade with China and Korea. Different forms of this religion have arrived at different times and have drastically changed the ways in which Japanese society interacted with their neighbours.

Buddhism was also used to control citizens in later periods. In an effort to stop Christianity from taking root, citizens had to receive certain permissions from Buddhist temples to perform certain activities within the community. Without practicing Buddhism, it would be very difficult to obtain these. Leaders saw this as a way to control the people, a practice which lasted for several hundred years.

Confucianism

While not a religion, Confucianism has had a defining influence over the majority of eastern Asia. It is a philosophy of thinking which was introduced to Japan in the third century CE and the term broadly covers many philosophical movements and teachings. Practiced alongside Japan's other major religions, these teachings have greatly impacted the way that Japanese society has grown and developed, as well as how it has interacted with outsiders. In particular, the **samurai** code of bushidō was heavily influenced by Confucian ideals.

10.3.4 The military state

In 794 the Emperor Kammu moved the imperial capital from Nara to Heian-kyō, now known as the city of Kyoto. This was the beginning of the Heian period, named after the city that was its capital, which lasted almost 400 years. During this time, the wealthy nobles in the countryside began to significantly increase their power. These nobles were known as **daimyō** and they usually controlled large estates throughout the countryside. Emperors at this time found they were increasingly dependent on the daimyō to maintain their power. In order to help them control their interests, and prevent rival daimyō taking over their lands, wealthy nobles employed large numbers of warriors. These warriors developed into a distinct social class and became known as samurai.

SOURCE 5 The main gate to Nijō Castle, the palace of the shōgun during the Tokugawa period, shows the power and wealth that the position accumulated.



The emperors also relied heavily on this warrior class to help them defeat rebellious daimyō clans that challenged imperial power. Often the ability of the emperor to maintain power would depend on the number and skills of the samurai he could command. During his reign, Emperor Kammu bestowed the title of *seii taishōgun* ('barbarian-conquering great general') on a leading samurai, Otomo no Otomaro, who was the commander-in-chief of his military forces. The holder of this office had a great deal of power to maintain order throughout the country on behalf of the emperor. This title was later shortened to **shōgun** and became the official title of whoever held the position of head of the imperial military forces. The very nature of his position meant that an emperor had to place complete trust in the shōgun, so would have to select someone he could rely on to be loyal to himself and his family.

samurai the warrior class in Japan during the Classical and shōgunate periods

daimyō great feudal lord of Japan during the Classical and shōgunate periods

shōgun literally 'barbarian-conquering great general'; the Japanese emperor's chief military adviser and hereditary commander-in-chief, with the duty to protect Japan from foreign invasion

10.3 SKILL ACTIVITY: Questioning and researching, Communicating

Today Japan still has an emperor who is descended from the same Yamato clan that established the first Japanese state.

1. **Conduct research** to find out all you can about the current emperor. Make notes on things like:
   - his role in Japanese society
   - his current powers.
2. **Create** a brief description of the current emperor which uses the information you found.

10.3 Exercise

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10.3 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 6	4, 5, 10	7, 8, 9

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Check your understanding

1. The first recognised Japanese state was established in the _____ century CE by the _____ clan.
2. One of the major problems faced by the Yamato rulers in maintaining a unified Japanese state was that Japan consists of a number of islands, many very mountainous, and difficult to control from one central location. True or false?
3. Which four of the following statements provide evidence that Japan borrowed much of its culture from China?
   - A. Buddhism most likely came via China.
   - B. The Yamato rulers set up a system of government that was based on Chinese traditions and its legal system.
   - C. Japanese writing was based on Chinese characters
   - D. Japanese literature was sent to China for approval prior to printing.
   - E. In the capital city, Nara, the architecture was based on that of the Chinese capital, Xia.
   - F. Japanese writing was based on Chinese characters.
4. **Explain** how the system of land ownership changed during the eighth century CE.
5. **Recall** how the nobles grew in power at this time.

Apply your understanding

Using historical sources

6. **Refer** to **SOURCE 1** and an atlas to list the names of Japan's four main islands. Which island is the largest and which is the smallest?
7. **Propose** a reason why the geography of the Japanese islands would have made it difficult to achieve a unified state with its capital in Nara.
8. **Examine SOURCE 2**. **Describe** how the artist tried to show the power and importance of the sun goddess Amaterasu to the people around her.
9. **Analyse SOURCE 3**. How can you tell that Buddhism had become an important religion in Japan by the eighth century CE?
10. **Evaluate SOURCE 5**, one of many gates in a high wall that surrounded the old imperial palace in Kyoto.
    - a. Why was it necessary to surround the palace with a high wall?
    - b. What does this gate tell us about the wealth and power of the shōgun?

LESSON
10.4 How did the shōguns take control?

LEARNING INTENTION

By the end of this lesson you should be able to outline the series of events that led to the passing of power from the emperor to the Kamakura shōgunate and explain why the shōgun became so powerful. You should also be able to outline the succession of shōgun rule and the rise of Tokugawa Ieyasu.

TUNE IN

The emperor, even when older, was never involved in physical conflict himself. He always had a group of loyal soldiers nearby to protect him.

SOURCE 1 This thirteenth-century illustration shows the escape of the Taira clan and their supporters from Kyoto during civil war.



Try to identify the four different roles within **SOURCE 1**. You will need to justify what makes you classify people in this way (i.e. their clothing, hairstyle, or position within the image).

10.4.1 Power struggles

The Heian period was filled with struggles for control between the Fujiwara and two other clans: the Minamoto and Taira. The Fujiwara clan dominated from the seventh to twelfth centuries. They controlled all the most important offices in the royal court and were governors of most of the provinces in the Japanese countryside. The emperor's wife was often a Fujiwara woman and, if an emperor was too young to rule, senior members of the family became **regents** and ruled for him. At some stages the Fujiwara family ruled Japan instead of the emperor.

regent a person appointed to rule a country if a monarch is too young or ill to do so

Eventually, Emperor Go-Sanjō reduced their influence by appointing some offices to the Minamoto clan in 1068. His mother and his wife had been from this clan and his descendants were very loyal to the Minamoto. However, in 1180 Emperor Takakura was forced to give up his throne by his Taira relatives and his two-year-old son took the throne. The child's Taira mother and relatives became regents and took control of the government.

The Minamoto clan rebelled against the Taira take-over and **civil war** raged from 1180–85. Minamoto no Yoritomo, the head of his clan, was appointed as shōgun to lead the Japanese army after they captured Kyoto and installed Go-Toba, a three-year-old member of the imperial family, as emperor. Yoritomo's ascension to shōgun marks the end of the Classical period and the beginning of the shōgunate or feudal period of Japanese history, which lasted for 700 years. The shōgun and their samurai warriors effectively ruled Japan and Buddhism became the dominant religion.

SOURCE 2 Twelfth-century artwork of Minamoto no Yoritomo, the first shōgun to rule Japan.



10.4.2 The rise of the shōgun

The civil war and longer-term trends in Japanese society can help us understand how the shōgun came to completely dominate most of Japanese life from 1192 to 1868 CE.

The large estates given to the daimyō during the eighth century meant they had a lot of wealth and power, and allowed them to pay large numbers of samurai to protect them. The development of this warrior class led to an increased respect for military power.

These estates were often far away from the capital, meaning the Emperor couldn't control the region without the daimyō. This gave them a lot of bargaining power.

Emperor Antoku (1180) and Emperor Go-Toba (1183), along with nearly half the emperors in the previous 100 years, were only infants when they inherited the throne. Powerful regents took control for them and the daimyō families who held that role and weakened the power of the Emperor.

civil war a war between two competing groups within one country

SOURCE 3 A commemorative statue of Tokugawa Ieyasu, the founder of the Tokugawa shōgunate.



SOURCE 4 Fourteenth-century Emperor Go-Daigo, holding implements associated with Buddhist worship



In the period leading up to the twelfth century it would seem that the power and authority of the emperor was in gradual decline, while some of the daimyō clans were becoming increasingly more powerful. As the position of shōgun was filled by the most powerful of the daimyō nobles, perhaps it was only a matter of time before the power of the shōgun would exceed that of the emperor.

10.4.3 Conflict in and around Japan

The establishment of the Kamakura shōgunate in 1192 represents the victory of the daimyō over the power of the emperor. However, long-term stability in Japan was still under threat because the power of the shōgun was dependent on the strength of the daimyō clan that held them in that position. The position of shōgun sometimes passed peacefully between members of powerful families, but there were also periods when Japan descended into civil war as feuding daimyō clans fought for power and influence.

During the Kamakura period, the position of shōgun was shared between the Minamoto, Fujiwara and Hojo families. The shōgunate maintained stable government but faced a number of challenges and threats before its final downfall in 1333.

Mongol invasions

China presented the most serious threat to Japan in the Kamakura period. The Mongol emperor of China, Kublai Khan, demanded that Japan respect his authority and become a **tributary** state. When the shōgunate refused, Kublai Khan ordered his army to invade Japan. But on two occasions, in 1274 and 1281, the Mongol ships were sunk by **typhoons**. The Japanese came to believe kamikaze or 'divine winds' protected their country. Unfortunately, thousands of samurai who fought the Mongol attackers became angry when the shōgun could not afford to pay them. They waited for an opportunity to oppose the shōgunate.

tributary a state that gives payment to another state or ruler
typhoon name given to big tropical storms in the Pacific or Indian ocean

SOURCE 5 A Japanese painting showing the destruction of the Mongol invasion fleet by 'divine wind'



The Ashikaga shōgunate

A chance to restore the rule of the nobles and the royal court came in 1333 when Emperor Go-Daigo resisted the military government. Samurai from the Ashikaga clan supported him and the Kamakura shōgunate collapsed. However, other samurai were outraged at this challenge to their prestige and authority. The Ashikaga clan turned against the emperor and forced him to flee into the mountains. From 1336, the Ashikaga clan ruled Japan as shōguns for the next 237 years. It was a time of great artistic achievement and growth. Theatre and literature flourished and there was a great deal of development of customs and traditions, such as the **tea ceremony**.

DID YOU KNOW?

The name kamikaze, meaning 'divine wind', was used to describe the storms that helped repel Mongol invaders in the thirteenth century. Revived by the Japanese during World War II, the name was given to units of fighter pilots who deliberately crashed their bomb-laden planes onto enemy ships. These suicide pilots were another type of 'divine wind' directed against Japan's enemies.

The age of the warring states

For the first hundred years of their rule, the Ashikaga clan maintained control of the country by developing alliances with other daimyō families. Often, they were able to maintain this support because of the personal skills of the family member who held the position of shōgun. In 1464, a dispute arose between two brothers of the Ashikaga clan as to who would succeed as shōgun and different daimyō clans declared allegiance to each of the brothers. This led to ten years of civil war from 1467 to 1477, severely weakening the authority of the Ashikaga shōgunate. The next hundred years saw frequent outbreaks of hostility as different daimyō clans formed alliances and went to battle against each other to try and gain more power and influence. The Ashikaga shōguns became little more than puppets, controlled by different clans at different times throughout this period. During this age of the warring states, **vassals** overthrew their lords, farmers led armed uprisings and the economy was seriously weakened. Japan needed a strong leader to bring peace and order once again.

tea ceremony an ancient Japanese ritual of serving and drinking tea

vassal a person who holds land for a lord, and in return pledges loyalty and service to him

SOURCE 6 A battle between rival samurai during the period of the warring states



10.4.4 Order on the islands

The long rule of the Ashikaga shōguns had descended into chaos and the situation was only resolved when a succession of three powerful warlords gradually united the country under one authority. The first of these was Oda Nobunaga who used his military power to impose his will on rival daimyō clans. The second was Toyotomi Hideyoshi, who brought an end to the period of the warring states. The third was Tokugawa Ieyasu, who founded the Tokugawa shōgunate in 1603. These men are sometimes referred to as the three great unifiers of Japan.

Oda Nobunaga — a cruel military genius

Oda Nobunaga was the son of a daimyō from a small **domain** on the coast of Honshū. When he was 21, he killed a rival lord and planned to unite Japan under his own leadership. When the Ashikaga shōgun Yoshiteru was murdered in 1565, his brother Yoshiaki appealed to Oda for help and Oda had him installed as shōgun. Yoshiaki was little more than a puppet, as the real power lay with Oda and his forces. In 1573 Yoshiaki tried to rebel against Oda but was driven out of Kyoto. He became a Buddhist monk. The position of shōgun remained effectively vacant for the next 30 years. Through a series of ruthless battles, Oda began to create a **centralised** government. He was especially cruel in crushing Buddhist opponents, burning some alive and destroying monasteries. His victories were helped by the use of **muskets** that had only recently been introduced to Japan from Europe. Oda's rule came to an end in 1582 when he committed ***seppuku*** after being surrounded by enemy forces.

domain the territory ruled by a daimyō, including the farming and fishing villages within it

centralised control of a country from one central location

musket a muzzle-loading gun with a long barrel

seppuku a form of ritual suicide, carried out by disembowelling oneself (cutting open the abdomen) with a sword

DISCUSS

At various times, the Japanese emperors or shōguns were puppets for other powerful figures. What does the term 'puppet' mean in this context? What advantage would there be for one person to use another person as a 'puppet'? Discuss as a class.

Toyotomi Hideyoshi — from soldier to leader

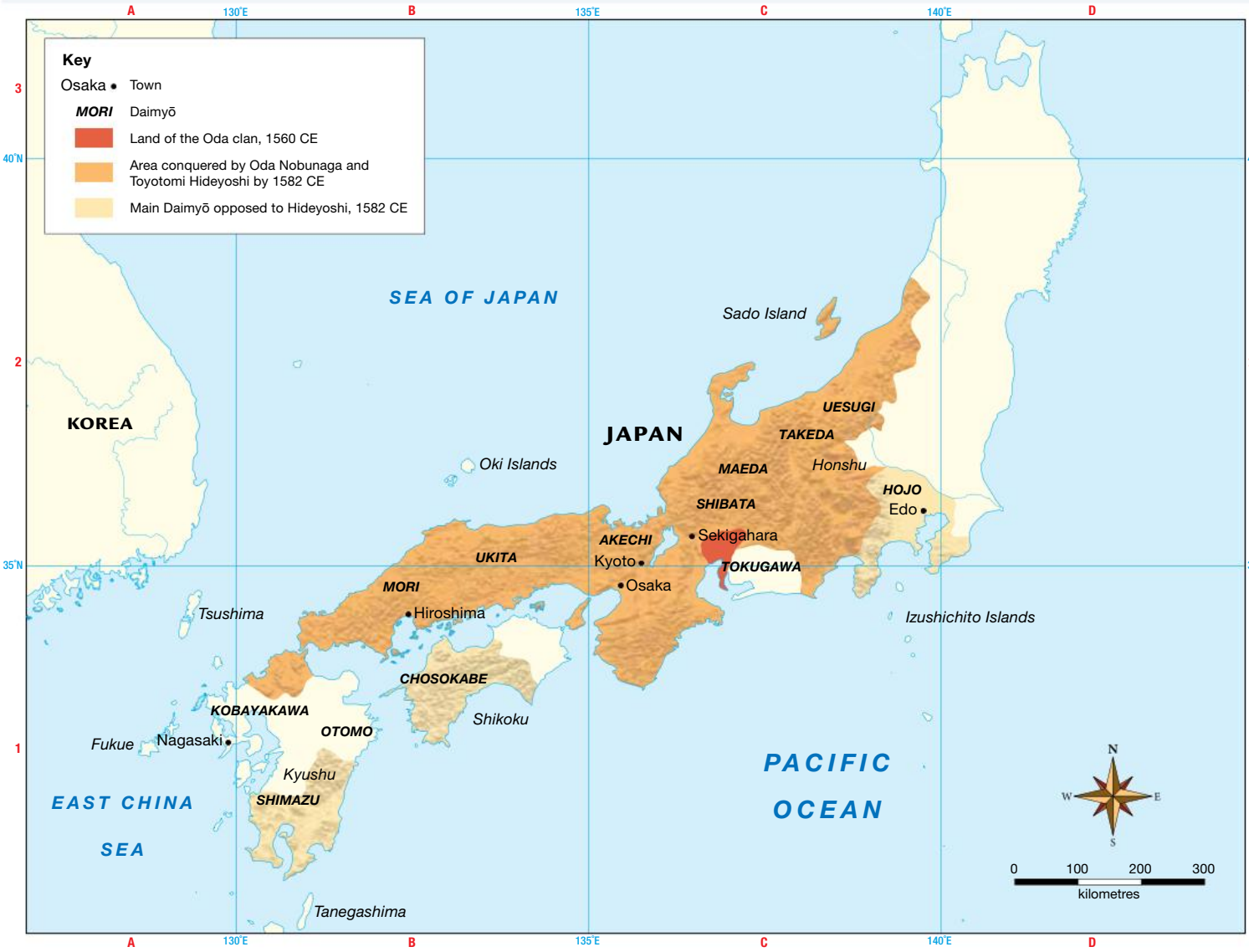
Toyotomi Hideyoshi was a soldier in Oda's army and took over leadership after Oda's ritual suicide. He developed a strong central government that expanded control over the islands of Shikoku and Kyūshū. Hideyoshi also opposed European Christian missionaries. He expelled them from Japan, prohibited Japanese from becoming Christians and later executed 26 Japanese and foreign Christians. Before Hideyoshi died in 1598, he set up a council of five senior elders whom he trusted to pass power to his son.

SOURCE 7 The Twenty-six Martyrs Monument was built in 1962 in Nagasaki to commemorate the Christians executed by Toyotomi Hideyoshi in 1597.



int-8991

SOURCE 8 Sixteenth-century Japan



Source: Spatial Vision

Tokugawa Ieyasu — a ruthless leader

Building on the work of Oda and Hideyoshi, Tokugawa Ieyasu continued to unify Japan and to impose his will on the other daimyō clans. He eventually established the Tokugawa shōgunate, which proved to be the most powerful of all Japanese feudal governments. He managed to weaken the power of the other daimyō families so that this shōgunate remained in power until 1867.

Tokugawa Ieyasu was born in 1542, the son of an arranged marriage between teenaged members of a powerful daimyō clan and a samurai family. His original name was Matsudaira Takechiyo, and during his life he changed his name a number of times. In 1567 he changed his name to Tokugawa Ieyasu and claimed that he was descended from the Minamoto clan, the founders of the original Kamakura shōgunate. By this time he had aligned himself with Oda Nobunaga and his soldiers fought beside Oda's in a number of battles against other daimyō families during the period of the warring states. When Oda died in 1582, a number of provinces that were ruled by his vassals were left without a strong leader and Ieyasu was able to take control of some of these.

SOURCE 9 A depiction of the Battle of Batogahara, when Tokugawa Ieyasu fought against Ikkō-ikki rebels



Ieyasu won a great military victory in 1600 and three years later declared himself the new shōgun. Altogether, there were 15 Tokugawa shōguns between 1603 and 1868, and this powerful samurai family had branches throughout Japan. In 1603, Ieyasu set up his shōgunate in the small fishing town of Edo. (This town eventually grew to become the modern Japanese capital city of Tokyo.) He took over a small castle and developed it into a massive Tokugawa residence and military headquarters. As the administrative centre of Japan, Edo housed thousands of samurai and it soon attracted merchants, **artisans** and other common residents. About one hundred years later, Edo was the biggest city in the world.

Law and order

The Tokugawa shōguns had come to power after a long period of civil war in Japan. They realised that they might have to compete for power with other powerful daimyō clans, so they set about finding ways to reduce the power and influence of these clans. They ordered all daimyō to travel to Edo every second year to pay respect to the shōgun. Long processions of samurai accompanying daimyō in **palanquins** became a common sight. When they returned to their domains, daimyō had to leave their families behind in Edo as **hostages**. The expense of feeding armies of samurai on the road, maintaining a residence in Edo and providing gifts to the shōgun ensured that daimyō could not become too rich and powerful.

10.4.5 Looking inwards

The Tokugawa were very suspicious of foreigners who tried to change Japan's traditions. Christianity was forbidden as an 'un-Japanese' religion. Japanese citizens were also forbidden to travel overseas. The Tokugawa shōguns isolated Japan from the rest of the world for over 260 years.

One feature of the Tokugawa shōgunate was the gradual assertion of control over international trade by the shōgun. During this period, only Dutch, Korean and Chinese traders were permitted to trade with Japan, while other nationalities such as the Spanish and Portuguese were banned by the shōgun. Trade could only take place through the port of Nagasaki and the goods allowed into and out of the country were strictly regulated. Merchants involved in trade were subject to fees and taxes in exchange for the right to engage in foreign trade. The shōgunate owned most of the Japanese ships engaging in overseas trade, and controlled these by issuing permits to favoured merchants to operate such ships.

artisan a skilled worker who produces handmade items

palanquin a sort of couch for transporting passengers, with long poles on each side so that servants could carry it on their shoulders

hostage a person kept for security

Why did the shōgun control trade?

Today we are used to individuals and businesses engaging in overseas trade within a framework of basic government rules. These rules are designed to ensure that customs duties are applied when necessary, and that illegal goods cannot be imported into the country. The situation was quite different in Japan during the Tokugawa shōgunate, with the shōgun tightly controlling all aspects of foreign trade. Why did the Tokugawa shōguns choose to maintain such tight controls over trade? The following may provide some clues:

- Tokugawa shōguns were very concerned about the spread of Christianity into their country. They believed this religion was un-Japanese and would undermine traditional Shintō and Buddhist beliefs. Catholic Portuguese and Spanish traders had first brought Christianity to Japan in the mid-sixteenth century, and traders from those two countries had demonstrated a desire to promote and spread their religion. Dutch traders were less concerned about spreading religious beliefs and so were allowed to continue as the only Europeans trading with Japan.
- The shōguns wanted to maintain the existing social order, with strict divisions of the different social classes. They were very suspicious of all foreigners and foreign ideas and so wanted to limit the exposure of Japanese to outside influences. During this period, Japanese were forbidden to travel overseas and anyone who did was banned from returning. Maintaining control over trade was a means of maintaining isolation from foreign influences.
- Other daimyō were generally excluded from engaging in trade. By not permitting daimyō outside the shōgun's immediate clan from engaging in foreign trade, a possible source of wealth was denied to those nobles. This would prevent them from becoming too wealthy and being able to challenge the power of the shōgun.
- Nagasaki was a city controlled by the Tokugawa clan. By restricting trade to that city, all fees and taxes that came from trade would be directed to the Tokugawa family. This enabled the shōgun to maintain his wealth and power over the other daimyō clans.
- Foreign trade proved to be very profitable. The shōgunate held the **monopoly** on many of the goods traded and charged fees and taxes to any merchants who were granted the right to engage in the import or export of particular goods.
- Copper and silver mined in Japan had been one of the main exports to other countries. By controlling trade, the shōguns were able to limit the amount of these metals exported. This enabled them to ensure Japan maintained stocks of these valuable metals.

monopoly an organisation or group that has complete control of something

TABLE 1 Classical and feudal Japan

Dates	Period	Power held by	Other features
Fourth century CE to 794	Nara	Yamato clan emperors	Establishment of the imperial dynasty; the first central government of Japan
794–1185	Heian	Emperors	Capital city moved to Heian-kyō (Kyoto); first shōguns appointed; growth in power of daimyō and samurai
1185–1333	Kamakura	Kamakura shōguns	Stable government for 150 years; successful defeat of the Mongols
1336–1573	Ashikaga	Ashikaga shōguns	Gradual breakdown of shōgunate as daimyō fought for power during the age of the warring states
1573–1603	Warring states	Oda Nobunaga; Toyotomi Hideyoshi; Tokugawa Ieyasu	Breakdown of shōgunate rule; centralising of government under the 'three great unifiers'
1603–1867	Edo	Tokugawa shōguns	Capital moved to Edo (Tokyo); stable government under the shōgunate; isolation from the rest of the world

aud-0459

SOURCE 10 From the Closed Country Edict of 1635

1. Japanese ships are strictly forbidden to leave for foreign countries.
2. No Japanese is permitted to go abroad. If there is anyone who attempts to do so secretly, he must be executed. The ship so involved must be impounded and its owner arrested, and the matter must be reported to the higher authority.
3. If any Japanese returns from overseas after residing there, he must be put to death.
4. If there is any place where the teachings of the [Catholic] priests is practiced, . . . you must order a thorough investigation.
5. Any informer revealing the whereabouts of the followers of the priests must be rewarded accordingly. If anyone reveals the whereabouts of a high ranking priest, he must be given one hundred pieces of silver. For those of lower ranks, depending on the deed, the reward must be set accordingly.
6. If there are any Southern Barbarians who propagate the teachings of the priests, or otherwise commit crimes, they may be incarcerated in the prison.
7. All incoming ships must be carefully searched for the followers of the priests.
8. No single trading city shall be permitted to purchase all the merchandise brought by foreign ships.
9. Samurai are not permitted to purchase any goods originating from foreign ships directly from Chinese merchants in Nagasaki.

SkillBuilders to support skill development

- 1.13 Analysing cause and effect

10.4 SKILL ACTIVITY: Historical perspectives and interpretations

The Tokugawa shōgunate largely cut Japan off from the rest of the world for over 250 years. To achieve this, it passed the Closed Country Edict in 1635, which declared that any Japanese who attempted to travel overseas or any who returned after living overseas would be put to death.

In small groups **discuss** whether or not you agree with this action. You need to bear in mind:

- the desire to keep out foreign ideas, which the shōgun feared would undermine the traditional Japanese way of life
- the Tokugawa shōgunate was a period of great peace, prosperity and the flourishing of art and culture in Japan.

10.4 Exercise

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10.4 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 5, 7, 10	6, 8, 9

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Check your understanding

1. Which three powerful clans were competing for influence during the Heian period?
   - **A.** The Daimyō
   - **B.** The Taira
   - **C.** The Minamoto
   - **D.** The Fujiwara
   - **E.** The Batogahara
2. What role did Japanese emperors have after 1192?
   - **A.** A role in the judiciary
   - **B.** Leader of the armies in battle
   - **C.** Ambassador to China
   - **D.** A purely religious and ceremonial role

3. The Taira clan was ultimately successful following the period of civil war between 1180 and 1185. True or false?
4. **Explain** how the appointment of Yoritomo as shōgun dramatically changed the power balance in Japan.
5. **Recall** why Japanese emperors were so dependent on regents during the period from 1180 to 1185.

Apply your understanding

Using historical sources

6. **Examine SOURCE 1**.
   a. Which groups in Japanese society can you identify in the source?
   b. What does this source tell us about the power of the emperor during the period of the civil war?
7. **Examine** the portrait of Yoritomo in **SOURCE 2**. **Identify** two possible characteristics that suggest he had the ability to win the loyalty of the daimyō and samurai, and thus gain supreme power in Japan.
8. **Compare SOURCES 3** and **4**.
   a. What does each source tell us about the different roles of the shōgun and the emperor during the period of shōgunate rule?
   b. Which, the shōgun or the emperor, looks the most likely to be able to rule the country? Give reasons for your answer.

Historical perspectives and interpretations

9. **SOURCE 5** shows the destruction of the Mongol invasion fleet in 1281. **Determine** what appears to be the cause of the Mongol defeat.
10. **Summarise** why the appointment of Yoritomo as shōgun is considered a major turning point in Japanese history.

LESSON
10.5 How did Japanese society organise itself?

LEARNING INTENTION

By the end of this lesson you should be able to describe the hierarchical structure of Japanese feudal society.

TUNE IN

Today Japan still has an emperor who is descended from the same Yamato clan that established the first Japanese state.

1. Discuss the role of an emperor in the twenty-first century.
2. Do you think countries need royal figureheads anymore? Discuss any advantages and disadvantages as a class.

SOURCE 1 Emperor Naruhito attending a ceremony in 2019 to proclaim his enthronement to the world, called Sokuirei-Seiden-no-gi



10.5.1 The feudal system

For about a thousand years, from the Heian period until the end of the Tokugawa shōgunate in 1867, Japan maintained a feudal society similar in some ways to the feudal societies of medieval Europe. On average, women lived only 27 years and men 32 years. Diseases like **tuberculosis** and **beri-beri** were common, and women faced the extra risk of dying during childbirth. Many children died young due to poor diets, unsanitary living conditions and childhood diseases.

The emperor held the highest status, and he and his family were at the top of the class structure. During the shōgunate period the emperor had very little actual power, but he was an important religious leader and was worshipped as a descendant of the sun goddess. He lived a rich, artistic life surrounded by families of nobles. Although he was a highly respected figure, the emperor could not control the more distant regions of Japan. To do so he needed the support of the daimyō, the powerful nobles to whom he gave land in return for their support.

During the feudal, or shōgunate, period the most powerful of the daimyō became the shōgun, who was the effective ruler of Japan. As well as leading the army, the shōgun took care of all the routine matters involved in governing the country. Each of the daimyō had his own estates and armies and so was very powerful.

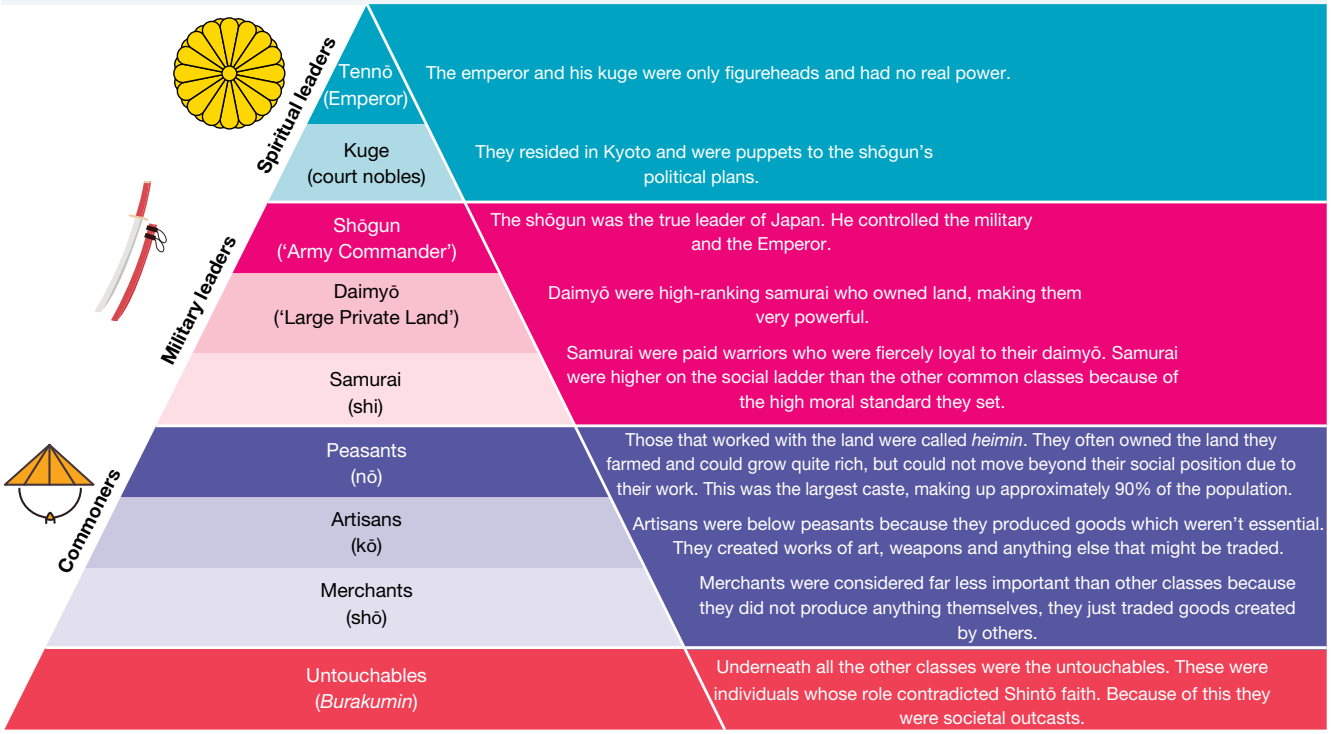
In the Kamakura and Ashikaga periods the shōgun was often challenged by other powerful daimyō. During the Edo period the daimyō were brought under the control of the shōguns of the Tokugawa clan. The daimyō built huge castles surrounded by moats and high stone walls to protect themselves from their enemies.

tuberculosis a serious and infectious disease that affects the lungs

beri-beri a disease caused by a lack of vitamin B

tlvd-10598

SOURCE 2 The social hierarchy of *shi-nō-kō-shō*, introduced by the Tokugawa Shōgunate



Commoners were divided into rigid social castes determined by the role that person played within the community called *shi-nō-kō-shō*. This was designed based on Confucian teachings from China and became hereditary — once a person was born into a particular class, he or she would remain in that class for life. Warriors were the highest, recognised in the Samurai caste. After them came commoners who provided food and raw materials (*heimin*), commoners who produced non-essential goods and finally those that produced nothing of their own and only sold or traded the goods of others.

Outside of this set of castes were the *Burakumin*, or untouchables. These were roles such as executioners or butchers — anyone who did a job which was tainted by death and therefore an affront to the Shintō faith.

SOURCE 3 Himeji Castle belonged to daimyō from the Akamatsu clan.



10.5.2 The role of women

As with many feudal societies, women in important families had little power in classical Japan. It was a very male-dominated society, with women often having control taken from them. There may have been up to eight empresses who ruled without a husband, but it was the exception rather than a common occurrence.

However, women of lower classes were far more able to take an active role in the family business and make choices alongside men.

Marriages were usually arranged between families. Husbands often had more than one wife and lived with a wife's family, although this custom later changed when wives moved to their husband's family.

SOURCE 4 *Women Looking at the Maple Trees at Takao, near Kyoto*. Illustration by Kano Hideyori (Muromachi period, sixteenth century).



Girls from rich families spent many hours copying famous poetry and practising handwriting. In this way, they learned to read and write the Japanese characters called **kana** at home. Beautiful writing was a mark of good taste and high social class. Boys went on to study the Chinese characters, but such learning was discouraged for girls. The vast majority of people — 60 per cent of men and over 80 per cent of women — were illiterate.

SOURCE 5 Japanese noblewomen often wore heavy make-up and elaborate clothing.



SOURCE 6 The Japanese biwa was first developed in the eighth century. It derives from similar instruments found in Asia and the Middle East and is still played today.



Much of what we know about women from this period is due to Sei Shonagon, the author of *The Pillow Book* and a lady-in-waiting to Empress Teishi in the middle Heian period, c. 1000 CE. Sei's book provides fascinating insights into Japanese life over a thousand years ago, particularly the role of women in Japan under the shōguns.

Sei Shonagon's description of Empress Teishi playing the **biwa**, a stringed instrument like a lute, can tell us much about court life at the time (see **SOURCES 6** and **7**). Empress Teishi died at the age of 25 in 1001 CE after giving birth to her second child.

kana a writing system that represents Japanese syllables

biwa a four-stringed Japanese musical instrument

SOURCE 7 An extract from *The Pillow Book*

There she sat, in a scarlet robe with quite indescribably lovely gowns and starched robes beneath, in layer upon layer . . . the sharp contrast of her wonderfully white forehead, clearly visible at the side of the shielding instrument.

Other women described in *The Pillow Book* include:

- farming women planting the rice fields and 'wearing hats that look just like newly-made serving trays'. They are singing a song about a bird, saying 'it's your chanting sets us planting!'
- ladies-in-waiting, who spend their time writing poetry, playing music and indulging in witty conversation
- fisher girls with thin ropes tied to their waists diving out of boats to collect shellfish. Sei criticised the men who were singing and moving the boat while the women were gasping for breath (see **SOURCE 8**)
- **shaman** chanting and praying to the spirits for a child's health. During the shōgunate period, the Japanese believed that bad health was due to evil spirits possessing a person's body
- an old Buddhist nun 'dressed in horribly grimy clothes and looking like a little monkey'. She begs for offerings and shocks the ladies-in-waiting by singing a rude song
- a serving lady pouring water for the empress. Other female servants act as hairdressers, food preparers or nurses to the emperor's children.

shaman a person who claims to communicate with evil spirits through mystic rituals

SOURCE 8 The poem of *Sangi Takamura* by Katsushika Hokusai depicts women diving for abalone.



DID YOU KNOW?

Until the early twentieth century, Japanese emperors had many concubines and mistresses. Concubines ranked lower than an official wife but were mothers to some of the emperor's children. In the seventeenth century, Emperor Go-Mizunoo was the father of at least 33 children from his empress, concubines and ladies-in-waiting.

Geisha culture

The term ‘geisha’ translates to ‘art person’, and geishas in Japan have traditionally been performing artists who entertain their clients with a variety of artistic skills. They were talented artists, singers and entertainers. The role of geisha did not develop until the eighteenth century, but the idea of entertainers who were highly educated and were able to hold conversation had been developing since the start of the Ashikaga shōgunate.

Western scholars often compared the geisha profession with prostitution. While the origins of the role are tied to this trade, geisha were considered more to be professional entertainers and independent businesswomen. The management of the geisha house and its finances has always been entirely in the hands of women. They traditionally did not marry and many continued to entertain into their seventies and eighties. If a geisha did marry, she was required to leave the geisha house as geishas were expected to be single. The refined culture of the geisha emerged during the Edo period and remains in existence in Japan to this day.

SOURCE 9 Practices such as the tea ceremony were an incredibly important part of a geisha’s role entertaining her clients.



10.5 SKILL ACTIVITY: Questioning and researching, Communicating

In the study of history, women are often left out of important accounts.

1. Pick another culture which interests you (you may like to look at the topic lists in this text) and **research** women of that region. Were they similar or different to the women of Shōgunate Japan? Did they have more rights, or were they recognised in historical writings?
2. **Communicate** your findings in a couple of paragraphs.

10.5 Exercise

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10.5 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
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Check your understanding

1. **Recall** the role of the emperor in Japanese feudal society.
   - A. An important religious and symbolic figure without real political power
   - B. An important religious and symbolic figure with great political power
   - C. An important political power without any religious or symbolic relevance
   - D. An important political power with a small amount of religious significance
2. **Determine** whether the following statements are true or false.
   - a. Each of the daimyō had their own lands, given to them by the emperor in return for their loyalty, and an army, which made them very powerful people.
   - b. Geishas in Japan have traditionally been considered professional entertainers and independent businesswomen.
   - c. Beautiful writing was highly regarded which contributed to the high literacy rates during this time.
3. Complete the following passage.
   The samurai were paid by the _____ to control their domains, and each samurai swore an oath of loyalty to his own daimyō. As well as fighting for the daimyō during conflicts with other nobles, the samurai often ran the _____, collected taxes and kept order among the peasants. During the period of the _____ states, the daimyō relied on their samurai to protect them and their interests.
4. **Explain** why farmers ranked higher than artisans or merchants in the *shi-nō-kō-shō* arrangement of social classes.
5. Women in modern times have far more control over their lives than those in feudal Japan. **Explain** what you think brought about this change.

Apply your understanding

Comunicating

6. **Reflect on** what you have learned so far. From an examination of the structure of Japanese feudalism, which human qualities and skills do you think were most highly valued in this society? Which human qualities and skills do you think were considered to be the least important?
7. Japanese feudal society lasted for over a thousand years from the Heian period until the mid-nineteenth century. **Identify** two features of the society that allowed it to continue for such a long time.
8. What were the positive aspects of Japanese feudal society? What were its negative aspects? **Create** two lists, one showing what you believe were the positive features of this society and one to show the negative features.

Using historical sources

9. Refer to **SOURCE 8**. **Explain** what this scene tells us about the social position of the women divers.

Historical perspectives and interpretations

10. **Evaluate** to what extent the life of the geisha was an unusual feature of a society that was otherwise very male-dominated.

LESSON
10.6 Who were the samurai?

LEARNING INTENTION

By the end of this lesson you should be able to describe the lifestyle, philosophies, and importance of the samurai class during the shōgunate period.

TUNE IN

Samurai armour was designed to be intimidating to opponents. It varied greatly during the shōgunate period, which lasted nearly 1000 years.

1. What are your thoughts on the armour in **SOURCE 1**? Would you find something like that intimidating if it was charging towards you in battle?
2. Discuss why you think the making of traditional samurai weapons and armour are held in such high regard by people from all around the world.

SOURCE 1 Samurai armour from the time of the Mongol invasions (thirteenth century)



10.6.1 The role of a samurai

Respect for warriors grew in Japan from the Heian period but they were extremely important during feudal times as society was based on military power. Daimyō were rich and powerful warlords and this depended on the fighting skills of the samurai who swore an oath of loyalty to them.

Depending on how successful or experienced a samurai was, they would be paid different amounts. New recruits would receive only enough to live on and would often be assigned guard duties. More seasoned samurai had great influence over their lord and were his trusted advisors. However, they could not own land as this would give them income independent of their daimyō, which would allow them too much freedom to be loyal.

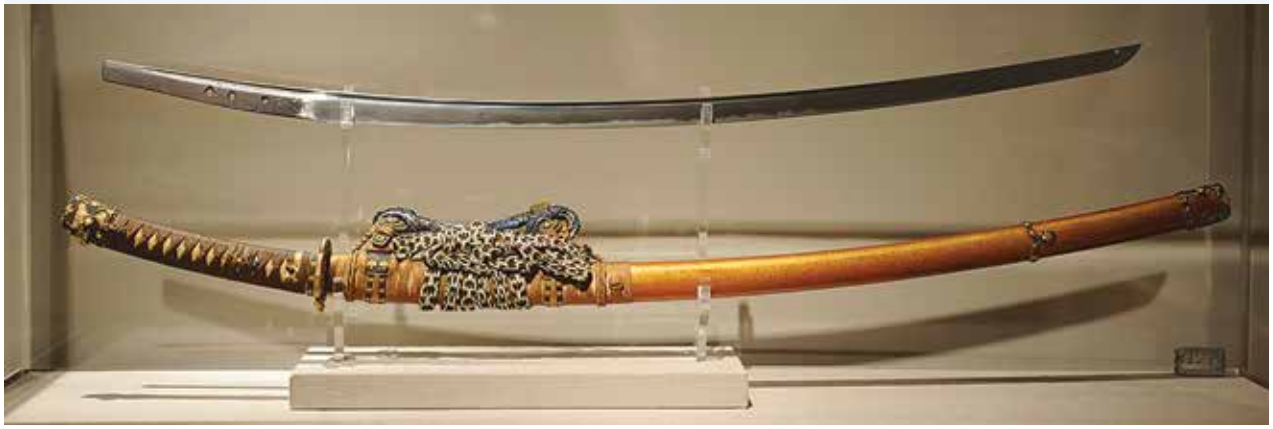
The term samurai translates to 'those who serve'. Far more than just warriors, samurai tried to be the perfect attendant to their daimyō lord and adhered to a very strict routine and code of conduct. These soldiers were paid by the daimyō to control their domains, and each samurai warrior swore an oath of loyalty to his own daimyō. As well as fighting for the daimyō during conflicts with other nobles, the samurai often ran the estates, collected taxes and kept order among the peasants. During the period of the warring states, the daimyō relied on their samurai to protect them and their interests.

Samurai boys were raised to become professional soldiers in a lord's service. Soon after they were born, they were given a small sword in a special ceremony. A samurai woman was also required to demonstrate courage and honour. However, instead of military training, the emphasis in a girl's education was on becoming a faithful wife and mother. Her education prepared her for managing a household as a future samurai wife. When her husband was away at war, she was expected to keep everything in order until he returned.

SOURCE 2 This Samurai armour is from the Tokugawa shōgunate.



SOURCE 3 A *tachi* (top) from the Kamakura period with its *koshirae* (a type of housing for when the sword was worn by a samurai). These ornaments could change depending on the function needed by the warrior.



Ronin

If a daimyō lost his land in battle or had his domain confiscated by the government, his samurai became masterless. They were considered **ronin** or 'wave men' floating on the sea of life. At various times in history, Japanese society had many of these unemployed warriors. Some of them simply ran away to begin a new life. Others joined new commanders or became farmers. But some ronin became bandits or mercenary soldiers who terrorised the countryside.

ronin a wandering samurai who had no lord or master

DID YOU KNOW?

A famous ronin named Musashi fought over sixty duels and was never defeated. He began his samurai training at the age of seven and had his first duel when he was 13. As an adult, Musashi wrote *The Book of Five Rings* to explain his unique fighting methods.

10.6.2 Bushidō

Buddhist religion encouraged the samurai to adopt an attitude of 'carelessness' with life through full control of body and mind. Samurai practised special meditation, so they would know what to do in battle without being confused by thoughts or feelings.

In 1616, the term **bushidō** was first used to describe the life of the samurai. This word means 'warrior way' and refers to the way that samurai needed to temper their violent lifestyle with wisdom and temperance. From a very early age boys were taught archery, horse riding and sword fighting as well as unarmed combat. They learned these skills not only from their fathers and senior samurai but often by attending martial arts schools. They had to learn to read and write as well, for they were expected to be educated people who could assist their lord in the governing of his domain. Their two main responsibilities were often described as 'the pen and the sword'.

10.6.3 New technologies

The samurai disappeared from Japan for some of the same reasons that knights disappeared from Europe. After Portuguese traders introduced guns to Japan in the sixteenth century, Japanese metal smiths quickly copied the flintlock mechanism. Guns became easier to obtain and samurai eagerly learned how to use them. However, this change meant that traditional samurai skills like sword fighting, horse riding and unarmed combat were no longer as effective. From the beginning of the seventeenth century, Japan experienced over 250 years of peace and so the samurai did not have opportunities to practise their combat skills. Instead, they became mainly government officials. Samurai also fell into debt with the rising merchant class and this weakened their social standing. The samurai class was finally abolished altogether in the late nineteenth century.

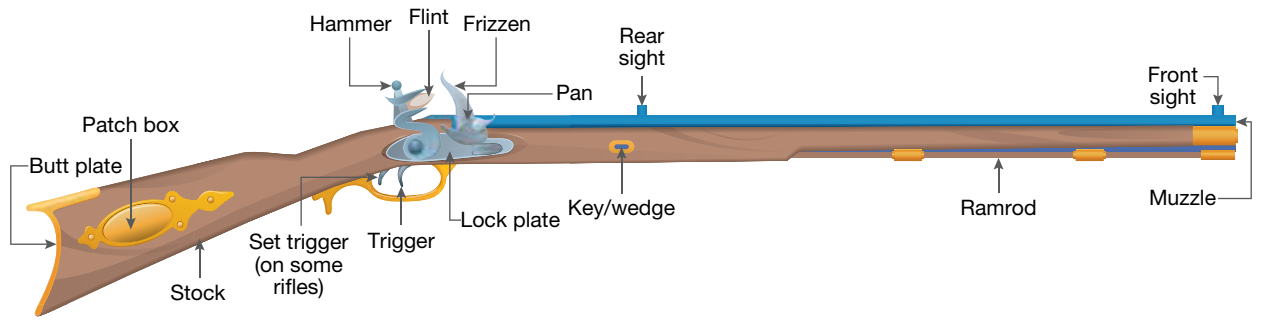
How the flintlock gun works

To load a flintlock gun, gunpowder is poured into the muzzle, followed by a lead ball. These are pushed in firmly with the ramrod and kept in place with a small amount of cloth, called wadding. A small amount of powder is poured into the pan and the pan lid, or frizzen, is closed over it. The hammer is pulled back and when the trigger is squeezed the flint on the hammer strikes the edge of the frizzen. This creates a spark, which ignites the priming powder in the pan. A small hole in the barrel allows the burning powder in the pan to ignite the powder in the barrel, which explodes — firing the lead ball.

The flintlock rifle had a range of 75 to 100 metres. Since the samurai method of fighting involved close hand-to-hand combat, any weapon that allowed fighting from a distance would make the traditional martial arts of the samurai far less effective.

bushidō the way of the warrior; the rules that prescribed correct behaviour for all samurai

SOURCE 4 The introduction of flintlock guns contributed to the decline of the samurai.



10.6 SKILL ACTIVITY: Communicating

Advancements in technology regularly lead to the abandonment of traditional methods.

Brainstorm: What cultural practices do you think will be obsolete in the coming years, and what technology do you think will cause this?

You can suggest changes outside of the military.

10.6 Exercise

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10.6 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
2, 3, 4	1, 5, 7, 9	6, 8, 10

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Check your understanding

1. **Recall** the role of the samurai in feudal Japanese society.
2. **Identify** the differences in the education of samurai boys and girls.
   - A. Samurai boys were trained as soldiers from an early age.
   - B. Samurai boys were both trained as soldiers and taught common household functions.
   - C. Samurai girls were taught how to manage the household.
   - D. Samurai girls were both trained as soldiers and taught common household functions.
3. **Determine** whether the following statements are true or false.
   - a. Samurai boys were not trained as soldiers from an early age.
   - b. Samurai were allowed to own land, but only if it was granted to them by their daimyō lord.
   - c. Samurai women were not trained in military skills, and were instead expected to become faithful wives and mothers.
4. Bushidō was the _____ code of the samurai. Samurai were expected to be loyal and obedient to their daimyō lords. A samurai was expected to defend to the death his own family honour and the honour of his _____.
5. **Explain** why it was important for samurai to learn how to read and write, as well as fight.

Apply your understanding

Using historical sources

6. **Examine SOURCES 1** and **2**. What might be the advantages and disadvantages of fighting in armour like this?
7. **Compare SOURCES 3** and **4**. **Explain** why weapons such as the sword in **SOURCE 3** eventually became ineffective in battle.

Historical perspectives and interpretations

8. The samurai were the Japanese equivalent of medieval European knights. **Analyse** the material in Topic 2, lesson 2.6 on the European knight and explain the similarities and differences between these two types of warriors. Which would be more effective at the time? Why?

Communicating

9. **Create** a list of the values the samurai followed in the code of bushidō.
10. **Reflect** on what you have learned so far about bushidō.
    - a. Which of these values do you think are important to modern-day Australian military forces? Give reasons for your answer.
    - b. Give some examples of how these values might be seen or used in practical situations today in Australian society.

LESSON
10.7 How did people express themselves?

LEARNING INTENTION

By the end of this lesson you should be able to identify the major distinctive forms of Japanese arts and culture that flourished during the shōgunate period.

TUNE IN

Consider the folding screen in **SOURCE 1**. This would have been commissioned by a daimyō or wealthy noble from an artist.

SOURCE 1 A painted Japanese folding screen created in the early seventeenth century



1. Discuss what you think it reveals about their passions and lifestyle.
2. What kind of art would you commission now to reflect your own passion and lifestyle?

10.7.1 The importance of the arts

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Japanese artists and craftspeople aimed for perfection in all they created. They considered their skills a sacred gift, respected their materials and gave thanks for the successful creation of a beautiful object. For example, sword-makers prayed while they worked and believed a finished sword had its own spirit. Potters, too, often produced items of a semi-religious nature. The Japanese tea ceremony had its beginnings in Chinese Buddhist rituals, so cups and pots used in the ceremony had to be special. **Sake** was important in Shintō festivals, so sake containers also had a religious connection.

Painting

In the early feudal period, painters were strongly influenced by Chinese styles. Using ground-up minerals to produce different coloured paint, many Japanese paintings followed Shintō and Buddhist religious themes. Buddhist art often depicted saints, demons or sinners suffering in hell. These pictures served as a warning to live a good life. By the middle Heian period, a distinctive Japanese style of painting developed. Sliding and folding screens in wealthy residences were often richly decorated with scenes from nature or paintings of animals. Many picture scrolls told famous stories such as the

sake a Japanese alcoholic drink made from fermented rice; sometimes known as rice wine

Tale of Genji or stories of other Japanese heroes. Artists also created elegant portraits of eminent nobles and monks. The Muromachi period (c. 1333–1573) was notable for colourful Shintō religious paintings and **monochrome** ink landscapes painted by Zen Buddhist monks.

Calligraphy and handmade paper

Traditional Japanese writing uses a pointed brush dipped in ink. Many ancient letters, poems and religious texts survive today. They are valued not just for their content but for their beautiful handwriting or **calligraphy**. Wealthy calligraphers could afford fine quality handmade paper (**washi**) coloured with pigments and sometimes flecked with gold or silver leaf. Calligraphy is still taught in Japanese schools, and annual competitions showcase Japan's best calligraphers.

SOURCE 2 Japanese schools still teach calligraphy. This tradition is still practiced widely throughout the country.



Woodblock printing

Japanese woodblock printing emerged in the eighth century CE as a means of printing books of Buddhist texts. The Heian period saw the development of woodblock printing to produce a variety of images. The process involved drawing an image onto a thin sheet of paper and gluing it to a block of wood. The wood on either side of the drawn lines would then be chiselled away to leave the outline drawing exposed. This would be brushed with ink, and sheets of paper pressed against the inked wood to produce an image. Most of the prints produced by this method were a plain black ink outline on a white or pale coloured paper background. In the latter part of the eighteenth century, a process was developed of using different woodblocks for different colours in the one image. One of the greatest practitioners of woodblock printing was Katsushika Hokusai, who lived from around 1760 to 1849. He employed this process for some of his greatest works, which included his series 36 Views of Mount Fuji. The print *The Great Wave off Kanagawa* is the most famous of this series.

SOURCE 3 Hokusai woodblock print — *The Great Wave off Kanagawa*



monochrome varying tones of a single colour, usually black and grey

calligraphy the art of beautiful handwriting

washi handmade paper created from the bark or fibre of various shrubs, grasses or trees

Lacquer

Lacquer was made from the sap of particular trees, with **pigment** added to create different colours. The sap formed a glossy coating as it hardened, which artists used to paint many thin layers over wooden articles such as cosmetic boxes or items made from woven bamboo, pottery or metal. During the early shōgunate period, red and black were favoured colours; however, brown and amber were also known to be used. Some objects were decorated with patterns of leaves, grass or flowers, while others were engraved, inlaid with pearly shell, or had gold or silver particles sprinkled on them before the lacquer hardened.

SOURCE 4 A lacquered *tebako* (cosmetics box) dating back to the Heian period. The box has a design of plovers.



Pottery

Japan's long history of pottery stretches back to the earliest human settlements. Japanese potters created a great range of items, from unglazed vessels for food storage to beautifully **glazed** decorative vases. **Kilns** in many regions produced ceramics with distinctive styles and designs. By the Muromachi period, even everyday household wares began to be glazed. Some of the finest Japanese ceramics were cups and pots made for the tea ceremony.

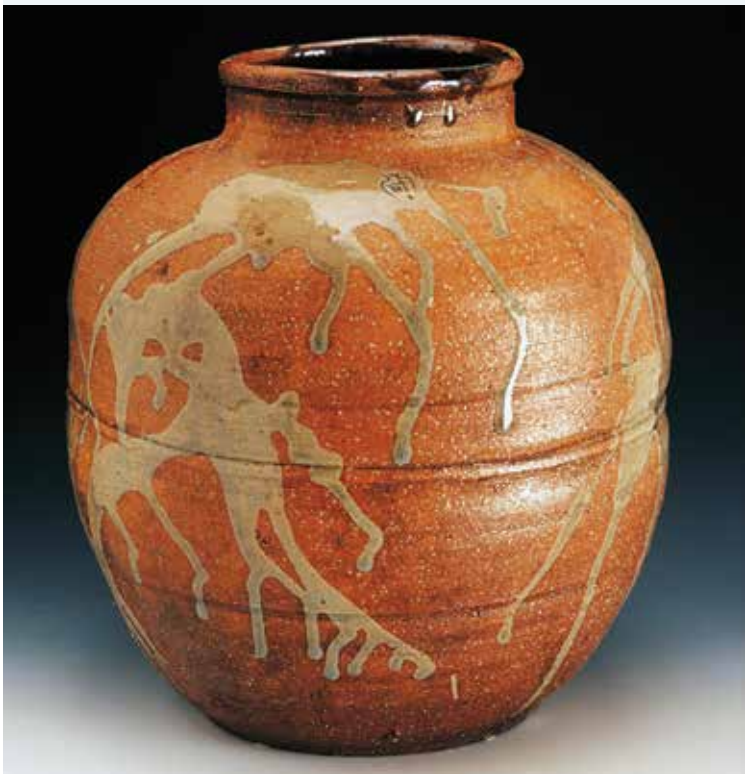
Over many centuries, Japanese potters developed special styles and techniques. Toyotomi Hideyoshi was so impressed with hand-moulded tea bowls made by one tile maker that he awarded him a special seal to mark his products. From then on, the potter's family was called 'Raku' after the Chinese character on the seal and the pottery was called raku ware. Pottery kilns in Japan still produce distinctive local ceramics. Craftspeople from many parts of the world visit Japan to learn from Japanese masters and take knowledge back to their home countries.

pigment a natural colouring material made of plant or animal tissue

glaze a substance fused onto pottery to give it a glass-like appearance

kiln an oven used at high temperatures to heat and harden ceramic items

SOURCE 5 A freshwater jar created in the sixteenth century for use in the tea ceremony



10.7.2 Theatre and performance

Kabuki theatre

The long and generally peaceful rule of the Tokugawa shōgunate contributed to art and culture reaching a new peak in the Genroku period (1688–1704).

With their bustling ports, lively pleasure districts and busy markets, large towns were exciting places to live. Attending plays at the kabuki theatre was a popular pastime (see **SOURCE 6**). **Kabuki** was a highly stylised form of theatre combining drama and dance with very elaborate costumes and makeup. The plays usually told stories of ordinary life and attracted all classes of people. About 40 per cent of the people could now read and write, so new literature was also popular.

kabuki a colourful form of theatre combining play-acting, dance and music

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SOURCE 6 A modern artist's impression of a kabuki theatre from the Edo period



- **A** *Hanamichi* — A walkway leads from the stage to the back of the theatre. It is used for dramatic entrances and exits.
- **B** *Suppon* — A man-powered lift-trapdoor is set in the walkway three metres from the stage. Ninjas, ghosts and monsters appear from here.
- **C** *Kuromiso* — Bamboo blinds on the left-hand side of the stage conceal musicians who play instruments to make the sounds of wind and rain.
- **D** *Marawibutai* — The centre of the stage can revolve. This is useful for changing scenes and clearly contrasting the previous scene from the present one.
- **E** *Masuseki* — These square, box-like seats can seat four people.
- **F** *Gidayuyuka* (*choboyuka*) — This place on the right-hand side of the stage is used to hide narrators and musicians.
- **G** *Omuko* — Seats in the gallery on the second floor are quite cheap. Kabuki fans and experts sit here to get a good view and cheer their favourite actors.

10.7 SKILL ACTIVITY: Questioning and researching, Communicating

In groups of three or four, select one of the following topics for investigation and make an illustrated poster to be used as part of a class presentation.

- Raku (pottery)
- Buddhist art
- Kabuki theatre
- Ink landscapes
- Washi (paper)
- Woodblock printing
- Japanese screens

1. **Conduct research** and note down 5–10 interesting facts about it.
2. Arrange the information you found into a logical order and **decide** on images that can accompany each piece of information.
3. **Plan** your poster. It should explain:
   - the materials used to create the object
   - the practical methods employed by the artist
   - the significance of this art form as an influence on artistic works in other parts of the world today.
4. **Create** your poster, ensuring it is clear and informative. Present your chosen art form to the class.

10.7 Exercise

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10.7 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
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Check your understanding

1. What methods did Japanese artists use to produce different coloured paints?
   - A. Melted crayons
   - B. Ground-up minerals
   - C. Ground-up insects
   - D. Natural spices
2. What is the significance of the use of expensive washi paper in producing works of calligraphy?
   - A. The work was not just a functional piece of writing.
   - B. It could be considered a work of art and be kept as a decorative item.
   - C. The writer had run out of normal paper.
   - D. Only writing on washi paper was considered to have value.
3. **Identify** the ways that traditional Japanese writing is a very demanding skill.
4. **Recall** how religious beliefs influenced the work of Japanese painters.
5. Lacquer was made from the sap of many different trees in order to obtain the different colours. True or false?

Apply your understanding

Using historical sources

6. **Explain** what the artefact in **SOURCE 1** would have been used for.
7. **Examine SOURCE 4**.
   - a. Write a one-paragraph **description** that would help museum visitors understand what this item looks like and how it was made.
   - b. **Explain** what this object tells us about the people who made and used it.
8. **Analyse SOURCE 5**. What evidence is there that the techniques and colours used in pottery were inspired by the Japanese love of nature?
9. **Consider SOURCE 2**. From the appearance of the writing, where did Japan's writing system originate?
10. **Identify** the level of audience participation you think there was in a kabuki play. First study the labels and then provide evidence from **SOURCE 6**.

LESSON
10.8 How did they use the land?

LEARNING INTENTION

By the end of this lesson you should be able to identify Japan's environmental and land use problems in the seventeenth century. You should also be able to identify the methods adopted by the Tokugawa shōguns to solve these issues.

TUNE IN

As the Japanese population grew, so too did the amount of land needed to grow food. **SOURCE 1** shows how much land was used over the years as Japan's population increased. Compare Japan's population in 1874 (35 million) with Australia's population today (26 million).

SOURCE 1 The growth in Japanese land under cultivation — tenth century CE to nineteenth century.

Year	Estimated land under cultivation (hectares)
930 CE	862 000
1450 CE	946 000
1600 CE	1 635 000
1720 CE	2 970 000
1874 CE	3 050 000

Source: From Professor Shinzaburo Oishi, *Edo Jidai* (*The Edo Period*), Chuko Shinsho no. 476, 1977.

1. Discuss how much land you think is used worldwide to feed Australians.
2. How different do you think it would be to Japan's use in the past? Why do you think this?

10.8.1 Patterns of land use

Japan is an archipelago of many different islands. It covers an area of around 378 000 square kilometres, of which over 70 per cent is mountainous and heavily forested, making it unsuitable for agricultural production. As a result, land management has always been an important priority for the rulers of Japan.

SOURCE 2 Rice paddy fields are terraced on to the side of mountain slopes.



Since the earliest days of Japanese civilisation, as much available land as possible has been used for the growing of crops. Rice has been the main crop, and it formed the staple diet of the vast majority of the population. At the beginning of the Tokugawa shōgunate, over 90 per cent of the population were peasants who worked the land. The land was owned by the daimyō and samurai families but the peasants did the actual work. Farming was based around family units and each peasant family was required to pay an annual 'rice tax' to the wealthy landowner in return for the right

to farm the land. Provided this tax was paid, the peasants were relatively free to use the land as they wished, although the tax was so high that they had to put most of their effort into rice growing.

The early part of the Tokugawa shōgunate saw a rapid increase in the amount of land being farmed. During this time, large-scale water projects allowed land previously not accessible to be made into new rice paddies. At the beginning of the Edo period, in 1603, it is estimated that just over 1.6 million hectares of land was under cultivation throughout Japan. By 1720 this had grown to almost 3 million hectares (see **SOURCE 1**). This period also saw a rapid increase in population, probably as a result of peace following the period of warring states, as well as from the increase in available food.

10.8.2 Environmental impact

During the seventeenth century, Japan was beginning to experience a serious deforestation problem. Timber had always been used for most buildings throughout the country, from humble farmers and workers' cottages to the largest castles of the daimyō. The most commonly used fuel for heating and cooking was also wood, so the forests were an essential resource. Timber was also used by the daimyō in supplying their samurai armies during the period of warring states. While the population was small, the available forests were able to supply all the timber needed. In 1570, the population had reached about 10 million, but by 1670, the population had tripled to almost 30 million.

As well as all the other uses, the early Edo period also saw a building boom, with the rapid growth of the cities, and the building of new castles and temples. The demand for timber was so high that large areas were soon completely deforested. In addition, the expansion in farming land during this period had seen many previously forested areas taken over for cultivation. The supply of timber was rapidly running out, while the lack of forest cover was leading to dramatic soil erosion, landslides and serious flooding in many areas. Without serious action, Japan was facing an environmental disaster.

SOURCE 3 Houses of farmers and rural workers were made almost entirely of wood.



10.8.3 Protecting the environment

By 1670, the deforestation situation became so severe that it required urgent action from the shōgun. In the remaining forest controlled by wealthy daimyō, strict controls on the use of timber were implemented. No logging could occur without an official permit and anyone who stole timber from the lands controlled by the shōgun or other daimyō was severely punished. Sustainable forest management was also undertaken. This involved only harvesting selected mature trees, protecting small seedlings and careful thinning of forests to allow younger trees a chance to grow.

Large-scale development of plantation forests began in areas previously cleared of natural forest. Many daimyō grew plantation forests on their own land and villagers were taught to propagate seedlings from the seeds of the different pine and cedar varieties found in Japan. Peasant farmers were then encouraged to plant seedlings in areas near their farming land to increase the supply of timber. In many areas, timber plantations became a

commercial operation, with sustainable logging to provide timber as a cash crop. During the eighteenth and nineteenth centuries, Japan became a world leader in forest management.

Changes in building techniques were also important during the Edo period. One reason for the high demand for timber for buildings was the frequency of fires in towns and cities. A fire could spread rapidly among timber houses built close together and the destroyed dwellings would need to be rebuilt. This would put extra pressure on the supply of timber. The use of tiles on the roof instead of thatch and the plastering of the timber-framed walls reduced the risk of fire, helping to reduce the demand for timber to rebuild.

SOURCE 4 A house from the Edo period. The use of tiles on the roof and the plastering of the walls were designed to minimise the risk of fire.



10.8 SKILL ACTIVITY: Historical perspectives and interpretations, Communicating

Another action of the Tokugawa shōgunate was its forestry policies, which introduced severe punishment for anyone who stole timber from lands controlled by the shōgun.

a. Imagine you are a village leader, and a member of your village has taken a small amount of timber for firewood to keep a sick child warm. Outline the arguments you would put to the local daimyō in begging for mercy for your villager.

b. The daimyō has to consider the case:

i. **Identify** one reason why he might be prepared to show mercy.

ii. **Identify** one reason why he might not be prepared to show mercy.

10.8 Exercise

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10.8 Exercise

Learning pathways

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Check your understanding

1. What was the 'rice tax'?
   - **A.** The rice tax was a tax paid by peasants calculated on how much rice they consumed.
   - **B.** The rice tax was a tax paid by peasants who farmed the land to the daimyō nobles who owned the land.
   - **C.** The rice tax was a tax paid by daimyō nobles to the shōgun.
   - **D.** The rice tax was a tax paid by the daimyō nobles to the peasants who farmed the land.
2. What factors may have contributed to the rapid increase in population during the early years of the Tokugawa shōgunate?
   - **A.** The peaceful time in history
   - **B.** The availability of additional food
   - **C.** Large-scale water projects
   - **D.** Immigrants from France and Portugal

3. In 1570, before the Tokugawa period, the population of Japan was only about _____ million. While the population was small, the available forests were able to supply all the _____ needed.
4. **Explain** why deforestation became a serious problem in Japan.
5. **Identify** the ways in which the harvesting of timber was restricted by the shōgun and many of the daimyō after 1670.

Apply your understanding

Using historical sources

6. **Compare** the period 1600 to 1720 with the period from 1720 to 1874 in **SOURCE 1**. What do you notice about the second period when compared with the first?
7. **Examine SOURCE 2**. How was it possible to expand the area of land under cultivation in a mountainous country such as Japan?
8. **Analyse SOURCE 3**.
   a. How might the construction of large numbers of houses, such as that in **SOURCE 3,** have contributed to the deforestation problem?
   b. **Identify** a major risk if large numbers of these houses were built close together in a village or town.
9. **Explain** how the new building techniques demonstrated in **SOURCE 4** were able to contribute to solving the deforestation problem.

Communicating

11. **Evaluate** whether it would have been likely for the shōgunate to intervene in forestry practices across Japan if the deforestation problem had not become so severe. Give reasons for your response.

LESSON
10.9 How did Japan re-join the world?

LEARNING INTENTION

By the end of this lesson you should be able to recognise the external pressures that applied to Japan's isolationism during the Edo period. You should also be able to explain why the shōgun gradually could not keep out foreign influences.

TUNE IN

The English had a great deal of control in China during this time, which may have influenced the Japanese leaderships' willingness to work with them.

SOURCE 1 Extract from Commodore M.C. Perry, *Narrative of the Expedition of an American Squadron to the China Seas and Japan*, McDonald & Co., London, 1954, p. 62

The Commander-in-Chief will not go to Nagasaki and will receive no communication through the Dutch or the Chinese . . . if this friendly letter of the President to the Emperor is not received and duly replied to, [the Commander-in-Chief] will consider his country insulted, and will not hold himself accountable for the consequences.

1. Discuss what you think this letter means.
2. Who do you think is the 'Commander-in-Chief' is?
3. Why do you think a letter like this might have been written?

10.9.1 The breakdown of isolation

The Tokugawa shōguns tried to ensure that Japanese life was as cut off from the rest of the world as possible. This meant that they were able to control trade with foreigners and that they would receive all the profits from other nations.

Some of the first westerners to arrive in Japan were Portuguese traders sailing on a Chinese trading vessel. They were blown off-course and landed in Japan. Before their ship was repaired, they introduced those they met to handheld guns, a new invention at the time, which led to a great deal of firearms being produced by Japanese artisans. Others from western countries came and went from Japan, including Francis Xavier, who introduced Christianity in 1549 from Spain, and William Adams, who became one of the first western samurai. After this period, the Sakoku policy was put in place.

Despite 250 years of Tokugawa shōgunate rule and its policy of isolation, such a policy was ultimately doomed to failure. By the nineteenth century, European countries and the United States of America were expanding their empires and influence into the Pacific Ocean. Even a country with the population and wealth of Japan could not keep foreign influences out forever.

The Sakoku Policy

From 1640 onwards the Dutch and Chinese were allowed to maintain a limited presence on the artificial island of Dejima in Nagasaki harbour. The Dutch traders were not allowed to cross onto the mainland, except for an annual trip to Edo to pay homage to the shōgun. On these visits the Dutch would bring samples of European technology as gifts for the shōgun. In this way, western inventions such as clocks, telescopes and medical instruments were introduced to Japan. Many Japanese scholars pursued a study of what they called *Rangaku* ('Dutch learning') during the period of isolation, when many Dutch books were translated into Japanese.

The contact with the Dutch continued through the Edo period, and provided the Japanese with access to some European scientific knowledge and literature. By the middle of the nineteenth century, with so many nations pursuing trade in the Pacific region, it would prove impossible for Japan to continue to restrict contact with the 'foreign devils'.

SOURCE 2 A photograph of Commodore Matthew Perry



Black ships

During the 1830s and 1840s, a number of western countries attempted to establish contact with the Japanese shōgunate government, which rejected such approaches as being hostile to their way of life. In 1853, Commodore Matthew Perry of the United States Navy sailed into Edo harbour with four heavily armed warships. He wished to negotiate the opening up of trade with Japan, and threatened to take military action if the Japanese refused. The Japanese feared a return of the 'black ships' and built stronger forts around Edo. However, in 1854 Perry returned with twice as many ships to get a reply to the letter. He found the Japanese had drafted a **treaty** agreeing to the US demands.

treaty a formal agreement between two or more nations

DID YOU KNOW?

The island of Dejima was created in 1634 by cutting a canal across a narrow isthmus connecting a small peninsula to the mainland. The resulting island was then linked to the mainland by a bridge, which was guarded day and night to prevent any unauthorised crossing.

Unequal treaties

In 1854, the Treaty of Kanagawa between Japan and the US opened two ports to North American trade and guaranteed good treatment of shipwrecked US sailors. Four years later the Japanese were pressured into another treaty. More ports were opened to foreign trade, which allowed North Americans to live and work in Japan. The treaty also set very low **tariffs** on foreign goods imported to Japan. Soon the Russians, French and British forced the Japanese to sign similar treaties.

tariff a tax on goods imported from a foreign country

The Nagasaki Naval Training Centre

Faced with the increasing threat of foreigners, in 1855 the shōgunate government established a naval training centre near Dejima Island in Nagasaki harbour. To ensure they had access to the latest in marine technology and naval organisation, the training centre employed instructors from the Dutch Navy. They acquired steam-driven warships and set out to develop a modern Japanese navy.

SOURCE 3 A nineteenth-century map of the Nagasaki Naval Training Centre, established near Dejima Island in 1855



10.9.2 Decline of shōgunate rule

The emperor had appointed the shōgun to protect Japan from barbarians but the shōgun had failed in this duty by opening ports for trade. Some samurai clans still supported the shōgun but others were very angry that the Tokugawa shōgunate had not defended Japan from foreign invasion. They looked to the traditional authority of the emperor as the only strength capable of unifying the country. Over the next ten years, supporters and opponents of the shōgunate clashed violently.

Some samurai acted independently to attack and kill the foreign intruders. The powerful Choshu clan even closed an important waterway and bombed foreign ships. However, the western powers retaliated by later attacking Choshu territory and destroying its guns and forts.

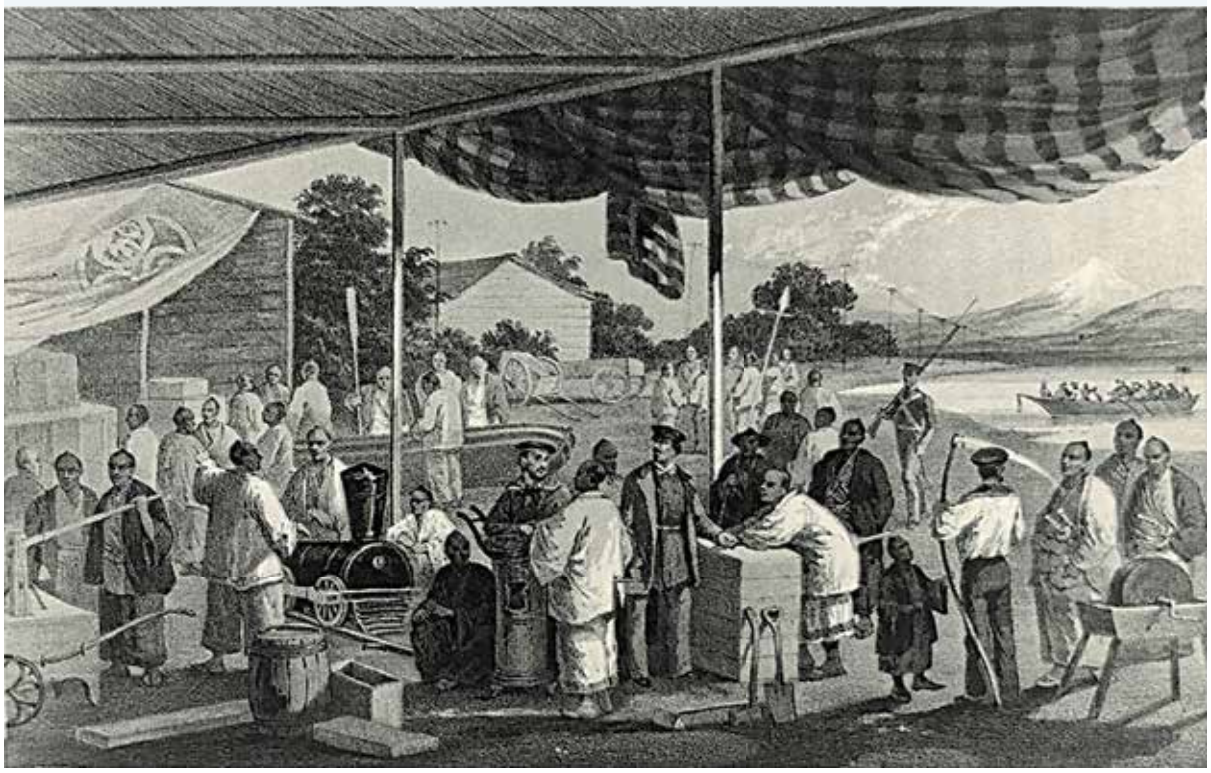
Japanese scholars had a different answer to the problem. They suggested building on the skills already learned from Dutch traders and Portuguese missionaries. Their idea was to adopt western knowledge in order to protect Japan's culture and traditions and help it survive as an independent country.

Why did the shōgunate decline in power?

After more than 250 years of stability under the Tokugawa shōguns and almost 700 years of shōgunate government, why were the shōguns unable to maintain their power and to continue the long period of isolation from the outside world? Examining the following developments may help us to explain this decline in shōgunate power:

- The Tokugawa shōguns had never been able to completely isolate Japan from outside influences. The study of *Rangaku* had increased in popularity as many scholars realised that Europeans were making discoveries in science and technology that could be of benefit to Japan. It was probably inevitable that Japanese scholars would realise that many of the discoveries made in other countries could be of benefit to Japan.

SOURCE 4 When Commodore Perry returned to Japan in 1854, he introduced examples of western technology, including a miniature steam locomotive and the electric telegraph.



- The Tokugawa shōguns limited the wealth and power of other daimyō, but as their power declined they were less able to fulfil their role in the feudal system.
- The merchant class was very low on the feudal pyramid but played a vital role as more trade opportunities became available from outside Japan.
- In the early nineteenth century, several crop failures in different parts of Japan led to a four-year famine. Peasants rebelled and a huge fire burned through Osaka.
- The Treaty of Kanagawa was forced on the shōgun because of Commodore Perry's threats. This showed the shōgun's weakness compared to powers from overseas and led others to question the relevance of his position.

SOURCE 5 The signing of the Kanagawa Treaty, 1854



10.9.3 Emperor Meiji and modern Japan

When Emperor Komei died in 1867, his 15-year-old son Prince Mutsuhito became the next emperor of Japan. He took the reign name Meiji. In 1868, several samurai clans and some important court nobles forced the resignation of Shōgun Yoshinobu, the last of the Tokugawa shōguns. The clans then seized the imperial palace in Kyoto and declared the 'restoration' of the emperor to full power. The shōgunate forces tried to defeat them but fell back to defend Edo.

Recognising the strength of the imperial forces, Shōgun Yoshinobu surrendered the city peacefully. The new emperor was carried in a heavily guarded royal palanquin from Kyoto to his new home, the shōgun's palace, Edo Castle. The city of Edo was renamed Tokyo, meaning 'eastern capital'. It was the beginning of a new age.

The transfer of power from the shōgunate to the emperor is known as the Meiji Restoration. Although the emperor was still the spiritual leader of Japan, he did not take control of the country. Emperor Meiji and over 760 daimyō signed a document called the Charter Oath, a five-point statement supposedly introducing a new democracy.

However, the main decisions were still made by the same samurai groups who had restored the emperor as the head of government in Japan.

SOURCE 6 An illustration of Emperor Meiji as a young man



aud-0460

SOURCE 7 The Charter Oath 1868

By this oath, we set up as our aim the establishment of the national wealth on a broad basis and the framing of a constitution and laws.

Deliberative assemblies shall be widely established and all matters decided by open discussion.

All classes, high and low, shall be united in vigorously carrying out the administration of affairs of state.

The common people, no less than the civil and military officials, shall all be allowed to pursue their own calling so that there may be no discontent.

Evil customs of the past shall be broken off and everything based upon the just laws of Nature.

Knowledge shall be sought throughout the world so as to strengthen the foundation of imperial rule.

DISCUSS

Did the Charter Oath achieve all the things it promised? Read **SOURCE 7** again and, as a class, decide how many of the five points were actually put into practice during the Meiji period.

The Boshin civil war

From 1868 to 1869, some significant land and naval campaigns took place between the imperial army and forces of the old shōgunate. The battles were mainly on and around the islands of Kyūshū and Hokkaidō. However, the emperor's forces defeated their enemies and strengthened the control of the central government in Tokyo.

What happened to the samurai?

The Meiji government believed that a samurai military force was too expensive and not appropriate for a modern country. Also many samurai were still loyal to their local feudal lords instead of the Japanese nation as a whole. The Meiji government replaced the samurai with a **conscript** army open to all classes of people. It ended the old four-class system, took over the daimyō domains and abolished the right of samurai to carry swords in public.

deliberative having the power to make decisions

conscript a person ordered by the government to do compulsory military duty

SOURCE 8 This painting from 1877 shows the newly established conscript army's victory over rebelling samurai who were fighting to regain their right to carry swords.



Japan modernises

In its search for modern ideas, the Meiji government established overseas missions to foreign countries. The 1871 Iwakura Mission was the most important of these. Its purpose was to learn from the west in order to guide Japan's modernisation. Over nearly two years, its 48 members visited the United States, Britain, Europe and Asia and gathered information in many areas, especially aspects of industry, technology and military development.

SOURCE 9 A Meiji-era photograph showing the modernising of Japan



By the end of the nineteenth century, hardly any aspects of traditional Japan remained unchanged. The country was governed by a constitution and a **diet**, where new laws could be debated and passed. Banks, post offices and schools were based on western models and many new buildings reflected European or US architectural design. More 'loan words' came into the Japanese language from German, French and English.

Some cultural changes occurred because the Japanese people began to accept new customs. However, a majority of the changes came from deliberate reform policies of the Meiji government. By the beginning of the twentieth century, Japan was a modern and powerful country prepared to take its place alongside other leading nations.

diet the name given to a law-making assembly in some countries

10.9 SKILL ACTIVITY: Communicating

1. **Create** a timeline that shows the significant events that took place in Japan between 1853 and 1871.
2. What aspects of Japanese life and society do you think changed the most? **Justify** your opinion.

10.9 Exercise

learnon

10.9 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 5	3, 4, 9, 10	6, 7, 8

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Check your understanding

1. In what ways was the arrival of Commodore Perry in 1853 different from the contact made by other western visitors in the 1830s and 1840s?
   - A. Commodore Perry offered large financial inducements.
   - B. Commodore Perry established solid relationships with the Japanese.
   - C. Commodore Perry threatened military action.
   - D. Commodore Perry had many exotic items for trade.
2. What did the United States gain from the Treaty of Kanagawa? **Select** all that apply.
   - A. The treaty opened two more ports to the North Americans and ensured better treatment of any shipwrecked US sailors.
   - B. A further treaty was signed four years later opening more ports, which allowed more North Americans to live and work in Japan.
   - C. Very high tariffs on goods imported into Japan.
   - D. A third treaty allowed for the establishment of a US naval base on the island of Tsushima.
3. **Recall** one way that Japan maintained limited contact with the outside world during the isolationist Edo period.
4. **Explain** how the Treaty of Kanagawa and similar agreements were seen to have weakened the authority of the shōgun.
5. The period of the Edo shōgunate come to an end when Yoshinobu ran out of money due to the fighting and had to surrender, then resign. True or false?

Apply your understanding

Using historical sources

6. **Examine SOURCE 1**. What did Commodore Perry mean by the words, '[the Commander-in-Chief] . . . will not hold himself accountable for the consequences'?
7. **Analyse SOURCE 3**.
   - a. How was the island of Dejima originally created and what was its purpose?
   - b. In what way was the use of the island changed after 1855?
   - c. What does this change of use tell us about the Japanese attitude towards foreigners?
8. **Summarise** how the examples of western technology shown in **SOURCE 4** influenced the views of many Japanese scholars.
9. **Identify** the US and Japanese figures in **SOURCE 5**. Who appears to be the most powerful in this image? **Explain** your answer.
10. **Determine** how you can tell that Emperor Meiji, as shown in **SOURCE 6**, was influenced by European ideas rather than Japanese tradition.

LESSON
10.10 INQUIRY: Shintō and Buddhism guide

LEARNING INTENTION

By the end of this lesson you should be able to summarise the key concepts of Buddhism and Shintō. You should also be able to highlight the significance of these religions on Japanese culture and society.

Scenario

You are a tour guide in Nara, the first imperial capital of Japan from the fourth century CE until the year 794. You wish to prepare a guidebook for visiting tourists on the influence of the two main religions, Shintō and Buddhism, on Japanese history and culture. As Nara is home to the Kasuga Taisha Shintō shrine and the Todai-ji Buddhist temple, you are going to use these two landmarks to help illustrate the features of the two dominant religions of Japan.

Task

Prepare a guidebook on the Shintō and Buddhist religions, highlighting their importance in Japanese history and culture. You must refer to the Kasuga Taisha Shintō shrine and the Todai-ji Buddhist temple or other structures of your choice which reflect these two faiths.

SOURCE 1 The Kasuga Taisha Shintō shrine in Nara



Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

Inquiry steps

Step 1: Questioning and researching

Write your **Inquiry question**. This is what you want to have answered in your guidebook.

Research the following:

- origins and main beliefs of the traditional Shintō religion
- the main beliefs of Buddhism, and how it came to Japan from southern Asia
- how the two religions have existed side by side in Japan for centuries, and continue to do so today
- the purposes and uses of shrines and temples in both religions
- key features of Shintō shrines, such as the Kasuga Taisha, and Buddhist temples, such as the Todai-ji temple in Nara Park, and the history of these two landmarks
- the influence of the two religions during the Tokugawa shōgunate.

Step 2: Using historical sources

Analyse the information you have found. Does it answer the inquiry question?

Step 3: Historical perspectives and interpretations

Evaluate the information and select the most relevant pieces for your guidebook.

Step 4: Communicating

Communicate your findings by **creating** an engaging guidebook for visitors, highlighting the achievements of Japanese culture which have been influenced by these religions. Your guidebook should be attractive and informative but also answer your inquiry question.

Complete your self-assessment using the **Inquiry rubric** or access the 10.10 exercise set to complete it online.

on Resources

Digital document Inquiry rubric (doc-39399)

LESSON
10.11 Review

Hey students! Now that it's time to revise this topic, go online to:

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10.11.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

10.2 How do we know about Japan under the shōguns?

- Japanese architecture tells us a lot about the way people lived.
- Artworks such as paintings provide evidence of the way people lived in feudal Japan.
- Great works of literature often describe important events and peoples' lifestyles.
- Government documents were kept as National Treasures.
- Many traditional festivals and ceremonies survive today, giving us a view of some important traditions.

10.3 What was life like in early Japan?

- The first Japanese state was established by the Yamato clan around the town of Nara.
- During the Classical period, Buddhism was firmly established and the first great works of literature appeared.
- Land reform was attempted in the seventh century CE but was abandoned as emperors granted land to their supporters.
- In 794 CE, the emperor moved his capital to Heian-kyo (modern Kyoto), beginning the Heian period.
- The Heian period saw growth in the power and importance of the daimyō and the samurai.

10.4 How did the shōguns take control?

- Disputes arose in 1180 over the succession to the imperial throne, leading to a civil war.
- The Minamoto clan supported the successful claimant to the throne and its leader Yoritomo was appointed shōgun in 1192.
- From 1192, power passed from the emperor to the shōgun for 700 years.
- The shōguns became so powerful because they were able to command military forces and maintain order.
- In 1464, a dispute between two members of the Ashikaga clan led to civil war and a hundred years of instability known as the age of the warring states.
- Order and unity was restored through the military conquests of the three great unifiers: Oda Nobunaga, Toyotomi Hideyoshi and Tokugawa Ieyasu.
- The Tokugawa shōguns also set up processes to isolate Japan from the rest of the world, in order to maintain the traditional Japanese way of life.

10.5 How did Japanese society organise itself?

- Feudal society divided Japan into rigid social classes, with the emperor and the noble daimyō at the top of the class structure.
- Below the ruling class were the samurai, peasants and artisans, with merchants at the bottom of the *shi-nō-kō-shō* structure.
- *The Pillow Book*, written during the Heian period, gives us an insight into the lives of women in feudal Japan.
- Geishas were trained in art, music, dance and interesting conversation, and they entertained their clients with these skills.

10.6 Who were the samurai?

- The samurai class was established to serve the daimyō and provide them military support.
- The samurai followed a warrior code known as bushidō.
- Ronin were members of the samurai class that did not have a daimyō master to serve.
- The samurai gradually lost influence when their methods of fighting became obsolete and the peaceful period of the Tokugawa shōgunate gave them no opportunities to fight.

10.7 How did people express themselves?

- Japanese painting was influenced by Chinese styles and often depicted religious scenes.
- Japanese calligraphy was an art in itself and a highly prized skill.
- Woodblock printing was a popular and highly skilled art form that reached its peak in the eighteenth century with the work of artists such as Katsushika Hokusai.
- Lacquer work produced many fine objects and was achieved by painting many thin layers over objects made from wood, bamboo or pottery.
- Pottery was created both for useful purposes such as food storage and decorative purposes.
- The Tokugawa period saw the blooming of the performing arts, such as kabuki theatre.

10.8 How did they use the land?

- The primary use of land throughout the feudal period in Japan was farming, particularly the growing of rice.
- The Tokugawa period saw a rapid expansion in the amount of land under cultivation.
- By the seventeenth century, Japan began to experience a deforestation problem, so a variety of measures were put in place to make forestry more sustainable.

10.9 How did Japan re-join the world?

- By the nineteenth century, western nations were expanding their empires and wanted to trade with Japan.
- In 1853, Commodore Perry threatened the Japanese government with military action if trade was not opened to the west.
- The Tokugawa shōguns were no longer powerful enough to resist foreign invaders and some clans supported the return of the emperor to supreme power.
- In 1868, Emperor Meiji went from Kyoto to Tokyo to claim power.
- A number of clans loyal to the Tokugawa shōguns resisted the restoration of power to the emperor but were defeated during the Boshin civil war.
- Emperor Meiji set out to modernise Japan and sent missions to other countries to learn of new technology.
- By the beginning of the twentieth century, Japan had become a modern and powerful nation.

10.10 INQUIRY: Shintō and Buddhism guide

- The Shintō and Buddhist hold great importance in Japanese history and culture.
- The Kasuga Taisha Shintō shrine and the Todai-ji Buddhist temple in Nara are important religious landmarks.

10.11.2 Key terms

archipelago an area that contains a chain or group of islands scattered in lakes, rivers, or the ocean
artisan a skilled worker who produces handmade items
beri-beri a disease caused by a lack of vitamin B
biwa a four-stringed Japanese musical instrument
Buddhist to do with Buddhism; a follower of Buddhism
bushidō the way of the warrior; the rules that prescribed correct behaviour for all samurai
calligraphy the art of beautiful handwriting
centralised control of a country from one central location
civil war a war between two competing groups within one country
clan a large group of closely related people

conscript a person ordered by the government to do compulsory military duty
daimyō great feudal lord of Japan during the Classical and shōgunate periods
deliberative having the power to make decisions
diet the name given to a law-making assembly in some countries
domain the territory ruled by a daimyō, including the farming and fishing villages within it
glaze a substance fused onto pottery to give it a glass-like appearance
hostage a person kept for security
kabuki a colourful form of theatre combining play-acting, dance and music
kana a writing system that represents Japanese syllables
kiln an oven used at high temperatures to heat and harden ceramic items
monochrome varying tones of a single colour, usually black and grey
monopoly an organisation or group that has complete control of something
musket a muzzle-loading gun with a long barrel
origami the art of folding paper into different shapes and designs
pagoda a Hindu or Buddhist temple, typically in the form of a many-tiered tower
palanquin a sort of couch for transporting passengers, with long poles on each side so that servants could carry it on their shoulders
pigment a natural colouring material made of plant or animal tissue
polytheistic the belief in or worship of more than one god
regent a person appointed to rule a country if a monarch is too young or ill to do so
ronin a wandering samurai who had no lord or master
sake a Japanese alcoholic drink made from fermented rice; sometimes known as rice wine
samurai the warrior class in Japan during the Classical and shōgunate periods
seppuku a form of ritual suicide, carried out by disembowelling oneself (cutting open the abdomen) with a sword
shaman a person who claims to communicate with evil spirits through mystic rituals
Shintō an ancient Japanese religion that believes in nature spirits and ancestor worship
shōgun literally 'barbarian-conquering great general'; the Japanese emperor's chief military adviser and hereditary commander-in-chief, with the duty to protect Japan from foreign invasion
tariff a tax on goods imported from a foreign country
tea ceremony an ancient Japanese ritual of serving and drinking tea
treaty a formal agreement between two or more nations
tributary a state that gives payment to another state or ruler
tuberculosis a serious and infectious disease that affects the lungs
typhoon name given to big tropical storms in the Pacific or Indian ocean
vassal a person who holds land for a lord, and in return pledges loyalty and service to him
washi handmade paper created from the bark or fibre of various shrubs, grasses or trees

10.11.3 Reflection

Complete the following to reflect on your learning.

Revisit the inquiry question posed in the overview.

How has Japanese culture grown both independently and through the influence of others?

1. Now that you have completed this topic, what is your view on the question? Discuss with a partner. Has your learning in this topic changed your view? If so, how?
2. Write a paragraph in response to the inquiry question, outlining your views.

Resources

eWorkbooks
Customisable worksheets for this topic (ewbk-10712)
Reflection (ewbk-10714)
Crossword (ewbk-10715)

Interactivity
Japan under the shōguns crossword (int-7590)

10.11 Review exercise

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Multiple choice

1. Why did the daimyō become very powerful during the Heian period?
   - **A.** They were great warriors.
   - **B.** They were very loyal to the samurai.
   - **C.** The emperors relied on them to maintain their power.
   - **D.** They supported land reform.
2. Which of the following statements is correct under the *shi-nō-kō-shō* arrangement of social classes?
   - **A.** Merchants were higher in rank than farmers and fishermen.
   - **B.** Artisans were higher in rank than samurai.
   - **C.** Artisans were higher in rank than merchants.
   - **D.** The shōgun was ranked highest of all.
3. What did the Treaty of Kanagawa give the United States?
   - **A.** Access to two Japanese ports for trade
   - **B.** The right to rescue shipwrecked sailors
   - **C.** The right to take over from the Dutch as the main overseas traders
   - **D.** A military base for the 'black ships'
4. What was the 'rice tax'?
   - **A.** A form of rent paid by peasants to the landowner
   - **B.** A tax levied on rice merchants by the shōgun
   - **C.** A type of tax paid by restaurant owners
   - **D.** A tax paid by rice farmers to the samurai
5. How do we know the Japanese borrowed much of their culture from China?
   - **A.** They speak the same language.
   - **B.** They adopted Chinese characters in their writing.
   - **C.** They modelled all their cities on Chinese cities.
   - **D.** Both societies were ruled by an emperor.
6. Who were the three powerful clans competing for influence during the Heian period?
   - **A.** The Fujiwara, the Minamoto and the Taira
   - **B.** The Kamakura, the Taira and the Yoritomo
   - **C.** The Minamoto, the Tokugawa and the Fujiwara
   - **D.** The Tokugawa, the Kamakura and the Yoritomo

7. How did the appointment of Minamoto no Yoritomo as shōgun affect the emperor?
   - A. The emperor was able to exert more authority because he had the support of the shōgun.
   - B. The emperor lost all his power as a leader of the country.
   - C. The emperor took on mainly religious and ceremonial duties.
   - D. The emperor was more powerful because of his religious duties.
8. How were the Japanese able to defeat the Mongol invaders?
   - A. The samurai were more powerful warriors than the Mongols.
   - B. The Mongol ships were wrecked by fierce storms.
   - C. The daimyō were superior military commanders.
   - D. The Japanese were supported by warriors known as ‘kamikaze’.
9. In regards to the rest of the world, the Tokugawa shōguns pursued what policy?
   - A. A policy of inclusion
   - B. A policy of distrust
   - C. A policy of involvement
   - D. A policy of isolation
10. When would a samurai become a ronin?
   - A. If he chose to become a bandit
   - B. If his master could no longer employ him
   - C. If he became a farmer
   - D. If he was promoted to become a daimyō

Short answer

Communicating

11. **Identify** the key dispute that led to civil war from 1467 to 1477.
12. **Explain** how Oda Nobunaga was able to rise to importance in Japan after 1565.
13. **Summarise** why Tokugawa Ieyasu aligned himself with Oda Nobunaga.
14. a. Now that you have completed this topic, **reflect** on the role religion has played in Japanese history. **Discuss** in a brief paragraph.
    b. Considering that power shifted from the emperor to the shōguns during the Tokugawa shōgunate, how would you change your answer to the previous question? Write a paragraph in response and **justify** your claims.

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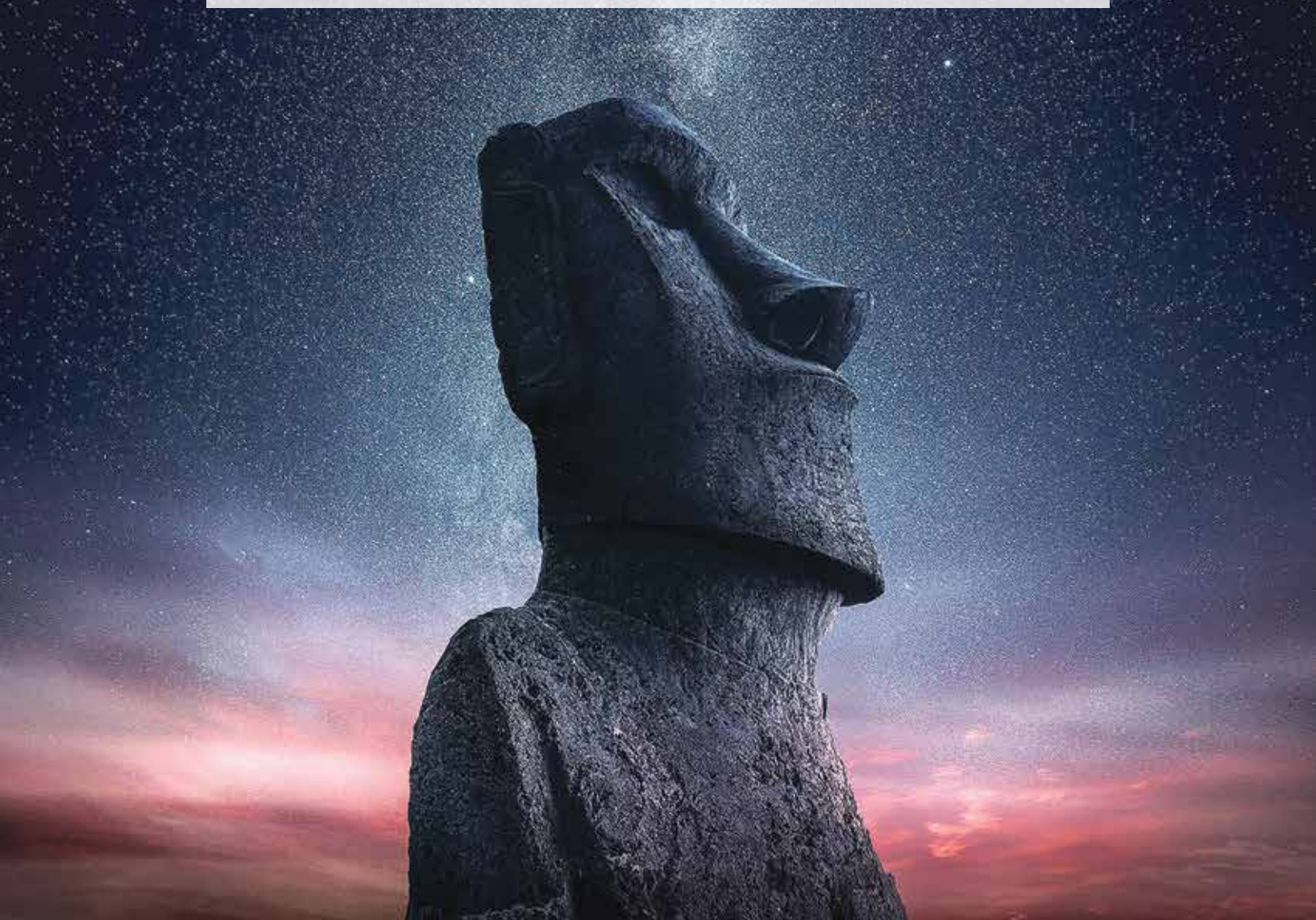
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11 Polynesian expansion across the Pacific (c. 700–1756)

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LESSON
11.1 Overview

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How are the people of the Pacific shaped by their environment and heritage?

11.1.1 Introduction

Rising sea levels are threatening many island nations in the Pacific, a large number of which have their roots in Polynesian settlement. These are places of great historical importance which are in danger of disappearing forever. Whether it's as noticeable as the 900 mo'ai of Rapa Nui — stone statues that are as high as 20 metres — or the land where their ancestors lived their lives, the rich history of Polynesia is at risk of being wiped away. Efforts at documenting the stories told by Polynesian elders are important to help us preserve this past, but we can also learn from it.

Rapa Nui (Easter Island) is almost treeless, with many of the island's forests destroyed by overuse. Aotearoa (New Zealand) lost whole species of animals due to human actions. People in modern Hawai'i have started using ancient methods of managing fish populations. Recognising the impact we can have on the environment around us can not only minimise the impact of sea level rise on Polynesian cultures, but also extreme climate events in the rest of the world.

SOURCE 1 Many Pacific islands flood regularly and are at risk of disappearing altogether



on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10716)

Video eLesson Polynesian expansion across the Pacific (c. 700–1756) (eles-6058)

int-4285

SOURCE 2 A timeline of the Polynesian expansion across the Pacific

CE

60 000

c. 60 000 BCE
Aboriginal peoples arrive in Australia.



1600

1400

1200

1000

c. 1000–1450 BCE
Mo'ai carved and erected on Rapa Nui.



c. 1500–1000 BCE
The Lapita people spread across Polynesia.



BCE
CE

200

c. 300 CE
Polynesians settle the Marquesas and Hawai'ian islands.

400

600

c. 700 CE
Polynesians settle Easter Island.



800

1000

c. 1000 CE
Polynesians arrive in New Zealand (the arrival of the Great Fleet).



1600

c. 1600 CE
The moa bird becomes extinct, forcing the Māori to alter their lifestyle.

1800

c. 1722 CE
Dutch navigator Jacob Roggeveen arrives on Rapa Nui on Easter Sunday and names the island accordingly.

1976 CE
The voyage of the Hokule'a recreates the 10 000 km sea voyage between Hawai'i and Tahiti.

2000

1769 CE
Captain James Cook arrives in New Zealand.



CE

LESSON
11.2 How do we know about the Polynesian expansion across the Pacific?

LEARNING INTENTION

By the end of this lesson you should be able to identify and describe the sources of information that inform our understanding of Polynesian culture.

TUNE IN

Finding a waka gives us great insight into the technology of ancient Polynesians. They used stone tools to shape out logs and carefully combined these together.

SOURCE 1 A waka taua (war canoe) in an exhibition at the Whanganui Regional Museum in New Zealand.



Imagine that you are an archaeologist examining something from the room around you (i.e. a phone, a pen, a water bottle). What can they better understand about our ability to use different materials, manufacture goods and trade for goods with others?

11.2.1 How do we know about Polynesian expansion?

The indigenous people of islands all over the Pacific ocean travelled incredible distances to settle new lands. This body of water covers nearly one third of the world's surface — the skill and knowledge needed to not only navigate successfully to one of the thousands of undiscovered islands but also to make a new life there is unmatched by any other culture of the time. Between 1500 BCE and 1000 CE, most of the habitable land in this vast stretch of ocean was settled and, within a few hundred years, many had developed a unique language, society and culture.

There are many sources that can tell us about the people of the Pacific. Some of the evidence is from myths and legends. Other sources include artefacts such as wood carvings, jewellery, tools and pieces of pottery. Even their language, beliefs and tattoos remain as evidence of their identity and culture.

Before written records

Much of the early history of the first voyagers in the Polynesian region is incomplete. At that time, no written records were kept and so archaeological research plays a vital role in revealing this part of history. Through a variety of evidence that has survived throughout the centuries, historians develop theories about what happened hundreds, and even thousands, of years ago. As new evidence is found, these theories are either supported or will need to be re-examined.

The pottery left behind by the early people of Polynesia provides important information about their expansion across the Pacific. Archaeologists and historians believe that a group of people called the Lapita arrived in the Pacific region over 3000 years ago. The remains of their distinctive pottery provides a record of their movements eastward through the Solomon Islands and into the wider Pacific. One thousand years later, they set sail again, moving east across 3000 kilometres of open ocean. They settled Te Henua ʻEnana and Te Fenua ʻEnata (the Marquesas Islands), Paumotus (Tuamotus Islands) and Tōtaiete mā (Society Islands). Between 300 and 800 CE they discovered Rapa Nui (Easter Island) and Hawai'i (Hawaii). The distances they travelled were immense — for example, the distance between their settlements in Otaheite (Tahiti) and Hawai'i is greater than between North America and Europe.

SOURCE 2 The distinctive decoration on pottery left behind by the Lapita people, ancestors of the Polynesians, helps archaeologists and historians trace migration paths across the Pacific.



DID YOU KNOW?

Many of the words are translated into English and we've tried to use our alphabet, which sometimes doesn't work! When you come across a new word, do some research to find out how it's traditionally pronounced. For instance, many Māori words with *wh* in them use an *f* sound.

11.2.2 Colonial invaders

Written records, which appeared only in the last few hundred years, offer historians a very different perspective on Polynesian history. There are many written records and so there is a lot of information available. However, this also provides certain challenges for historians. Much of the written evidence of the Polynesian people was recorded by outsiders, usually Europeans who were colonising these lands, and so is written from their perspective. Professor John Waiko, a historian from Papua New Guinea, illustrates the problem with this in **SOURCE 3**. Historians need to be careful when dealing with this type of written evidence as relying on it can give a false understanding of the past.

SOURCE 3 Professor John Waiko's quote from his book *A history of Papua New Guinea and its neighbours* illustrates the problem of seeing history with a single perspective.

> They [the Europeans] have emphasised the activities of the foreigners. During the colonial encounter the emphasis was on the colonisers rather than the colonised. Their documents portray the roles of the colonisers rather than the roles of the indigenous people.

Changing history

In recent years, there has been a renewed focus on the history of the Polynesian people as seen through Polynesian eyes. This important work is done by the descendants of the very people who first settled the region centuries ago. But, as is the case with all oral histories, it is important to act quickly. When a person dies without the opportunity to record their story, their knowledge and unique perspective on their indigenous history is lost.

Oral history is not without its own flaws as it can reveal more about what the informant wishes to record than what actually occurred. The path for the historian is a tricky one; the best process is to balance these sources against one another in order to create a fuller picture of the past.

Throughout this topic, there will be references to the traditional names of modern countries and regions. Recognising the European impact and how it has shaped our perception of these places can be an important step to removing that bias from our thinking. When referring to modern times, the modern names will be used.

aud-0461

Modern name	Traditional name
Easter Island	Rapa Nui
Hawaii	Hawai'i
New Zealand	Aotearoa
Society Islands	Tōtaiete mā
Tahiti	Hawaiki (in legend) Otaheite
The Marquesas Islands	Te Henua 'Enana (north) Te Fenua 'Enata (south)
Tuamotus Islands	Paumotus
The Cook Islands	Kūki 'Āirani

11.2 SKILL ACTIVITY: Questioning and researching, Using historical sources

In Year 7 you learned the importance of using sources as evidence. This task builds on those skills and teaches you to draw conclusions from the evidence at hand.

1. Copy and complete the table below using the sources in this lesson and others sourced from the internet. You might want to work in pairs to **research** and note down 3–5 sources.

   Use bullet points in the first instance to gather important information.

Source	Describe and outline its purpose	Outline what this source reveals about the past	Limitations of the source for historians
Lapita pottery			

2. What conclusions can we draw from the evidence available about the nature of Polynesian expansion? Using the points you noted down, **write** a paragraph response.

11.2 Exercise

learnon

11.2 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 4	3, 5, 6, 7	8, 9, 10

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Check your understanding

1. **Identify** one of the last areas in which the Polynesian people settled.
   - **A.** Hawai'i
   - **B.** Rapa Nui
   - **C.** Aotearoa
   - **D.** Hawaiki
2. Most of the information historians have gained about the early history of the Polynesian people is from written records. True or false?
3. The ancient Polynesian people settled Aotearoa in about _____ CE.
4. **Identify** who recorded much of the written evidence of the Polynesian people.
5. In recent years, there has been a renewed focus on the history of the Polynesian people. **Explain** how this history has been obtained.

Apply your understanding

Communicating

6. **Explain** why the recording of oral histories is such urgent work.
7. **Identify** one value and one problem with using oral history as evidence.

Using historical sources

8. What we know about Polynesian history has been obtained from a variety of sources such as wood carvings. Using the text and sources in this lesson, **model** how the study of Polynesian history and the use of evidence have changed over time.
9. **Reflect** on how the remains of Lapita pottery (shown in **SOURCE 2**) help archaeologists trace Polynesian migration across the Pacific.
10. **Discuss** how the written evidence discussed in **SOURCE 3** is a 'one-dimensional' view of history.

LESSON
11.3 What is the Polynesian Triangle?

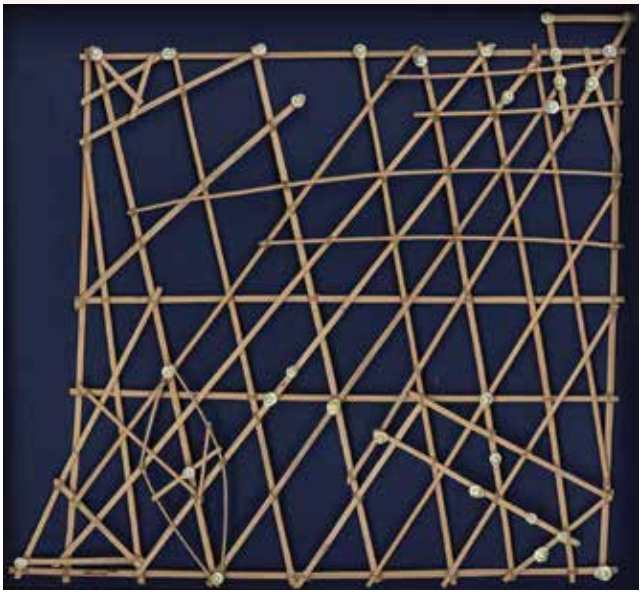
LEARNING INTENTION

By the end of this lesson you should be able to explain the navigational techniques of the Polynesians and consider the enormous achievement of the people who explored the Pacific.

TUNE IN

SOURCE 1 is an example of a chart made from sticks and shells. Maps like these helped the early seafarers navigate the vast distances between the islands of Polynesia. The chart shows wave patterns and ocean currents (sticks) and islands (shells) and was a valuable tool in the absence of compasses and modern navigational instruments. These were called rebbelibs, medos or mattangs.

SOURCE 1 Maps such as this showed more than just locations — they held information about wave patterns, currents and much more.



Examine a modern map of your local area. What additional information (such as traffic, dog petting sites or lessons to be learned) that could be incorporated, and how would you do this?

11.3.1 Traversing the Pacific

Polynesia refers to the triangular region in the Pacific Ocean bordered by Hawai'i in the north, Rapa Nui in the east and Aotearoa in the south. It covers over 2 000 000 km^2 and is almost entirely covered in water.

Archaeological evidence suggests the discovery and settlement of the islands within this vast area was planned, not the accidental result of sailors becoming lost and blown off course. The Pacific explorers were clearly well prepared for long sea journeys. They transported plants such as **taro**, **yam**, **gourd** and **kumara**, and animals such as rats and dogs. They developed new technology for long-range ocean voyaging and a sophisticated system of navigation. The region of this last frontier of exploration is known as Remote Oceania.

taro the root of a plant that is made edible through boiling

yam a potato-like tropical plant used as food

gourd an edible fruit with a shell that can be dried and used for storage

kumara sweet potato

The word ‘Polynesia’ comes from two Ancient Greek words: πολύς (polús, “many”) + νῆσος (nêsos, ‘island’). Charles de Brosses first suggested the term in 1756, but this is not the term that the people of the Pacific islands would have used for themselves.

11.3.2 Navigation techniques

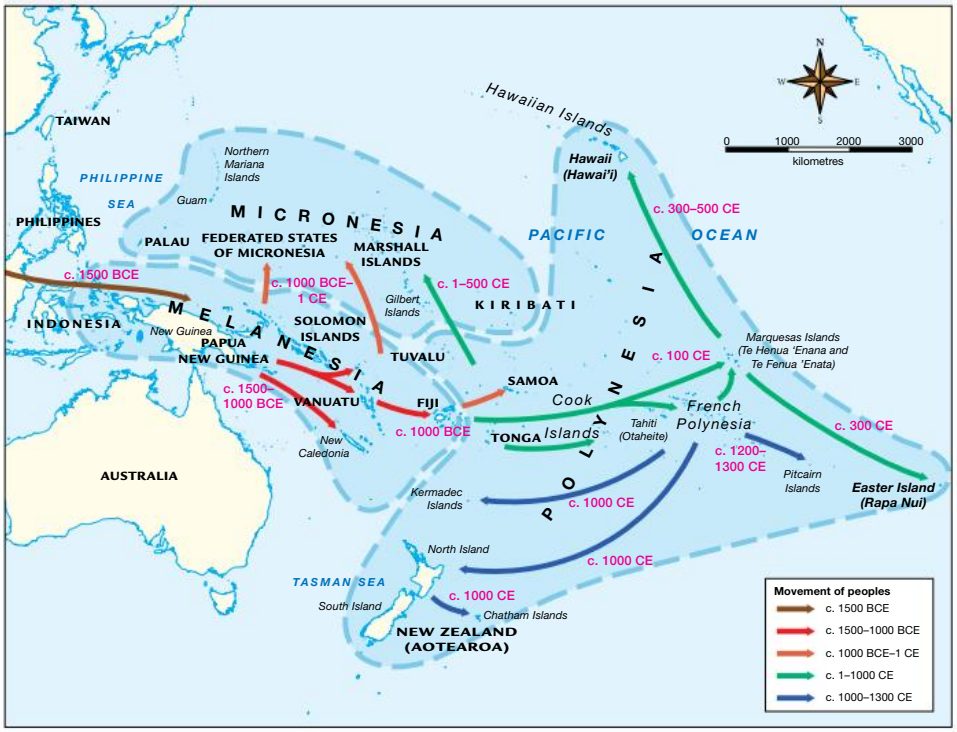
The Pacific Ocean is vast. It covers a distance of half the circumference of the Earth and an area greater than all the world’s land masses combined, so there’s no doubt that those people who explored the Polynesian region were excellent seafarers. Charts made from sticks and shells showed islands and sea currents and were passed down from generation to generation. Knowledge of the stars and other natural signs, such as the flight patterns of birds and the shape of clouds, also helped guide the voyagers across the seas.

11.3.3 A great undertaking

The settlement of the remote islands of the vast Pacific Ocean is one of the greatest stories of exploration in world history. These outcroppings of land were the most difficult places for humans to reach. The Pacific Ocean covers one-third of the Earth’s surface and is larger than the Atlantic and Indian oceans combined. The Pacific could contain the total landmass of the Earth and still leave enough room for another continent the size of Asia.

int-4103

SOURCE 2 A map of the Pacific Ocean showing migration and settlement in the Pacific islands. The people of the Pacific islands belong to three main cultural groups — Melanesia (meaning black islands), Micronesia (small islands) and Polynesia (many islands).



Source: Map drawn by Spatial Vision.

Exploration of the Pacific first occurred on simple boats, or dugout canoes, that brought people across the ocean passages between South-East Asia and New Guinea, Vanuatu and the small surrounding island groups. The Pacific explorers travelled in sail-powered canoes designed with unique features such as a twin hull for maximum storage over very long distances (see **SOURCE 3**). These explorers developed an extensive knowledge of stars, weather patterns and ocean currents. They closely observed the animals and birds of the Pacific, following their paths of migration and watching for the tiny clues that pointed them towards land.

SOURCE 3 Double-hulled canoes like this one carried the Polynesian people across the Pacific Ocean. This artwork was created in the twentieth century.



The Great Fleet and the Māori ancestors

aud-0462

According to Māori legend the voyages of seven *waka*, or canoes, brought Polynesian people from the land of Hawaiki, now Tahiti, in search of a new home. These seven waka were called The Great Fleet, and are believed to identify the ancestors of the Māori *iwi*, or tribes:

- Tokomaru
- Tainui
- Te Arawa
- Aotea
- Takitimu
- Mataatua
- Kurahaupo.

SOURCE 4 'Ngawaka E. Whitu' (The Seven Waka). This early twentieth-century song (translated into English) portrays the Māori legend of the arrival of the seven waka.

Seven waka landed here

Paddle, paddle on

Tainui, Te Arawa, Mataatua

Paddle, paddle on

Tokomaru, Takitimu, Kurahaupo, Aotea ra,

These waka were paddled here

By our ancestors

The history of every Māori family, the *whakapapa*, maintains the connection with their ancestors' waka.

As they navigated across the vast distances, they discovered more than 20 000 islands. Most are tiny coral reefs, or the tips of high volcanic peaks jutting out of the ocean depths. These remote islands are separated by hundreds of kilometres of open sea. The navigation of these vast ocean distances remains one of the greatest achievements in human history.

double-hulled canoe a canoe with two connected parallel hulls — a feature that made it light, fast and stable

11.3 SKILL ACTIVITY: Communicating

Imagine you have to travel a vast distance and settle in new land.

1. **Brainstorm** what you might need to take with you to set up a new life.
2. **Conduct research** to help you work out what items would be needed. You could group them under the following headings:
   - Items needed for the trip
   - Items needed for the new settlement

   If you wanted to, you could also **create** subheadings under those headings such as:
   - Food requirements
   - Tools
   - Building supplies
   - Agricultural supplies
3. **Communicate** your findings to the class in a brief oral presentation. You may want to include visual elements in your presentation.

11.3 Exercise

learnon

11.3 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 5, 6	7, 8, 9, 10

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Check your understanding

1. Insert the correct words from the options below to complete the passage. Not all options will be used.

Aotearoa	Southern Ocean	Hawai'i	Rapa Nui	Pacific Ocean

   Polynesia refers to the _____ region or triangle bordered by _____ in the north, _____ in the east and _____ in the south.
2. Historians believe that the voyages by ancient Polynesians were accidental. True or false?
3. Polynesian **sailing** / **migration** / **exploration** is considered one of the 'greatest stories of world exploration in human history' due to the sheer **temperature** / **magnitude** / **depth** of the Pacific Ocean and the **pirates** / **weather** / **dangers** associated with open-sea voyaging.
4. **Recall** when and where migration and settlement of the Hawai'ian Islands took place.
5. **Explain** how the ancient Polynesians know that there were other lands in their region.

Apply your understanding

Using historical sources

6. **Name** the sorts of flora and fauna Polynesians brought with them on their voyages.
7. The scene in **SOURCE 3** illustrates the Raiatea islanders sailing their canoes from Raiatea in French Polynesia to Aotearoa (New Zealand). Use **SOURCE 2** to **develop** a map of a possible route for this journey.
8. **Evaluate** what maritime knowledge assisted the Polynesian explorers.
9. Given that charts made from sticks and shells such as in **SOURCE 1** were handed down from generation to generation, **determine** what this suggests about the connection between Polynesian islands.
10. **Summarise** what **SOURCE 2** and the information in the lesson suggest about the navigation and seafaring skills of the early Polynesians.

LESSON
11.4 What happened on Rapa Nui?

LEARNING INTENTION

By the end of this lesson you should be able to explain the achievements of the Rapanui. You should also be able to compare the impact on the island of Rapa Nui with modern climate change, and describe the impacts of overusing the land.

TUNE IN

The mo'ai demonstrate a form of ancestor worship, recognising great figures in the past.

SOURCE 1 The mo'ai are enormous carved statues.



1. Consider whether you know any stories from your ancestors which you think are worth memorialising in the same way.
2. Brainstorm some different ways you could achieve this and compare your ideas to others in the class.

11.4.1 In the middle of the ocean

Rapa Nui, Easter Island and Te Pito o te Henua are all names for the tiny island 11 000 kilometres east of Australia and 3600 kilometres west of Chile. It is one of the most remote islands in the world. Legend states that the bold Polynesian chief Hotu Matu'a led his people to the island over 1300 years ago and they named their island Te Pito o te Henua, which has been romantically translated as the 'Navel of the world'; a more accurate translation would be 'the end of land', which is an appropriate title for one of the world's most remote islands.

The Polynesian name Rapa Nui (Big Rapa) came later from a visiting Otaheitian (modern Tahiti) who noticed the resemblance of this island to one of Otaheite islands, Rapa Iti (Small Rapa) and named it accordingly. The European name, Easter Island, derives from the first recorded European contact with the island. A Dutch navigator, Jacob Roggeveen, arrived on Easter Sunday, 1722, and thought it a fitting name.

11.4.2 The mo'ai

Rapa Nui's isolation fostered a distinctive cultural and religious phenomenon: the sculpture and movement of stone statues known as mo'ai. Between c. 1000 and 1600, hundreds of statues were created and transported from the stone quarries to ceremonial platforms known as *ahu*. While there are more than 900 statues on the island today, they are unfortunately carved from scoria — hardened volcanic ash — a relatively brittle material which is quickly degrading. The conservation of the mo'ai is a key concern for their curators.

Ancestor worship

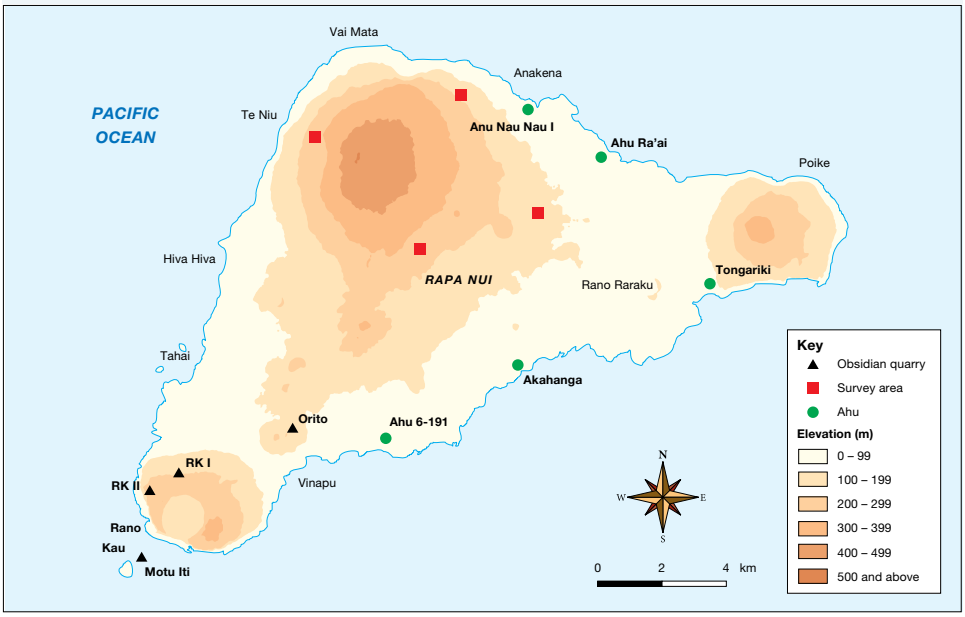
Theories abound about the reason for the mo'ai, but most researchers agree that the construction of the mo'ai was a form of ancestor worship, the stern expressions representing previous *ariki* (chiefs). The design of the mo'ai is not uniform; some mo'ai have topknots of different coloured stone. Some are standing, while others are kneeling. The fact that no two mo'ai are alike adds weight to the conclusion that these statues represent actual historical figures sacred to the people of Rapa Nui. Modern reconstructions and movement of mo'ai has proven that basic tools and skills were all that was required to sculpt and transport these huge statues.

Moving the mo'ai

The mo'ai were carved with *toki* (basalt chisels) from the volcanic rock that was available at the quarry known as Rano Raraku and transported where possible to ceremonial platforms known as *ahu*. **SOURCE 3** depicts one such platform, Ahu Tongariki.

int-8992

SOURCE 2 A map of Rapa Nui showing the location of obsidian quarries, pedestrian survey areas, and ritual centers (ahu)



Source: Based on information from Stevenson, C. M., Ladefoged, T. N., Haoa, S., Chadwick, O., & Puleston, C. (2013). Prehistoric Obsidian Exchange on Rapa Nui. The Journal of Island and Coastal Archaeology, 8(1), 108–121. Map redrawn by Spatial Vision.

Many mo'ai did not make it to their intended locations and instead lie seemingly abandoned at random sites. The reason for this could be simple — they were simply too heavy to move. While the largest mo'ai at Ahu Tongariki weighs an impressive 86 tonnes, this platform is only one kilometre from the quarry. However, other massive mo'ai were moved impressive distances and researchers have concluded that a number of approaches could have made this possible.

Legend claims that the mo'ai simply walked to their places — modern archaeologists have shown that by rocking statues to one side and rhythmically pulling them with ropes, they can be 'walked' across the land. Another method would have been to roll the mo'ai to the ahu using logs as wheels. All of these techniques had significant impact on the environment. When Captain James Cook visited the island in 1774, he described a landscape that had no trees above three metres tall.

SOURCE 3 Ahu Tongariki: the largest platform of mo'ai. Most statues stand with their back to the sea, protecting the islanders while turning their back on the spirit world.



11.4.3 Diminishing population

The collapse of the Rapa Nui civilisation is one which causes a great deal of debate between historians. The island is covered with examples of culture and heritage, and evidence suggests that the indigenous people — the Rapanui — had a far greater population in the centuries before Roggeveen arrived to find around 2000 inhabitants. Archaeologists suggest that at its height there were as many as 15 000 people on the 163 square kilometres of land that is Rapa Nui. This society was relatively advanced, it had a clear political structure, it was culturally sophisticated to the point that it had the only Polynesian writing system known to historians — rongorongo — as well as the engineering ability to construct and move the impressive mo'ai that met Roggeveen's ship in 1722.

However, it is unclear what caused this downfall. There are four major theories:

SOURCE 4 An excavated mo'ai showing how much of the statue was buried underground



Stripping the land bare

This theory suggests that in order to mine, carve and move the mo'ai the Rapanui had to strip the island of its trees. These enormous statues might have been rolled on the cut trunks of the sub-tropical palm trees of the island, a practice which continued until there were no trees left. The trees might also have been used for shelter, boat-building or other purposes as well.

Polynesian rats

Another suggestion is that the Rapanui brought rats with them when they settled the island. With no natural predator, the rats multiplied quickly and disrupted the island's ecosystem, quickly leading to deforestation.

European invaders

More recent theories suggest that the Rapanui were still thriving when Roggeveen arrived and that, similar to other indigenous populations, they were severely impacted by the arrival of foreign diseases, exploitation and conflict.

Conflict between the people

Another suggestion is that there was a great deal of conflict between the people of Rapa Nui prior to European arrival. Not only are there oral stories of fighting, there are also fragments of **obsidian** tools, called by the natives mata'a, which were originally interpreted as weapons. More recent studies have indicated that these would make poor weapons and were more likely to be from tools for farming, carving or creating the mo'ai.

obsidian a type of rock that is almost like glass

Whatever the reason for the decline in population and the deforestation of the island, it meant that there was no timber to create ships that would allow escape. Trapped on Rapa Nui, the lack of resources nearly led to the death of the people and their culture. Today, Rapa Nui is a World Heritage Site and most of its more than 5000 inhabitants are actively engaged in protecting its legacy.

DID YOU KNOW?

The 'Easter Island Heads', or mo'ai, actually have bodies as well. Some of these are on display on the ahu they rest on, but others are buried underground and must be excavated to be studied.

11.4 SKILL ACTIVITY: Using historical sources

1. All across Rapa Nui there are fragments of small, sharp obsidian tools. These are called mata'a and have been given two suggested origins:
   - tips of spears and other weapons used to wage war against other people
   - pieces of many different types of tools used for varied purposes, such as agriculture or the carving of the mo'ai.

   Develop an argument for (supporting) each side suggesting why it is the correct understanding of these tools.
2. It's been suggested that Rapanuians turned to cannibalism (eating other humans) prior to European arrival, which supports the idea that these mata'a were from weapons.

   Alternatively, a study of 423 mata'a found that 'when you look at the shape of these things, they just don't look like weapons at all.'

   Propose your own conclusions about the mata'a and **justify** them with the evidence here or your own research.

11.4 Exercise

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11.4 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 5	4, 5, 6, 8	7, 9, 10

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Check your understanding

1. When he arrived at Rapa Nui, Captain Cook did not notice any trees above three metres tall. True or false?
2. **Identify** three main achievements of Polynesian culture that occurred on the island of Rapa Nui.
   - A. The ability to govern a large, diverse population for an extended period
   - B. The ability to cure the sick
   - C. The ability to communicate via a writing system
   - D. The ability to produce large murals
   - E. The ability to construct and move the mo'ai
3. Fill in the spaces to complete the sentence. The main reasons provided to **explain** the existence of the mo'ai are a form of _____ worship and statues of living people _____to the islanders.
4. **Discuss** why most historians have concluded that the mo'ai were symbols of ancestor worship.
5. **Recall** why Rapa Nui was given the European name Easter Island.

Apply your understanding

Using historical sources

6. Using the sources and the information provided, **identify** how the mo'ai could be transported to the coastline from the scoria quarry.
7. **Explain**, using **SOURCE 4** as your evidence, the impact of over-logging on the island of Rapa Nui.

Communicating

8. Rapa Nui represents a striking lesson about environmental management. Using their experience as evidence, **create** a letter that you could send to your Member of Parliament warning of the dangers of poor resource management.
9. **Explain** what archaeologists have uncovered which suggests that 'violent internal conflict' took place on Easter Island.
10. The island of Rapa Nui once had 15 000 inhabitants, but European records suggest that there were only 2000 by the time explorers arrived. **Propose** what you think is the most convincing theory for this decline.

LESSON
11.5 What was life like in Hawai'i?

LEARNING INTENTION

By the end of this lesson you should be able to explain the connection to and understanding of the land and sea which the Hawai'ians had. Also, you should be able to describe the relationships between the islands and reflect on roles and positions in Hawai'ian society.

TUNE IN

The *Hōkūle'a* is based on ancient *wa'a kaulua*, double-hulled canoes designed to sail the open seas.

SOURCE 1 The *Hōkūle'a* arriving in Honolulu, Hawaii after sailing from Pape'ete, Tahiti in 1976.



Brainstorm a list of questions you would research to learn more about this vessel and how it was made.

Discuss whether you would be willing to go on a long journey in this vessel.

11.5.1 Settlement

Hawai'i is a volcanic **archipelago** at the north of the Polynesian Triangle. There are many theories as to how Polynesian peoples found and settled this remote and unique space. One is that the first waka arrived around 900–1200 CE from the Marquesas; later, around 1300 CE, people from Otaheite (Tahiti) travelled along the same route and conquered the original inhabitants. These dates have been debated for several years and will likely be revised as new evidence is found.

11.5.2 *The Hōkūle'a*

In 1976 a group of modern Polynesian seafarers recreated the past when they embarked on the 10 000 kilometre sea voyage between Hawai'i and Tahiti aboard a reconstruction of a thousand-year-old Polynesian *wa'a kaulua* (double-hulled canoe) named the *Hōkūle'a*. Although these sailors had access to more modern technology than the ancient settlers, the focus was on recreating the conditions of migration to Hawai'i from Tahiti.

archipelago an area that contains a chain or group of islands scattered in lakes, rivers, or the ocean

Modern Hawai'ians had, by this time, lost the skills needed to navigate without Western instruments. They employed a Micronesian navigator to teach them the skills which had been passed down from their ancestors long ago and kept alive in places where these traditions continued to be practised.

Covering a distance greater than that between Europe and North America, this event supported the theory that the epic voyages across the Pacific were intentional and marked the high point in seafaring achievements of the ancient world.

The name of the ship means 'star of gladness' and refers to a guiding star used by Polynesian navigators to help them find their way.

11.5.3 The Kānaka Maoli

By the time that European explorer Captain James Cook arrived in 1778, all of the islands of Hawai'i were established as a kingdom, with an *ali'i nui* (supreme ruler), *ali'i* (nobles) and *kahuna* (high priest) just below him and the *maka'āinana* (commoners) performing the common tasks of the land. These people were set in their social position through a rigid **caste** system and referred to themselves as the Kānaka Maoli, or 'people of the land'. This hierarchy meant that some people had very few rights or power over their lifestyle, and in particular the *kauwā* (slaves) had no say in how they lived their lives. It's unclear how this particular caste came about, but one theory is that they were war captives. Since status was passed down from parents to children, some *kauwā* were born into slavery.

caste a social status which is set by birth and passed down from your parents and family members.

DID YOU KNOW?

It's possible that Captain Cook wasn't the first explorer to find the islands after the Polynesians. Maps and accounts from the 1500s suggest that Juan Gaetano, a Spanish explorer, arrived there long before Cook was born. On top of that, the island's inhabitants had some metal tools even though they didn't know how to mine or shape the material themselves — perhaps they traded these with people who came before the English.

11.5.4 Farming and trade

It's unsurprising that the sea played a huge role in the lives of the people of Hawai'i. While there are hundreds of tiny islands in the volcanic archipelago, much of it was unsuitable for farming and there wasn't enough to support the needs of the people living there. The knowledge that Hawai'ians had of the ocean was astounding, and the tools they used were very advanced for the time. One-piece fish-hooks, **trolling lures** and fish farms were all used by these Polynesians as they experimented and grew beyond many of their neighbours in skill.

SOURCE 2 Today, modern Hawai'ians are reviving fish ponds to bolster the populations' food source in an environmentally friendly way.



Hawai'ians were among the first in the Pacific to specifically farm fish from a carefully constructed area designed to make harvesting easier. This guaranteed them food, rather than relying on the wind and weather to be good enough for sailing. They understood how to bait fish in by creating an environment full of food to attract them, then they would put slotted gates at the openings, trapping them inside. This meant that the fish populations would continue to grow and that they could remove any predators from the area.

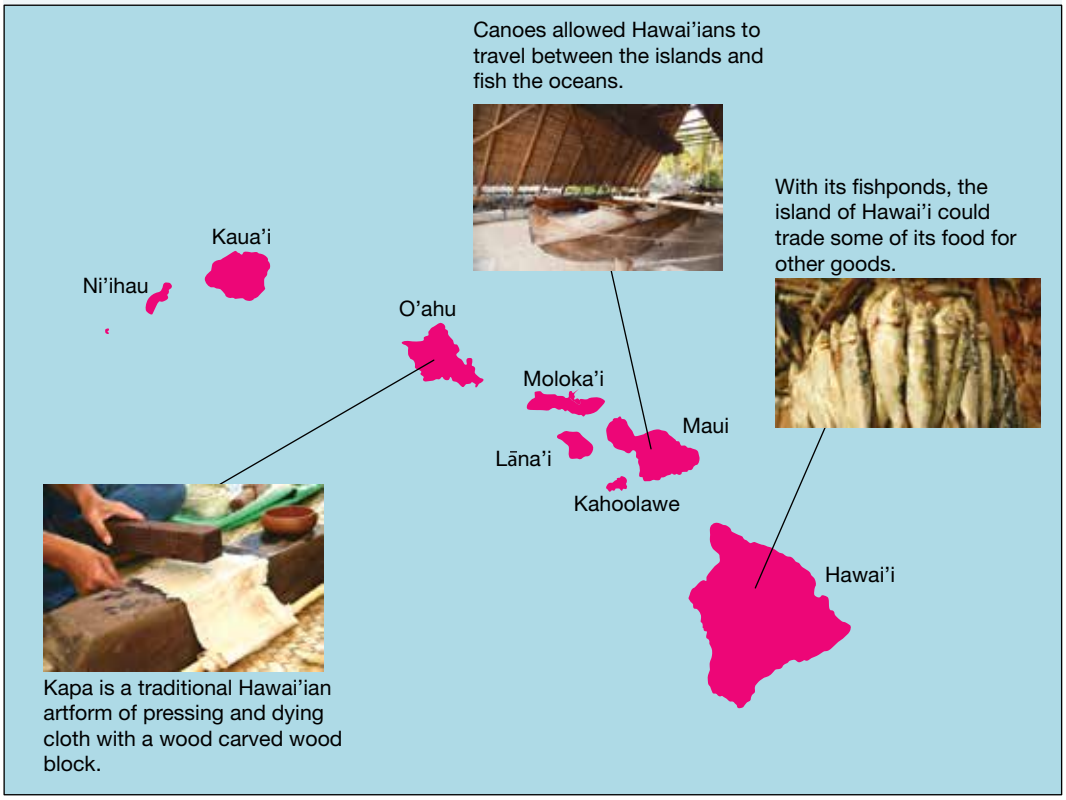
trolling lure a hook designed to trail behind a boat or canoe and mimic dying, injured or fast-moving prey

Fish wasn't the only part of the Hawai'ian diet, though. The *ali'i* were the managers of the land itself and set the *maka'āinana* to work it and farm food and materials for the whole island to use. It was not believed that anyone 'owned' the land, but rather that it belonged to the gods and that the *ali'i* were just custodians.

Inter-island relations

Prior to the 1800s, there were many separate communities in Hawai'i. Each island had its own *ali'i nui* (supreme ruler) who controlled the land and the people on it. There was a great deal of conflict between these tribes, but more often there was trade and collaboration. Families became experts in their crafts and produced high-quality goods to share with each other. Quickly, islands became specialised in certain goods that they wanted to trade.

SOURCE 3 A map of the Hawai'ian Islands showing what each community traded with others.



The Hawai'ian islands also interacted in different ways. They loved athletic competitions and champions would often be sent to represent their island — from surfing, swimming, wrestling, boxing and running, they would try to prove themselves the best for their island. One sport involved throwing spears at other contestants, so there was a lot at stake for the champions.

11.5 SKILL ACTIVITY: Questioning and researching, Historical perspectives and interpretations

Juan Gaetano may have come to Hawai'i much earlier than the English. However, despite evidence supporting his visit, many historians are hesitant to recognise him as the first European to visit.

1. **Conduct** some basic research to learn more about Juan Gaetano and the theory of his visit to Hawai'i.
2. **Explain** why you think historians don't believe Gaetano visited first.
3. **Propose** your own arguments to support Gaetano's visit.
4. Until recently, much of United States and English history has been diligently collected and curated by people of English descent. To what extent do you think this influences the opinion that Cook (an Englishman) was the first outside contact with Hawai'i?
5. **Compare** this narrative with what you understand of Australia's history. What similarities, and what differences, do you notice?

11.5 Exercise

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11.5 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 3, 5	2, 4, 6, 8	7, 9, 10, 11, 12

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Check your understanding

1. Invaders followed the first Hawai'ian settlers from which other Polynesian region?
   - **A.** Otaheite
   - **B.** Aotearoa
   - **C.** Rapa Nui
   - **D.** Spain
2. **Recall** the Hawai'ian term for the 'supreme ruler' who controlled an island.
3. The voyage shown in **SOURCE 1** shows the ship named ***Wa'a kaulua*** / ***Hōkūle'a*** / ***maka'āinana*** arriving in **Honolulu** / **Kahului** / **Hilo**. This trip took **21** / **32** / **45** days and was done **with** / **without** modern equipment.
4. **Explain** why modern Hawai'ians might start using fish ponds again.
5. **a.** Put the following events in order (earliest at the top) by numbering them 1–4 on the left.
   b. Assign each event a date based on the content in this lesson.
   _____ Captain James Cook arrives _____th century
   _____ First waka arrives in Hawai'i _____rd century
   _____ Invaders from Otaheite _____th century
   _____ Juan Gaetano may have visited the islands _____th century
6. **Explain** why the *Hōkūle'a* needed a navigator who was not of Hawai'ian heritage.

Apply your understanding

Communicating

7. What does Kānaka Maoli mean? **Explain** why they might have given themselves this name.
8. **Discuss** why islands would have sent champions to represent them in athletic competitions. What was gained from this practice?
9. Fish traps meant that Hawai'i had enough food to support its people. Do you believe that this practice was sustainable? **Justify** your response.
10. **Analyse** what evidence there is to support explorers meeting the Hawai'ian Polynesians before Captain Cook arrived in 1778.

Historical perspectives and interpretations

11. **Determine** how an event such as the voyage of the *Hōkūle'a* in 1976 provides important evidence for historians studying Polynesian expansion.
12. The *kauwā* (slaves) had no rights and could not move outside of their station. **Propose** why you think the people of Hawai'i wanted to have a caste like this.

LESSON
11.6 Who were the people of Aotearoa?

LEARNING INTENTION

By the end of this lesson you should be able to describe the community and conflict of the Māori. You should also be able to explain how Aotearoa was found and why this tribe was different to other Polynesians.

TUNE IN

As **SOURCE 1** shows, New Zealand is far further south than other Polynesian settlements.

SOURCE 1 Polynesian explorers had to travel a vast distance to reach Aotearoa.



1. What challenges do you think being this far south would pose to the people settling this area?
2. Consider what you know about how Polynesians lived and what might have to change if they wanted to stay in this new land.

11.6.1 The land of the long white cloud

Historians are not certain when and why the human settlement of New Zealand began. Archaeological evidence suggests that sometime between 800 and 1130 CE, a small group of Polynesian people, perhaps even a single family, sailed from the Kūki 'Āirani (the Cook Islands) to the coast of what would become Aotearoa.

Why?

There is not enough evidence to give a definite answer to the question of why the first settlers came to New Zealand. Some theories are:

- an escape from war or disease
- a search for land and resources because of island overpopulation
- a spirit of adventure developed through sophisticated skills of navigation
- a planned short voyage of exploration was blown off course.

Although none of these has been definitively proven, most historians agree that the voyage to New Zealand was intentional and carried out by careful planning and skilful exploration. In support of that theory, it is argued that a raft or canoe blown off course would not have had enough people or supplies to establish a long-term settlement.

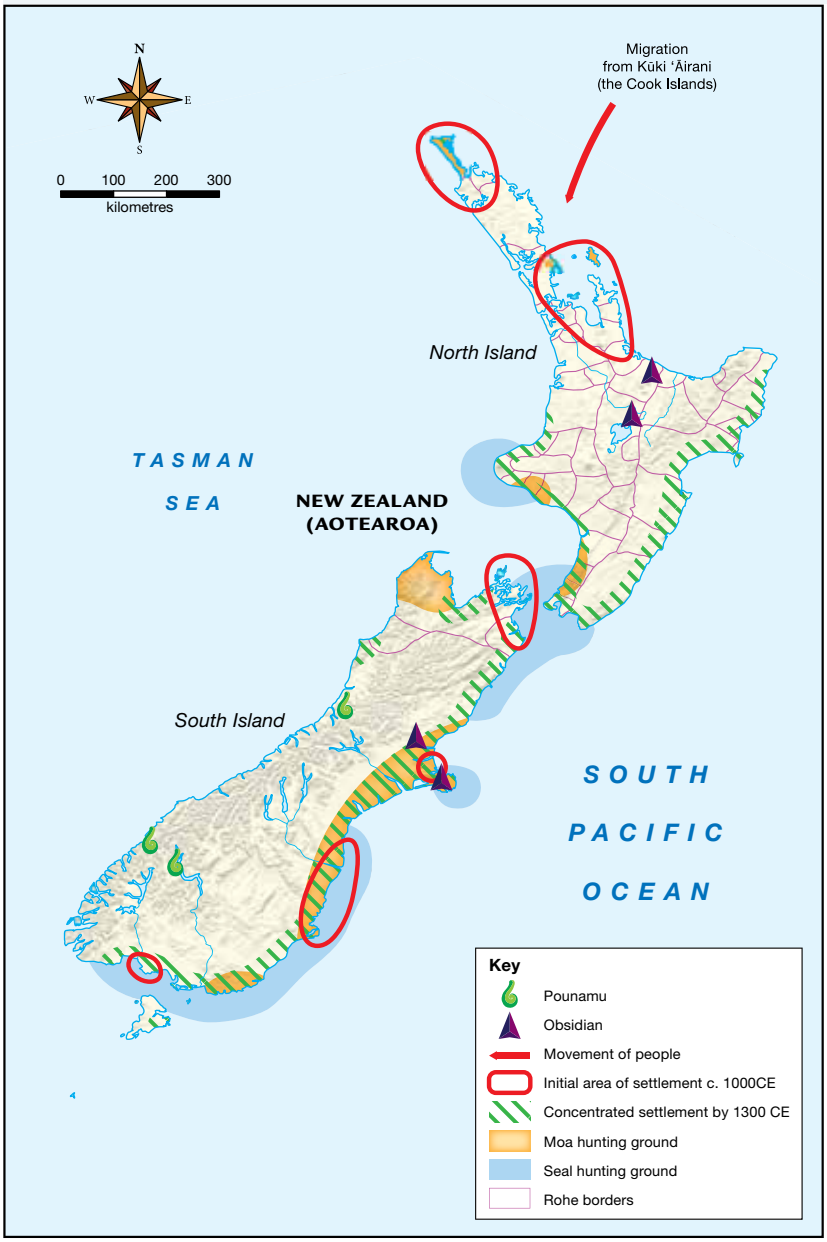
When?

Archaeological evidence indicates that the western Pacific region, including South-East Asia, New Guinea and Australia, was settled long before the islands of New Zealand. First Nations Australians arrived in Australia at least 50 000 years ago and the Polynesian islands were settled more than 3000 years ago. In contrast, New Zealand was first settled only about one thousand years ago.

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SOURCE 2 A map of New Zealand showing the areas of Māori settlement, hunting grounds of the moa and deposits of pounamu and obsidian. All of these aspects of the land would play an important role in the development of the Māori culture.



Source: Map drawn by Spatial Vision.

11.6.2 The geography of Aotearoa

The small coral **atolls** and volcanic outcrops of the tropical Pacific islands provided the Polynesian people with the opportunity to farm and fish for their food. Most Polynesian communities continued to live more from the sea than from the land. But in settling Aotearoa the Māori had to adapt to a new climate. They brought with them many of the plant and animal sources they needed to survive, but they also exploited the natural resources of the new land.

Aotearoa was the final frontier for the Polynesian explorers and became the largest Polynesian island home. In fact, the two main islands of New Zealand are larger than all the other islands of Polynesia combined. Because of the size of the population and the advanced technology available to them, we know much more about life in Aotearoa than about other cultures discussed in this topic.

Aotearoa presented a very different climate and natural environment. This new land was large and cold. It had heavy forests full of huge trees covering thick beds of ferns that grew right down to the coastline. More than 500 million years of volcanic activity formed the great central mountain ranges, a strange and wonderful landscape covered in ice and snow. A string of volcanoes stretching from White Island in the Bay of Plenty to the heart of the North Island created **thermal** springs, **geysers** and hot mud pools.

New Zealand had been part of the great southern continent called Gondwana (formed when the original continent of Pangaea broke apart) millions of years before the arrival of the Polynesians. Gondwana also included Australia and Antarctica. Before the age of mammals began, the great landmasses drifted away from each other and became separated by vast seas. The seas around New Zealand became rough and were swept by powerful ocean currents.

atoll a circular coral island often enclosing a lagoon

thermal relating to heat or temperature

geyser a hot spring sending a jet of steam and boiling water into the air

SOURCE 3 An aerial shot of Whakaari, or White Island, and its active volcano. The island, uninhabited today, was a favourite hunting ground for Māori clans. In 2019, an unexpected eruption caught tourists on the island by surprise and led to 22 deaths.



DISCUSS

The impact of humans on Aotearoa has been one ecological disaster after another. Discuss as a class.

11.6.3 The Māori

The first people of New Zealand are known as the Māori, meaning 'original people'. By the time of Captain Cook's arrival in 1769, the Māori population of Aotearoa is believed to have been approximately 150 000. The Māori named their land *Aotearoa*, meaning 'the land of the long white cloud'. Māori legend claimed the first explorer to reach Aotearoa was the navigator Kupe. He was accompanied by his wife, who called out *he ao*, meaning 'cloud', when she first sighted the North Island. It is said Kupe used the stars to guide him across the Pacific to find the long white cloud of Aotearoa.

A person's status or importance in society was of great significance to all Polynesian cultures. **Anthropologists** describe the structure of the Polynesian societies as being hierarchical, meaning a structure in which different groups of people have a particular rank or position of importance. A man's rank or importance within the *iwi*, or tribe, determined how much political power he could have.

SOURCE 4 Many paintings of early European arrivals to Polynesia, such as *View of Huaheine* by John Clevely the Younger, c. 1788, show a very romantic view of those early encounters.



Māori development in Aotearoa

From the Polynesian arrival in Aotearoa to the modern day, historians divide the history of the Māori into four periods:

Nga kakano

The East Polynesian or Archaic period, also referred to as *Nga kakano*, meaning 'the seeds', spanned from about 800 to 1200 CE. This is the time of the first Polynesian settlers and their immediate descendants. The people of this period are also known as the Moa hunters. It was a time of discovery and adaptation to the new land. The farming way of life did not immediately develop in Aotearoa because the Moa hunters survived well on a hunter–gatherer lifestyle.

anthropologist a person who studies the culture and beliefs of different groups of people

Te tipunga

The *Te tipunga* period, meaning 'the growth', began on the North Island during the thirteenth century and had spread across Aotearoa by the sixteenth century. It was the era of expansion when the Māori discovered and settled the more remote areas of their land and began developing their unique cultural traditions, beliefs and art.

Te puawaitanga

The Classical Māori period dated from the sixteenth to the nineteenth century. During this time, the earliest European explorers and settlers of Aotearoa recorded the features of Māori classical society and culture. This period is known as *Te puawaitanga*, or 'the flowering', because it is regarded as the time when the most beautiful Māori art was created.

Te huringa

The final period from the nineteenth century to the present is known as *Te huringa*, or the 'turning point', because it is the time of increased Māori contact with Europeans and the introduction of the modern world into Māori culture.

11.6.4 Carving out a history

Traditional Māori carving, known as *whakairo*, is famous for its detail and beauty, and took great skill to create. For this reason, the Māori held the talent of the wood carver in very high regard. The earliest carving tools were made from seashells and stone, such as obsidian, that was sharpened over many months in preparation for carving. The thick forests of Aotearoa provided a plentiful supply of high-quality timber for the Māori craftsmen.

SOURCE 5 A modern Māori whakairo craftsman



SOURCE 6 An early twentieth-century image of a Māori elder next to a detailed carving



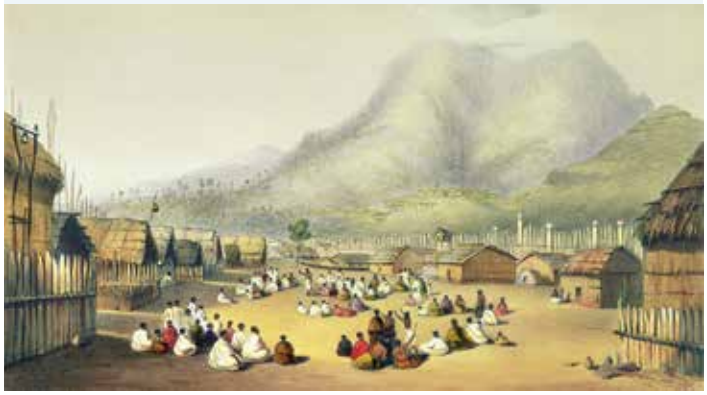
Māori carvings expressed religious beliefs, myths and images of gods. The finest examples of Māori art and carving were created for the whare runanga, because this was the cultural centre of the village. Supporting posts were often carved with images of the seven canoes ancestors, and interior wall panels featured ancestral figures. Bows of canoes also often displayed ornately carved and ferocious faces.

11.6.5 The community

The general term to express the many groups and levels of traditional Māori society is *tangata whenua*, meaning the 'people of the land'.

The *whanau* was the family unit at the core of Māori society. The family and the other members of the *hapu*, or clan group, decided where individuals lived, who they married, who they were friends with and who they fought. Village communities ranged in size from just a few families to over 500 people.

SOURCE 7 *Tu Kaitote, the Pa of Te Whero Whero*, by George Angas. Painted c. 1845, this image shows a community meeting being held on the marae.



Land and most of the property was communally owned. Absolute ownership of land was not common. In fact different families or tribal groups could have different rights to the same piece of land. For example, one family might have the right to catch birds in the forest while another might be allowed to fish in the nearby water or grow crops in the same area.

The village

On occasions when community meetings were held the people gathered in the open courtyard, called the *marae*, in front of the more formal meeting houses, known as the *wharenui*. The traditional Māori *pa*, or village, was designed around the marae because it was regarded as the spiritual centre of the village. It was on the marae that celebrations were held, the dead were mourned, guests were greeted and important matters were discussed.

The pa were often built on ridges and locations that could be easily defended. Rivers and lakes were also often used to provide natural barriers against enemy attack. Defences were completed by trenches, earth ramparts and palisades built from large sharpened stakes that were lashed together for strength.

The Māori were very successful farmers. Agriculture led to the construction of larger and more permanent village settlements. Village life was organised around food gathering and growing and warfare.

11.6.6 Trade

In Aotearoa, constant warfare did not stop a network of trade developing between Māori tribes. Trade was important because food sources and natural resources were not evenly spread across the islands. Greenstone called **pounamu** was a type of jade found only in three small regions of the South Island. The South Island tribes mined the rich pounamu deposits and then shipped the treasured stone by canoe to the coastal villages of the North Island. Pounamu was the most valuable trade item, desired both for beauty and hardness. It was used to make weapons and ornaments. The stone was so important to Māori culture that the entire South Island was named *Te Wai Pounamu*, meaning 'place of the pounamu'. According to Māori belief, the pounamu came from the earth and was under the guardianship of the god Poutini.

pounamu A general term for several types of hard green stone found in New Zealand which were highly valued by the Māori

11.6 SKILL ACTIVITY: Historical perspectives and interpretations

Māori culture has a strong presence in New Zealand today. Although steps are being taken to recognise the impact of First Nations Australians on modern culture and of European settlement on their way of life, there is still a long way to go.

1. **Explain** why you think New Zealand has been more effective in integrating Māori customs and culture into modern life.
2. **Propose** the steps Australia could take to recognise and integrate First Nations heritage more fully. Steps such as acknowledgement of country and official recognitions are excellent, but are very ceremonial. **Consider** what could be done more broadly in everyday life.

11.6 Exercise

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11.6 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 5, 6, 8	7, 9, 10

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Check your understanding

1. **Identify** what natural phenomena assisted the early navigators of the Pacific Ocean. **Select** all that apply.
   - **A.** Knowledge of the constellations
   - **B.** The behaviour of fish and whales
   - **C.** Flight or migration patterns of birds
   - **D.** The weather
2. The third period of Māori history is called 'the flowering'. True or false?
3. **State** why it is considered unlikely that the first voyages to New Zealand were accidental.
4. **Define** the following terms.

Māori	
He ao	
Iwi	
Te tpiunga	

5. In your own words, **explain** how New Zealand came to be known as the 'land of the long white cloud'.

Apply your understanding

Using historical sources

6. Using **SOURCE 7**, **identify** natural and man-made defences that the Māori exploited or made to protect their village.
7. **Examine SOURCE 2**. Decide which period of Māori history it is depicting: Nga kakano, Te tipunga or Te puawaitanga. **Justify** your answer.
8. **Clarify** why the concentrated settlements are mainly in coastal regions.

Communicating

9. **Compare** and **contrast** the discovery and settlement of Aotearoa to the experience on Rapa Nui.
10. Using the information in this lesson, **create** a timeline reflecting the four periods of Māori history. Label each period with its key features, including the arrival of Captain Cook in New Zealand.

LESSON
11.7 Were customs and culture the same everywhere?

LEARNING INTENTION

By the end of this lesson you should be able to recognise the artistic achievements of Polynesia. You should also be able to compare the similarities and differences between several Polynesian cultures and consider how modern art helps with self-expression.

TUNE IN

Spiritual belief helps people explain the world around them and give reasons to the way things are.

Pretending you have no scientific understanding, what explanations might you give for:

- rain
- sunrise and sunset
- warmth
- where language comes from.

SOURCE 1 A geyser in Rotorua, New Zealand. This phenomenon can be explained through scientific study, but in the past it would have been understood to be a manifestation of mana.



11.7.1 Tapu and mana

Polynesian life was guided by a sacred law known as tapu (in Hawai'i, this was kapu), meaning taboo. Those people who broke tapu were doomed to meet with misfortune, sickness or death. In Hawai'i, for instance, touching the shadow of the ali'i was a punishable offence as it meant that his mana, a form of spiritual energy and life, was being stolen. In Aotearoa, only the tohunga, or spiritual leader, could declare or release tapu.

Mana, or spiritual energy, was also used as a way to explain the world and the curious things Polynesians found along their journey. They believed it was present in all things, both living and non-living. For instance, the Māori believed that their gods brought fire to the shores of the islands which manifested as volcanoes, hot springs and bubbling pools of mud as in Whakarewarewa today.

The gods, or *atua*, were the sources of mana and tapu, and only through the protection given by the atua could humans be saved from evil. Objects that were declared tapu had to be given the highest respect. Forests and fishing grounds could be tapu during particular seasons of the year; burial grounds were tapu; and the possessions of a dead person were tapu until cleansed by a tohunga.

11.7.2 The importance of art

Each Polynesian settlement was cut off from the others, so unique and varied forms of art and expressions of culture and heritage grew independent of each other. There are still links between these cultures as the roots they grew from are intertwined, but every society expressed themselves in a new way.

Art was a way of expressing status and tribal differences. Art became a part of everyday life; even the simple shape of a fishhook could be made into an object of great beauty when it was polished and crafted with skill. Every prized possession was decorated; canoes and paddles, musical instruments and hair combs, storehouses and gateways all displayed the fine artwork of the Māori people.

SOURCE 2 A petroglyph found on Rapa Nui



The Kānaka Maoli of Hawai'i developed the hula, a mixture of dance and chanting which was created after they arrived at their destination. **Petroglyphs** have also been found there and on a few other islands across the Pacific.

The Māori people of Aotearoa expressed their culture and beliefs through a range of arts and customs. The broad range of materials available provided a rich variety for artists and craftsmen to work with.

petroglyph a form of art where rocks are carved with images

11.7.3 Tiki

The art of wood-carving is central to many Polynesian cultures. Tiki is a term used by the Māori in the past to describe a large humanoid statue carved of wood. Its name comes from their story of the first man, Tiki, from which everyone is descended.

Variations on this form of art can be found all over Polynesia, from the ti'i in Otaheite (Tahiti) to the ki'i in Hawai'i. Although the Rapanui don't have an example of this particular art, it is very similar in some ways to the mo'ai which decorate their island. The carved tiki figures are found across many Polynesian cultures; in fact, *tiki* is also a general Polynesian term meaning 'carving'.

The most valuable Māori carving was the hei-tiki (see **SOURCE 3**). Archaeologists believe that in classical Māori culture the hei-tiki was worn only by men and women of the highest rank on ceremonial occasions, often hanging from a flax cord around the neck. The hei-tiki represented a human figure, neither male nor female, with the head tilted to one side and usually shown with hands placed on the hips. Many hei-tiki had their own personal name and traditional histories that could be traced back through generations of the one family.

The traditional meaning and origins of the hei-tiki are not completely understood by archaeologists. Some suggest the figure comes from Māori mythology and the story of Tiki, the first man created by the atua Tane.

SOURCE 3 A traditional hei-tiki ornament, showing the head tilted to one side and with hands on hips.



11.7.4 Tatau

During his eighteenth century journeys of exploration, Captain James Cook wrote about the Polynesian art of skin decoration known as *tatau.* The British called it 'tattoo'. Archaeologists believe that the Lapita people, ancestors of the Polynesians, were tattooed over 3500 years ago and carried the tradition with them on their great journeys of Pacific migration.

In Polynesia tatau came to have great cultural and spiritual importance. Tatau gave Polynesians status because it signalled strength and power. The most elaborate tatau were reserved for the chiefs and warriors. A straight blade or bone chisel was used to inject a sooty pigment into the skin, leaving a grooved scar with the appearance of a carving. Māori tattooists were regarded as master craftsmen who took many years to perfect their skills. The colonising British outlawed the practice because it was considered the devil's art, but it saw a revival in the twentieth century.

SOURCE 4 This early European depiction of a Māori chief shows the intricately carved comb and jewellery that reflected social status. The tattooing is also visible.



Ta moko

The practice of classical Māori tattooing is called *ta moko*. In traditional Māori society men were marked on the face, buttocks and thighs. Facial tattoo patterns were of greater significance to the identity of a person than their natural facial features. Women were tattooed on the face and breasts. The painful process was an initiation and rite of passage taking many years to complete.

Tatau represented culture and belief to the Polynesian people. Moko showed Māori rank, **genealogy** and tribal history. Moko designs were a personal statement of Māori identity that could never be lost or stolen. Only death could destroy the moko.

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SOURCE 5 Captain James Cook's description of the Māori moko

The marks in general are spirals drawn with great nicety and even elegance. One side corresponds with the other. The marks on the body resemble foliage in old chased [engraved] ornaments, convolutions of **filigree** work, but in these they have such a luxury of forms that of a hundred which at first appeared exactly the same no two were formed alike on close examination.

genealogy the study of the past and present members of a family

filigree a type of delicate ornament made from fine threads of metal

DID YOU KNOW?

Legend says that tatau began when a young man called Mataora fell in love with a princess of the underworld called Niraweka. One day in a fit of rage Mataora struck Niraweka and she fled back to the underworld. He followed her and when he finally arrived at the realm of the underworld his face paint was messed and dirty from the voyage.

He begged forgiveness for his wrongdoing but was mocked for his unkempt appearance. However, he was forgiven and Niraweka's father offered to teach Mataora the art of ta moko, which he then brought back to the human world.

11.7 SKILL ACTIVITY: Communicating

Art today doesn't always have a spiritual significance, but it is always an expression of culture. Just like the people of Polynesia, we express ourselves through architecture, song, body modification and other aesthetic choices.

1. **Identify** how we modify our bodies today for the purposes of beauty.
2. What self-expression comes from altering your body? **Explain** why you think people are so keen to change things about themselves.
3. **Examine** the room or building you're in. Someone designed it to be this way and give a mood, message or style. What is that, and what makes you think this?
4. Polynesian culture is integrated into many modern cultures. In 2020, Nanaia Mahuta was elected to be New Zealand's Foreign Minister. She has traditional ta moko face tattoos. Why do you think so few Australian politicians have tattoos?



11.7 Exercise

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11.7 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 3, 4	2, 5, 9	6, 7, 8, 10

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Check your understanding

1. What did the whakairo express? **Select** all that apply.
   - A. Religious beliefs
   - B. Myths
   - C. Animals
   - D. Images of gods
   - E. Family members
2. Archaeologists believe that in classical Māori culture the _____ was worn only by people of the highest rank.
3. **Determine** whether each of the following statements is true or false.
   - a. Fabric, clothing and ornaments helped Māori society differentiate status.
   - b. Men wore combs in their hair and earrings of shark teeth.
4. **State** three reasons why art was valued in Māori culture.
5. **Explain** how the Māori exploited their natural environment to create whakairo.

Apply your understanding

Using historical sources

6. **Explain** why the hei-tiki was only worn by Māori of high rank.
7. **Examine SOURCES 2** and **3**. What conclusions can you make about Māori craftsmanship?
8. Using **SOURCE 5** as evidence, **interpret** Captain Cook's attitude towards ta moko.
9. **Identify** four features in **SOURCE 4** that convey the status of this Māori ariki (chief).
10. Using the sources in this lesson, **summarise** how dress and ornament were used to display position in Māori society.

LESSON
11.8 What happened when Polynesians settled and stayed?

LEARNING INTENTION

By the end of this lesson you should be able to consider the impact that humans can have on local plant and animal life and reflect on why people come into conflict. You should also be able to describe the lifestyle of the Māori and the way they built their villages

TUNE IN

The takahe (a flightless bird) was hunted almost to extinction. Today, many other species are facing the same fate due to climate change, impacts on their environment and human actions.

Brainstorm some ways that we can reduce our impact on at-risk species. You might like to focus on one particular group, such as:

- gorillas
- tigers
- elephants
- turtles
- rhinos.

SOURCE 1 The takahe



11.8.1 Living with a new land

While all Polynesian cultures have ties to each other and share a common ancestry, there are clear differences between them. From clothing to food, language and art, every Polynesian culture is unique. Given the amount of time between the settlement of Hawai'i, Rapa Nui and Aotearoa, followed by the amount those cultures grew after they arrived, it's not surprising that there would be some key differences.

We have the most detailed knowledge of the arrival of the Māori, so they're a good focus for this lesson.

At first, the Māori continued to live according to their ancient Polynesian customs and traditions, despite the changed climate and landscape. The Great Fleet had brought both people and food plants such as taro, yam, gourd and kumara to New Zealand. The first settlers also transported from Polynesia the *kiore*, which was a species of rat, and a dog called the *kuri*.

Settlements spread along the coastal regions of both islands and the Māori began to adapt. The introduced tropical plants were cultivated in the North Island, and the Māori learned to hunt and fish in their new land. The roots of the native fern and the New Zealand cabbage tree were eaten, and fibre from the native flax plant was used to make cloth to replace the bark cloth, called *tapa*, produced in the other Polynesian societies.

11.8.2 Rāhui

Wherever they went, Polynesian settlers had to adjust their lifestyle to the new environment they found themselves in. Failure to do this led to overworking the land and using up its resources. Although there are a few different terms, a rāhui was sometimes practiced throughout Polynesian cultures and is still used in some circumstances today. Rāhui translates to 'prohibition' and is tied to the concept of tapu.

The aim is to ensure that resources are not over-used and that human impact on the environment doesn't damage it beyond the point of return. For example, rahui could be imposed over an area to prevent the gathering of food while the land recovered. It helped to conserve limited food supplies and other natural resources. All Māori tribes accepted the principles of rahui.

Unfortunately, rahui came too late for some elements of New Zealand's environment. The introduction of dogs and cats meant that the habitats of flightless birds like the takahe (see **SOURCE 1**) were destroyed, and this alongside over-hunting meant that they disappeared. It wasn't until 1948 that these unique birds were rediscovered deep in the mountains.

The moa was another flightless bird which was hunted to extinction. It became an abundant and important food source, with both the meat of the bird as well as its large eggs providing a lifeline for the Māori. The bones of the bird were used to make ornaments and fishhooks, and even the shells of the giant eggs were used to carry water. The meat of the moa could be preserved and became a valuable trading good.

DID YOU KNOW?

There are many examples of flightless birds around the world, including the emu, cassowary, kiwi and penguin, but the moa was unique — it had no wings. All other birds have some form of wing, even if it is a small stub of 'evolutionary leftovers'. But the moa simply had no appendages at all where wings would normally be.

11.8.3 The pa

The extinction of the giant moa threatened the survival of the Māori people. Fortunately, the Māori were not isolated on a small island like the people of Rapa Nui and still had access to timber for sailing vessels. Therefore, many tribes were forced to migrate when the moa was no longer able to provide a reliable source of food. Because of this migration north, the Māori population of the South Island declined.

Around the fifteenth century, larger permanent settlements began to be built. People had to turn to other sources of food such as shellfish and a fern root known as *aruhe*. Aruhe is an important source of carbohydrates and added much to the Māori diet. Indeed, it became a staple food even when taro or sweet potatoes were available. Despite being a difficult food to prepare, aruhe provided the stable crop production necessary for the growing Māori population.

Gardening replaced hunting as the main way of obtaining food. Competition for land increased and slaves were used to do much of the hard manual work. Due to these changes, Māori culture moved into what historians call the Classical period.

The *pa*, or fortified village, first emerged around the fifteenth century. The Māori lived in a *whare*, or house, within their fortified villages. They dug out the floors of the whare to keep the warmth in. The construction of the whare varied according to location and tribal tradition. The whare was commonly built with a framework of branches from the small *manuka* tree and then thickly thatched with the leaves of a large water plant called *raupo*.

There were many other aspects to the pa, as can be seen in **SOURCE 2**.

int-4106

SOURCE 2 A modern artist's impression of a Māori pa



- **A** Storage pits covered by low roofs, often used for storing vegetables
- **B** *Pataka* — storehouses built on platforms so rats and dogs could not steal the fish, meat, berries, and other food and goods. Weapons and other valuables were also kept in the pataka.
- **C** Shelters for canoes and cooking sites
- **D** *Whare runanga* — the meeting house was the focus of all cultural and tribal activities. It was a sacred building filled with symbolism. The house construction represents a man's body, with the first **rafter** being his extended arms stretching down to his fingers. The rafters following the arms represent the man's rib cage. A tekoteko carving is located at the front peak of each whare runanga. The tekoteko represents a protective tribal ancestor standing watch over the marae (courtyard). The ancestor's protective power is known as the mana.
- **E** The village water source was not usually located within the boundary of the wooden fence. Water was carried every day from the outside wells and rivers. Firewood was also collected from afar. A large area of countryside was needed to provide the tribe with food. Gardens of kumara (a type of sweet potato) were dug with long wooden sticks called ko.
- **F** *Whare whakairo* (literally translates to 'carved house') — the family home of the village rangatira. A large pit filled with hot rocks was located at the centre of the whare whakairo to keep the family warm at night.

rafter sloping timbers supporting the outer covering of a roof

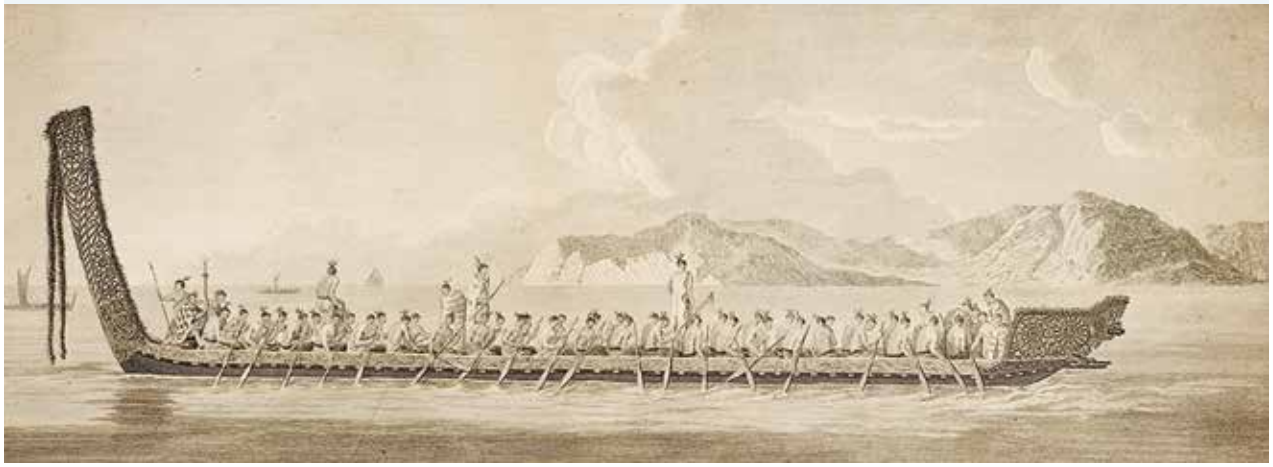
11.8.4 Warfare

Power in Polynesian societies could be inherited, but it could also be gained through war. From the earliest times, warfare and the position of the warrior was a very important part of Polynesian culture. The Polynesian rulers maintained their authority over their people through brutal punishment, ritual and battle.

The leaders of Tonga, Hawai'i and the tribes of Aotearoa were in command of highly trained and disciplined warriors who pledged and demonstrated their obedience through rituals and ceremony. Warfare could begin as revenge for insults or kidnapping, or it could consist of larger battles over land or resources. At times, Polynesian warfare could be large-scale invasions of groups of islands involving thousands of warriors.

Every Polynesian island community has an oral history telling of fierce conflict over land or political power. In Otaheite (Tahiti) and Aotearoa, the constant tribal warfare made it impossible for a single ruling royal family to take control. There was no concept of nationhood. Sometimes large iwi groups would temporarily join together under the control of an ariki, the supreme chief, to conduct larger scale warfare, hunting parties or trade.

SOURCE 3 The Māori war canoe was up to 40 metres long and could carry dozens of warriors. It was formed from a large hollowed-out tree trunk that was then intricately carved and decorated, as shown in this etching, c. 1773.



SOURCE 4 The patu, shown below, was one of the hand-held weapons used by Māori warriors. Weapons were usually made from wood or bone, but the prized *mere* was like a club carved from the rare pounamu, found only on the west coast of the South Island. Weapons were sacred and were handed down through the generations.



Some of the first Europeans in New Zealand in the early nineteenth century were impressed by the courage of the Māori, but also shocked by the violence and incidence of **cannibalism**. The rangatira (chief) of a defeated tribe could be eaten by the enemy as a symbol of their victory and the end of his mana (power). The heads of important fallen enemies were preserved by smoking and oiling.

cannibalism the practice of eating human flesh

SOURCE 5 Prior to charging the enemy, Māori warriors often performed a war dance (haka), both to prepare themselves mentally for the battle and to strike fear into the enemy.



SOURCE 6 The haka is now performed to recognise heritage or by sporting teams before a big game. Many New Zealanders also incorporate it into wedding ceremonies or important events.



11.8 SKILL ACTIVITY: Questioning and researching

Within this lesson, there is a far greater amount of discussion about Māori lifestyle than other Polynesian cultures.

1. Why do you think there is such a wealth of knowledge available on Māori history compared to other Polynesian cultures?
2. What information is not included about Hawai'i, Rapa Nui or any other Polynesian culture which you think would be interesting to know?
3. a. **Conduct research** and collect a series of primary and secondary sources on a Polynesian culture of your choice.
   b. **Discuss** how they adapted to the land they found themselves in and built a new life from the roots of Hawaiki.

11.8 Exercise

learnon

11.8 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 5, 6, 9	7, 8 ,10

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Check your understanding

1. Warfare was integral in Polynesian societies with weapons being carved from wood or **stone** / **bone** / **clay**. Warfare was an important expression of their **power** / **culture** / **insecurities**. Polynesian warriors were held in high esteem from earliest times. Warfare was used to gain and protect property including land, to revenge kidnappings and killings, and **visit** / **purchase** / **invade** other islands.
2. The Māori population of the South Island declined due to war. True or false?
3. What strategies did the Māori people use to intimidate enemies? **Select** all that apply.
   A. Ritual dance (haka)
   B. Firing cannons
   C. Shrunken heads of fallen enemies
   D. Fighting at close quarters using the patu
   E. Sneak attacks
4. **Explain** how the construction of the pa or Māori village reflect their values and customs.
5. **Explain** the meaning of rāhui. What was its benefit?

Apply your understanding

Using historical sources

6. **Examine SOURCE 3**. What other warrior culture does this scene resemble?
7. What can you **determine** about Māori warfare from the size of this vessel in **SOURCE 3**?
8. **Using** evidence from **SOURCES 2–6**, as well as the information in the lesson, **propose** reasons why the Māori developed such a strong warrior culture.

Communicating

9. Do you think the personal qualities of the ariki — wisdom, authority, excellence and inherited power — have modern-day equivalents? **Identify** a profession or position in which these characteristics are valued.
10. Imagine you are a visitor to a pa. Refer to **SOURCE 2** and the text to **create** a diary entry recording a typical day of village life. Provide details of the daily activities you see taking place, the pa layout and the design and purpose of the buildings.

LESSON
11.9 INQUIRY: Religion in Polynesia

LEARNING INTENTION

By the end of this lesson you should be able to better understand the complexity of religion in Polynesia and its influence historically.

The Polynesian **cosmology** is diverse and complex, and each new branch of explorers built their own version. Below is a collection of major **deities** from Rapa Nui, Hawai'i, and Aotearoa.

Rangi and Papa	Māui	Hina/Sina
Kāne	Kanaloa	Lono
Kū	Make-make	Hotu Matu'a
Tangata manu	Haumiatiketike	Tangaroa

Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

Inquiry steps

Step 1: Questioning and researching

Select three of the deities from the table above to research and find answers for. Use the questions below to guide your **research**. You may also come up with some of your own.

- What culture do they belong to?
- What are they responsible for?
- How do they fit into the **pantheon**?
- Are there gods in one of the other Polynesian pantheons who match them or are similar?

Research the questions. Be sure to use multiple reliable sources.

cosmology the world view of a group of people, including gods, goddesses, creation stories and explanations for the way things are

deity a god or goddess

pantheon the collection of gods, goddesses and other deities worshipped in a religion

Step 2: Using historical sources

Be sure to use multiple reliable sources.

As a historian, you need to be able to **identify** sources and their usefulness to answering your question. An OPCVL analysis is a great way to quickly **identify** information about sources.

Origin	• Who created it? • When was it created? • Where was it created? • Is it a primary or secondary source?
Purpose	• Why was this created? • Who is the intended audience?
Content	• What information is included? • Is the language objective or does it sound exaggerated or one-sided?

Value	Overall question: why is this source helpful to a historian? • Is the author/creator credible/reliable? • Do we see the whole story?
Limitations	Overall question: why is this source helpful to a historian? • What is purposefully/accidentally left out? • Is the author/creator biased and trying to show only one side of the story?

When **examining** primary sources, asking these sorts of questions can really help guide your thinking. For instance, if you find a carving or visual representation of a deity, ask yourself these questions before including it (not all questions will apply to every source). Sometimes it can help you avoid less reliable or useful sources.

Step 3: Historical perspectives and interpretations

Because there is so little surviving physical evidence of Polynesian culture from pre-colonial times, we need to rely a lot on European writing from this time. Refer to lesson 11.2 for a deeper exploration of these themes.

When examining evidence about Polynesia, take the time to complete an OPCVL analysis (Step 2). Just because a source is biased doesn't mean it's useless — sometimes it can reveal a lot more because of this! Try to identify a range of sources you can use to support your **discussion**.

Step 4: Communicating

Write out one of the stories surrounding a Polynesian deity. There are some who have many, such as Māui, and some who are only mentioned in the myths about others. Pick one that you think is particularly interesting and retell it in your own way.

Complete your self-assessment using the **Inquiry rubric** or access the 11.9 exercise set to complete it online.

on Resources

Digital document Inquiry rubric (doc-39532)

LESSON
11.10 Review

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11.10.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

11.2: How do we know about the Polynesian expansion across the Pacific?

- Understanding the history of Polynesia is difficult because of the lack of written sources.
- Some physical sources have survived, but due to the materials they are made of they're difficult to find.
- It's important to keep in mind the colonial (mainly European) perspective that comes from written sources. Referring to ancient Polynesian communities with their traditional names can help remove this bias.

11.3 What is the Polynesian Triangle?

- The Polynesian Triangle is a large area of the Pacific Ocean, over 2 000 000 km^2, where island communities have formed.
- There are more than 20 000 islands, some of them very small, in the area explored by these settlers.
- The people of Polynesia used their advanced understanding of seafaring to navigate to new islands and settle there.
- Movement across the Pacific spanned 10 000 BCE to 1500 CE.

11.4 What happened on Rapa Nui?

- Rapa Nui is also called Easter Island and is the furthest east of all Polynesian settlements.
- Rapa Nui is covered with mo'ai, enormous stone statues of former ariki (chiefs). Many of these stand on ahu, stone platforms near the ocean.
- The population and plant life of Rapa Nui was in decline when it was visited by European explorers. This could have been due to overuse of the forests, conflict between people or the introduction of rats from the earliest settlers. However, more recent studies suggest that it was Europeans themselves who caused the decline.

11.5 What was life like in Hawai'i?

- Settlers could have arrived in Hawai'i as early as the third century CE, and were later invaded by people from Otaheite (modern Tahiti) in 1300 CE.
- The people of Hawai'i called themselves the Kānaka Maoli and had a very rigid caste system.
- It is very unlikely that people arrived in Hawai'i accidentally. In 1976, the Hōkūle'a, a wa'a kaulua (double-hulled canoe) built in the traditional style made the voyage from Hawai'i to Tahiti and back, demonstrating that it was not only possible but likely that they planned to make the trip.
- The people of Hawai'i were experts at fishing and established fish ponds to effectively and sustainably farm fish.

11.6 Who were the people of Aotearoa?

- Between 800 and 1130, a group of settlers arrived from Kūki 'Āirani (the Cook Islands) to the coast of what would become Aotearoa. These people became known as the Māori.
- The Māori named their land *Aotearoa*, meaning 'the land of the long white cloud' because of the cloud that helped them find it.

- The Māori, like many other Polynesian cultures, used wood to carve depictions of stories and express religious believes, myths, and images of gods.
- Māori people lived in a communal village. Property was owned and they relied on their ability to farm to build larger and more permanent settlements.
- The Māori traded many goods, but pounamu (greenstone) was the most valuable. It was found on *Te Wai Pounamu* (South Island).

11.7 Were customs and culture the same everywhere?

- Almost all Polynesian communities practiced tapu (taboo) which helped them govern their actions to each other and the land around them.
- Mana (spiritual energy) was affected by tapu and was used to by Polynesians to explain the world around them.
- Art was very important to all Polynesian communities. Although they came from the same roots, each new settlement developed its own set of customs and traditions, including art.
- Tatau (tattoo) was practiced all throughout Polynesia. Examples of tatau have been found in Lapita art as well.

11.8 What happened when Polynesians settled and stayed?

- The people of Polynesia had a great impact on their environment. Many adapted effectively but some stayed with their traditional ways.
- Rāhui (prohibition) was tied to the concept of tapu and helped Polynesians avoid over-using the resources available to them.
- Warfare and conflict was present in many Polynesian communities. The Māori in particular fought over resources and land in Aotearoa and built their villages to be defensible.

11.9 INQUIRY: Religion in Polynesia

- The Polynesian cosmology is diverse and complex, and each new branch of explorers built their own version.

11.10.2 Key terms

anthropologist a person who studies the culture and beliefs of different groups of people
archipelago an area that contains a chain or group of islands scattered in lakes, rivers, or the ocean
atoll a circular coral island often enclosing a lagoon
cannibalism the practice of eating human flesh
caste a social status which is set by birth and passed down from your parents and family members.
cosmology the world view of a group of people, including gods, goddesses, creation stories and explanations for the way things are
deity a god or goddess
double-hulled canoe a canoe with two connected parallel hulls — a feature that made it light, fast and stable
filigree a type of delicate ornament made from fine threads of metal
genealogy the study of the past and present members of a family
geyser a hot spring sending a jet of steam and boiling water into the air
gourd an edible fruit with a shell that can be dried and used for storage
kumara sweet potato
obsidian a type of rock that is almost like glass
pantheon the collection of gods, goddesses and other deities worshipped in a religion
petroglyph a form of art where rocks are carved with images
pounamu A general term for several types of hard green stone found in New Zealand which were highly valued by the Māori
rafter sloping timbers supporting the outer covering of a roof
taro the root of a plant that is made edible through boiling
thermal relating to heat or temperature
trolling lure a hook designed to trail behind a boat or canoe and mimic dying, injured or fast-moving prey
yam a potato-like tropical plant used as food

11.10.3 Reflection

Complete the following to reflect on your learning.

Revisit the inquiry question posed in the Overview:

How are the people of the Pacific shaped by their environment and heritage?

1. Now that you have completed this topic, what is your view on the question? Discuss with a partner. Has your learning in this topic changed your view? If so, how?
2. Write a paragraph in response to the inquiry questions, outlining your views.

on Resources

eWorkbooks Customisable worksheets for this topic (ewbk-10716)
Reflection (ewbk-10718)
Crossword (ewbk-10719)

Interactivity Polynesian expansion across the Pacific crossword (int-7591)

11.10 Review exercise

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Multiple choice

1. Which of the following could be found within the boundary of a Māori pa? Select all possible answers.
   - A. Village water source
   - B. Storage pits
   - C. Meeting House
   - D. Cooking sites
2. 'Polynesia' refers to
   - A. the traditional name of Easter Island.
   - B. the traditional name of Hawaii.
   - C. the traditional name of New Zealand.
   - D. a large area in the Pacific Ocean.
3. Rāhui refers to
   - A. the spiritual energy in all things.
   - B. the inked markings many Polynesians had on their skin.
   - C. a way of managing the land.
   - D. a double-hulled canoe.
4. The *Hōkūleʻa* set sail in
   - A. 1966.
   - B. 1976.
   - C. 1986.
   - D. 1996.

5. Polynesian history is difficult to study because
   - **A.** there are so many different cultures to keep track of.
   - **B.** much of the history has been lost to climate change.
   - **C.** most Polynesian cultures didn't have a written language.
   - **D.** All of the above.
6. In Aotearoa, pounamu was
   - **A.** the totem at the centre of the village.
   - **B.** a precious green stone.
   - **C.** the first name of their new home.
   - **D.** a type of seal.
7. Why did the Kānaka Maoli use fish ponds for farming food?
   - **A.** It was more sustainable
   - **B.** It gave them a regular food supply
   - **C.** It was more effective
   - **D.** All of the above
8. How large is the Polynesian triangle?
   - **A.** Approximately 1 000 000 km^2
   - **B.** Approximately 2 000 000 km^2
   - **C.** Approximately 3 000 000 km^2
   - **D.** Approximately 4 000 000 km^2
9. Polynesian explorers used rebbelibs (stick charts) to navigate between islands. The shells on these charts represented
   - **A.** islands.
   - **B.** currents.
   - **C.** waves.
   - **D.** birds.
10. Captain Cook visited
    - **A.** Hawai'i.
    - **B.** Aotearoa.
    - **C.** Rapa Nui.
    - **D.** All of the above.

Short answer

Communicating

11. **Describe** what the mo'ai, are and why they are found all over Rapa Nui.
12. **Explain** why the most ornate carvings were reserved for the *whare Runanga* in Māori culture.
13. In your own words, **define** *mana* and *tapu*.
14. **Explain** why it's important to recognise the traditional names of the areas in this topic.
15. **Explain** what signs Polynesian settlers would look for to guide them to new islands.

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12 Geography concepts and skills

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LESSON
12.1 Overview

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12.1.1 Introduction

When you study Geography, you are starting to build the knowledge and skills that will be needed by you and your community now and into the future. The concepts and skills that you will use will not only help you in Geography but they can also be applied to everyday situations, such as finding your way from one place to another. Studying Geography may even help you in a future career here in Australia or somewhere overseas.

Throughout your study of Geography you will cover topics that will give you a better understanding of the world around you — both the local and global environment. You will investigate issues that need to be addressed now and also options for the future.

FIGURE 1 Geography is the study of the world around you.



on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10742)

Video eLesson Geography concepts and skills (eles-6108)

LESSON
12.2 Concepts in Geography

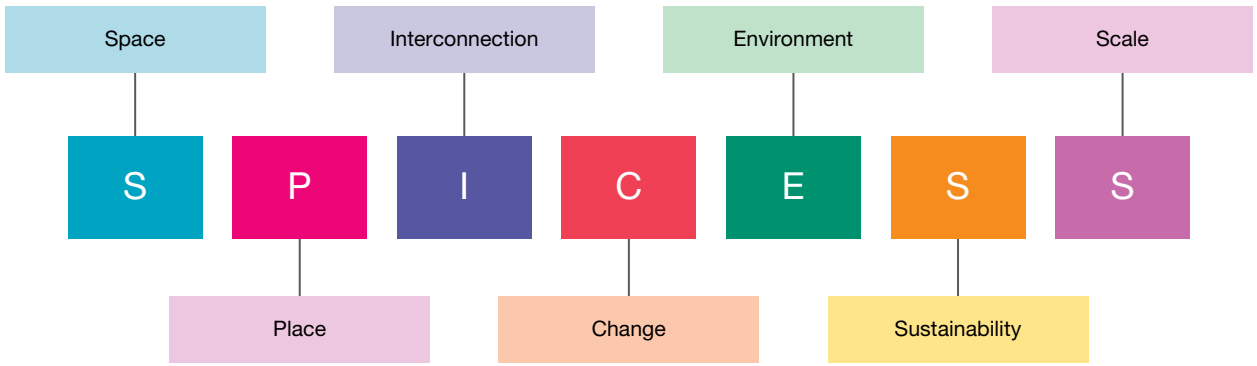
LEARNING INTENTION

By the end of this lesson you should be able to identify, explain and apply the seven Geography concepts using the acronym SPICESS.

12.2.1 Geographical concepts: SPICESS

Geographical concepts help you to make sense of your world. By using these concepts you can investigate and understand the world you live in, and try to imagine a different world. The concepts help you to think geographically. There are seven major concepts: *space, place, interconnection, change, environment, sustainability* and *scale*.

FIGURE 1 A way to remember these seven concepts is to think of the acronym SPICESS.



You will use the seven concepts to investigate two units: *Landscapes and landforms* and *Changing nations*.

12.2.2 What is space?

The concept of space is about where things are located and distributed on the surface of the Earth, and how the space is organised and managed by people.

When referring to Space in Geography we can have absolute or relative location. Absolute location is the unique location of a site or geographical feature. For example, the absolute location of Broken Hill is at 31.95° South latitude and 141.45° East longitude. Relative location is the location of a place or feature in relation to other places. It can be described by direction and distance from other places and features.

A place can be described by its absolute location (latitude and longitude) or its relative location (in what direction and how far it is from another place).

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Deepen your understanding of this topic with related case studies and questions.

- Developing Australian Curriculum concepts > **Space**

12.2.3 What is place?

The world is made up of places, so to understand our world we need to understand its places by studying their variety, how they influence our lives and how we create and change them.

Places may be natural (such as an undisturbed wetland) or highly modified (like a large urban conurbation).

Places provide us with the services and facilities we need in our everyday life. The physical and human characteristics of places, their location and their environmental quality can influence the quality of life and wellbeing of people living there.

FIGURE 2 The Paraisópolis favela (slum), home to 60 000 people, is situated next to the gated complexes of the wealthy Morumbi district of São Paulo in Brazil.



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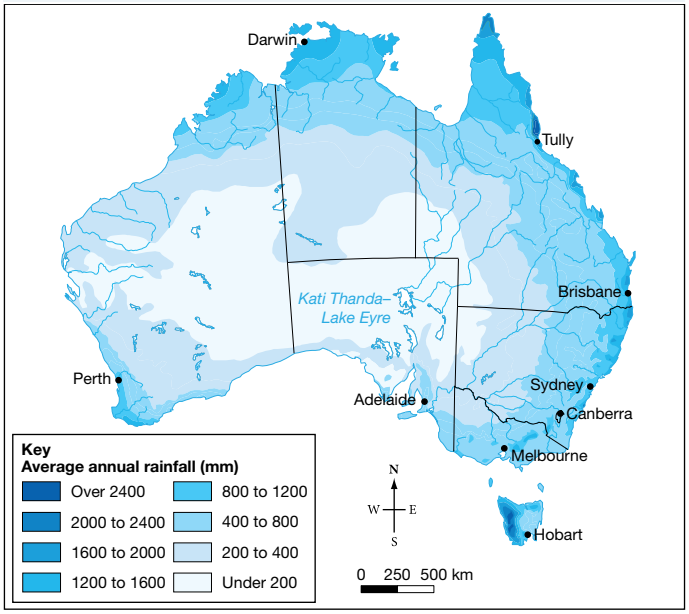
12.2.4 What is interconnection?

int-8993

People and things are connected to other people and things in their own and other places. Understanding these connections helps us to understand how and why places are changing.

An event in one location can lead to change in a place some distance away.

FIGURE 3 Distribution of annual rainfall in Australia



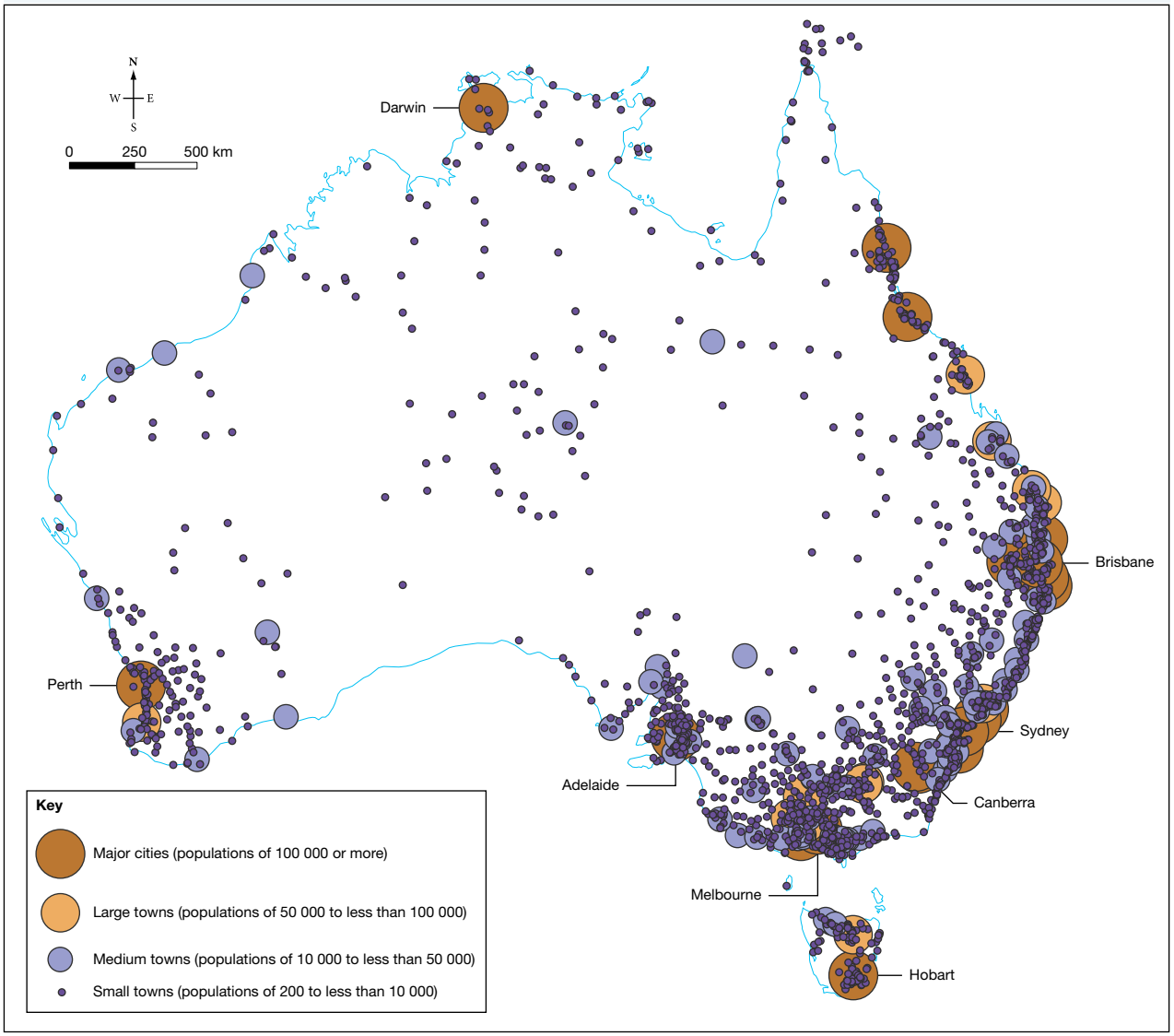
Source: MAPgraphics Pty Ltd, Brisbane

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Deepen your understanding of this topic with related case studies and questions.
- Developing Australian Curriculum concepts > **Interconnection**

int-7826

FIGURE 4 Australia's population distribution and density



Source: Australian Bureau of Statistics

12.2.5 What is change?

The concept of change is about using time to better understand a place, an environment, a spatial pattern or a geographical problem.

Some changes can be fast and easily observed, but others are very slow. For example, cities can expand outwards over a number of years. Similarly, landforms generally change very slowly, as with the formation of mountains. But some landscape change can be very fast, as is the case with landslides, volcanic eruptions and deforestation.

Explore more with myWorldAtlas

Deepen your understanding of this topic with related case studies and questions.

- Developing Australian Curriculum concepts > **Change**

int-7828

FIGURE 5(a) Landscape before deforestation

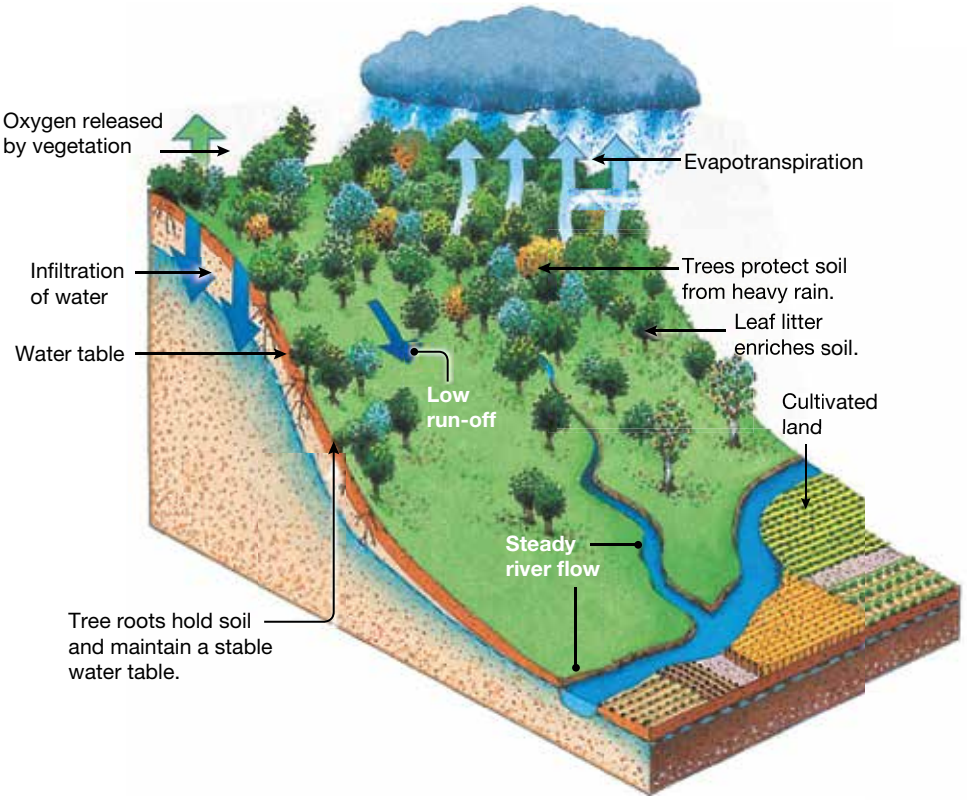
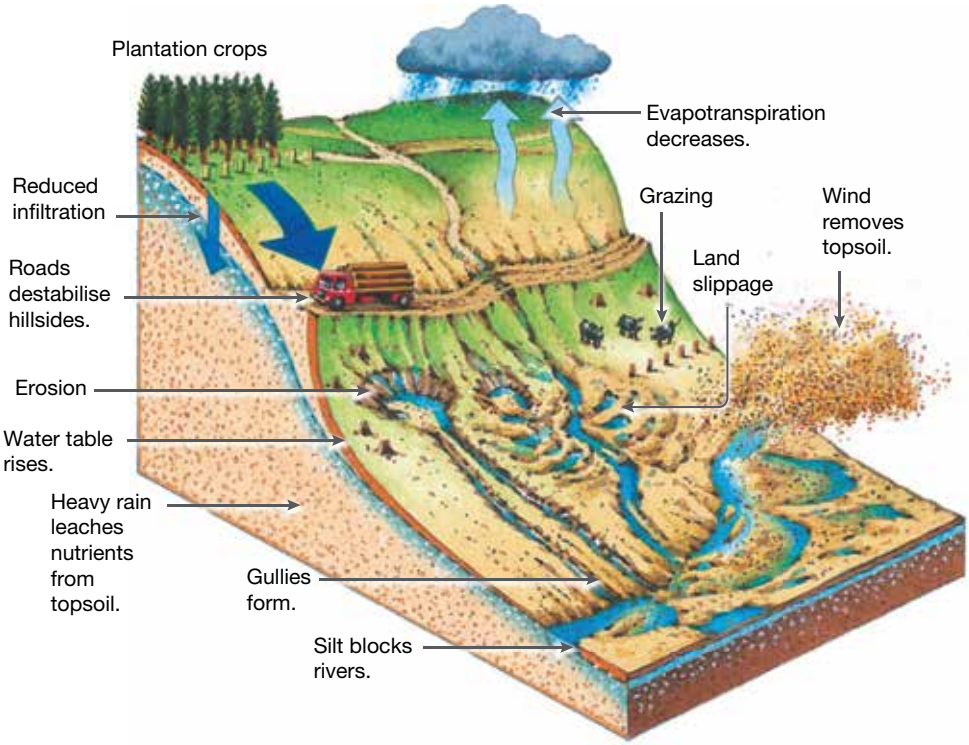
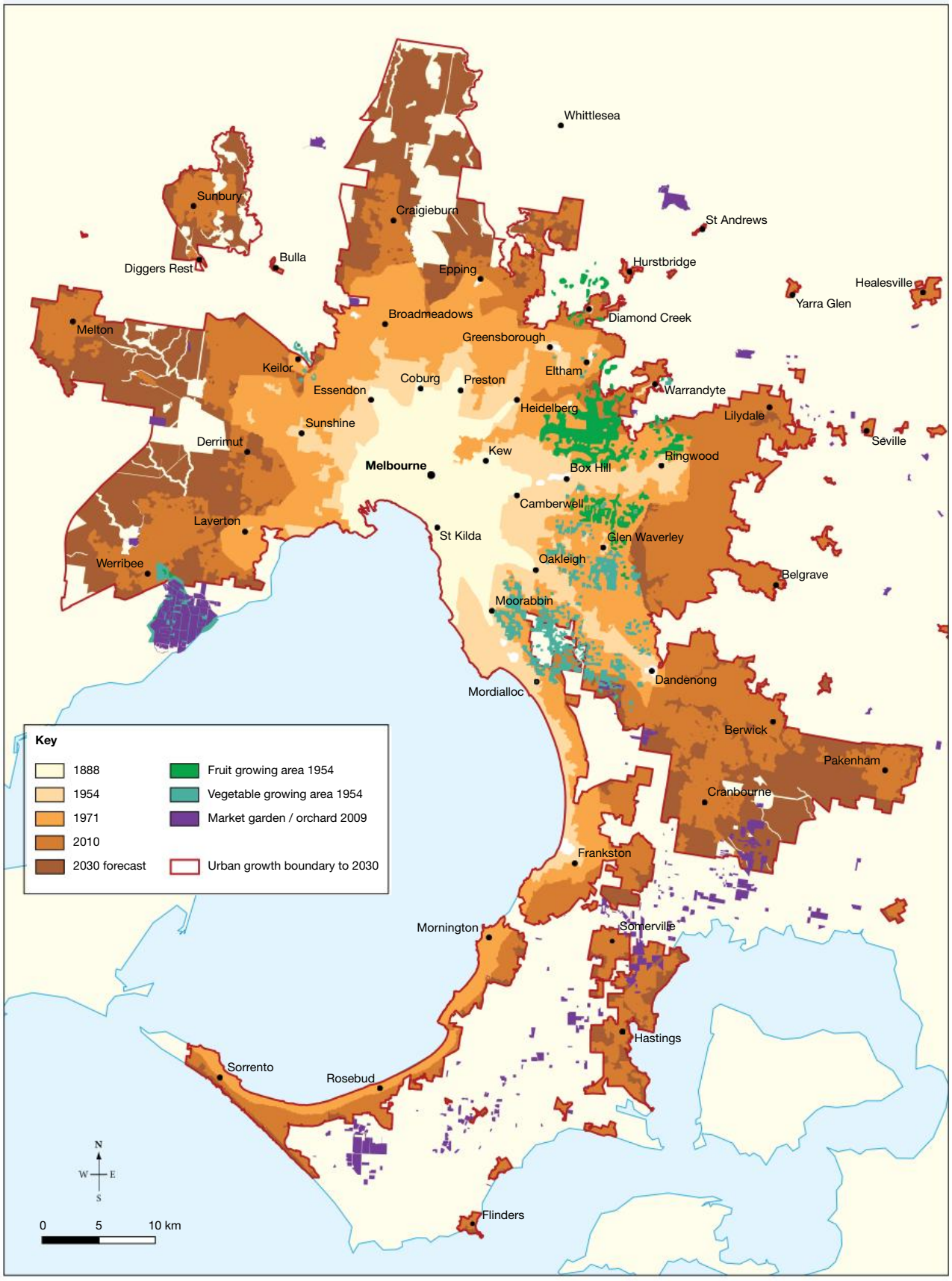


FIGURE 5(b) Landscape after deforestation



int-7827

FIGURE 6 Melbourne's urban sprawl



Source: Various Victorian planning studies and current land use mapping. Map produced by Spatial Vision 2019.

12.2.6 What is environment?

People live in and depend on the environment, so it has an important influence on our lives.

The environment, defined as the physical and biological world around us, supports and enriches human and other life by providing raw materials and food, absorbing and recycling wastes, and being a source of enjoyment and inspiration to people.

Explore more with myWorldAtlas

Deepen your understanding of this topic with related case studies and questions.

- Developing Australian Curriculum concepts > **Environment**

12.2.7 What is sustainability?

Sustainability is about maintaining the capacity of the environment to support our lives and those of other living creatures.

Sustainability is about the interconnection between the human and natural world and who gets which resources and where, in relation to conservation of these resources and prevention of environmental damage.

FIGURE 7 Uranium mining in Colorado, United States. Many deserts contain valuable mineral deposits.



FIGURE 8 The Vatican is the world's smallest independent state. In 2008, more than 2000 photovoltaic panels were fixed to the roof of one of the city state's main buildings — the roof of the Paul VI Hall — enabling the Vatican to cut its carbon dioxide emissions by about 225 tonnes per year. The 2400 panels heat, light and cool the hall and several surrounding buildings, producing 300 kilowatt hours (MWh) of clean energy per year.



Explore more with myWorldAtlas

Deepen your understanding of this topic with related case studies and questions.

- Developing Australian Curriculum concepts > **Sustainability**

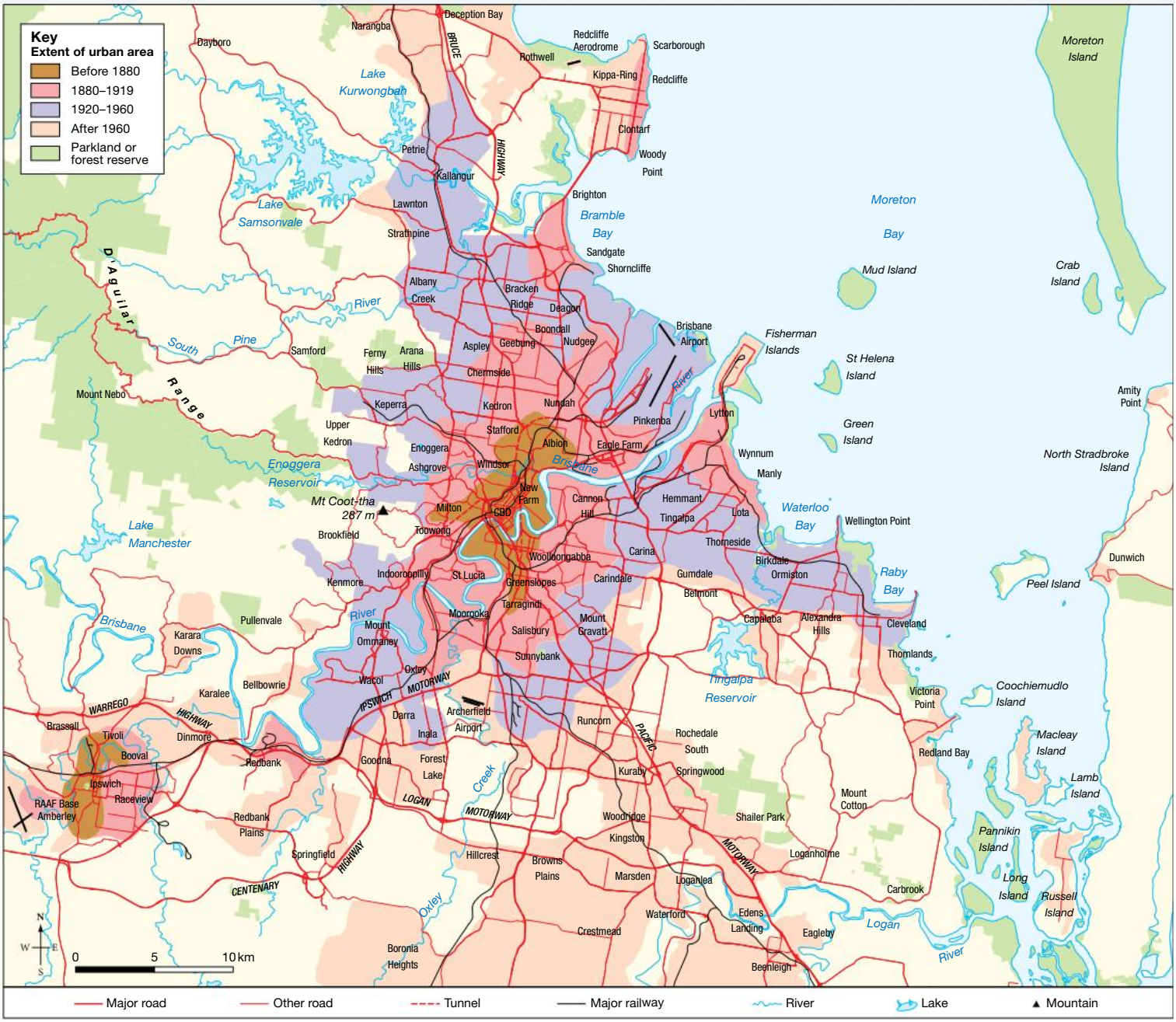
12.2.8 What is scale?

When we examine geographical questions at different spatial levels we are using the concept of scale to find more complete answers.

Scale can be from personal and local to regional, national or global. Looking at things on a range of scales provides a deeper understanding of geographical issues.

int-8994

FIGURE 9 Brisbane, Queensland. Building sustainable communities means we have to work at various scales.



Source: MAPgraphics / ABS — Urban Centre and Locality (UCL) ASGS Edition 2011 Digital Boundaries data / OpenStreetMap (Roads)

Ways to improve sustainability at the local scale include:

- reducing the ecological footprint
- protecting the natural environment
- increasing community wellbeing and pride in the local area
- changing behaviour patterns by providing better local options
- encouraging compact or dense living
- providing easy access to work, play and schools.

Ways to improve sustainability at the city scale include:

- building strong central activities areas (either one major hub or a number of specified activity areas)
- reducing traffic congestion
- protecting natural systems
- avoiding suburban sprawl and reducing inefficient land use
- distributing infrastructure and transport networks equally and efficiently to provide accessible, cheap transportation options
- promoting inclusive planning and urban design
- providing better access to healthy lifestyles (e.g. cycle and walking paths)
- improving air quality and waste management
- using stormwater more efficiently
- increasing access to parks and green spaces
- reducing car dependency and increasing walkability
- promoting green space and recreational areas
- demonstrating a high mix of uses (e.g. commercial, residential and recreational).

FIGURE 10 Street art in a Brisbane suburb



FIGURE 11 A glimpse of the CBD from the Brisbane Botanical gardens



Explore more with myWorldAtlas

Deepen your understanding of this topic with related case studies and questions.

- Developing Australian Curriculum concepts > **Scale**

LESSON
12.3 Skills used in Geography

LEARNING INTENTION

By the end of this lesson you should be able to write a definition of Geography, explain what geographers do, and identify the different skills used in Geography.

12.3.1 Skills for work

Many questions come up during a typical Geography class, such as those in **TABLE 1**. These questions need to be answered in the real world by people in a wide variety of occupations. They all have links with Geography.

TABLE 1 Examples of occupations that use Geography

Question	Occupations/organisations that try to answer these questions
How high is Mount Everest? How do we know?	Surveyor, cartographer
How can we protect our parks and wildlife?	Park ranger, planner, environmental manager
Where should we establish a new suburb for our future population?	Urban planner, demographer
How can we prepare for future droughts and floods?	Civil engineer
Does our town really have enough water? Should we build a new dam? Where should we build a new dam?	Coastal engineer, hydrologist, cartographer
Should a boat marina be built at location X or at location Y?	Oceanographer
Do we have good quality drinking water?	Chemist, hydrologist
How do countries such as India and China deal with their air pollution problems?	Environmental scientist/manager
How do we provide aid to other countries?	Air Force, Navy, army officer; Red Cross, World Vision and other aid agencies
How do we build sustainable housing?	Architect, landscape architect, civil engineer/ construction manager, town planner, real estate salesperson

Do you know much about the occupations mentioned in **TABLE 1**? Are any of interest to you? The first step in thinking about your future is to consider questions such as:

- Who am I?
- What are my interests?
- What do I enjoy doing?
- What am I good at?
- What would I like to do when I leave school?

Geography careers on the move

A great part of studying Geography is being able to explore the many occupations and areas that it opens up. **TABLE 2** lists some occupations that you might not have thought studying Geography could lead you into.

TABLE 2 Would I enjoy

... working Indoors?	... working outdoors?	... helping people?
		
• Land economist • Landscape designer • Real estate salesperson • Geoscience technician • Travel consultant	• Surveyor • Mining engineer • Geologist • Landscape architect • Cartographer	• Park ranger • Paramedic • Navy officer • Firefighter • Tour guide
... designing new places to live?	**... improving people's wellbeing?**	**... doing research?**
		
• Urban planner • Architect • Landscape architect • Horticulturist	• Natural resource manager • Demographer	• Meteorologist • Anthropologist • Geophysicist • Hydrographer • Environmental scientist

12.3.2 Skills used in studying Geography

In addition to the concepts you study in Geography (SPICESS) there is a range of essential practical skills that you will learn, practise and master as you study Geography. These can be categorised into the four core Geography skills:

Questioning and researching using geographical methods

Investigating using geographical methods involves applying geographical concepts to develop questions and using primary research or fieldwork to gain a greater understanding of a concept or issue. This year your fieldwork should involve gathering information from both primary sources (e.g. information you observe and record) and a range of secondary sources (e.g. information obtained from maps, atlases and textbooks), evaluating them for relevance, reliability and bias. In Geography we look at information from a range of perspectives, and use ethical protocols assess reliability and worth. You will be examining the processes that shape our world and the ways in which environmental and human processes determine the world around us.

Interpreting and analysing geographical data and information

In Geography this year you will interpret data using both quantitative methods (measurable information) and qualitive methods (observations and descriptions) to find similarities, patterns and differences in sources studied. You will also be expected to predict trends and discuss relationships by identifying the key aspects of data presented to you in a variety of forms (e.g. a range of different types of maps, tables, graphs and charts). In Year 8 Geography this may involve analysing information on population changes and levels of urbanisation

across the globe. You will also need to interpret maps and make spatial associations between geomorphological hazards and the underlying make-up of the lithosphere.

The SkillBuilders related to this skill that you will use at Year 8 level are:

- Recognising land features
- Reading contour lines on a map
- Using latitude and longitude
- Calculating distance using scale
- Drawing simple cross-sections
- Interpreting an aerial photo
- Understanding thematic maps
- Comparing population profiles
- Reading and describing basic choropleth maps
- Drawing a line graph using Excel
- Drawing a precis map
- Creating and reading pictographs
- Constructing a basic sketch map
- Creating and reading compound bar graphs.

Concluding and decision-making

In Geography you will learn to justify conclusions and propose strategies by analysing data, information and perspectives from a variety of sources. By considering environmental, economic and social factors you will make assessments about the interconnectedness of issues relating to population, urban environments and the geomorphological processes that shape our world. You will be expected to make conclusions about how best to manage the growth of urban settlements and the sustainability of resources from both a human and more holistic environmental perspective.

The SkillBuilders related to this skill that you will use at Year 8 level are:

- Comparing population profiles
- Creating and describing complex overlay maps
- Creating and reading compound bar graphs.

Communicating

Communicating your ideas and justifying your conclusions are key skills you will develop in Geography. Using geographical concepts and knowledge and a range of digital and non-digital formats you will seek to express your thoughts and ideas on a wide range of concepts and issues. When communicating in Geography you need to ensure that you consider your audience, you acknowledge your sources and you choose appropriate methods of communication to ensure your message is clear and well presented. In Year 8 you will be expected to explore new ways of presenting information and further develop skills acquired in earlier years.

The SkillBuilders related to this skill that you will use at Year 8 level are:

- Interpreting an aerial photo
- Using positional language
- Constructing a field sketch
- Drawing a precis map
- Describing photographs
- Constructing a basic sketch map.

LESSON
12.4 SkillBuilder: Recognising land features

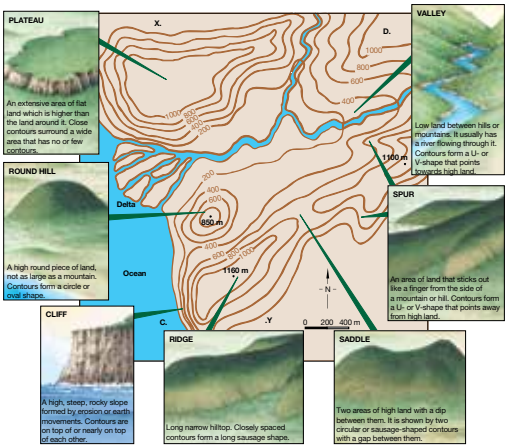
online only

What are land features?

Land features are landforms with distinct shapes, such as hills, valleys and mountains. You recognise these as you look around your natural environment. On topographic maps you recognise land features from the patterns formed by the contour lines.

Go online to access:

- an overview of the skill and its application in Geography (Tell me)
- a video and a step-by-step process to explain the skill (Show me)
- an activity and interactivity for you to practise the skill (Let me do it).



Resources

Digital doc	Topographic map of Yarra Yarra Creek Basin (doc-31343)
Video eLesson	SkillBuilder: How to recognise land features (eles-1648)
Interactivity	SkillBuilder: Recognising land features (int-3144)

LESSON
12.5 SkillBuilder: Reading contour lines on a map

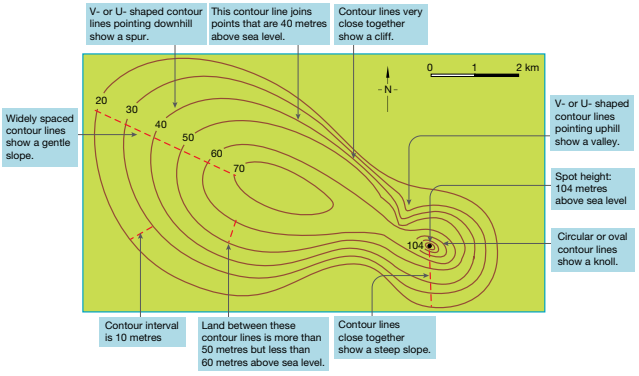
online only

What are contour lines?

Contour lines drawn on a map join all places of the same elevation (height). These lines are usually brown and have a number written on them to indicate height above sea level. Contour maps are used to show the relief (shape) of the land and the heights of the landscape.

Go online to access:

- an overview of the skill and its application in Geography (Tell me)
- a video and a step-by-step process to explain the skill (Show me)
- an activity and interactivity for you to practise the skill (Let me do it).



Resources

Video eLesson	SkillBuilder: Reading contour lines on a map (eles-1651)
Interactivity	SkillBuilder: Reading contour lines on a map (int-3147)

LESSON
12.6 SkillBuilder: Using latitude and longitude

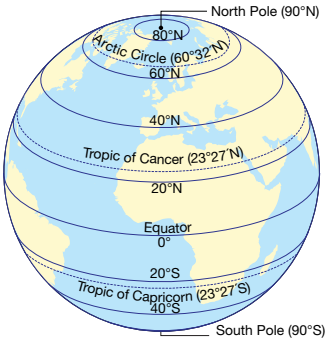
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What are latitude and longitude?

Latitude and longitude are imaginary grid lines encircling the Earth. They can be drawn over a map to help us locate a place. The lines that run parallel to the equator are called parallels of latitude. Lines of longitude run from north to south from the North Pole to the South Pole.

Go online to access:

- an overview of the skill and its application in Geography (Tell me)
- a video and a step-by-step process to explain the skill (Show me)
- an activity and interactivity for you to practise the skill (Let me do it).



on Resources

Video eLesson SkillBuilder: Using latitude and longitude (eles-1652)
Interactivity SkillBuilder: Using latitude and longitude (int-3148)

LESSON
12.7 SkillBuilder: Calculating distance using scale

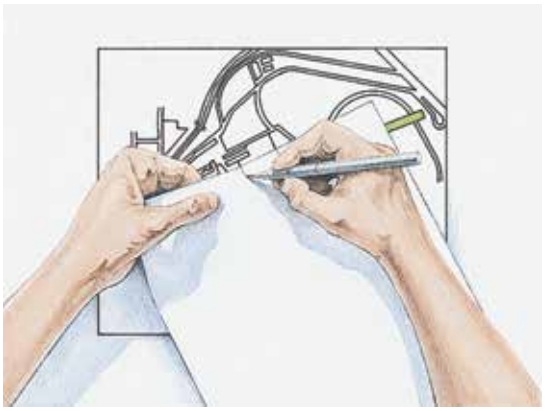
online only

What does it mean to calculate distance using scale?

Calculating distance using scale involves working out the actual distance from one place to another using a map. The scale on a map allows you to convert distance on a map or photograph to distance in the real world — what it represents on Earth's surface. A linear scale is the easiest to use, but sometimes the distance being measured between places is not straight.

Go online to access:

- an overview of the skill and its application in Geography (Tell me)
- a video and a step-by-step process to explain the skill (Show me)
- an activity and interactivity for you to practise the skill (Let me do it).



on Resources

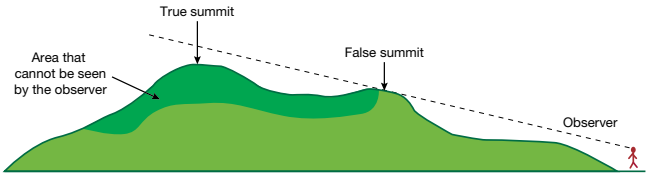
Video eLesson SkillBuilder: Calculating distance using scale (eles-1653)
Interactivity SkillBuilder: Calculating distance using scale (int-3149)

LESSON
12.8 SkillBuilder: Drawing simple cross-sections

online only

What are cross-sections?

A cross-section is a side-on, or cut-away, view of the land as if it had been sliced through by a knife. It is like taking a vertical slice of the landscape and looking at it side-on. Cross-sections provide us with an idea of the shape of the land. We can use contour lines on topographic maps to draw a cross-section between any two points. Cross-sections also indicate heights at a range of points.



Go online to access:
- an overview of the skill and its application in Geography (Tell me)
- a video and a step-by-step process to explain the skill (Show me)
- an activity and interactivity for you to practise the skill (Let me do it).

on Resources

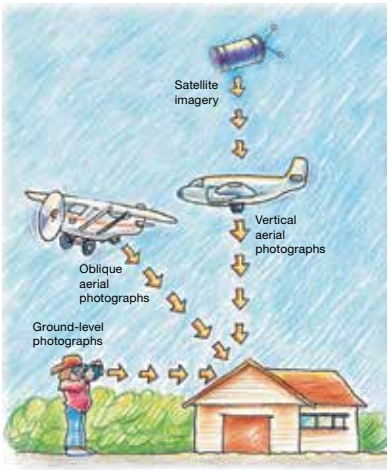
Video eLesson SkillBuilder: Drawing simple cross-sections (eles-1655)
Interactivity SkillBuilder: Drawing simple cross-sections (int-3151)

LESSON
12.9 SkillBuilder: Interpreting an aerial photo

online only

What are aerial photos?

Aerial photographs are those that are taken from above the Earth from an aircraft. Aerial photos, either oblique or vertical, record how a place looks at a particular moment in time. Greater detail of a place can be captured than in a photo taken from ground level. Some aerial photos are also satellite compilations; that is, created by a number of images transmitted from the satellite.



Go online to access:
- an overview of the skill and its application in Geography (Tell me)
- a video and a step-by-step process to explain the skill (Show me)
- an activity and interactivity for you to practise the skill (Let me do it).

on Resources

Video eLesson SkillBuilder: Interpreting an aerial photo (eles-1654)
Interactivity SkillBuilder: Interpreting an aerial photo (int-3150)

LESSON
12.10 SkillBuilder: Understanding thematic maps

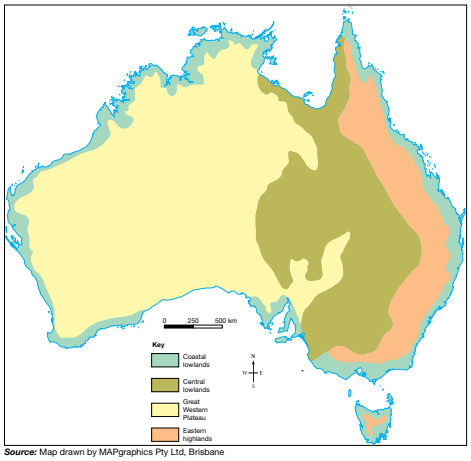
online only

What is a thematic map?

A thematic map is a map drawn to show one aspect; that is, one theme. For example, a map may show the location of vegetation types, hazards or weather. Parts of the theme are given different colours or, if only one idea is conveyed, symbols may show location.

Go online to access:

- an overview of the skill and its application in Geography (Tell me)
- a video and a step-by-step process to explain the skill (Show me)
- an activity and interactivity for you to practise the skill (Let me do it).



Source: Map drawn by MAPgraphics Pty Ltd, Brisbane

on Resources

Video eLesson SkillBuilder: Understanding thematic maps (eles-1658)
Interactivity SkillBuilder: Understanding thematic maps (int-3154)

LESSON
12.11 SkillBuilder: Comparing population pyramids

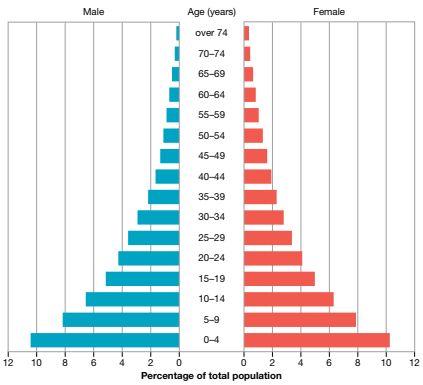
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What is a population pyramid?

A population pyramid is a bar graph that provides information about the age and gender of a population. The bars identify the proportion of a country's population within a particular age group. The graph is split to show information about males and females. The shape of the population pyramid tells us about a particular population.

Go online to access:

- an overview of the skill and its application in Geography (Tell me)
- a video and a step-by-step process to explain the skill (Show me)
- an activity and interactivity for you to practise the skill (Let me do it).



on Resources

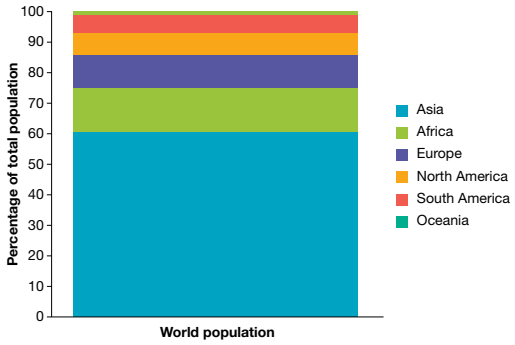
Video eLesson SkillBuilder: Comparing population profiles (eles-1704)
Interactivity SkillBuilder: Comparing population profiles (int-3284)
Weblink Population pyramid

LESSON
12.12 SkillBuilder: Creating and reading compound bar graphs

online only

What are compound bar graphs?

A compound bar graph is a bar or series of bars divided into sections to provide detail of a total figure. These bars can be drawn vertically or horizontally. The height or length of each section represents a percentage, with the total length of the bar representing 100 per cent.



Go online to access:

- an overview of the skill and its application in Geography (Tell me)
- a video and a step-by-step process to explain the skill (Show me)
- an activity and interactivity for you to practise the skill (Let me do it).

on Resources

Video eLesson SkillBuilder: Creating and reading compound bar graphs (eles-1705)
Interactivity SkillBuilder: Creating and reading compound bar graphs (int-3285)

LESSON
12.13 SkillBuilder: Reading and describing basic choropleth maps

online only

What is a basic choropleth map?

A basic choropleth map is a shaded or coloured map that shows the density or concentration of a particular aspect of an area. The key/legend shows the value of each shading or colouring. The darkest colours show the highest concentration, and the lightest colours show the lowest concentration.



Source: Map drawn by MAPgraphics Pty Ltd, Brisbane

on Resources

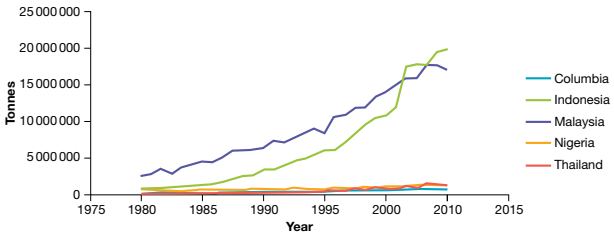
Video eLesson SkillBuilder: Reading and describing basic choropleth maps (eles-1706)
Interactivity SkillBuilder: Reading and describing basic choropleth maps (int-3286)

LESSON
12.14 SkillBuilder: Drawing a line graph using Excel

online only

What is a line graph?

A line graph is a clear method of displaying information so it can be easily understood. Using a digital means of drawing a line graph enables you to show multiple data sets clearly.



Go online to access:

- an overview of the skill and its application in Geography (Tell me)
- a video and a step-by-step process to explain the skill (Show me)
- an activity and interactivity for you to practise the skill (Let me do it).

on Resources

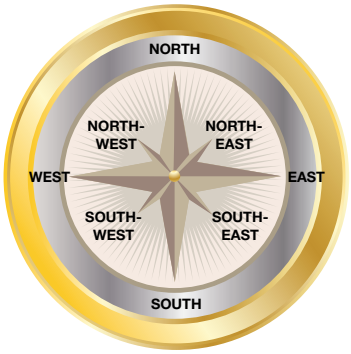
Video eLesson SkillBuilder: Drawing a line graph using Excel (eles-1662)
Interactivity SkillBuilder: Drawing a line graph using Excel (int-3158)

LESSON
12.15 SkillBuilder: Using positional language

online only

What is positional language?

Positional language uses compass points to locate places and provide directions between places. North, north-east, east, south-east, south, south-west, west, and north-west are shown on an 8-point compass. We can use positional language to describe the location of one feature in relation to another.



Go online to access:

- an overview of the skill and its application in Geography (Tell me)
- a video and a step-by-step process to explain the skill (Show me)
- an activity and interactivity for you to practise the skill (Let me do it).

on Resources

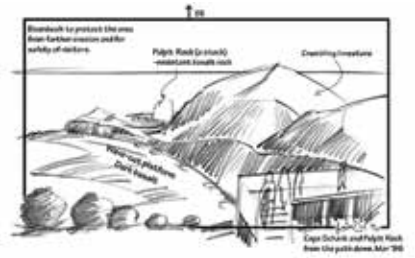
Video eLesson SkillBuilder: Using positional language (eles-1649)
Interactivity SkillBuilder: Using positional language (int-3145)

LESSON
12.16 SkillBuilder: Constructing a field sketch

online only

What are field sketches?

Field sketches are drawings completed during fieldwork — geography outside the classroom. Field sketches allow a geographer to capture the main aspects of landscapes in order to edit the view, focusing on the important features and omitting the unnecessary information.



Go online to access:

- an overview of the skill and its application in Geography (Tell me)
- a video and a step-by-step process to explain the skill (Show me)
- an activity and interactivity for you to practise the skill (Let me do it).

on Resources

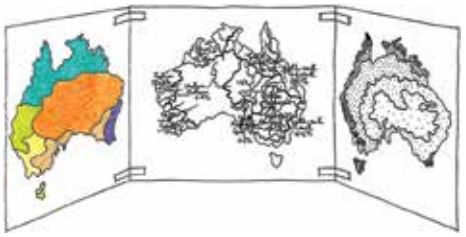
Video eLesson SkillBuilder: Completing a field sketch (eles-1650)
Interactivity SkillBuilder: Constructing a field sketch (int-3146)

LESSON
12.17 SkillBuilder: Creating and describing complex overlay maps

online only

What is a complex overlay map?

A complex overlay map is created when one or more maps of the same area are laid over one another to show similarities and differences between the mapped information. Traditionally, the second map is on tracing paper that is attached to the original page. Complex overlay maps show relationships between factors — the similarities and the differences in a pattern.



Go online to access:

- an overview of the skill and its application in Geography (Tell me)
- a video and a step-by-step process to explain the skill (Show me)
- an activity and interactivity for you to practise the skill (Let me do it).

on Resources

Video eLesson SkillBuilder: Creating and describing complex overlay maps (eles-1656)
Interactivity SkillBuilder: Creating and describing complex overlay maps (int-3152)

LESSON
12.18 SkillBuilder: Drawing a précis map

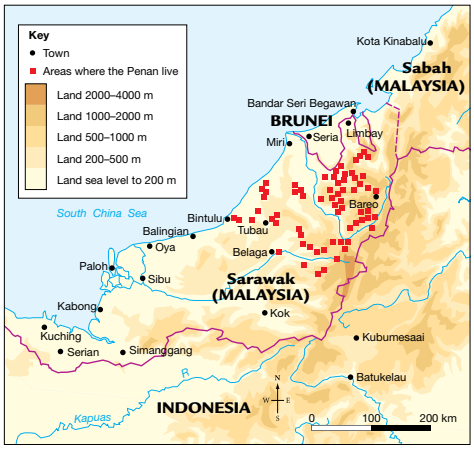
online only

What is a précis map?

A précis map is a simplified map — the cartographer has decided which details to leave in and which to leave out. It is different from a sketch map, which includes all the main features.

Go online to access:

- an overview of the skill and its application in Geography (Tell me)
- a video and a step-by-step process to explain the skill (Show me)
- an activity and interactivity for you to practise the skill (Let me do it).



Resources

Video eLesson SkillBuilder: Drawing a précis map (eles-1657)
Interactivity SkillBuilder: Drawing a précis map (int-3153)

LESSON
12.19 SkillBuilder: Creating and reading pictographs

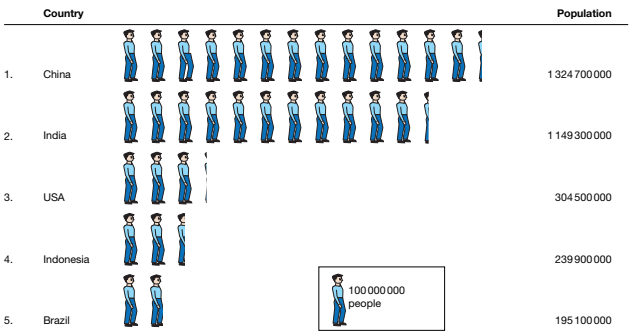
online only

What is a pictograph?

A pictograph is a graph drawn using pictures to represent numbers, instead of bars or dots that are traditionally used on graphs. A pictograph is a simple way of representing data and conveying information quickly and efficiently in a different format.

Go online to access:

- an overview of the skill and its application in Geography (Tell me)
- a video and a step-by-step process to explain the skill (Show me)
- an activity and interactivity for you to practise the skill (Let me do it).



Resources

Video eLesson SkillBuilder: Creating and reading pictographs (eles-1659)
Interactivity SkillBuilder: Creating and reading pictographs (int-3155)

LESSON
12.20 SkillBuilder: Describing photographs

online only

What is meant by 'describing photographs'?

A description is a brief comment (up to a paragraph) on a photograph, identifying and communicating features from a geographic point of view. As geographers, we use our understanding of the world to interpret the image and tell others about the main features or information the photograph reveals.



Go online to access:

- an overview of the skill and its application in Geography (Tell me)
- a video and a step-by-step process to explain the skill (Show me)
- an activity and interactivity for you to practise the skill (Let me do it).

on Resources

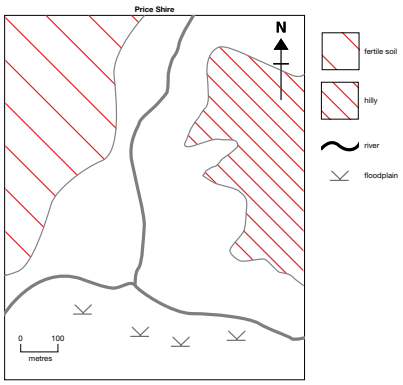
Video eLesson SkillBuilder: Describing photographs (eles-1660)
Interactivity SkillBuilder: Describing photographs (int-3156)

LESSON
12.21 SkillBuilder: Constructing a basic sketch map

online only

What is a basic sketch map?

A basic sketch map is a map drawn from an aerial photograph or developed during field work that identifies the main features of an area. Basic sketch maps are used to show the key elements of an area, so other more detailed characteristics are not shown.



Go online to access:

- an overview of the skill and its application in Geography (Tell me)
- a video and a step-by-step process to explain the skill (Show me)
- an activity and interactivity for you to practise the skill (Let me do it).

on Resources

Video eLesson SkillBuilder: Constructing a basic sketch map (eles-1661)
Interactivity SkillBuilder: Constructing a basic sketch map (int-3157)

LESSON
12.22 Review

Hey students! Now that it's time to revise this topic, go online to:

Review your results | **Watch teacher-led videos** | **Practise questions with immediate feedback**

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12.22.1 Key knowledge summary

12.2 Concepts in Geography

- The acronym SPICESS helps you remember the seven geographical concepts:
  - Space
  - Place
  - Interconnection
  - Change
  - Environment
  - Sustainability
  - Scale.

12.3 Skills used in Geography

- Many occupations are linked to the study of Geography.
- New jobs are developing in the spatial sciences that use geographical tools such as GPS, GIS, satellite imaging and surveying.
- You will learn, practise and master a range of essential practical skills, including:
  - questioning and researching using geographical methods
  - interpreting and analysing geographical data and information
  - concluding and decision-making
  - communicating.

on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10742)
Reflection (ewbk-10744)

Interactivity Geography concepts and skills crossword (int-8995)

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LESSON
12.4 SkillBuilder: Recognising land features

LEARNING INTENTION

By the end of this lesson you will be able to recognise and describe the major land features on a topographic map.

12.4.1 Tell me

What are land features?

Land features are landforms with distinct shapes, such as hills, valleys and mountains. You recognise these as you look around your natural environment. On topographic maps you recognise land features from the patterns formed by the contour lines.

Why is it useful to recognise land features?
By recognising land features, we understand our natural environment. This is useful for a wide range of activities including:

- planning housing estates, freeway routes and reservoirs
- organising outdoor recreational pursuits such as orienteering, trail-biking and flying
- managing hazards such as flooding.

Recognising land features on a map involves identifying the shapes created by the pattern of contours.

12.4.2 Show me

How to recognise a land feature

By reading the contour lines on a map, an understanding of the shape of the land is obtained. Land features are identified from the contour lines.

You will need:

- a topographic map.

Procedure

Use the contour lines to identify land features.

Step 1

Look at the contour lines on **FIGURE 1**. You will see that sometimes the lines are close together and sometimes the lines are further apart. Identify two areas where this is the case.

Step 2

Using your hand, create the shape of a hill. For every 50 metres increase of the hill slope, move your hand higher and at each step visualise that this is the next contour line on a map.

Try this for some other landforms that you are familiar with, such as a valley or a beach cliff.

Did you recognise that if the contours are close together then the shape of the land is steep, and if the contours are further apart then the land is flatter?

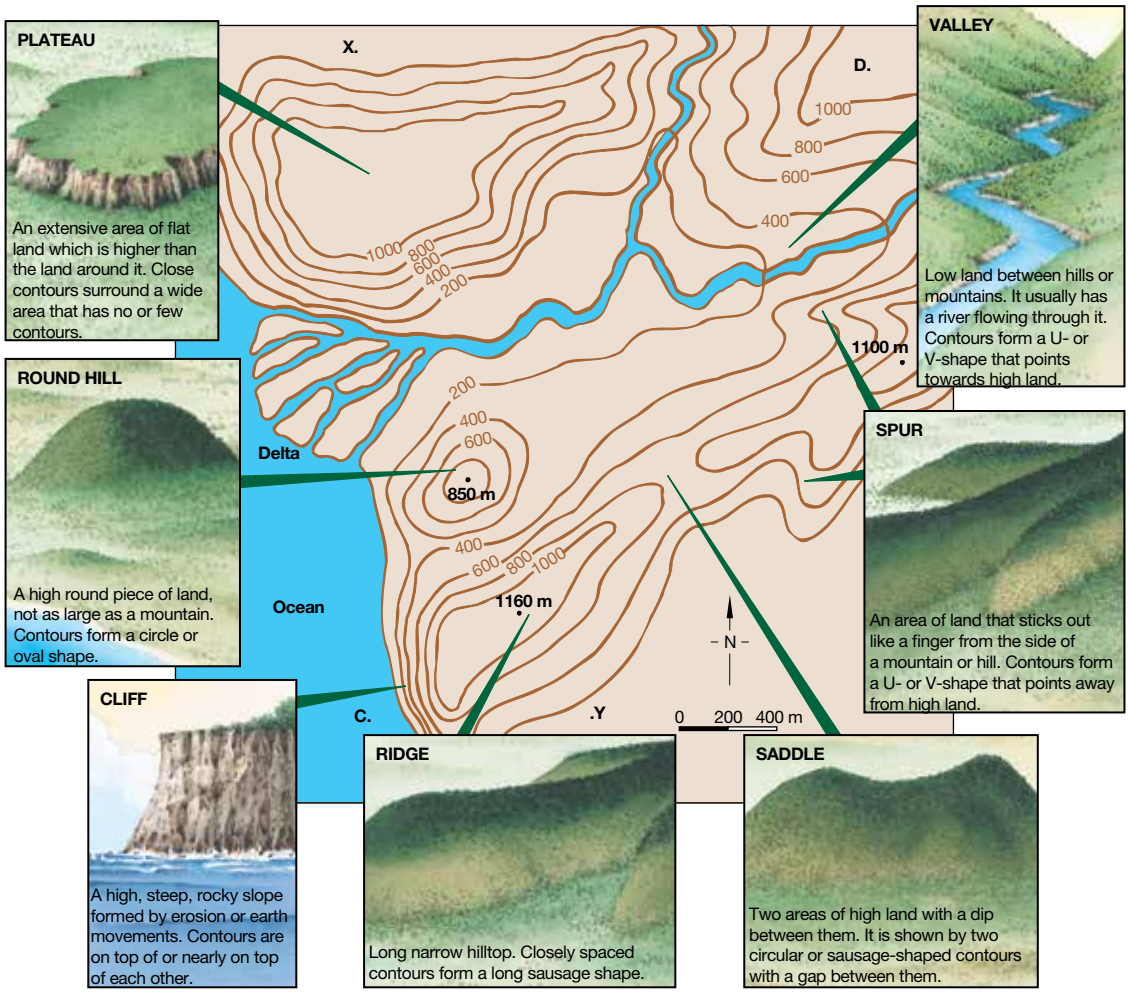
Step 3

Landforms have distinctive shapes with contours, which a geographer recognises on a topographic map as a particular land feature. Use **FIGURE 1** as a guide to understanding the shapes on maps as land features. Create your own hand models of the shape of each land features.

Model

FIGURE 1 shows a simple topographic map including a spur, cliff, valley and plateau. These land features are identified by the way the contour lines come together to create shapes on the map.

FIGURE 1 Landforms matched to a topographic map



Resources

Digital document Topographic map of Yarra Yarra Creek Basin (doc-31343)
Video eLesson SkillBuilder: How to recognise land features (eles-1648)
Interactivity SkillBuilder: Recognising land features (int-3144)

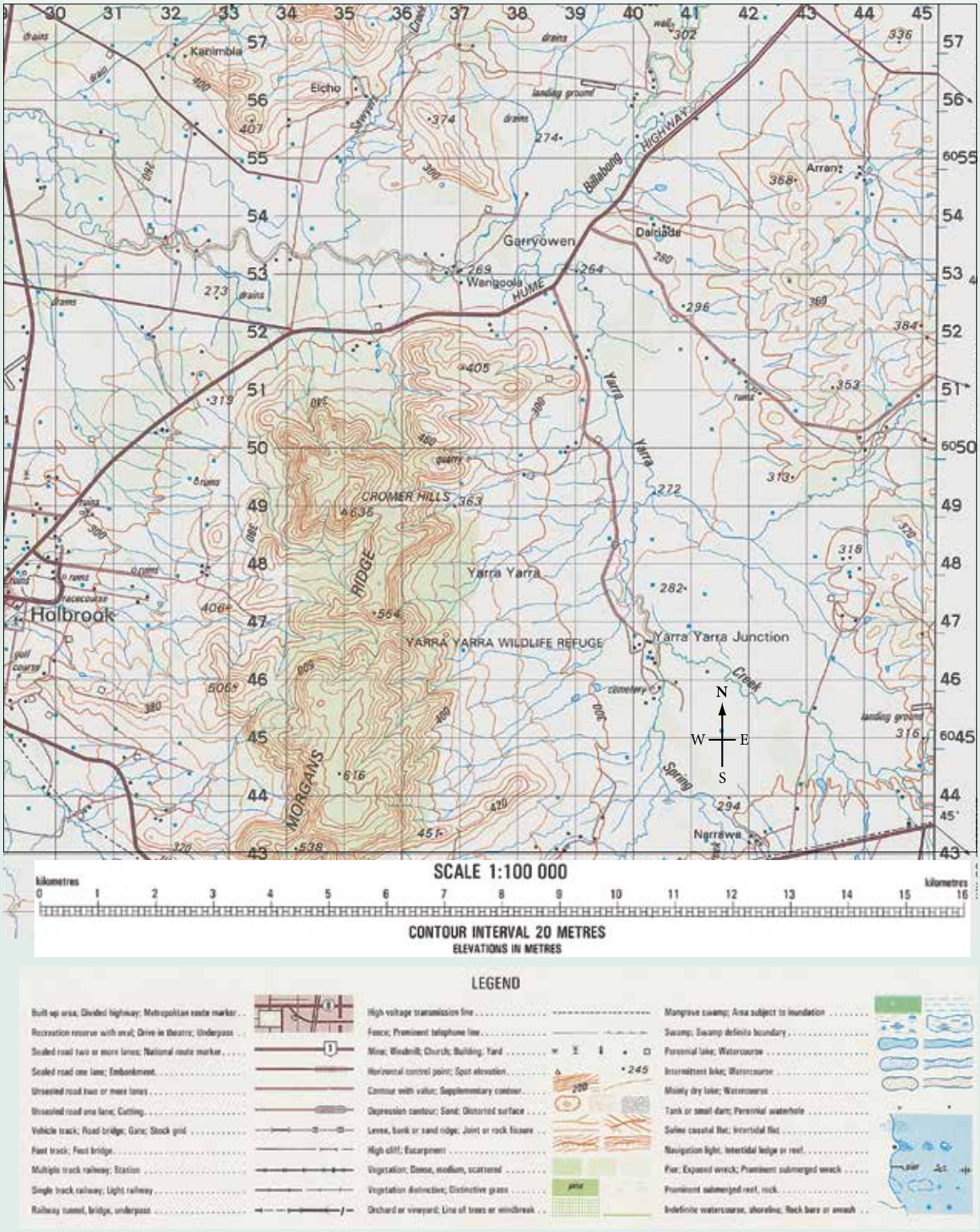
12.4.3 Let me do it

Complete the following activities to practise this skill.

12.4 ACTIVITIES

1. Use **FIGURE 2**, the map of Yarra Yarra Creek Basin, New South Wales, to identify the following landforms.

FIGURE 2 Topographic map of Yarra Yarra Creek Basin



Source: Spatial Vision

- Ridge
- Wide valley
- Very steep slope
- Spot height of 635 metres
- Spur
- Plateau
- Saddle

HASS skills: Analysing

2. Apply your skills to answer the following questions.
   a. Which slope of Morgans Ridge would be the most difficult to climb?
   b. What two natural features can be seen from Morgans Ridge to the east?
   c. What are the heights of the peaks on Morgans Ridge?
   d. Can you see the town of Holbrook from Wangoola? Explain your answer.
   e. What land features form part of Morgans Ridge?

HASS skills: Analysing

Checklist

I have:

- identified patterns in contour lines
- recognised the major land features on a topographic map.

LESSON
12.5 SkillBuilder: Reading contour lines on a map

LEARNING INTENTION

By the end of this lesson you will be able to explain what contour lines are and why they are useful. You will also be able to read contour lines on a topographic map.

12.5.1 Tell me

What are contour lines?

Contour lines drawn on a map join all places of the same elevation (height). These lines are usually brown and have a number written on them to indicate height above sea level. Contour maps are used to show the relief (shape) of the land and the heights of the landscape. Land heights are identified from aerial photography. Natural features, such as rivers, lakes and beaches, and human features, such as towns, roads and power lines, are added to the map to complete the landscape picture. Symbols provided in a legend (or key) or labels on the map add information to complete the image of the environment.

Why are contour lines useful?

It is not possible to see an entire area when in the environment, so maps with contour lines show the relief of the land and help people to identify features. They are also useful because they tell us the actual height above sea level of particular locations on a map. Contour lines are used by many people, and for various purposes, such as:

- organising a hike
- land-use planning of roads, airports, train lines and power-line routes
- identifying slopes for building sites
- planning decisions
- leisure activities; for example, working out where the best rapids on a river might be or where to launch or land a hang-glider.

Reading contour lines on a map involves:

- identifying a contour line
- finding its number (metres above sea level)
- determining the contour interval
- checking spot heights.

12.5.2 Show me

How to read contour lines

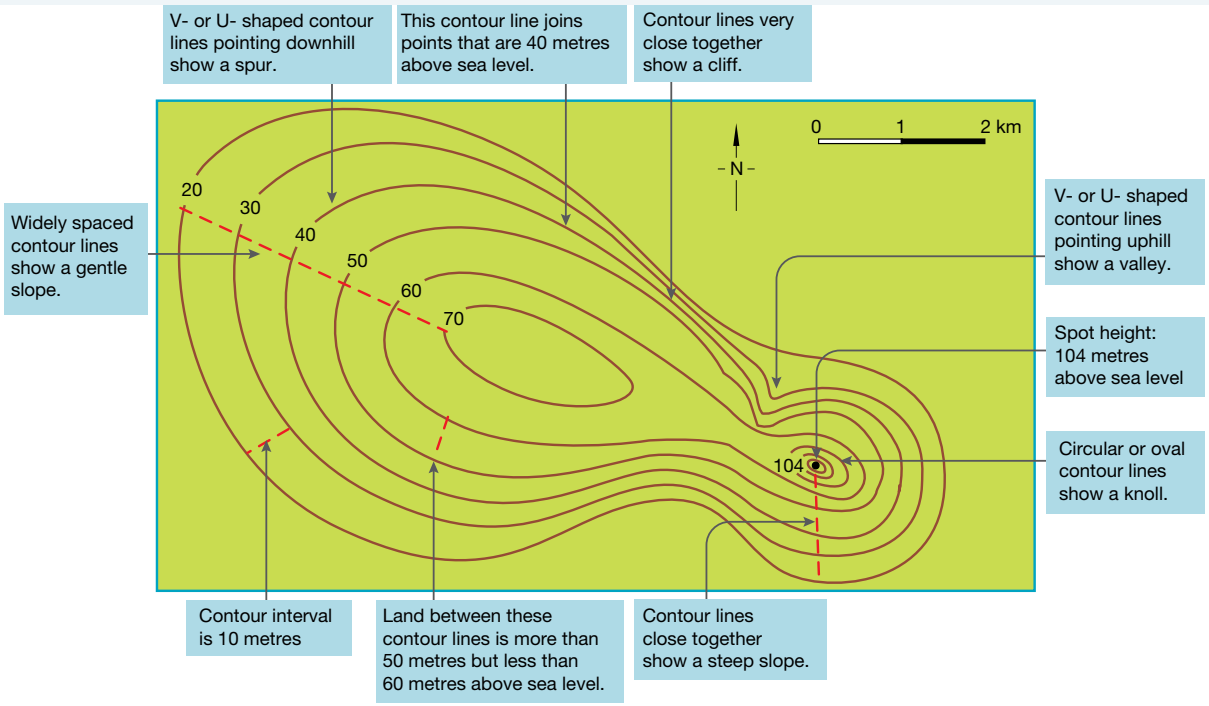
You will need:

- a contour (topographic) map.

Model

The contour lines (brown lines) on the simple topographic map shown in **FIGURE 1** join places of the same height above sea level. The contour lines are drawn at 10-metre intervals. The highest point is identified by a spot height of 104 metres. Landscape features such as steep or gentle slopes, cliffs, valleys, spurs and knolls can be identified using the contour lines on the map.

FIGURE 1 How contour lines show the shape of the land



Procedure

Step 1

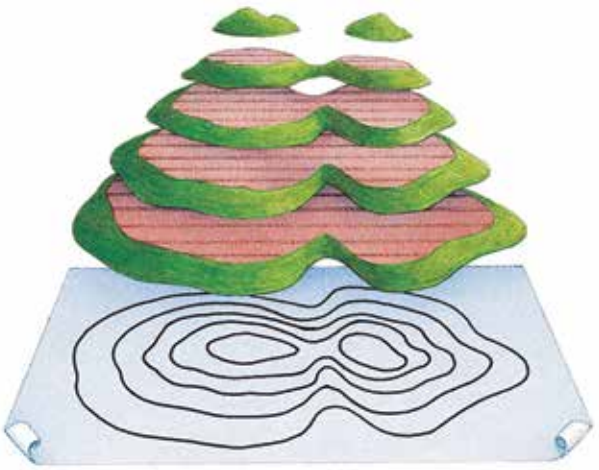
To find the height of a particular area of land, identify a contour line in **FIGURE 1** and follow the line to find the number that states the height above sea level (in metres).

Step 2

Spot heights are dots that indicate the exact height at the highest point of a hill or the lowest point of a depression. For example, the hill in **FIGURE 1** is exactly 104 metres above sea level at its peak. This spot is higher than the last contour line (in this case 100 m), but lower than the height at which the next contour line would be drawn (110 m).

If the contour interval shown in **FIGURE 2** is 20 metres, what height could the land be on these hilltops?

FIGURE 2 A topographic map represents a three-dimensional landscape on a flat surface.



Step 3

The contour interval of a map is the difference in metres between each of the contour lines. This interval is consistent across a map.

If the contour lines are too close and the numbers can't easily be written, it is left to the reader to use the contour interval to calculate heights. The contour interval is often written in the legend as a guide. Check your understanding by considering the landscape shown in **FIGURE 2**. With a contour interval of 20 metres, what would be the height of the land at the top of the contour immediately beneath the hilltops?

Resources

Video eLesson SkillBuilder: Reading contour lines on a map (eles-1651)
Interactivity SkillBuilder: Reading contour lines on a map (int-3147)

12.5.3 Let me do it

Complete the following activity to practise this skill.

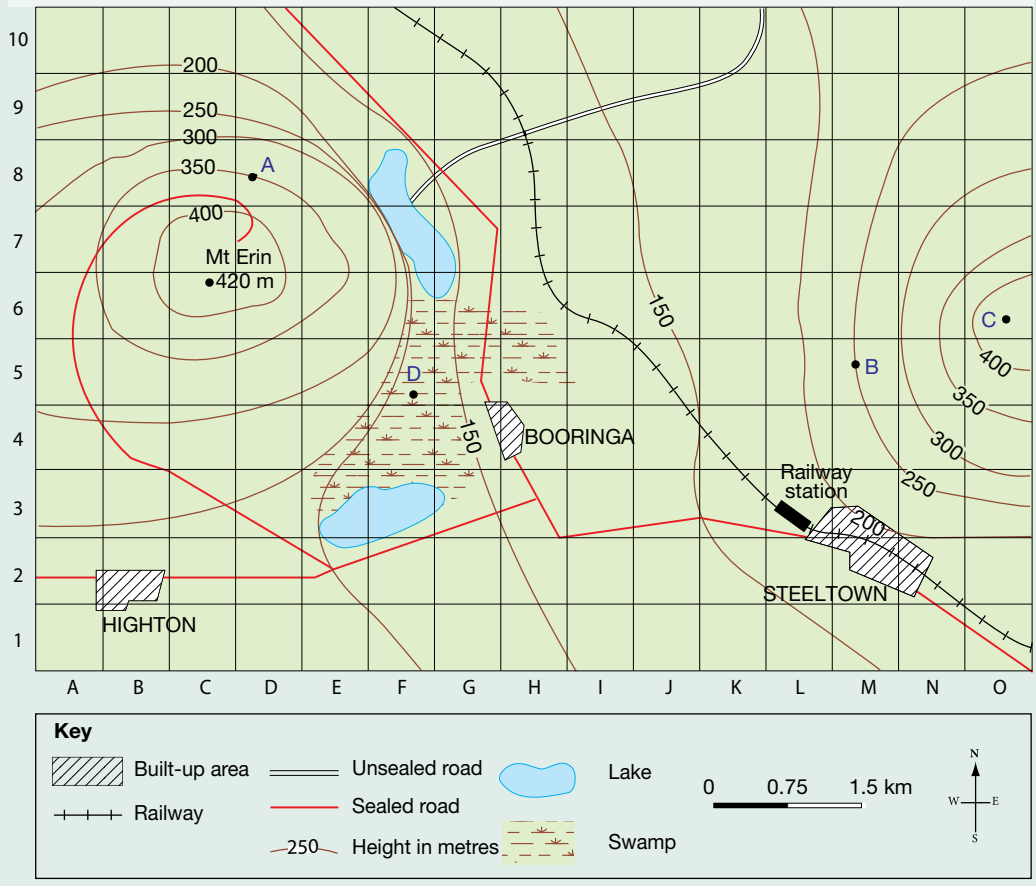
12.5 ACTIVITY

Study **FIGURE 3** and apply your skills in reading contour lines to answer the following questions.

a. What contour heights does the road from Highton to Booringa cross?
b. Does the railway line follow fairly even land or does the train have to climb a steep slope?
c. What is the contour interval on this map?
d. What is the maximum height of Mount Erin at its peak?
e. How would we know that Mount Erin is a hill if it was not labelled so?

HASS skills: Analysing

FIGURE 3 A simple topographic map of Mount Erin and surrounding areas



Source: MAPgraphics Pty Ltd, Brisbane

Checklist

I have:

- understood contour lines
- understood contour intervals
- understood spot heights.

LESSON
12.6 SkillBuilder: Using latitude and longitude

LEARNING INTENTION

By the end of this lesson you will be able to:
- explain the difference between latitude and longitude
- accurately read parallels of latitude
- accurately read meridians of longitude.

12.6.1 Tell me

What are latitude and longitude?

Latitude and longitude are imaginary grid lines encircling the Earth. They can be drawn over a map to help us locate a place.

The lines that run parallel to the equator are called parallels of latitude. Each line is measured in degrees north (N) and south (S) of the equator (0°). The equator divides the Earth into two parts — the northern hemisphere and the southern hemisphere. The latitude at the North Pole is 90°N, and the latitude at the South Pole is 90°S. All places have a latitude reading somewhere between 0° and 90°N, or 0° and 90°S.

Lines of longitude run from north to south from the North Pole to the South Pole. These are called meridians of longitude and are also measured in degrees. The Prime (or Greenwich) Meridian (0°) runs through Greenwich Observatory near London, England. Places are either east (E) or west (W) of this line. All places have a longitude reading somewhere between 0° and 180°E, or 0° and 180°W.

FIGURE 1 The parallels of latitude

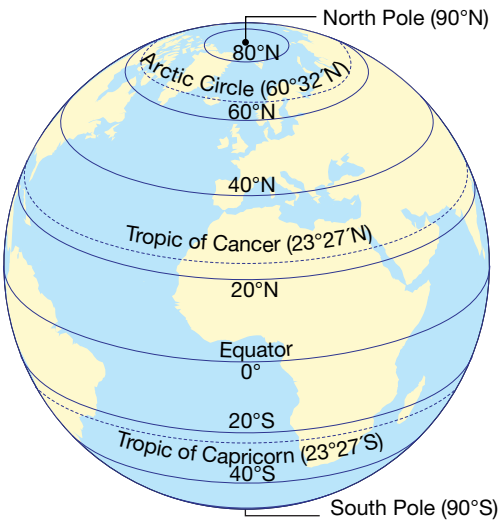
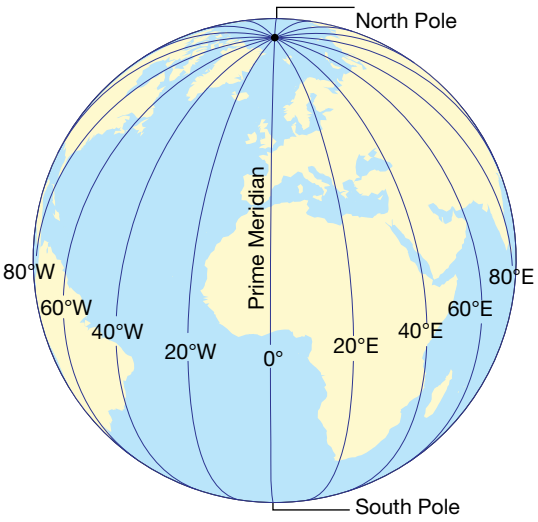


FIGURE 2 The meridians of longitude



How are latitude and longitude useful?

Latitude and longitude are used to give the precise location of a place in an atlas, on a globe, or on a map showing a large region. Lines of latitude and longitude form a grid pattern on a map and this makes identifying the location of a place easy. A gazetteer index lists latitude and longitude readings of all places featured in an atlas.

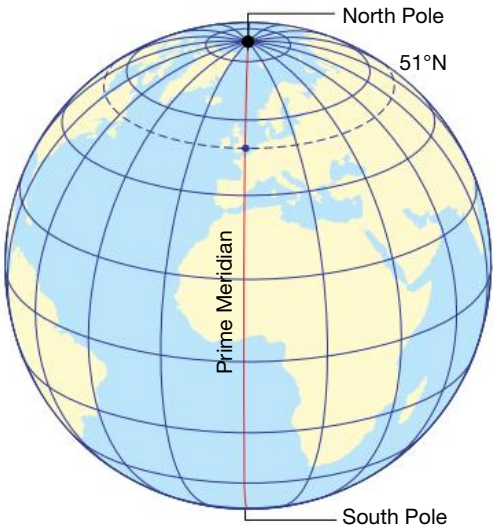
Latitude and longitude are useful for identifying exact locations in a range of situations, including :

- sailing on the open ocean
- flying across vast expanses
- gaining a GPS reading
- viewing Google Earth
- studying maps to plan a touring holiday.

Using latitude and longitude accurately involves:

- identifying the precise location of a place
- accurately reading parallels of latitude
- accurately reading meridians of longitude
- writing the reading correctly.

FIGURE 3 Latitude and longitude lines form a grid pattern



12.6.2 Show me

How to use latitude and longitude

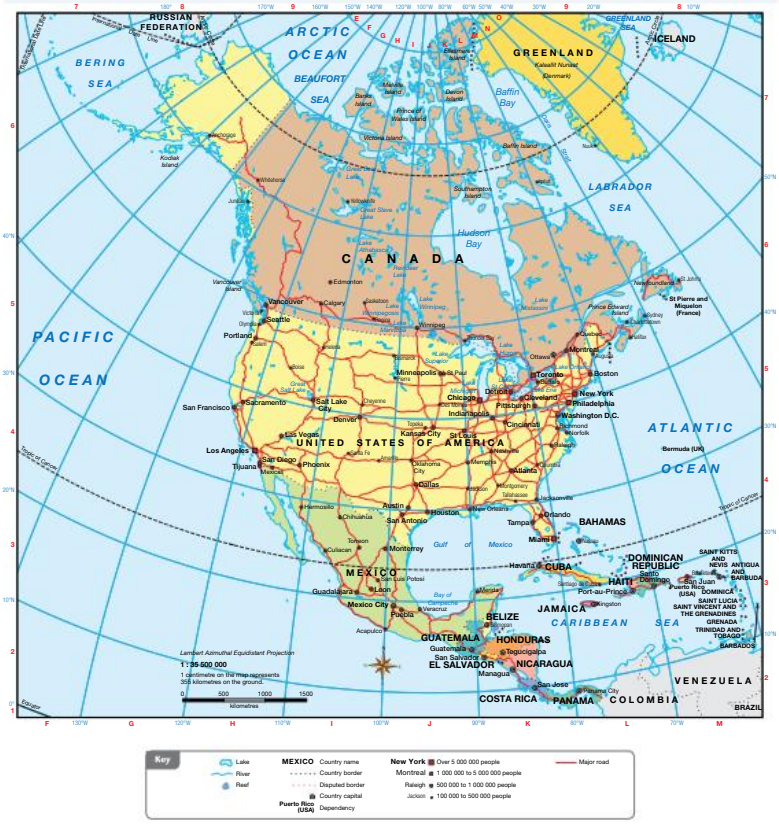
You will need:

- a map with a latitude and longitude grid
- a ruler.

Model

Philadelphia in the United States is located at 40°00′N 75′°10′W. Further east, on the coast, is Boston at 42°20′N 71°05′W. Dallas, in the central south of the country, is at 32°47′N 96°48′W. On the west coast, Los Angeles is at 34°00′N 118°15′W and San Francisco is at 37°45′N 122°27′W.

FIGURE 4 North and Central America



Source: Spatial Vision

Procedure

Step 1

Determine the place for which you want to give a latitude and longitude reading.

Step 2

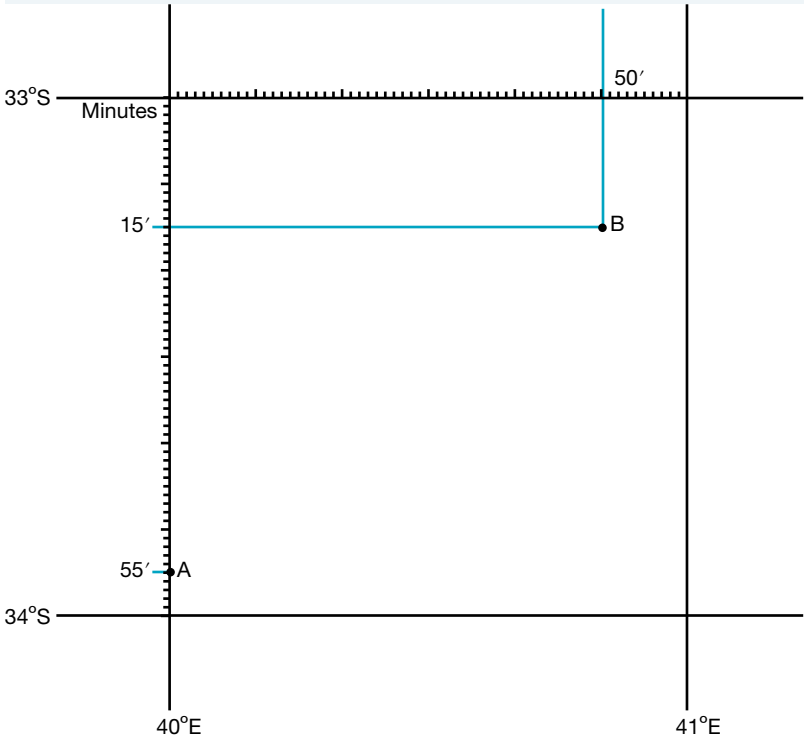
Begin with the parallels of latitude. Determine the degrees on the line closest to the location. For example, in **FIGURE 4** Philadelphia is at 40°N — it is exactly on the line of latitude and north of the equator. The equator (0°) is shown in the bottom left corner of **FIGURE 4** but due to the Earth's curve, it cannot be seen across the entire map because it dips below the area shown. Not all parallels of latitude are drawn on a map, so you will often have to work out what the closest line of latitude is. For example, in **FIGURE 4**, we can see that Dallas is located at 33°N.

You may have noticed in **FIGURE 4** that an additional parallel of latitude has been drawn and labelled the Tropic of Cancer. This line is at 23.5°N. A similar line is found at 23.5°S and is known as the Tropic of Capricorn. It passes through northern Australia just near Rockhampton. It is between these two lines that the sun moves and determines our seasons.

Step 3

Each degree on the grid is made up of 60 minutes (see **FIGURE 5**). It is likely that a place is not situated exactly on the degree line, so you will need to determine a minute reading as well. This becomes especially evident in smaller-scaled maps. Calculate the minutes for the place you are identifying. It is often a good idea to place a ruler on the map or use a finger to follow a line so that your eyes don't inadvertently cross to another grid square.

FIGURE 5 Showing minutes of a degree



Step 4

Combine the readings to obtain a precise latitude for place. Place A in **FIGURE 5** is at 33°55′S. (The 'S' indicates that this place is south of the equator.)

Step 5

Longitude is determined in a similar manner. Find the north–south line (meridian) closest to the place. Take the line reading and then the degrees reading. For example, in **FIGURE 4** Philadelphia is at 75°W. The 'W' indicates it is west of the Prime Meridian. The Prime Meridian is not shown on **FIGURE 4** but the numbering on the meridians at both the top of the map and the bottom of the map indicate that the Prime Meridian is off the map to the right. On a more detailed map, a minute reading could also be obtained.

FIGURE 6 A sample from the gazetteer index of an atlas

Van Diemen, Cape **80 C9** 11.10 S 130.22 E
Van Diemen Gulf **80 C9**
Vanern, Lake **114 G4**
Vanersborg **114 G4** 58.23 N 12.19 E
Vangunu, island **89 G3**
Vanimo **88 D3** 2.40 S 141.17 E
Vannes **116 C4** 47.40 N 2.44 W
Van Rees Range **88 C3**
Vanrhynsdorp **126 B1** 31.36 S 18.45 E

Latitude

Longitude

Step 6

When combining the grid readings, latitude always comes first. A useful tip is to remember that 'latitude' comes before 'longitude' alphabetically. In **FIGURE 4**, Philadelphia is at 40°N 75°W. In **FIGURE 5**, place B is at 33°15′ S 40°50′ E. Check that you can find these two places.

Step 7

In the gazetteer index of an atlas, the reading for Philadelphia is listed as 40°00′ N 75°10′ W. Have a look in an atlas gazetteer index (usually in the back of the atlas) because the places are all identified by latitude and longitude. With a partner, test each other by naming and looking up locations on a map and practising giving their latitude and longitude.

on Resources

Video eLesson SkillBuilder: Using latitude and longitude (eles-1652)
Interactivity SkillBuilder: Using latitude and longitude (int-3148)

12.6.3 Let me do it

Complete the following activities to practise this skill.

12.6 ACTIVITIES

1. Using **FIGURE 1(b)** in section 12.10.2, give the latitude and longitude readings at the centre of the listed deserts to complete the table below.

Desert	Latitude and longitude reading
Gibson	
Tanami	
Simpson	
Great Sandy	

Geography concepts: Space, Place

2. Apply your skills in using latitude and longitude to answer the following questions.
   a. Which desert can be found at 22°S 133°E?
   b. This South Australian desert can be found at 29°S 141°E. What is its name?
   c. Give a latitude and longitude reading such that a person would find themselves at Davenport Range.
   d. If you were to travel the full length of the Great Dividing Range, at what latitude and longitude would you begin and finish?
   e. Which range extends furthest east — Hammersley, Carnarvon or Robinson? Give the latitude and longitude reading at its most easterly point.
   f. Use the following checklist to assess your development of this skill. Can you tick all the items? If not, with a partner, continue your practice of looking up or providing readings for locations in your atlas until you feel confident in your skills.

Geography concepts: Space, Place

Checklist

I have:
- identified the precise location of a place
- accurately read parallels of latitude
- accurately read meridians of longitude
- written the readings correctly.

LESSON
12.7 Calculating distance using scale

LEARNING INTENTION

By the end of this lesson you will be able to calculate distance measured with a ruler on a map to an actual distance by using a linear scale.

12.7.1 Tell me

What does it mean to calculate distance using scale?

Calculating distance using scale involves working out the actual distance from one place to another using a map. The scale on a map allows you to convert distance on a map or photograph to distance in the real world — what it represents on Earth's surface. A linear scale is the easiest to use, but s ometimes the distance being measured between places is not straight.

Why is calculating distance using scale useful?

Calculating distance by using scale provides a spatial understanding of an area. If you go to an unfamiliar place for a holiday and the tourist information map does not have a scale, it is very difficult for you to know how far it is between places on the map and therefore how long it might take to walk or drive between them. Maps and photographs often show large areas of the Earth on a page. Many people use maps or photographs to gather information and need to understand the distances between places. Examples of people who calculate distance by using scale include:

- architects
- town planners
- engineers
- pilots
- farmers
- tourists.

A good calculation of distance using scale involves accurately converting a ruler-measured distance on a map to an actual distance by using a linear scale.

12.7.2 Show me

How to calculate distance using scale

You will need:

- a map or photograph with a linear scale
- a piece of paper with a straight side for marking places
- a light grey pencil
- a piece of string
- a pencil.

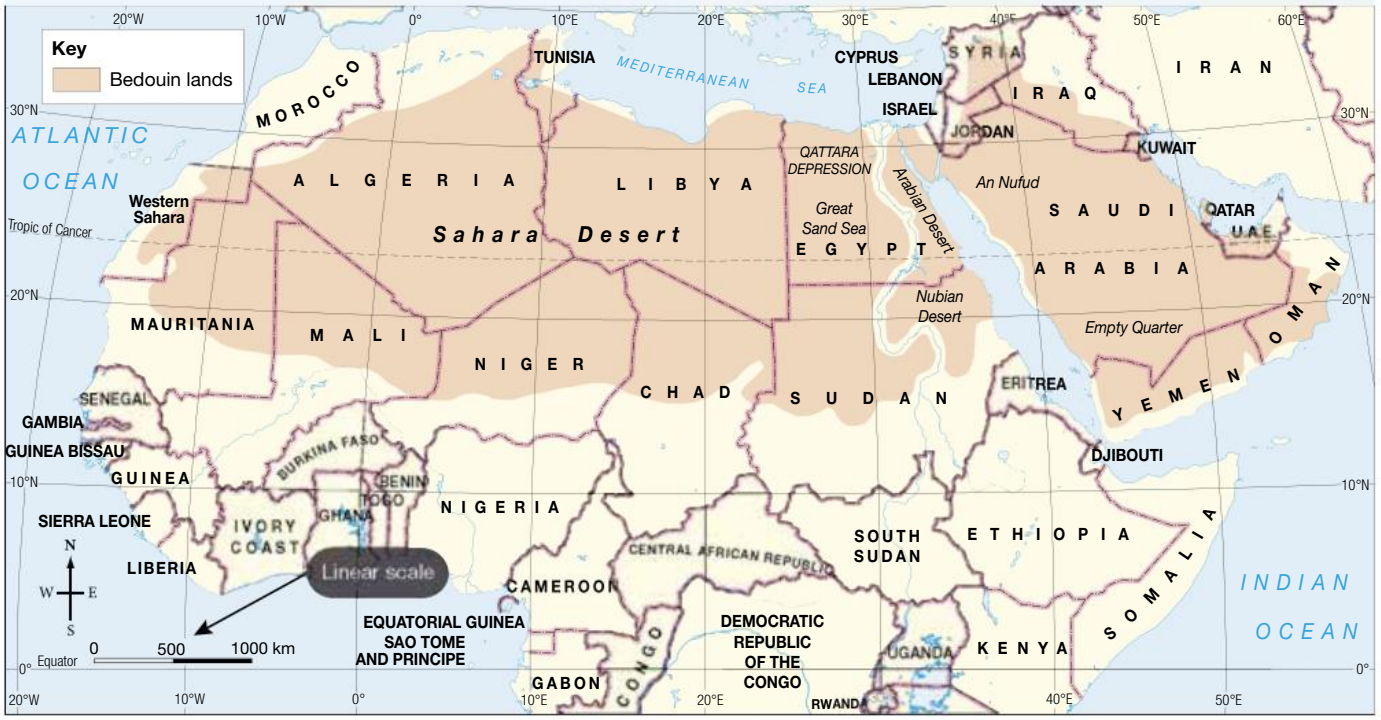
Model

The linear scale of the **FIGURE 1** map is shown in the lower left corner. The shaded Bedouin lands are seen in the key/legend. The Sahara Desert, where the Bedouin people live, is approximately 5250 km from west to east and, on average, 1900 km from north to south.

Procedure

To calculate the distance between places or around places, it is easiest if you have a map or photograph that has a linear scale as shown in **FIGURE 1**.

FIGURE 1 Desert areas inhabited by the Bedouin people



Source: MAPgraphics Pty Ltd, Brisbane

Step 1

Determine the two places between which you want to know the distance. If it is a straight-line distance between the two places — the distance 'as the crow flies' — then your paper edge must be long enough to go between these points. If not, and the distance is winding, then you will need to learn to bend your paper (jump to **step 4**) or use a piece of string (jump to **step 8**).

Step 2

Place the straight edge of the piece of paper between the two places. Mark the two extremities of the distance on the edge. Label the place names at each end if working from a map.

Step 3

Place this marked edge of paper onto the linear scale drawn on the map. One end of the markings must be at 0. Read off the distance on the scale. If the distance is longer than the scale bar on the map, mark your paper edge where the scale bar ends and move this new mark to 0, repeating as often as required. If you have to do this you will need to add the distances together to find the total distance between the named places. Don't forget to add the unit of measurement (for example, metres or kilometres).

FIGURE 2 Measuring straight distances with a scale

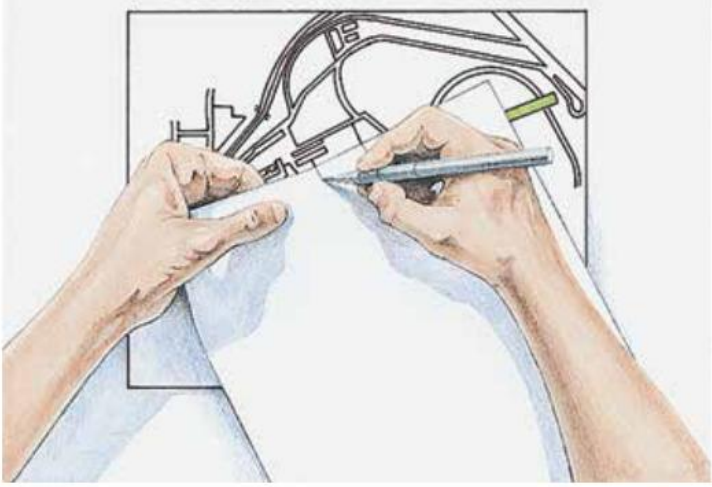
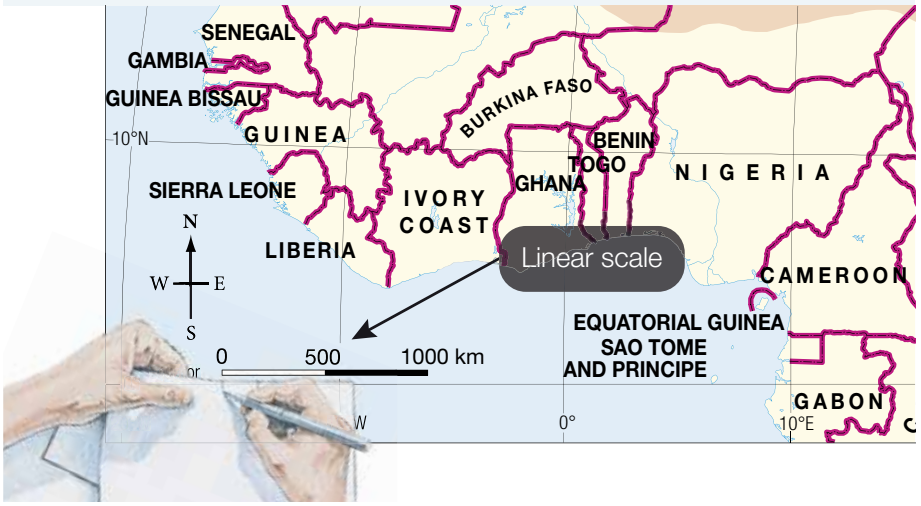


FIGURE 3 Converting the paper edge markings to a 'real' distance



Step 4

If the distance is winding rather than straight — perhaps you are following a road through hills, or a river winding its way downstream, or a hiking track across a ridge — begin by placing the edge of the paper against the starting point, marking the edge with the place name.

Step 5

Move the paper carefully so the edge follows the curve on the map. Use your pencil to apply light pressure while you adjust the paper edge to the curve.

Step 6

Mark and label the end point on your paper.

Step 7

Place the paper along the linear scale and read off the distance between your two places as you did in **step 3**. Don't forget to add the unit of measurement (for example, metres or kilometres).

Step 8

The technique using a piece of string is risky — if you let go of the piece of string, you'll have to start again! Place one end of the string at your starting point and bend the string around the winding distance.

Mark the total distance carefully and place the string against the linear scale to calculate the total distance between the two places. One end

FIGURE 4 Measuring curved distances with a scale using a paper edge

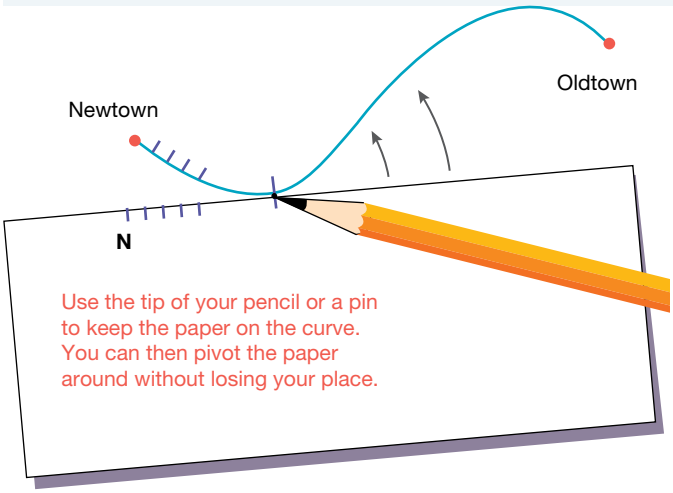
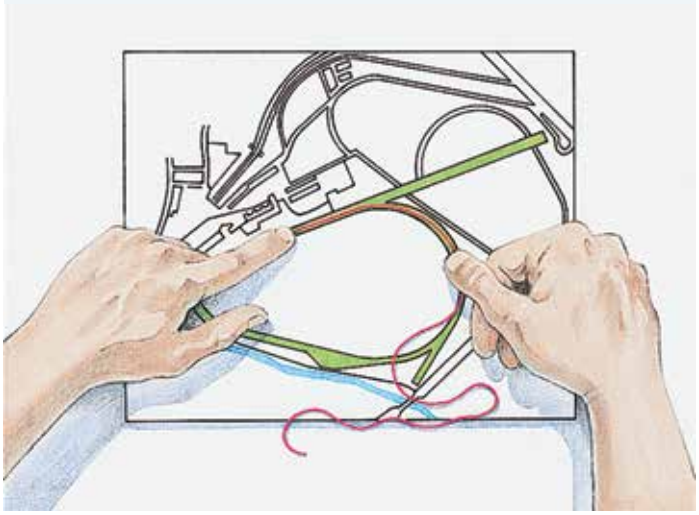


FIGURE 5 Measuring curved distances with a scale using a piece of string



of the string must be at 0. Read off the distance on the scale. If the distance is longer than the scale bar on the map, mark the string or hold it carefully where the scale bar ends and move this new mark to 0, repeating as often as required. If you have to do this, you will need to add the distances together to find the total distance between the named places. Don't forget to add the unit of measurement (for example, metres or kilometres).

Resources

Video eLesson SkillBuilder: Calculating distance using scale (eles-1653)
Interactivity SkillBuilder: Calculating distance using scale (int-3149)

12.7.3 Let me do it

Complete the following activity to practise this skill.

12.7 ACTIVITY

Using **FIGURE 1(b)** in section 12.10.2, complete the following. Tick off the checklist when you feel confident in your development of this skill.

a. How far is it from the west to the east of the Great Victoria Desert?
b. How far is it between the Central Desert and the Simpson Desert?
c. Calculate the distance around the Tanami Desert.
d. What is the distance around the area designated as 'arid zone'?
e. What length of 'arid zone' boundary is also on the coast of Australia?

Geography concept: Scale

Checklist

I have:

- accurately converted a distance measured with a ruler on a map to an actual distance by using a linear scale.

LESSON
12.8 SkillBuilder: Drawing simple cross-sections

LEARNING INTENTION

By the end of this lesson you will be able to complete a simple cross-section using a topographic map.

12.8.1 Tell me

What are cross-sections?

A cross-section is a side-on, or cut-away, view of the land as if it had been sliced through by a knife. It is like taking a vertical slice of the landscape and looking at it side-on. Cross-sections provide us with an idea of the shape of the land. We can use contour lines on topographic maps to draw a cross-section between any two points. Cross-sections also indicate heights at a range of points.

Why are cross-sections useful?

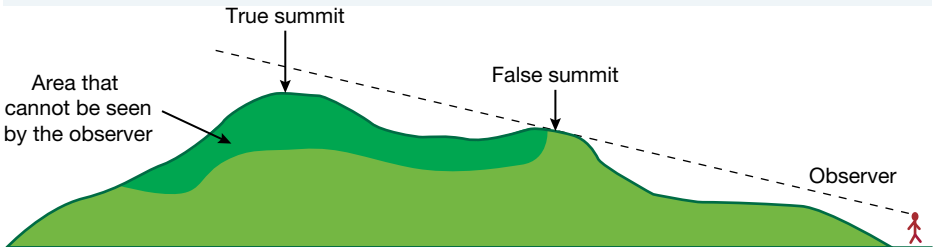
Cross-sections help us visualise the shape of the land between any two points. They are useful because sometimes it is difficult to visualise what topography (the shape of the land) is like when looking at a topographic map. Also, they help us determine if a landform will block the view of other landforms; for example, if a high hill obscures the view of the valley beyond and the lower range of hills. Cross-sections are also useful for:

- showing the changing shape of the land
- planning a walk or hike in a mountainous area
- planning constructions, such as houses, on sloping blocks.

A good cross-section has:

- been drawn in pencil
- ruled axes
- labelled axes
- used small dots
- created a smooth curve
- labelled features, if necessary
- a title.

FIGURE 1 Working with cross-sections



12.8.2 Show me

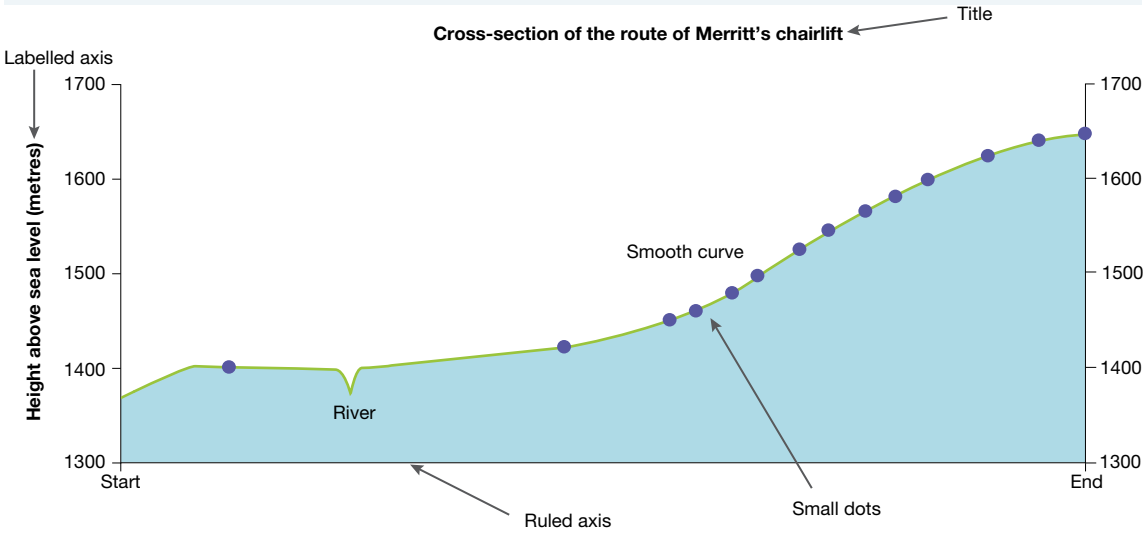
How to complete a cross-section

You will need:

- a topographic map of the region being considered
- a piece of paper with a straight side for marking the contours
- another sheet of paper, or graph paper, to draw the cross-section on
- a light grey pencil
- a ruler
- an eraser.

Model

FIGURE 2 A completed cross-section of Merritt's chairlift route



Procedure

Step 1

Determine the two points between which you want to create a cross-section. Your paper edge must be long enough to reach from one point to the other.

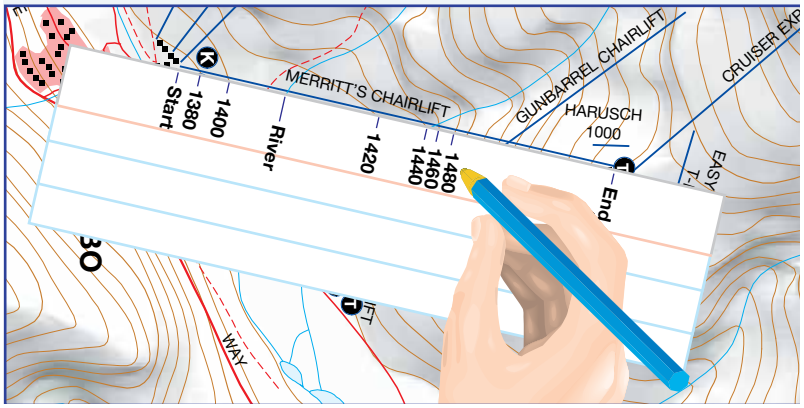
Step 2

Place the straight edge of a piece of paper between the two points. Mark the two extremities of your cross-section on the edge. Label these 'start' and 'end' or use place names/grid references from the map.

Step 3

On the paper, m ark where each contour line touches the edge and write the height of the contour line beside each mark. It may be necessary to lift the paper edge or follow the contour line to find a number. Hold your paper firmly and lift the edges to prevent moving it off the line of the cross-section. When you have completed all the contour markings you can lift the paper away from the map.

FIGURE 3 Marking up the paper edge where each contour touches the page



Step 4

On another sheet of paper, use your ruler to draw an axis onto which to transfer your markings. The horizontal (base) line should be as long as your cross-section from 'start' to 'end'. The vertical scale needs to give a realistic impression of the slopes and landforms. For this exercise, use one centimetre to represent 100 metres.

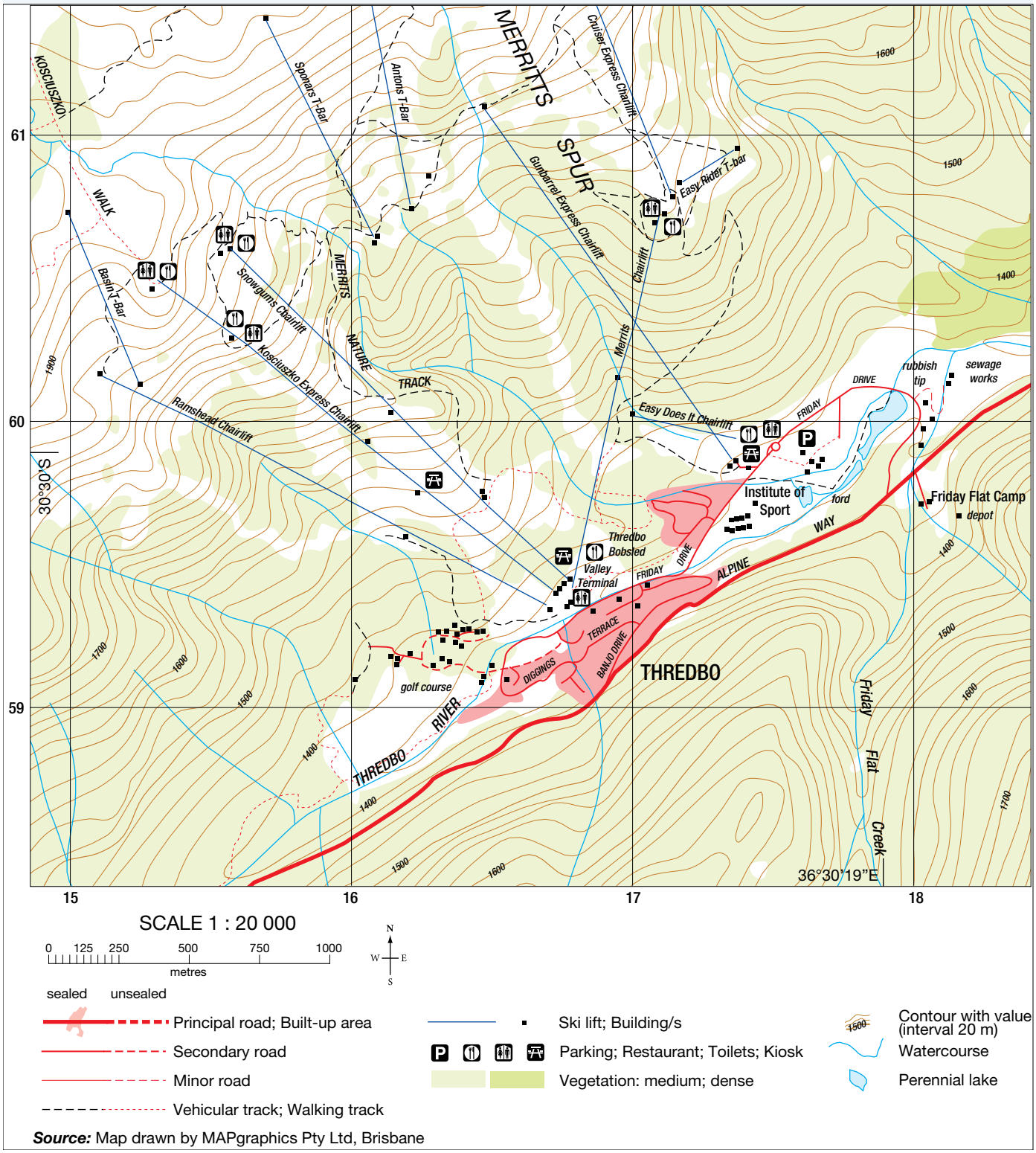
Step 5

Place the marked edge of the paper along the base axis. At each contour marking, find the appropriate height according to the vertical scale and put a small dot directly above the contour marked on the edge of the paper.

Step 6

Join the dots with a smooth line to show the slope of the land. Notice that a notch has been used to show where a river is located on the cross-section, and that the river has been labelled. Other features can be marked similarly when preparing the cross-section, if required.

FIGURE 4 Topographic map of Thredbo, New South Wales

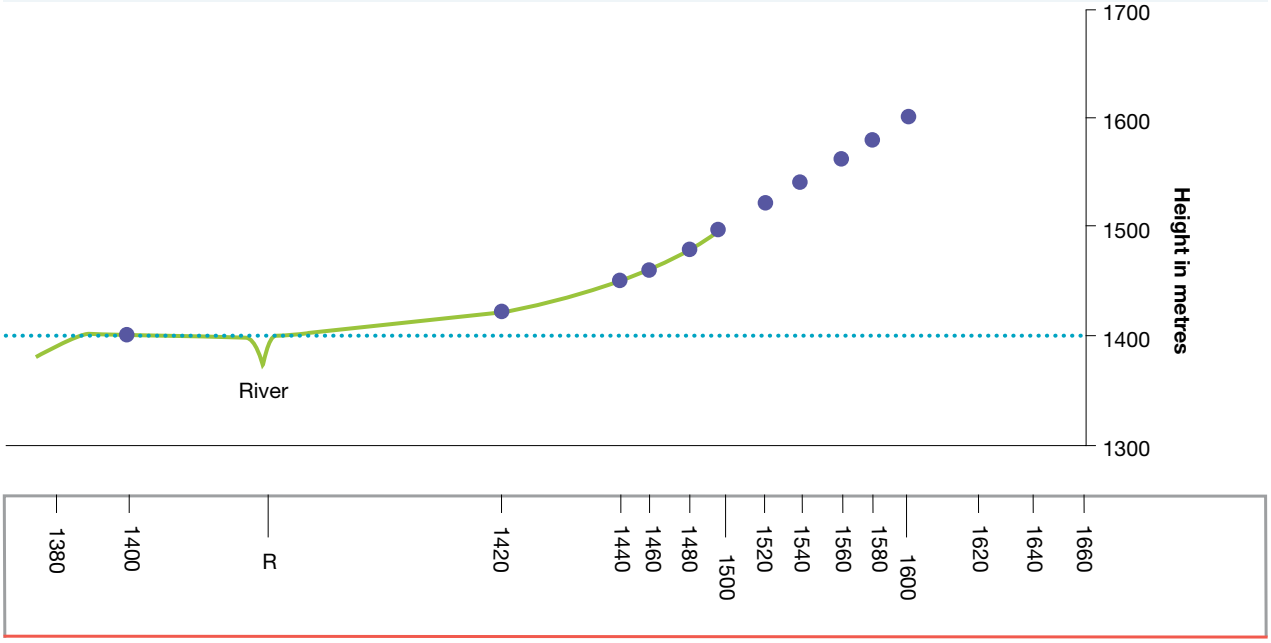


Source: Map drawn by MAPgraphics Pty Ltd, Brisbane

Step 7

Complete the cross-section with the geographic conventions of a title and labelling of the axis. Shade the area below the line of your cross-section.

FIGURE 5 Drawing the curve of the cross-section



Resources

Video eLesson SkillBuilder: Drawing simple cross-sections (eles-1655)
Interactivity SkillBuilder: Drawing simple cross-sections (int-3151)

12.8.3 Let me do it

Complete the following activities to practise this skill.

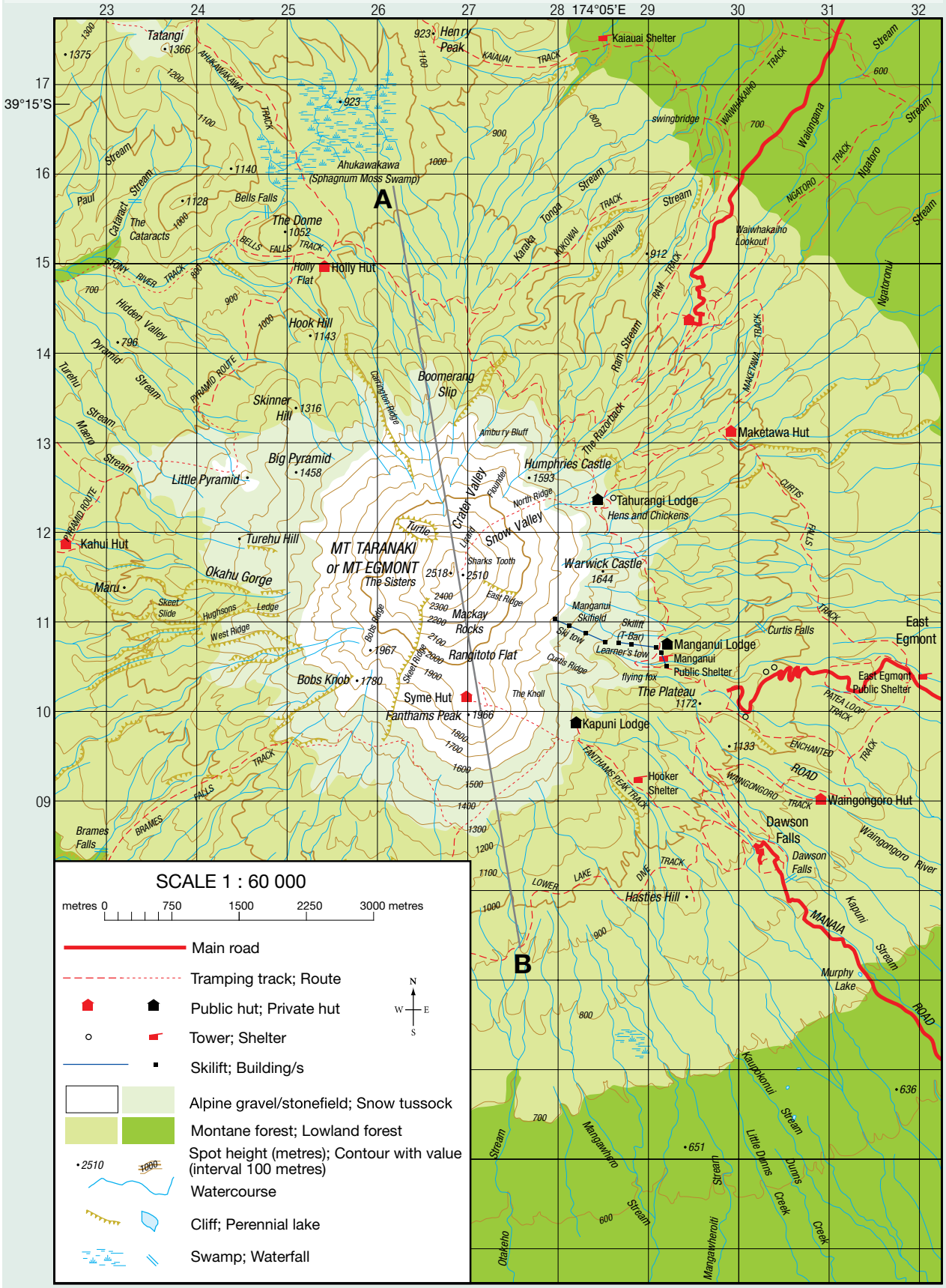
12.8 ACTIVITIES

1. Using **FIGURE 6**, complete a cross-section along the line A–B. Use the checklist to ensure you have correctly completed all aspects of the task. **HASS skills: Analysing**
2. Use your cross-section to answer the following questions.
   a. Based on your cross-section, which side of Mount Taranaki would be the easiest to walk up? Why?
   b. How high is Mount Taranaki at its peak?
   c. How many watercourses are shown on the cross-section?
   d. Describe the vegetation cover of Mount Taranaki along the cross-section.
   e. What type of land feature is Mount Taranaki? **HASS skills: Evaluating**

Checklist

I have:
- used pencil
- ruled the axis
- used small dots
- created a smooth curve
- labelled the axis
- included a title.

FIGURE 6 Topographic map of Mt Taranaki, New Zealand



Source: Topographic Map 273-09 Egmont. Crown Copyright Reserved. Map drawn by MAPgraphics Pty Ltd, Brisbane

LESSON
12.9 SkillBuilder: Interpreting an aerial photo

LEARNING INTENTION

By the end of this lesson you will be able to:

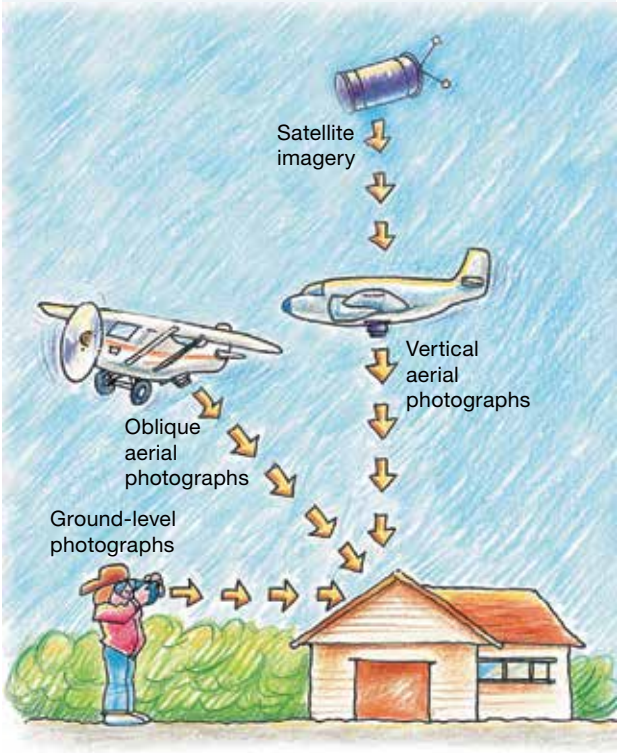
- explain why aerial photographs are useful
- interpret shapes, sizes, tones, patterns and textures on a vertical aerial photograph
- write a detailed description of the vertical aerial photograph.

12.9.1 Tell me

What are aerial photos?

Aerial photographs are those that are taken from above the Earth from an aircraft. Aerial photos, either oblique or vertical, record how a place looks at a particular moment in time. Greater detail of a place can be captured than in a photo taken from ground level. Some aerial photos are also satellite compilations; that is, created by a number of images transmitted from the satellite.

FIGURE 1 Cartographers use different types of photographs



Vertical aerial photos are taken from directly above; that is, looking straight down on objects. Specially equipped aircraft take these photos. These photos are often referred to as a 'bird's eye' view. This is the view from which maps are drawn. When you look at one of these photos, there is a similarity to a plan drawing. For example, Katherine Gorge in **FIGURE 2** is so deep and narrow that it appears as a thin line 'snaking' through the rock formation.

Oblique aerial photos are those taken at an angle from an aircraft. These photos show the height and shape of objects better than vertical aerial photos, but some of the objects in the background can be hidden.

Objects in the foreground appear larger than those in the background. For example, in the oblique aerial photograph in **FIGURE 3** showing rock formations in Purnululu National Park in the Kimberley region of Western Australia, the sandstone domes appear larger in the foreground than in the background.

FIGURE 2 Vertical aerial photograph of Katherine Gorge



FIGURE 3 Oblique aerial photo of rock formations in Purnululu National Park



Source: © MAPgraphics Pty Ltd, Brisbane

Why are aerial photos useful?

Aerial photos can reveal details that are not recorded on maps. They make it easier to see landforms with distinct shapes, different landscapes, land uses, specific places and spatial patterns of the environment. Aerial photos from different time periods can show how a place has changed over time (see **FIGURE 4**).

FIGURE 4 Satellite images of Banda Aceh, Indonesia (a) before, (b) two days after and (c) four years after the tsunami on 28 December 2004





Source: Geoimage Pty Ltd © DigitalGlobe 2009

Interpretation of aerial photos provides a rich source of data for understanding the environment. We can obtain much information about a place by carefully analysing and interpreting an aerial photograph. We also need to be able to describe aerial photo to others. Some groups that use aerial photos are:

- urban developers
- firefighters
- search and rescue organisations
- transport authorities
- agronomists (people who manage land and crops).

Interpreting an aerial photograph involves:

- identifying key features by recognising elements such as shapes, colours, patterns and textures
- describing the main aspects in detail.

12.9.2 Show me

How to interpret a vertical aerial photo

You will need:

- a vertical aerial photo.

Model

The small Australian country town shown in **FIGURE 5** is predominantly a rectangular shape with a grid road system. A major road becomes a divided road as it passes through the town centre. Beside this road is the main shopping strip. The houses are on quite large blocks of land and most gardens have trees. Backyard swimming pools are scarce. The local bowling club can be found in the south-east of town. There appears to be some expansion of the town toward the west. This aerial photograph was taken either in summer when the land is dry or the town is in a low rainfall environment.

Procedure

To identify features on an aerial photograph, such as that in **FIGURE 5**, you need to apply the elements of interpreting an aerial photograph — shapes, size, tone, patterns and texture.

FIGURE 5 Vertical aerial photograph



Source: © Aerial Impressions

Step 1

First, let's consider 'shape' and 'size'. Objects from a vertical viewpoint have obvious shapes. Buildings appear as blocks (you are looking at the roof only). Small blocks are houses; larger blocks are factories if a number are grouped together; single, larger blocks are generally public buildings such as schools, halls and shopping centres. Oval or round shapes are sporting grounds/tracks. Can you imagine a golf course from above? Its size is large; its shape indicates green grass and rows of trees dividing the fairways. Look around the aerial photograph in **FIGURE 5** and identify the trees in the median strip of the major road.

Step 2

'Texture' and 'tone' are gained from the objects themselves in the course of the photography. Texture indicates whether the object has a degree of smoothness or whether it is rough. A mown oval will appear as 'smooth and green'; a forest will appear as 'lumpy and various greens' according to the size and species of trees in the forest; farmland sown to different crops and with some land ploughed will appear as a mosaic of colours.

Tone is the reflection of light from objects to the camera.

- Water glistens when clear, but appears brown when in flood.
- The deeper the water, the darker the colour.
- Sealed highways reflect light in comparison to the dirt of rural tracks. **FIGURE 5** shows a range of differently sized and surfaced roads.
- Sandy beaches glow a cream colour compared to the dark colour of bare soil.

Step 3

'Pattern' is what a geographer delights in observing, as they try to understand the world around them. This involves discovering key patterns in the aerial photograph. Towns generally have a series of roads in a grid pattern. Rivers, as a natural feature, wind their way through an environment. Irrigation channels and railway lines built by humans appear as straight lines. **FIGURE 5** shows how readily the boundary can be identified in this rural environment.

Resources

Video eLesson SkillBuilder: Interpreting an aerial photo (eles-1654)
Interactivity SkillBuilder: Interpreting an aerial photo (int-3150)

12.9.3 Let me do it

Complete the following activities to practise this skill.

12.9 ACTIVITIES

1. Study the vertical aerial photo of Villarrica volcano, Chile (**FIGURE 6**). Use the steps in section 12.9.2 'Show me' to identify key shapes, sizes, patterns and textures. Expand the size of this aerial photo and, using the Paint program (or similar software), label the following features:
   - the central vent
   - snow covered area
   - mud and/or lava flows
   - lakes
   - barren land
   - forested areas
   - a coastal settlement.

   Geography concept: Environment
2. Apply your skills in interpreting aerial photos to answer the following questions about **FIGURE 6**.
   a. Why do you think the mountain peak is covered in snow?
   b. What is the source of the water in the lakes?
   c. Suggest why some of the land is bare.
   d. How do you know that small areas of land near the base of the volcano are used for agriculture?
   e. By its shape, what type of volcano is Mount Villarrica?

   HASS skills: Evaluating
3. Write a detailed description of the aerial photograph, including your interpretation of the shapes, sizes, tones, patterns and textures in the image. Use the checklist to ensure you have covered all aspects of this task.

   HASS skills: Communicating and reflecting

Checklist

I have:
- interpreted shapes, sizes, tones, patterns and textures on a vertical aerial photograph
- written a detailed description of the vertical aerial photograph.

FIGURE 6 Villarrica volcano, Chile



Source: © NASA Earth Observatory image by Jesse Allen and Robert Simmon, using EO–1 ALI data provided courtesy of the NASA EO–1 team.

LESSON
12.10 SkillBuilder: Understanding thematic maps

LEARNING INTENTION

By the end of this lesson you will be able to:
- explain what a thematic map is, and why they are useful
- interpret shapes, sizes, tones, patterns and textures on a vertical aerial photograph write a detailed description of the vertical aerial photograph.

12.10.1 Tell me

What is a thematic map?

A thematic map is a map drawn to show one aspect; that is, one theme. For example, a map may show the location of vegetation types, hazards or weather. Parts of the theme are given different colours or, if only one idea is conveyed, symbols may show location.

Why are thematic maps useful?

Thematic maps are used to identify and represent a single feature. Because no additional clutter is presented on the map, the reader can focus on one feature only.

Thematic maps are useful for:
- focusing the viewer's attention on a single feature
- highlighting the significance of a single feature
- comparing different areas of a map in terms of the existence of a feature.

A good description of a thematic map:
- utilises the title to identify the theme
- applies the key/legend in order for readers to understand the colouring and/or symbols
- identifies and communicates the key theme and features.

12.10.2 Show me

How to understand a thematic map

You will need:

- a thematic map
- an atlas.

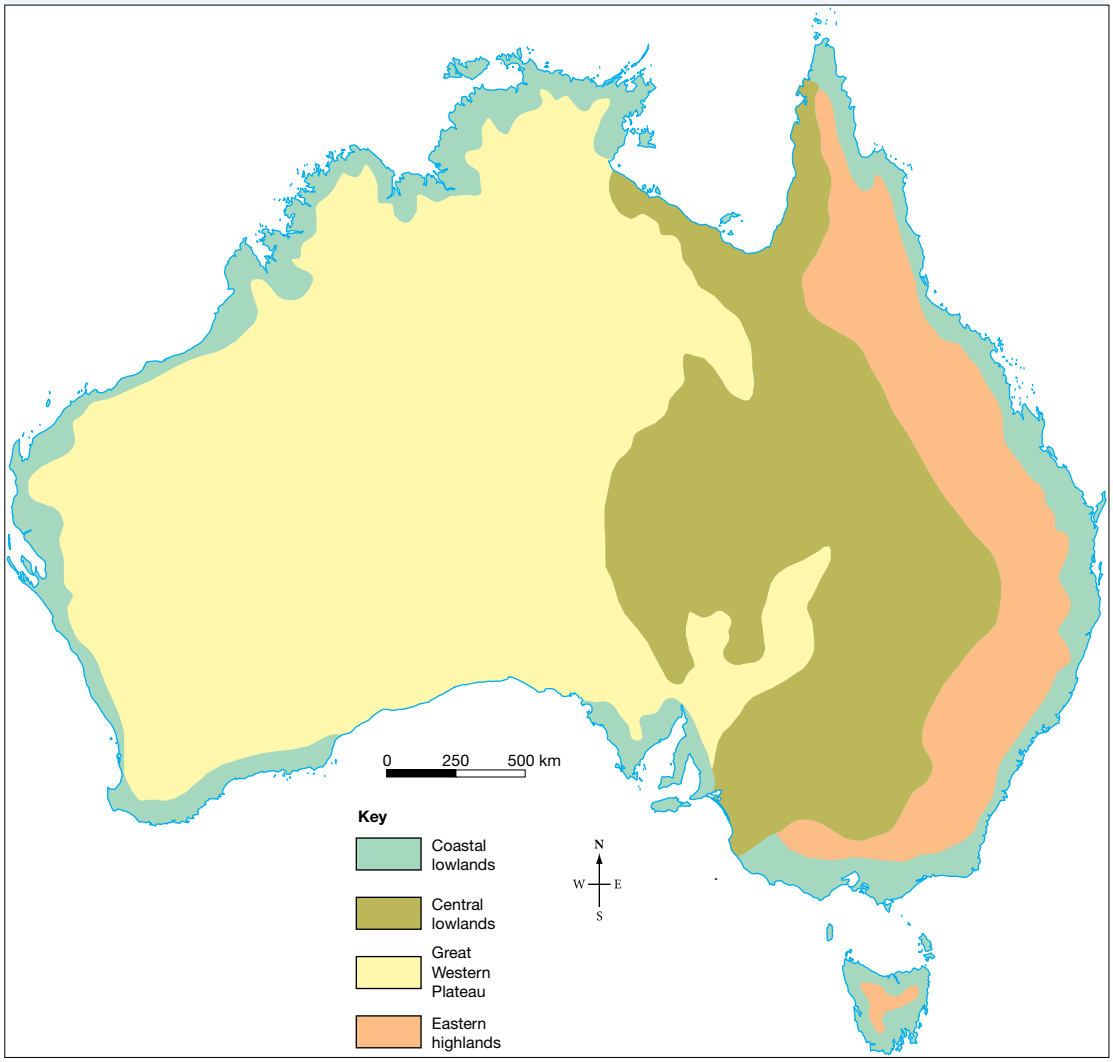
Model

FIGURE 1(a) shows four major landform regions. It is a simplified version of the natural features map shown in **FIGURE 1(b)**. Much of Australia is dominated by the Great Western Plateau, particularly in the west of the country. Following the coastline are the coastal lowlands, except around the Great Australian Bight and near the Victorian/South Australian border. The eastern highlands run parallel to the east coast from the northern tip of Australia to the south. The central lowlands run from the Gulf of Carpentaria to the Victorian/South Australian border.

Procedure

To understand a thematic map, you must be prepared to follow a planned approach to its study.

FIGURE 1(a) Thematic map of the major landform regions of Australia



Source: Map drawn by MAPgraphics Pty Ltd, Brisbane

Step 1

Read the title of the thematic map. What part of the world does the map show? When was the data gathered? What is the theme? In **FIGURE 1(a)**, the theme is 'major landforms in Australia'.

Step 2

Check that the map was put together by a reliable authority. Who is the source of the map? Sometimes textbooks don't state the source, but you can usually find this information by looking at the list of acknowledgements in the book.

Step 3

Read the key/legend to understand the colours and/or symbols that are used. In **FIGURE 1(a)**, four different colours are used to represent each of the four major landforms.

FIGURE 1(b) Topographic map of the natural features of Australia



Source: Map drawn by MAPgraphics Pty Ltd, Brisbane

To interpret the colours you need to comment on where the various colours or symbols occur. Can you discuss the map by continent, or by region? An atlas may be useful to help you identify regions or places. In **FIGURE 1(a)**, the eastern highlands stretch from the north of Australia to the south, parallel to the coastline.

Step 4

You also need to discuss the colours or symbols that appear only in small areas of the map. In **FIGURE 1(a)**, the central lowlands reach to the coast near the Victorian/South Australian border and the Great Western Plateau meets the coast in the Great Australian Bight.

Resources

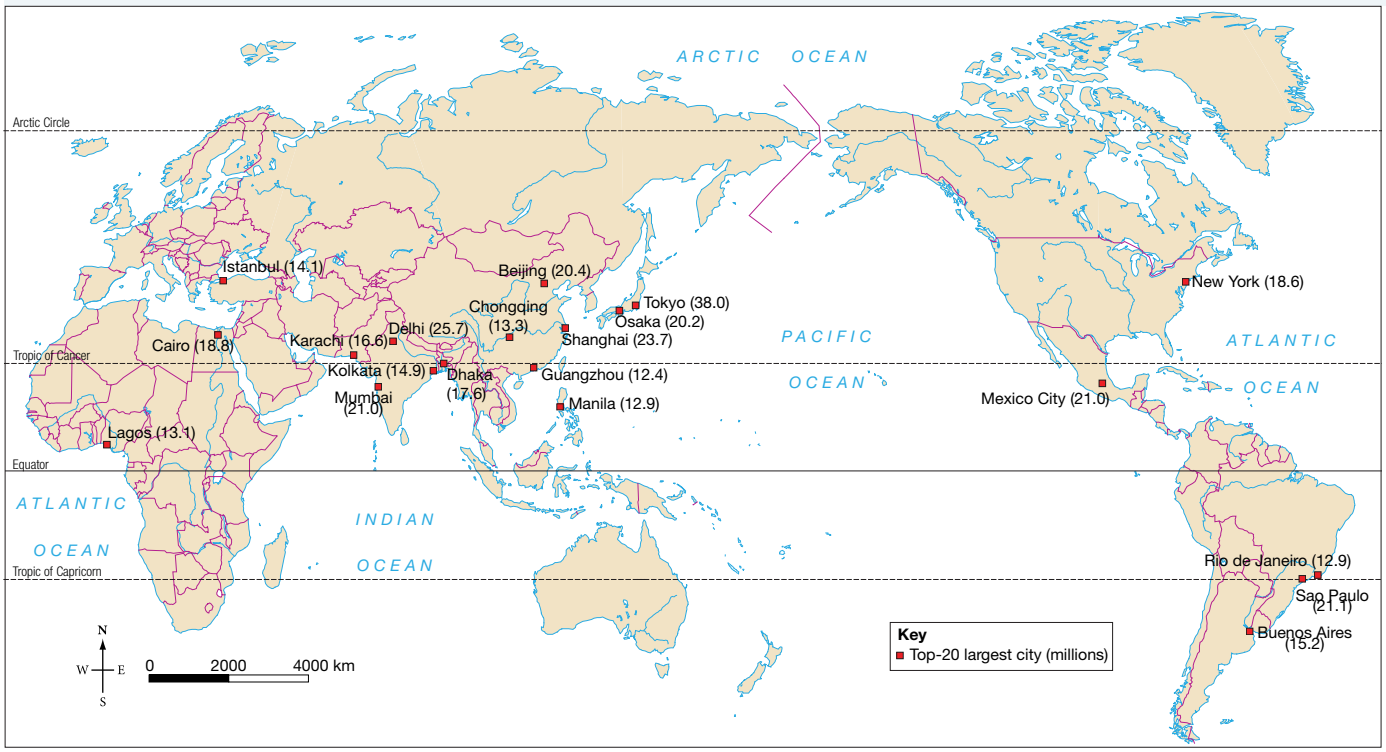
Video eLesson SkillBuilder: Understanding thematic maps (eles-1658)

Interactivity SkillBuilder: Understanding thematic maps (int-3154)

12.10.3 Let me do it

Complete the following activities to practise this skill.

FIGURE 2 The world's 20 largest cities



Source: Map drawn by MAPgraphics Pty Ltd, Brisbane. Data from United Nations, Department of Economic and Social Affairs, Population Division (2014). World Urbanization Prospects: The 2014 Revision, CD-ROM Edition.

12.10 ACTIVITIES

1. Using **FIGURE 2**, describe the locations of the world's 20 largest cities. Use the checklist to ensure you cover all aspects of the task. **Geography concept: Place**
2. Apply your skills by answering the following questions.
   a. What is the title of the map in **FIGURE 2**?
   b. What theme is being shown in **FIGURE 2**?
   c. On which continent are most of the 20 largest cities located?
   d. Which continents contain none of the 20 largest cities?
   e. How many people live in the three largest cities in South America? **HASS skills: Analysing**

Checklist

I have:

- utilised the map title to identify the theme
- applied the key/legend in order to understand the colouring and/or symbols
- identified and communicated the key theme and features.

LESSON
12.11 SkillBuilder: Comparing population profiles

LEARNING INTENTION

By the end of this lesson you will know what a population profile is, why they are useful and be able to compare two population profiles from different countries.

12.11.1 Tell me

What is a population profile?

A population profile, sometimes called a population pyramid, is a bar graph that provides information about the age and gender of a population. The bars identify the proportion of a country's population within a particular age group. The graph is split to show information about males and females. The shape of the population profile tells us about a particular population.

Why are population profiles useful?

Population profiles help us to interpret and understand a list of statistics. Any patterns are easily identified and compared. A triangular shape that is widest at the base, as in **FIGURE 1**, tells us that the population is growing rapidly. A square shape, as in **FIGURE 2**, indicates that population growth is slow. An inverted triangle, as in **FIGURE 3**, tells us that there is negative growth — that is, the population is decreasing.

FIGURE 1 Population profile of Niger, 2009

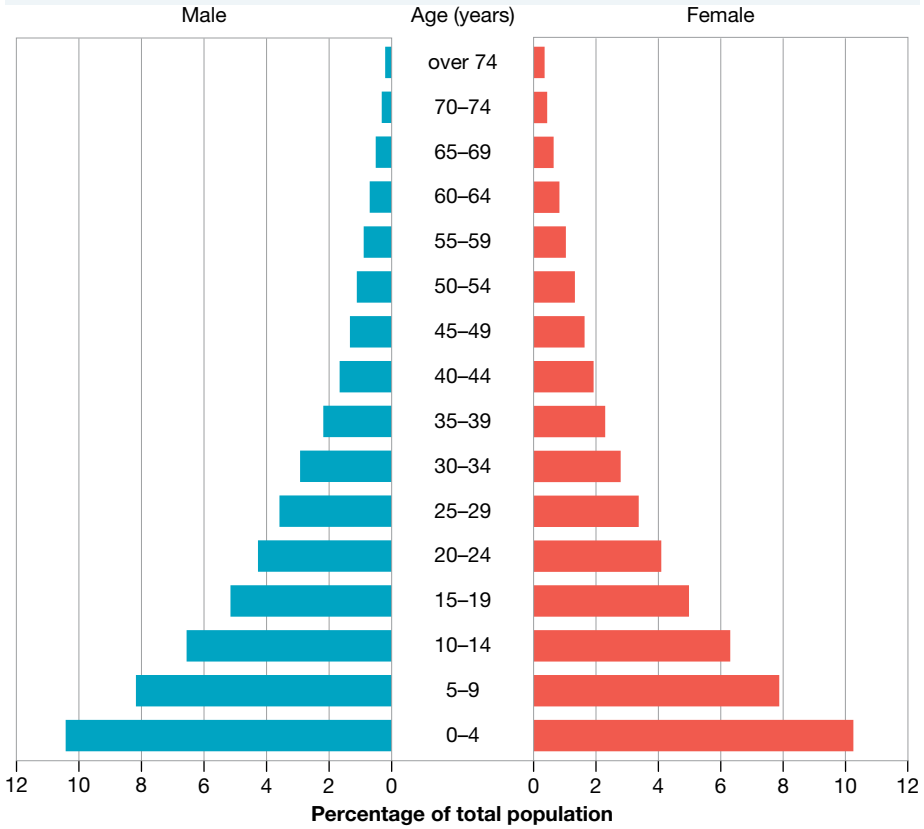


FIGURE 2 Population profile of Germany, 2009

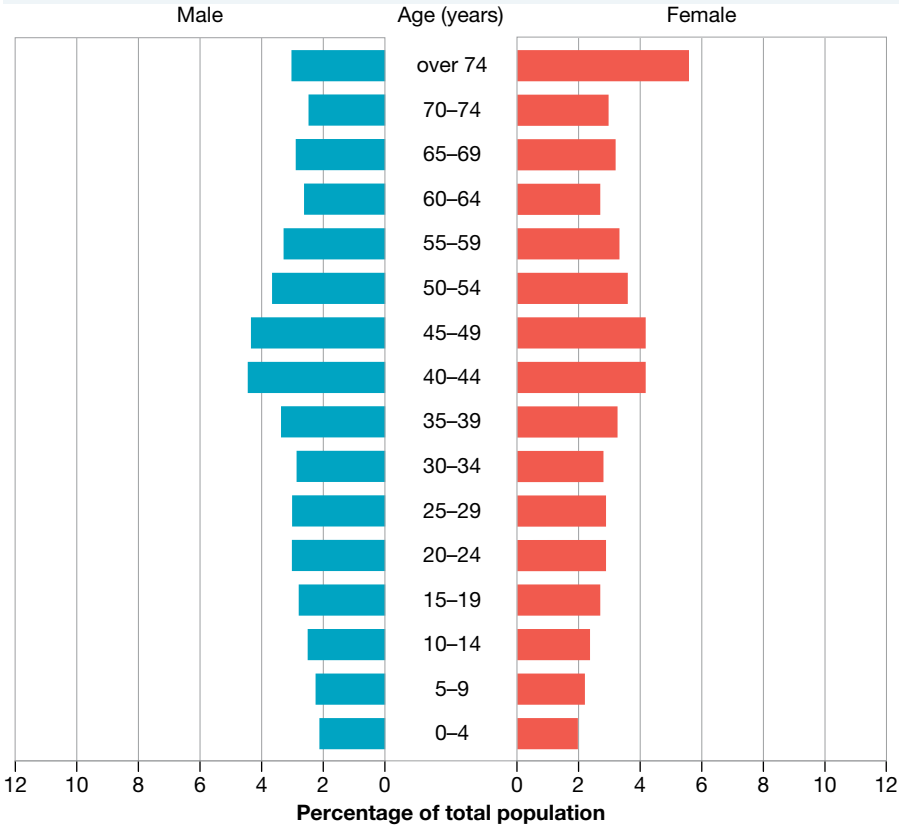
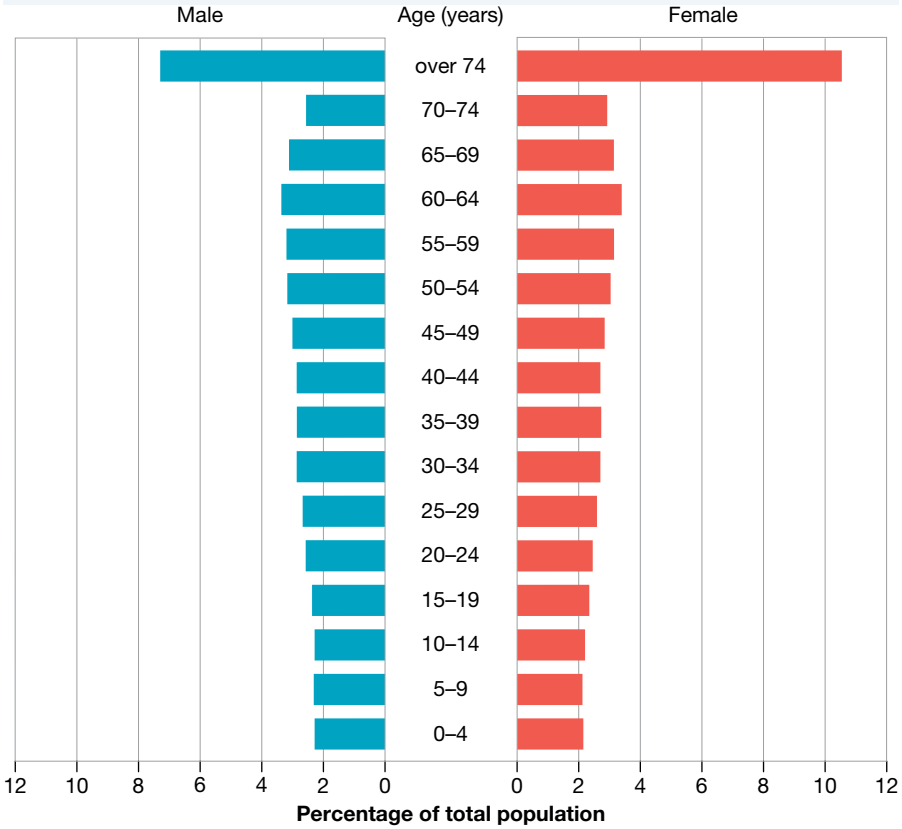


FIGURE 3 Population profile of Germany, 2050



A population profile is used to show us the structure of a population.

- If the lower bars of the profile are wide, the population is young (that is, there is a larger proportion of young people than older people in the population).
- If the upper bars of the profile are wide, the population is ageing.
- Comparisons can be made of the numbers of males and females within a population.
- Exceptions, particularly indents, in the shape may be due to significant events, such as war, disease, emigration or natural disasters.
- Expansions in the shape may be due to factors such as immigration, changes in birth control laws or the ending of a war.

Population profiles are useful for:

- comparing populations of different countries or places
- planning future urban developments
- determining the facilities required in an area; for example, a widening in the bars showing the 5–14 years age group means more schools will be needed, while a widening in the bars showing the 60+ years age group means aged care facilities will be required
- planning by governments for services for the future.

A clear comparison of population profiles has:

- identified the countries to be compared
- considered the three categories of level of dependence (see **Step 2** of the following Procedure)
- provided quantification (numbers) from the population profile
- compared male populations with female populations.

12.11.2 Show me

How to compare population profiles

You will need:

- two population profiles to compare — these can be for the same place at different times, or for two different places at the same time, such as in **FIGURES 4(a)** and **(b)**.

Model

In **FIGURE 4(a)**, Indonesia's profile does not fit a triangular shape; it is not very wide at the bottom, suggesting that it has relatively fewer young people and an ageing population. The profile of Vanuatu is widest at the base (the 0–4 years age group) and tapers in a triangular shape, indicating that it has a youthful population. Vanuatu will have to consider the needs of its population carefully in the future.

In Vanuatu, 41.8 per cent of the population can be regarded as dependent (very young or very old), but in Indonesia the dependent population makes up 32.5 per cent of the population. People in Vanuatu's population can be expected to live into their 70s, whereas those in Indonesia can expect to live into their 80s.

In Vanuatu, the gender balance is skewed to males (the bars show that the male population is slightly larger than that of females in most age groups), whereas in Indonesia the numbers are more evenly balanced (although the proportion of females increases in the 60+ years age group).

Procedure

Step 1

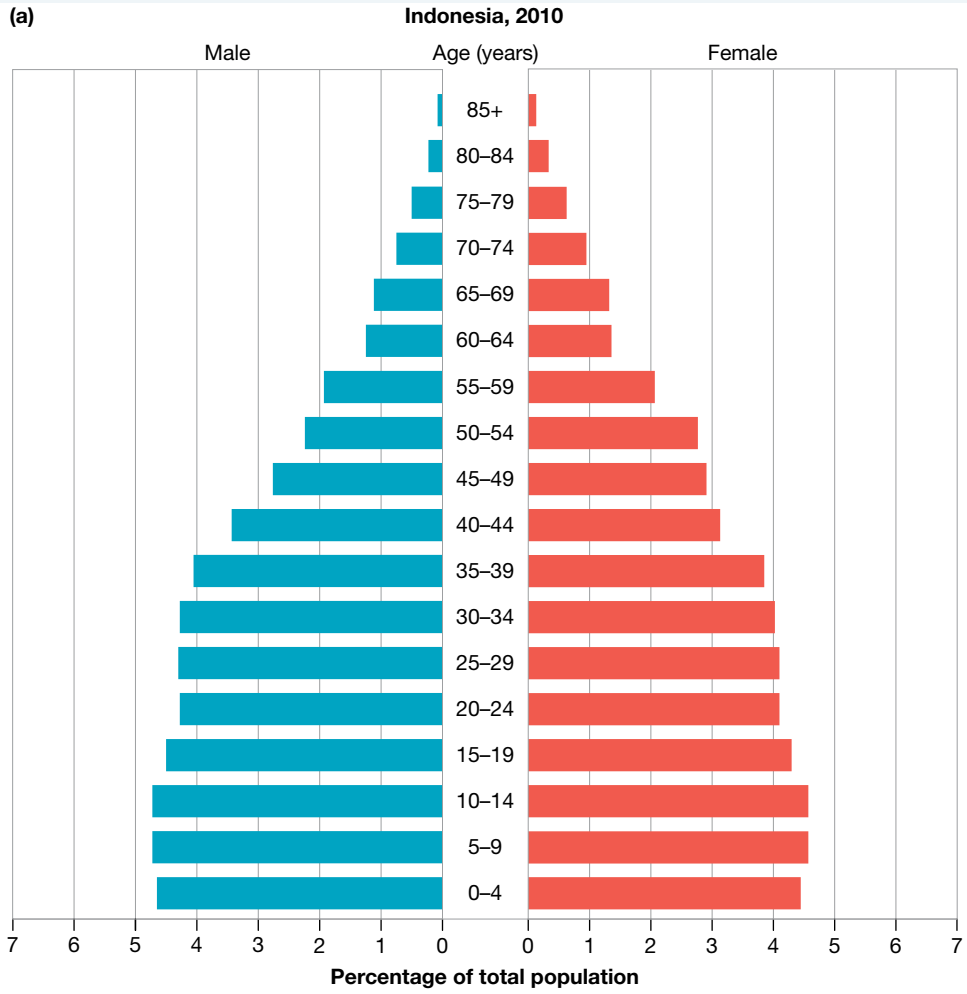
To complete a comparison of population profiles, you must have two or more population profiles for the same place at different times, or for different places at the same time. For this example, we will use the population profiles for Indonesia and Vanuatu shown in **FIGURES 4(a)** and **(b)**.

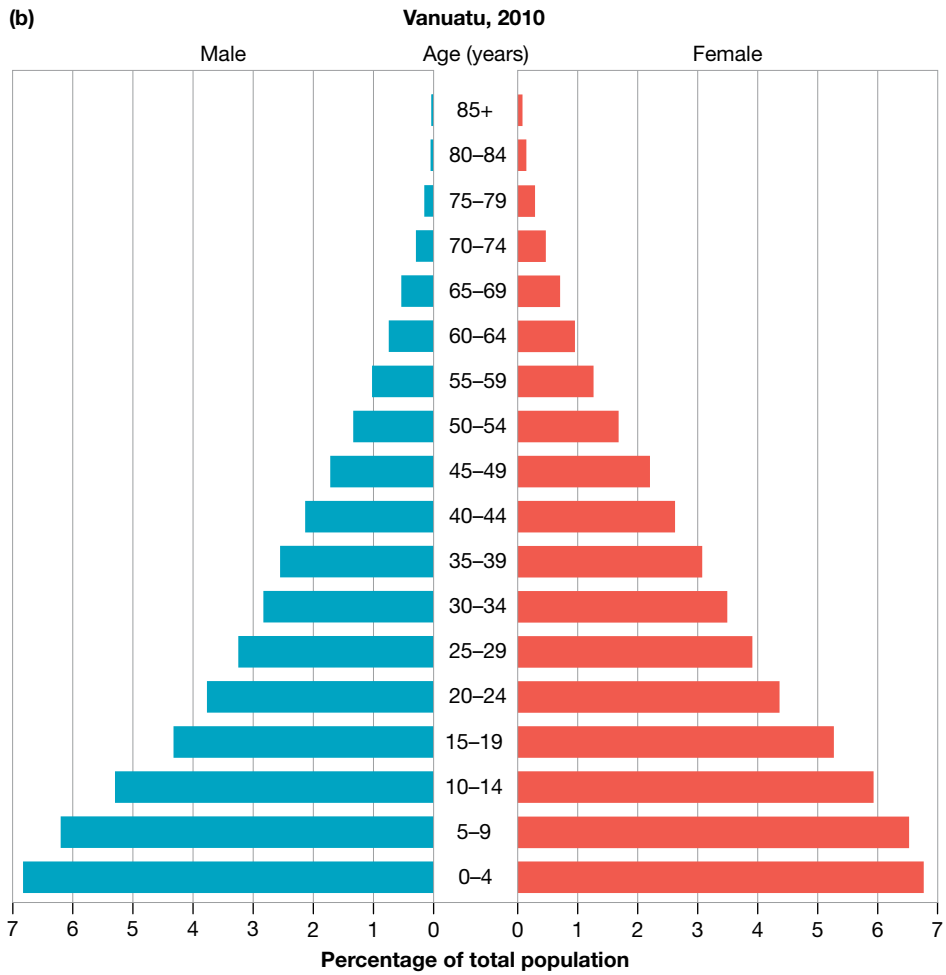
Step 2

Populations can be broadly grouped into three categories according to the level of dependence of the age group:

- children (0–14 years) — dependent population, that is, those that need others to provide their basic needs
- adults (15–64 years) — economically productive and independent, that is, the workforce of a population
- aged (65 years and over) — economically inactive and dependent, that is, no longer earning money and therefore relying on other means of support such as pensions or savings.

FIGURE 4 Population profiles of (a) Indonesia and (b) Vanuatu, 2010





A population is considered to be old when less than 30 per cent of the population is younger than 15 years and more than 6 per cent is aged 65 years and over. A population is considered to be young when more than 30 per cent of the population is younger than 15 years and less than 6 per cent is aged 65 years and over.

For each population profile, calculate the percentage of males and females in each of the three categories described above. You can do this by using the **Population pyramid** weblink in the Resources panel and selecting the country and year that you want to research. Calculate the total population in each of the three categories of dependence. What does this tell you about the population in each of the population profiles?

Step 3

Look for patterns revealed by each population profile. Look at the gender structure — the number of males and females — of the graph. Is it in balance, that is, are there as many males as females? Often there are more females than males in the older age groups because females tend to have a longer lifespan. Migration can result in the movement of one gender more than another. War can affect the gender structure because a higher proportion of men may be killed. However, after a war, more births are likely to occur. Government policies such as the one-child policy of China, which was put into effect in 1979, but became less restrictive in 2016, where males are favoured, has changed the gender balance in affected countries. Write a statement about the balance of the population profiles.

Are the profile shapes for Indonesia and Vanuatu similar? If not, at what age groups do the variations appear? Write a few statements to summarise your findings. Some key points you could cover include Vanuatu's economic development and Indonesia's mass education and family planning programs of the 1990s.

Step 4

Consider any unusual aspects. Traditionally, population profiles were called population pyramids because they were shaped like a pyramid or triangle — wide at the base and narrow at the top. Are there any indents (places where the graph narrows unexpectedly) or extended age groupings? Can you suggest why these might occur? Historical and economic events are an important consideration. A country's history — for example, conflicts or natural disasters — can often explain unusual changes. When economic times are tough, fewer children are born; when economic times are good, parents feel they have the finances to support larger families. You will need to research the history of a country to gain information that will allow you to make an accurate interpretation of its population figures.

on Resources

- **Video eLesson** SkillBuilder: Comparing population profiles (eles-1704)
- **Interactivity** SkillBuilder: Comparing population profiles (int-3284)
- **Weblink** Population pyramid

12.11.3 Let me do it

Complete the following activities to practise this skill.

12.11 ACTIVITIES

1. a. Using the **Population pyramid** weblink in the Resources panel find the current year population profile for South Africa and compare it with the current year population profile for Thailand by writing a paragraph about population structure (using the steps in section 12.11.2 'Show me' to help you). Use the following checklist to ensure you cover all aspects of the task.
   b. Spend some additional time on the website looking at the changes in population pyramids over time for other countries. It is amazing what you will discover! **Geography concept: Change**
2. Apply your skills by answering the following questions.
   a. What percentage of people in Thailand are aged less than 10 years? Compare this with the figure for South Africa.
   b. In which country, South Africa or Thailand, is a female most likely to live longest?
   c. Which population profile is narrowest in the 0–4 years age group?
   d. At what point does the population structure for South Africa take on a pyramid shape?
   e. Which country, South Africa or Thailand, is likely to have more people in the workforce in 2025? Give reasons for your answer. **HASS skills: Analysing**

Checklist

I have:

- identified the countries to be compared
- considered the three categories of level of dependence
- provided quantification (numbers) from the population profile
- identified and utilised male population and female population numbers
- compared the total populations in each gender.

LESSON
12.12 SkillBuilder: Creating and reading compound bar graphs

LEARNING INTENTION

By the end of this lesson you will know what a compound bar graph looks like and what they are used for. You will also be able to create and interpret a compound bar graph.

12.12.1 Tell me

What are compound bar graphs?

A compound bar graph is a bar or series of bars divided into sections to provide detail of a total figure. These bars can be drawn vertically or horizontally. The height or length of each section represents a percentage, with the total length of the bar representing 100 per cent.

Why are compound bar graphs useful?

Compound bar graphs allow us to see at a glance the various components that make up the total. For example, it might show the origin of tourists arriving in a country. In this case, each part of the compound bar would allow the reader to visually interpret what percentage of tourists came from each country of origin.

Compound bar graphs are useful for:

- showing the proportion of sectors within a total
- comparing sets of data between places
- comparing sets of data over time
- accurate interpretation of comparisons.

A good compound bar graph has:

- been drawn in pencil
- ruled lines to clearly represent and communicate data
- used colour according to a key
- a scale
- provided the source of the data
- a clear title.

A good interpretation of a compound bar graph has clearly represented and communicated the data.

12.12.2 Show me

How to create and interpret a compound bar graph

You will need:

- a set of data including parts that make up a total figure of 100 per cent
- a piece of paper on which to draw a graph, preferably graph paper
- a light grey pencil
- a ruler
- coloured pencils
- a calculator.

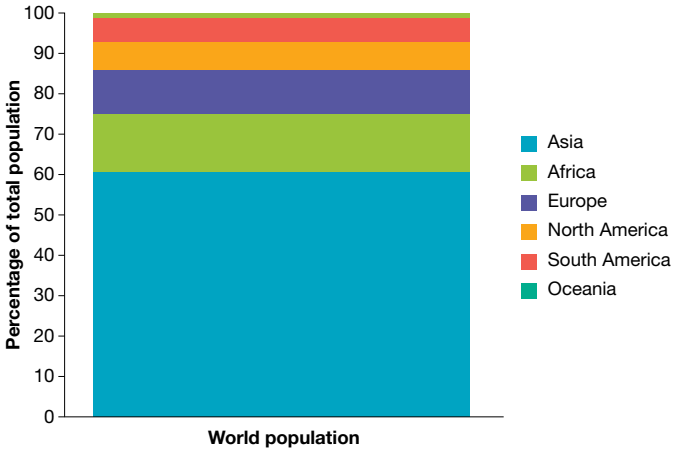
Model

FIGURE 1 clearly shows that the greatest percentage (60 per cent) of the world's population lived in Asia in 2011. Africa was the second most populated continent, with 15 per cent of the population. Europe was home to fewer people than Africa, with 11 per cent of the population. North and South America combined contained fewer people (14 per cent) than Africa. Oceania, including Australia, was home to a very small percentage of the world's population (0.5 per cent).

TABLE 1 World population, 2011

Region	Population	Percentage of total
Asia	4 140 336 501	60.7
Africa	994 527 534	14.6
Europe	738 523 843	10.8
North America	528 720 588	7.7
South America	385 742 554	5.7
Oceania	36 102 071	0.5
Total	**6 823 953 091**	**100**

FIGURE 1 Compound bar graph illustrating the 2011 world population figures from **TABLE 1**



Procedure

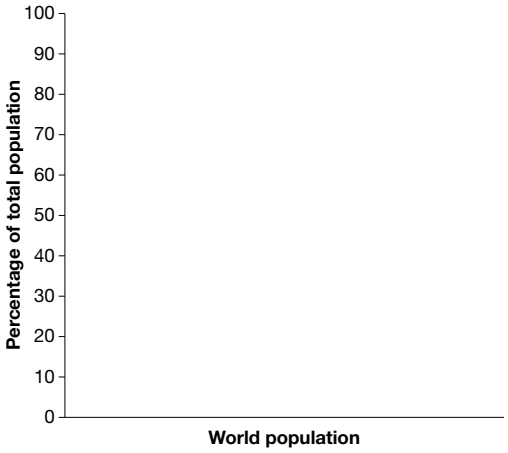
To complete a compound bar you must have a set of data that totals 100 per cent, with detailed information as to how that total is made up.

Step 1

Decide on a width (x-axis) and length (y-axis) for the bar graph — this will depend on the amount of space available and the complexity of the data being graphed. The x-axis width is not particularly important, but it is easier if the length is easily divided into hundredths (where each division equals 1 per cent). The easiest length to work with is 10 centimetres (100 millimetres). This means that each millimetre represents 1 per cent, or 10 millimetres represents 10 per cent.

Draw your y-axis 10 centimetres long. Add a scale alongside the axis (see **FIGURE 2**).

FIGURE 2 Draw your y-axis so that the total length represents 100 per cent.



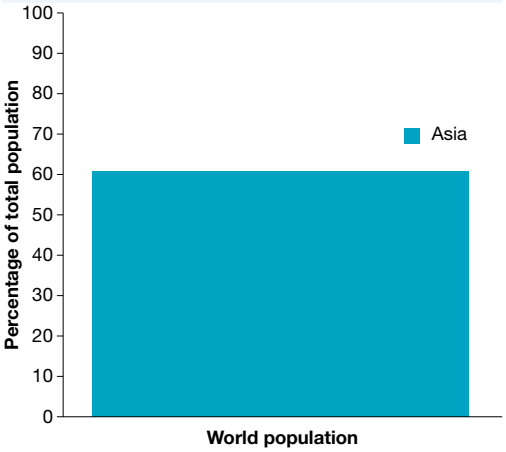
Step 2

Look at the set of data and use a calculator to convert the data into percentages of the total, if necessary. To do this, divide the figure for any part (for example, from **TABLE 1**, Oceania's population, 36 102 071) by the total figure (total world population, 6 823 953 091) and multiply the result by 100. Check your data before beginning to graph. The percentages you have should add up to 100 per cent (see **TABLE 1**). You don't want to finish colouring your bar and find that one data piece won't fit.

Step 3

Since this is a compound graph, all numbers compound (add onto) one another. Mark on your graph the length of the section of bar representing your first piece of data as a percentage. For example, 60.7 per cent = 60.7 millimetres if your total bar length is 100 millimetres. Colour this segment and add a key near your graph, with appropriate labelling (see **FIGURE 3**). Data will usually be graphed in order from the largest to the smallest.

FIGURE 3 Colour the first section of your bar, representing the first (and largest) piece of data, and add a key.



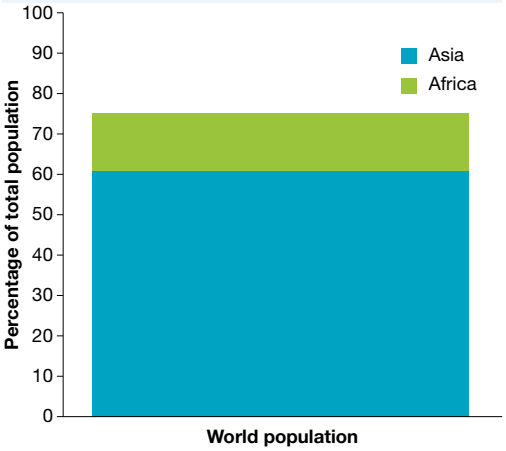
Step 4

Add the next percentage to the percentage for the first piece of data. In this example, add 14.6 per cent to the previous 60.7 per cent and you have a total of 75.3 per cent — this indicates where the next segment of the bar will end. Draw a line where this percentage is represented on your bar (75.3 per cent = 75.3 millimetres if your total bar length is 100 millimetres). Shade the segment in a different colour and add this colour to the key.

Step 5

Repeat Step 4 until you have completed the graphing, colouring and key. Don't forget to give your compound bar graph a title and state the source of your data under the graph (see **FIGURE 1** for the final graph).

FIGURE 4 Colour the second section of your bar. A add the new colour to the key.



Step 6

Now you can interpret the information displayed in your compound bar graph. Write a description of the information it shows about world population. Begin with a comment on the most obvious feature — the colour that fills the largest section of the bar. In this example, you would state that the greatest percentage of the world's people (60.7 per cent) live in Asia. Now consider each of the other coloured sections of the compound bar and comment on how these colours (and therefore the data) relate to one another. For example, the combined population of North and South America (13.4 per cent) is smaller than that of Africa. The model text accompany ing **FIGURE 1** gives a sample description of the data.

on Resources

Video eLesson SkillBuilder: Creating and reading compound bar graphs (eles-1705)
Interactivity SkillBuilder: Creating and reading compound bar graphs (int-3285)

12.12.3 Let me do it

Complete the following activities to practise this skill.

12.12 ACTIVITIES

1. Using the data provided in **TABLE 2**, create compound bar graphs to show the proportion of the world's urban population by continent in 2000, and as predicted for 2030. *Hint:* The numbers you need to create the graph are percentages, which you will need to calculate. Use the checklist to ensure you complete all aspects of the task correctlv.

TABLE 2 Global urban population in 2000, and predicted urban population 2030

Continent	Urban population 2000 (millions)	Predicted urban population 2030 (millions)
North America	248	344
Latin America and the Caribbean	394	585
Oceania	22	34
Europe	515	573
Asia	1392	2703
Africa	288	744
Total	**2859**	**4983**

Source: United Nations, Department of Economic and Social Affairs, Population Division (2012). *World Urbanization Prospects: The 2011 Revision*

HASS skills: Organising and constructing

2. Carefully analyse your two completed compound bar graphs to answer the following questions.
   - **a. i.** Which continent had the second highest proportion of people living in urban areas in 2000?
     ii. What ranking is that continent expected to have in 2030?
   - **b.** Which continent is predicted to have the greatest increase in urban population by 2030?
   - **c.** What do you notice about the expected *change* in the urban population of Europe between 2000 and 2030?
   - **d.** Compare the expected *change* in the urban population in Asia and Africa between 2000 and 2030.
   - **e.** Give two other interesting facts your two compound graphs show about the expected *changes* to the world's urban population between 2000 and 2030.

HASS skills: Analysing

Checklist

I have:

- drawn in pencil
- ruled lines to clearly represent and communicate the data
- coloured according to a key
- included a scale
- provided the source of the data
- included a clear title
- clearly represented and communicated the data in my interpretation.

LESSON
12.13 SkillBuilder: Reading and describing basic choropleth maps

LEARNING INTENTION

By the end of this lesson you will be able to read, understand and describe a basic choropleth map.

12.13.1 Tell me

What is a basic choropleth map?

A basic choropleth map is a shaded or coloured map that shows the density or concentration of a particular aspect of an area. The key/legend shows the value of each shading or colouring. The darkest colours show the highest concentration, and the lightest colours show the lowest concentration.

Why are basic choropleth maps useful?

A basic choropleth map is used to show particular aspects in a pictorial way. They allow the viewer to quickly identify where the values are highest (darkest) and lowest (lightest) and note any patterns over space. However, the information is based on averages and precise data is not given for a particular place or region within the map. Areas can contain within them wide variations from the average value mapped. An atlas will have a wide range of choropleth maps.

Basic choropleth maps are useful for showing:

- differences between the highest and lowest concentrations of aspects
- average rainfall across a country
- average population densities per region
- average wealth per country
- average number of cars per household in local council areas.

A good description of a basic choropleth map is achieved if:

- an overall pattern is described
- the highest concentration is identified
- the lowest concentration is identified
- any anomalies are stated
- quantification is used wherever possible.

12.13.2 Show me

How to read and describe a basic choropleth map

You will need:

- a basic choropleth map.

Model

The population density across Brazil (see **FIGURE 1**) varies considerably from the coast to the inland regions. The population density is greatest (more than 100 people per square kilometre) along the Atlantic Ocean coast, especially in the largest cities. For a distance of about 700 kilometres from the coast, the population density is generally around 50 people per square kilometre. The large inland area of Brazil has a low population density of fewer than 10 people per square kilometre.

Procedure

Step 1

Read the title of the map to get an impression of what the map is going to show you. Check that the source of the information is a recognised authority. If the source is not stated, check the list of acknowledgements for the textbook to find out where the information came from.

Step 2

Read the key/legend. Check the units of measurement that are used. Think about the divisions that are used for colours. The darker the colour, the more intense or higher the value; similarly, the paler the colour, the less intense or lower the value. Cast your eye over the map, taking in the colours and trying to work out any general patterns that emerge.

FIGURE 1 Population density in Brazil



Source: Map drawn by MAPgraphics Pty Ltd, Brisbane

Step 3

To interpret the colours, you need to comment on where the darkest colours or the more intense/higher values occur. Can you discuss the map by continent, or by region? For example, the highest density of people in Brazil occurs in the cities, such as São Paulo and Fortaleza, on the Atlantic Ocean coastline.

Step 4

To further interpret the colours, you need to comment on where the lightest colours or the least intense/lower values occur. Can you discuss the map by continent, or by region? For example, the lowest density of people in Brazil occurs in the large inland region, especially along and around the Amazon River and its tributaries.

Step 5

Are there any coloured areas that stand out from the rest as being unusual? That is, is there a colour among a mass of another colour that isn't expected? This is referred to as an anomaly, and needs to be discussed. Identify the place that is different from the surrounding area. For example, the population densities around Brasilia and Goiania are unusual because these appear to be isolated clusters of higher populations, whereas most of the surrounding area contains fewer than 10 people per square kilometre.

on Resources

Video eLesson SkillBuilder: Reading and describing basic choropleth maps (eles-1706)

Interactivity SkillBuilder: Reading and describing basic choropleth maps (int-3286)

12.13.3 Let me do it

Complete the following activity to practise this skill.

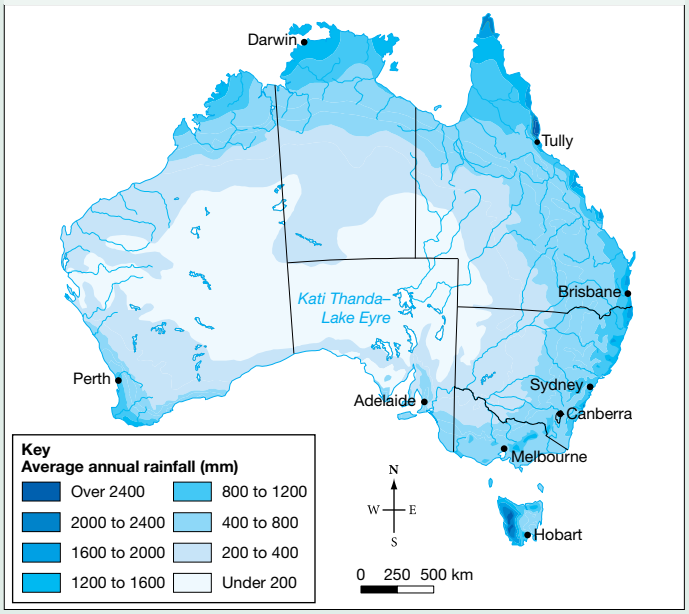
12.13 ACTIVITY

Read and interpret **FIGURE 2**, a basic choropleth map of Australia's annual rainfall distribution, by answering the following questions. Use the checklist to ensure you cover all aspects of the task.

a. Which region(s) of Australia has a pattern indicating the highest rainfall? Provide statistics or numbers (quantification) in your answer, such as percentage (%), size or area (square kilometres, km^2).
b. Which region(s) of Australia has a pattern indicating the lowest rainfall? Include quantification in your answer.
c. Are there any *places* that do not fit the expected pattern? State the locations of these anomalies.
d. Which Australian state receives the most rainfall?
e. Give two reasons for why large parts of Australia have low rainfall.

Geography concept: Interconnection

FIGURE 2 The distribution of annual rainfall in Australia



Source: Map drawn by MAPgraphics Pty Ltd, Brisbane

Checklist

I have:

- described an overall pattern
- identified the highest concentration
- identified the lowest concentration
- stated any anomalies
- used quantification wherever possible.

LESSON
12.14 SkillBuilder: Drawing a line graph using Excel

12.14.1 Tell me

What is a line graph?

A line graph is a clear method of displaying information so it can be easily understood. It is best used to show changes in data over time.

A line graph can be drawn by hand. In this SkillBuilder, you will develop your skills in constructing a line graph using Excel, which is a spreadsheet program. Using a digital means of drawing a line graph enables you to show multiple data sets clearly.

Why are line graphs useful?

A line graph is useful to help analyse data quickly and also to compare data. **FIGURE 1** shows five data sets and you can quickly see which two countries are the top producers of palm oil.

A good line graph has:

- time shown on the horizontal axis
- axes labelled
- a key, if necessary
- a clear title
- shown the source of the data.

12.14.2 Show me

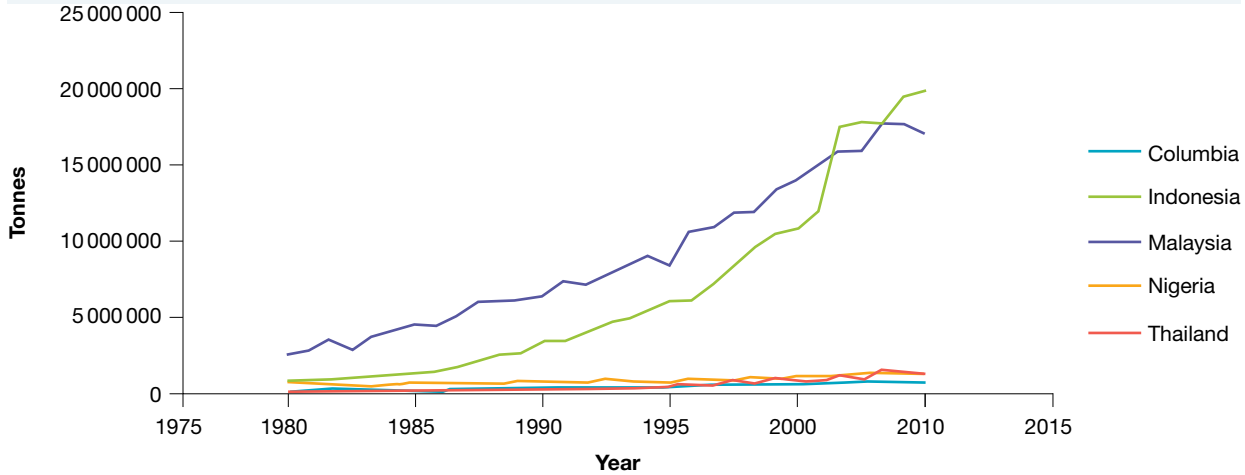
How to draw a line graph using Excel

You will need:

- Excel software
- a set of data.

Model

FIGURE 1 Production of palm oil for the top five producers (1980–2010)



Source: Food and Agriculture Organization of the United Nations 2012 FAOSTAT, http://faostat3.fao.org/home/ index.html

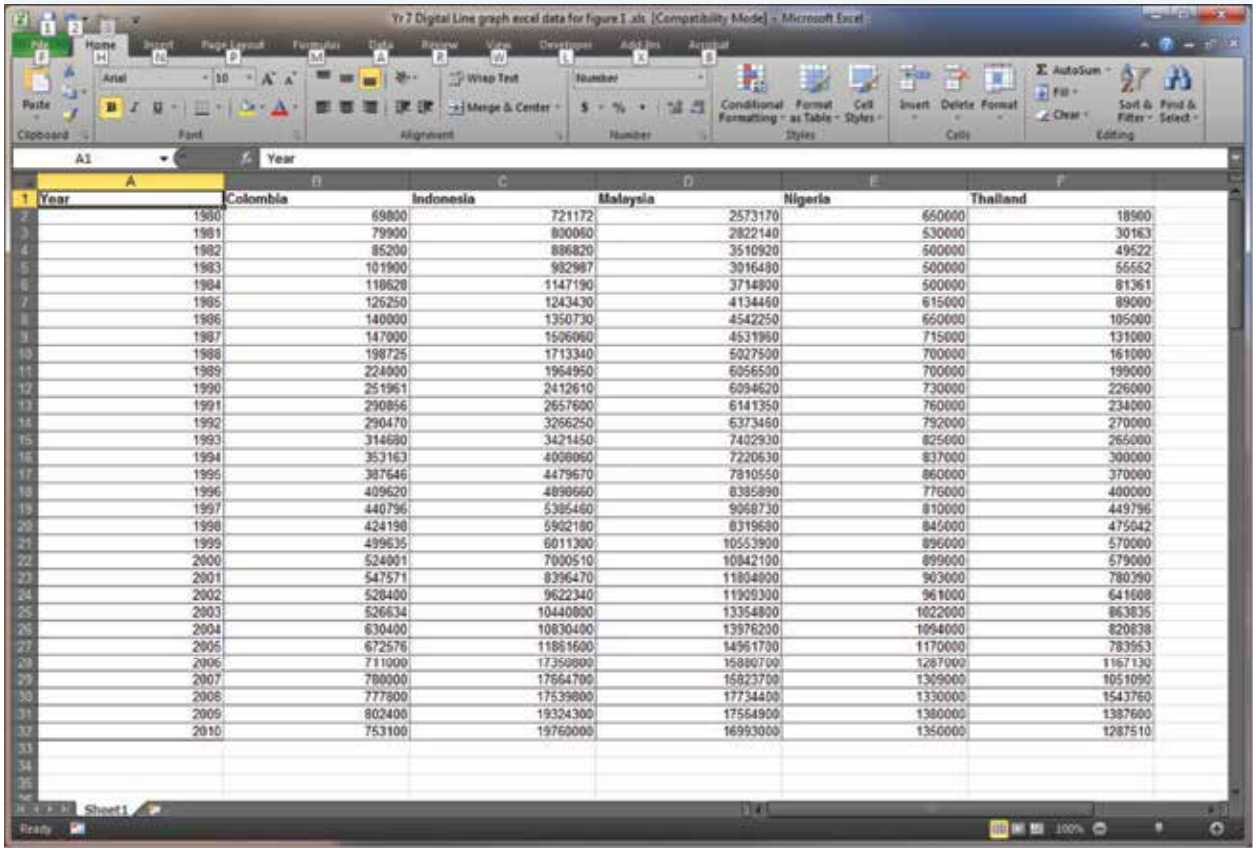
Procedure

Step 1

Enter the data into the Excel worksheet. Put time (hours, days, months or years) in column A and the other variable in column B. Do not leave blank rows or columns. Make sure each column has a heading to describe the data.

If there is more than one set of data, list the second data set in column C, and so on.

FIGURE 2 Data for the top five producers of palm oil (1980–2010) is entered in separate columns of an Excel worksheet.



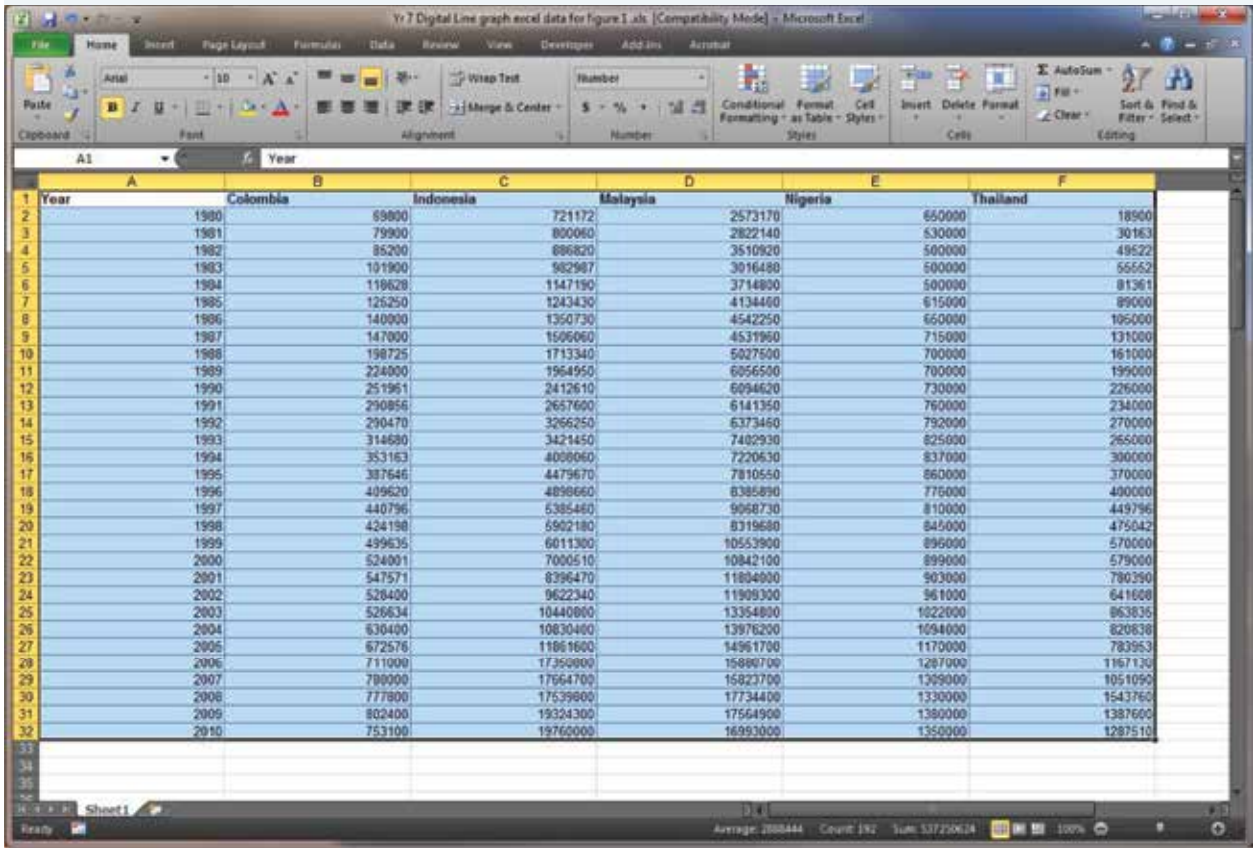
Year	Colombia	Indonesia	Malaysia	Nigeria	Thailand
1980	69800	721172	2573170	650000	18900
1981	79900	800060	2822140	530000	30163
1982	85200	886820	3510920	500000	49522
1983	101900	982987	3916480	500000	56662
1984	118628	1147190	3714800	500000	81361
1985	126250	1243430	4134460	615000	89000
1986	140000	1350730	4542250	660000	105000
1987	147000	1506060	4531960	715000	131000
1988	198725	1713340	5027500	700000	161000
1989	224900	1964950	6056530	700000	199000
1990	251961	2412610	6094620	730000	226000
1991	290856	2657600	6141350	760000	234000
1992	290470	3266250	6373460	792000	270000
1993	314680	3421450	7402930	825000	265000
1994	353163	4008060	7220630	837000	300000
1995	387646	4479670	7810550	860000	370000
1996	409620	4898660	8385890	776000	400000
1997	440796	5386460	9068730	810000	449796
1998	424198	5902180	8319680	845000	475042
1999	499635	6011300	10553900	896000	570000
2000	524001	7000510	10842100	899000	579000
2001	547571	8396470	11804800	903000	780390
2002	528400	9622340	11909300	961000	641608
2003	526634	10440800	13354800	1022000	863835
2004	630400	10830400	13976200	1094000	820838
2005	672576	11861600	14961700	1170000	783953
2006	711000	17359800	15880700	1287000	1167130
2007	780000	17664700	15823700	1309000	1051090
2008	777800	17539800	17734400	1330000	1543760
2009	802400	19324300	17564900	1380000	1387600
2010	753100	19760000	16993000	1350000	1287510

Step 2

Drag- select with the mouse button to highlight the cells containing the data to be included in your line graph.

Note: Make sure you select any column and row details (headings) that you want included in the graph.

FIGURE 3 The required data (all values in the example shown here) is selected.

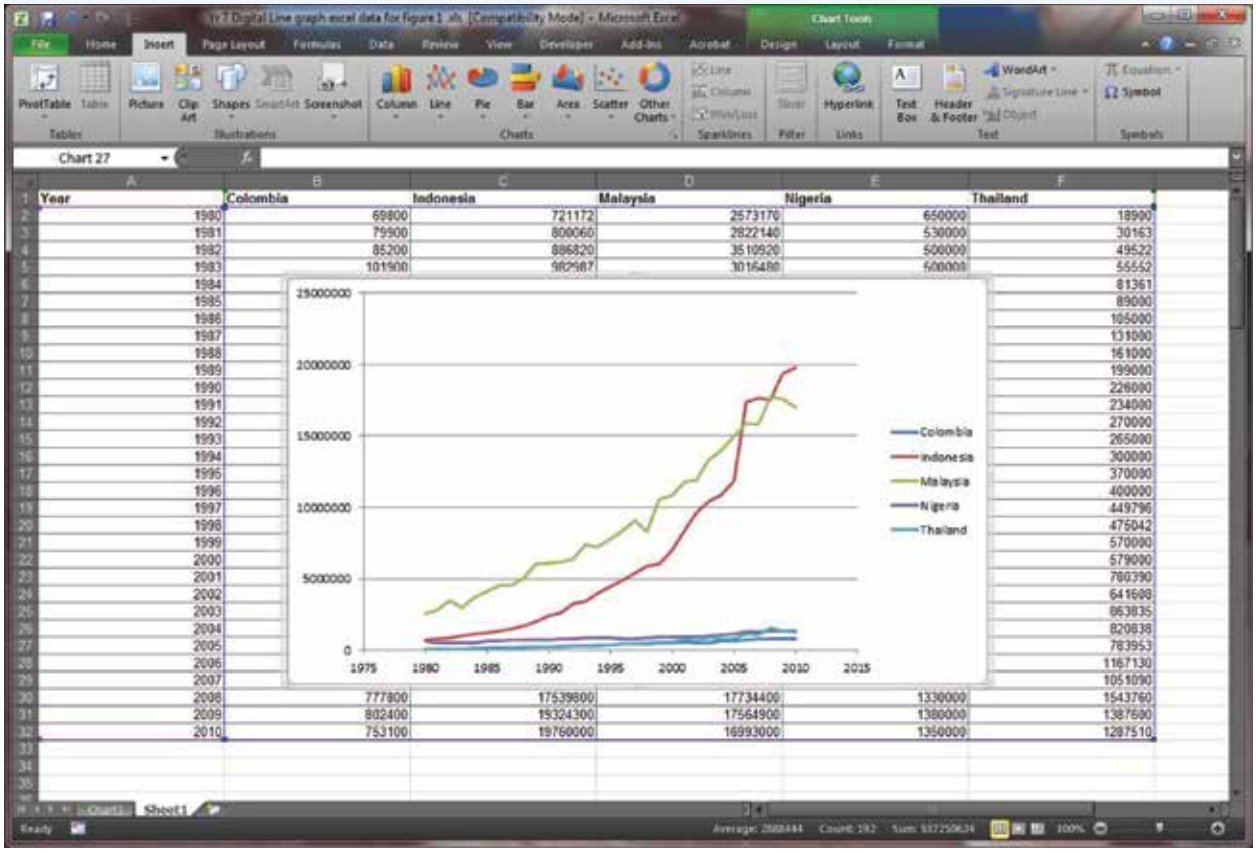


Year	Colombia	Indonesia	Malaysia	Nigeria	Thailand
1980	69800	721172	2573170	650000	18900
1981	79900	800060	2822140	530000	30163
1982	85200	886820	3510920	500000	49522
1983	101900	982987	3016480	500000	55552
1984	119628	1147190	3714800	500000	81361
1985	126250	1243430	4134460	615000	89000
1986	140000	1350730	4542250	660000	105000
1987	147000	1506060	4531960	715000	131000
1988	198725	1713340	5027500	700000	161000
1989	224000	1964950	6056500	700000	199000
1990	251961	2412610	6094620	730000	226000
1991	290856	2657600	6141350	760000	234000
1992	290470	3266250	6373460	792000	270000
1993	314680	3421450	7402930	825000	265000
1994	353163	4008060	7220630	837000	300000
1995	387646	4479670	7810550	860000	370000
1996	409620	4898660	8385890	776000	400000
1997	440796	5385460	9068730	810000	449796
1998	424198	5902180	8319680	845000	475042
1999	499635	6011300	10553900	896000	570000
2000	524001	7000510	10842100	899000	579000
2001	547571	8396470	11804900	903000	780390
2002	528400	9622340	11909300	961000	641608
2003	526634	10440800	13354800	1022000	863835
2004	630400	10830460	13976200	1094000	820838
2005	672576	11861600	14961700	1170000	783953
2006	711000	17350800	15880700	1287000	1167130
2007	780000	17664700	15823700	1309000	1051090
2008	777800	17539800	17734400	1330000	1543760
2009	802400	19324300	17564900	1380000	1387600
2010	753100	19760000	16993000	1350000	1287510

Step 3

Click on the ‘Insert’ tab, then click on a category in the ‘Charts’ section to open a drop-down list of available graph types. Hover your mouse pointer over a graph type to bring up a description of the graph. Click on the ‘Scattergraph’ category and select the ‘Scatter with Straight Lines’ option. A line graph is created and placed on your worksheet. You can change the graph style using the tabs within the ‘Chart Tools’ section.

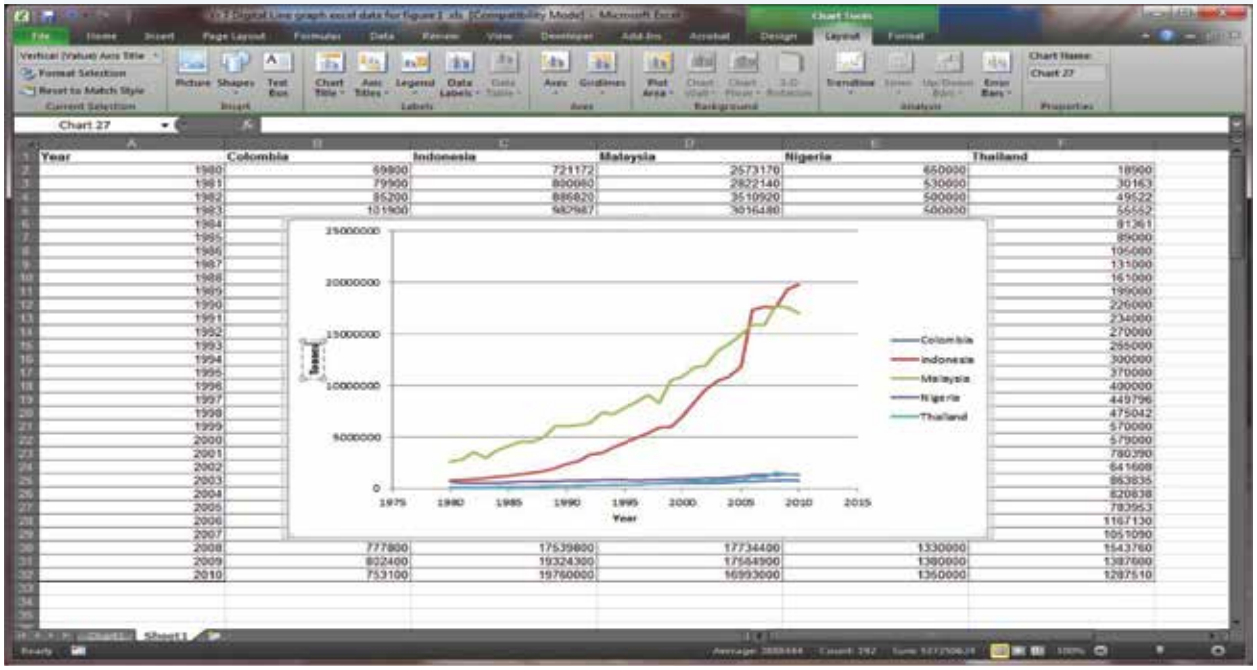
FIGURE 4 Select the ‘Scatter with Straight Lines’ option to produce a graph with a line for each of the variables in your data set.



Step 4

Label the axes. Click on the 'Layout' tab within the 'Chart Tools' section. Select 'Axis Titles' and enter the axis names for the horizontal and vertical axes.

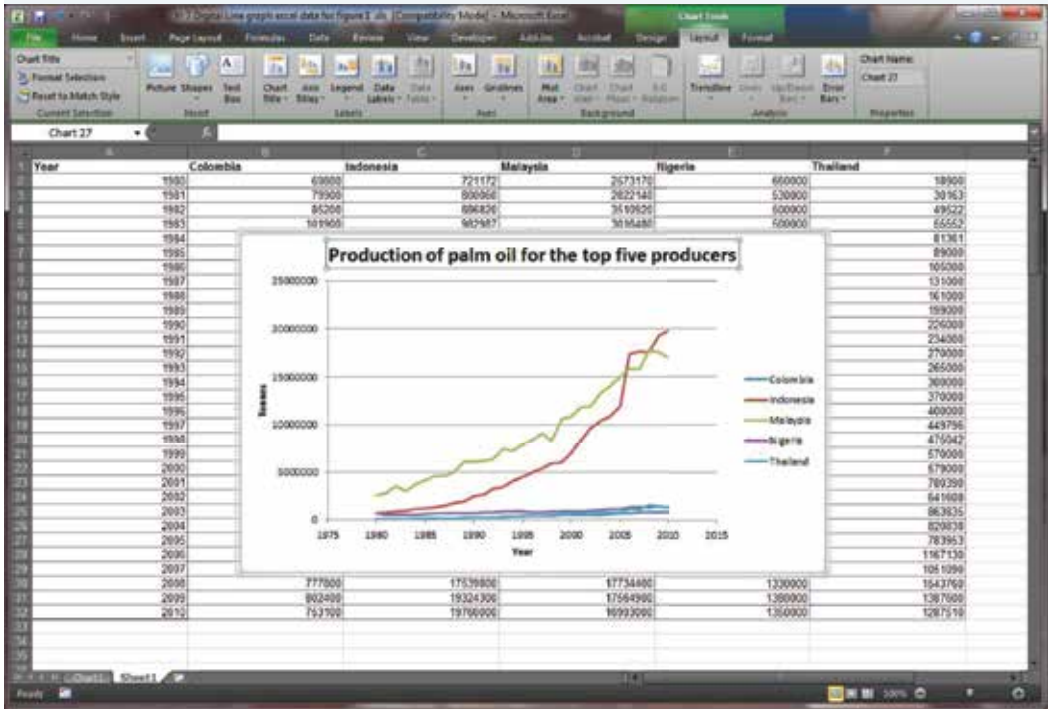
FIGURE 5 Label the axes on your graph.



Step 5

To add a title to the line graph, click on the 'Layout' tab within the 'Chart Tools' section. Select 'Chart Title' and choose the option 'Above Chart' for placement of your title. Type an appropriate title for your graph in the text box that appears.

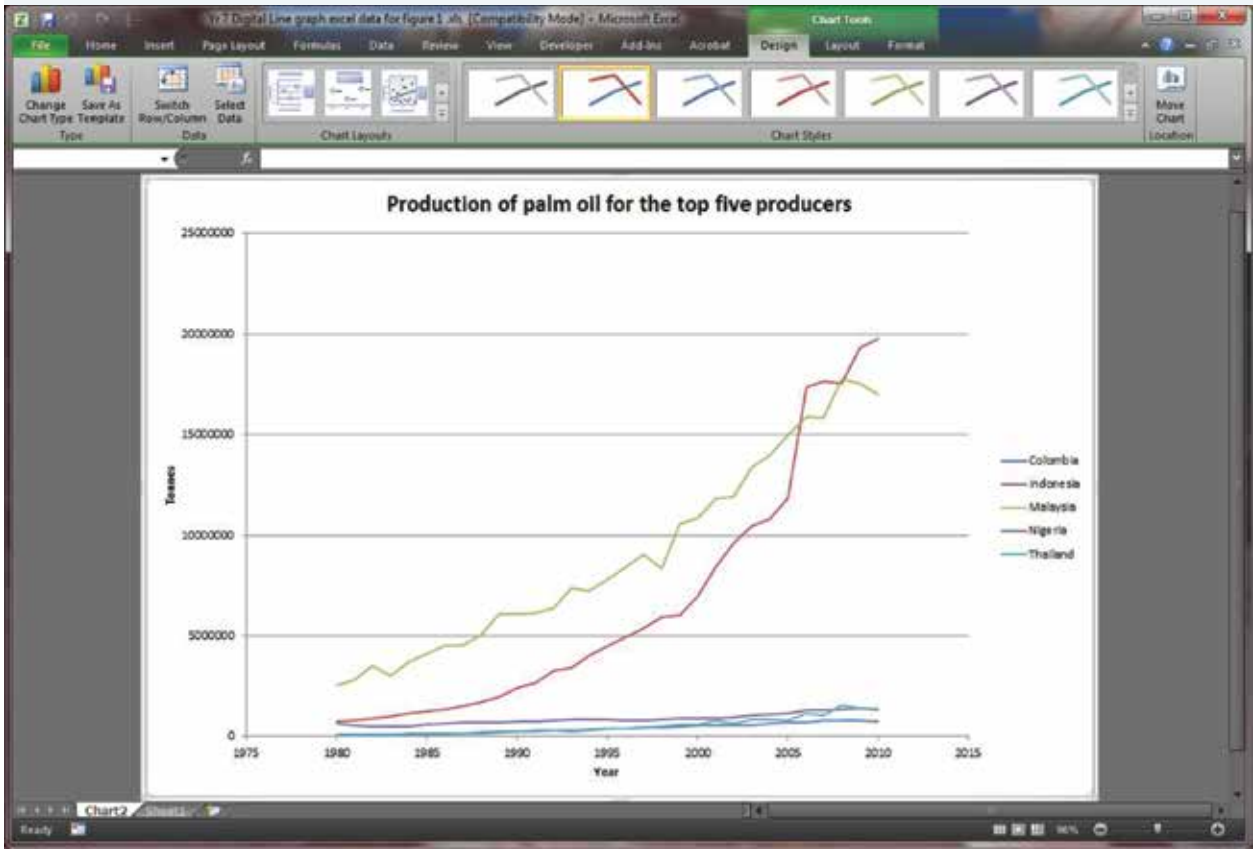
FIGURE 6 Add a title to your graph.



Step 6

Select the ‘Design’ tab within the ‘Chart Tools’ section. Click on the ‘Move Chart’ button on the right. This places your chart on a new page within your spreadsheet.

FIGURE 7 Move your graph onto its own page within the spreadsheet.

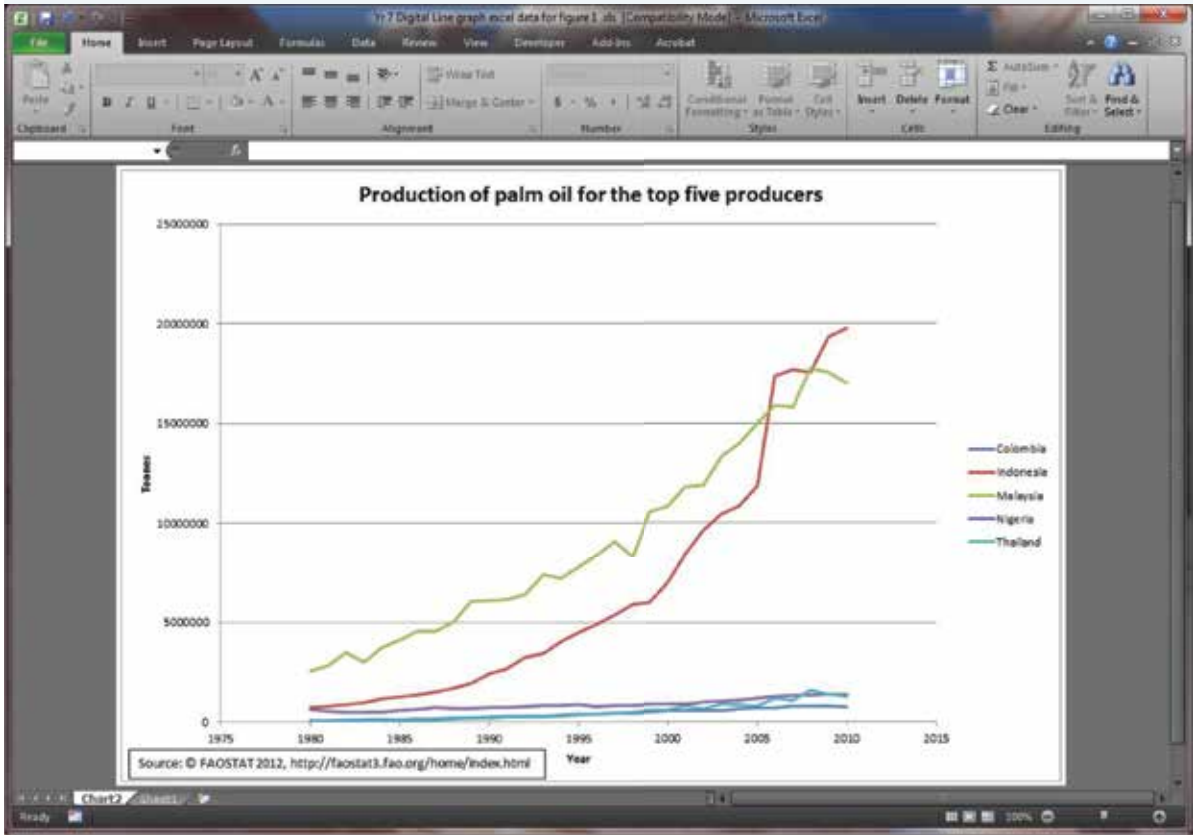


Step 7

Add the source of the data. One way to add this kind of extra information is to use a text box.

Select the chart. Click on the 'Insert' tab and select 'Text Box'. Drag your cursor to draw a text box of an appropriate size, and enter the details of the source of your data. Format your text to a suitable size and style, and move the text box to an area where it does not interfere with the reading of the graph.

FIGURE 8 Include source details for the data you have used in your graph.



Resources

Video eLesson Drawing a line graph using Excel (eles-1662)

Interactivity Drawing a line graph using Excel (int-3158)

12.14.3 Let me do it

Complete the following activities to practise this skill.

12.14 ACTIVITIES

1. Use the data shown in **TABLE 1** to create a line graph using Excel.
2. Analyse your graph to answer the following questions.
   a. What unit of measurement is used in this graph?
   b. Describe the general trend of palm oil production from 1985 to 2010.
   c. Suggest two possible causes for the change in palm oil production in 1998.
   d. What has happened to palm oil production since 2008?

Checklist

I have:

- shown time on the horizontal axis
- labelled the axes
- included a key, if necessary
- provided a clear title and source information.

TABLE 1 Palm oil production in Malaysia, 1980–2010

Year	Tonnes of palm oil produced
1985	4 134 460
1986	4 542 250
1987	4 531 960
1988	5 027 500
1989	6 056 500
1990	6 094 620
1991	6 141 350
1992	6 373 460
1993	7 402 930
1994	7 220 630
1995	7 810 550
1996	8 385 890
1997	9 068 730
1998	8 319 680
1999	10 553 900
2000	10 842 100
2001	11 804 000
2002	11 909 300
2003	13 354 800
2004	13 976 200
2005	14 961 700
2006	15 880 700
2007	15 823 700
2008	17 734 400
2009	17 564 900
2010	16 993 000

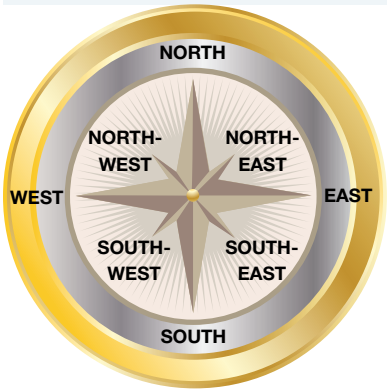
LESSON
12.15 SkillBuilder: Using positional language

12.15.1 Tell me

What is positional language?

Positional language uses compass points to locate places and provide directions between places. A magnetic compass will always point to north. All other directions are taken from this reference point. An 8-point compass — with points north, north-east, east, south-east, south, south-west, west, and north-west — is standard in most Geography books and atlases. A 16-point compass provides even further detail.

FIGURE 1 An eight-point compass



Why is positional language useful?

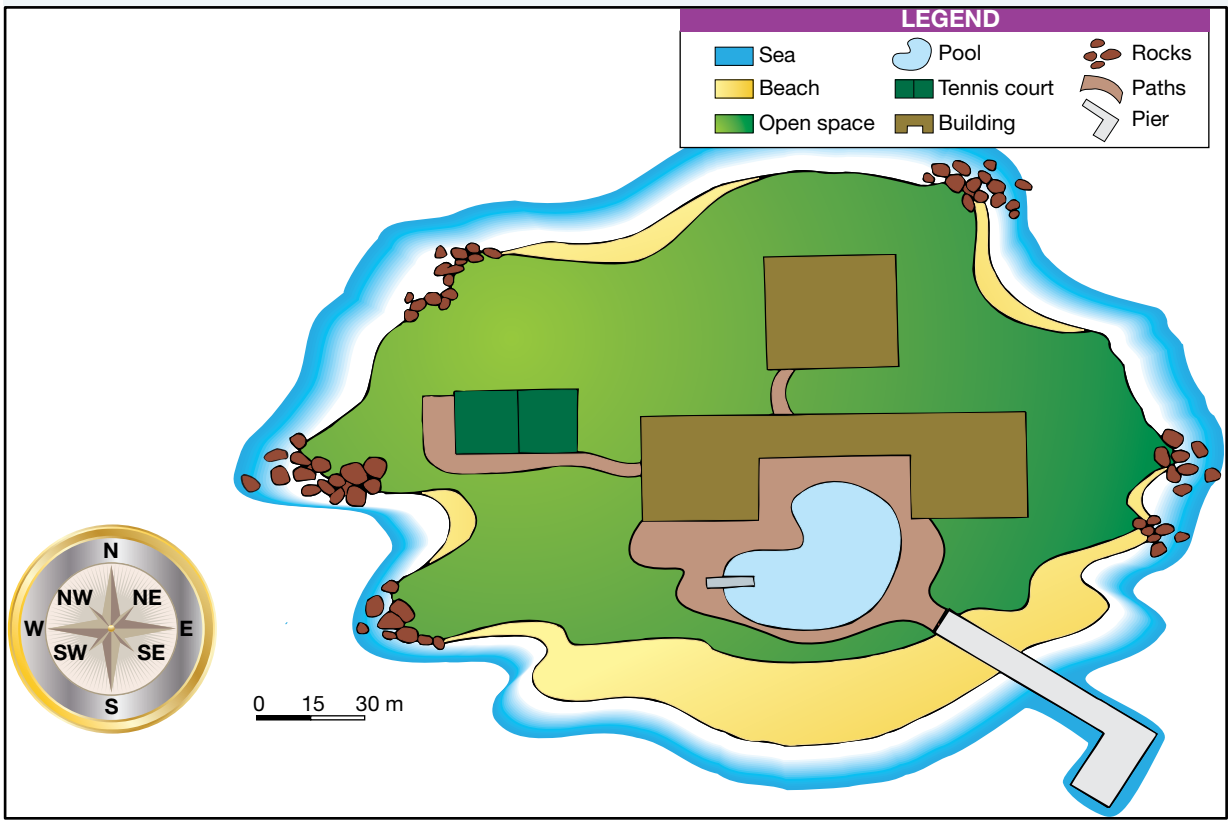
Positional language allows geographers to be accurate when giving directions and locations of places. It avoids the confusion that can occur with positioning if words such as left and right, up and down, top and bottom are used. No matter what direction you are facing, compass direction always remains the same, based around north.

12.15.2 Show me

How to use positional language

Model

FIGURE 2 A cartographer's map of Holiday Island



As we check in at the main building for our stay on Holiday Island, a guide explains the features of the holiday resort.

'You arrived at the pier, which is to our south-east. On the way to this building you passed the paved poolside area, which is now to your south. There are four beach areas — the largest is to the south, a small moon-shaped beach is to the west-south-west and the other beaches are to the north-north-west and north-east across the open spaces. To the . . . '

You will need:

- a map (use **FIGURE 3**)
- a pencil
- tracing paper.

Procedure

Practise using the positional language of a 16-point compass with any type of map, such as in an atlas, a street map, a topographic map, a plan, a sketch, or an image such as aerial or oblique photos and satellite images.

Step 1

On the piece of tracing paper, draw a simple 16-point compass based on **FIGURE 1**. You will need to add the following points: NNE, ENE, NNW, WNW, SSE, ESE, SSW, WSW. Ensure that you mark the centre of the compass with a dot.

Step 2

Place the centre of the 16-point compass (the dot) on the point of origin from which a direction is being given. Ensure that north is in the vertical position. On all maps/images, unless an indicator determines otherwise, north is assumed to be vertical (i.e. pointing to the top).

For example, to discover that place A is north-north-west of place B, the direction is taken from place B, so the centre of the compass should be on place B.

Step 3

Read the compass direction from the centre dot to the place identified and write down that direction.

Step 4

The placement of the centre of the compass must be moved for each individual direction required.

on Resources

Video eLesson How to use positional language (eles-1649)
Interactivity Using positional language (int-3145)

12.15.3 Let me do it

Complete the following activities to practise this skill.

12.15 ACTIVITIES

1. The completed example in **TABLE 1** uses the map in **FIGURE 3** to show directions from one place to another place.

   In this example, you are at Kakadu National Park and you want to give a direction so that someone arrives at Litchfield National Park.

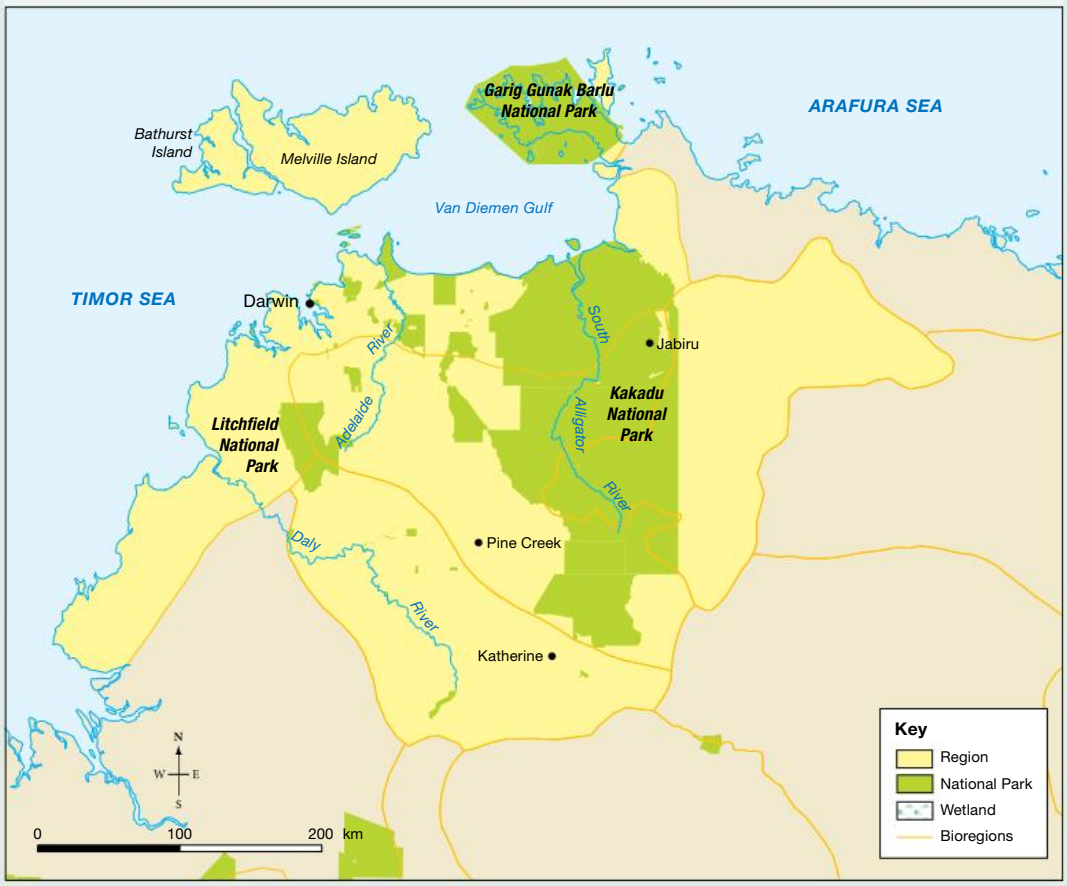
   Copy the table below into your workbook. Using the map and your tracing paper compass, create five more examples of positional language in the table. Ensure that you use a range of directions from your 16-point compass.

TABLE 4 Examples of positional language

Place of origin	Place of arrival	Direction
Kakadu National Park	Litchfield National Park	West

Ask a class member to check your directions.

FIGURE 46 Map of Kakadu National Park



Source: Spatial Vision

2. Apply your skills to answer the following questions.

a. In which direction from Katherine would you need to fly to get to Kakadu National Park?

b. In what direction is Jabiru in Kakadu National Park from Darwin?

c. In what direction is Jabiru from Pine Creek?

d. If I was to drive from Katherine in a north-west direction, would I arrive in Jabiru or Darwin?

e. I want to drive from Pine Creek to Jabiru. Describe the directions in which I would need to travel while on the road.

Checklist

I have:

- drawn and labelled an accurate 16-point compass
- used the compass to indicate direction using positional language.

LESSON
12.16 SkillBuilder: Constructing a field sketch

12.16.1 Tell me

What are field sketches?

Field sketches are drawings completed during fieldwork — Geography outside the classroom. Field sketches allow a geographer to capture the main aspects of landscapes in order to edit the view, focusing on the important features and omitting the unnecessary information. Field sketches are free-hand drawings with annotations. Colour may be added but is not a requirement. A field sketch aids our sense of observation and allows us to record and interpret environments.

Why are field sketches useful?

Field sketches capture the important information. You might think it is easier to take an image on your phone or with a camera, but you are then capturing the non-relevant data as well. By making a drawing in the field you are interpreting the environment, analysing the landscape and highlighting a geographical understanding of what you see by careful and clear labelling.

A good field sketch has:

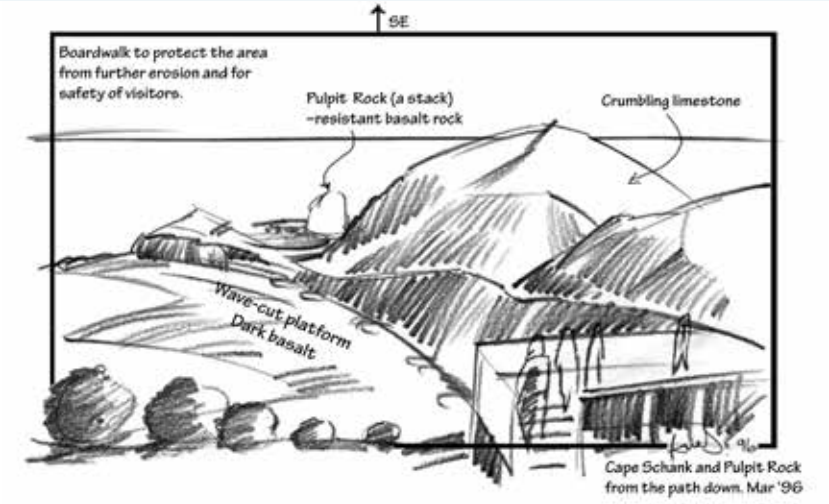
- been completed on plain paper
- been drawn in pencil
- a title
- a date
- labels of key features
- an indicator to show direction
- shading.

12.16.2 Show me

How to construct a field sketch

Model

FIGURE 1 Field sketch of Cape Schanck



Source: © Geography Teachers' Association of Victoria Inc. *Interaction*, journal of the GTAV, June 1998. Illustration redrawn by Harry Slaghekke.

You will need:

- plain paper
- a clipboard
- a grey pencil (soft)
- a ruler
- an eraser.

Procedure

FIGURE 1 is an example of a coastal field sketch. Obviously, to complete a coastal field sketch you need to be in a coastal environment, but any environment can be sketched — natural or human-altered. You can choose an environment near you.

Step 1

Choose the field of view to be sketched; that is, 'from this tree to that bend in the stairs'. Make yourself comfortable because you'll need to stay in the one place while you complete the sketch.

Step 2

Partly close your eyes so that you are peeking at the world — all the small details will disappear and your eyes will focus on the main outlines, which are the first parts to be drawn. Practise viewing the environment.

Step 3

Attach your paper securely to the clipboard because wind plays havoc with field sketching! Using a pencil, draw a border (frame) in which you are going to sketch. Always draw in pencil and keep your eraser handy.

Step 4

Draw in the horizon as a baseline; that is, where the land meets the sky.

Step 5

Divide your sketch horizontally into three portions: background, middle- ground and foreground (what is closest to you).

Step 6

Peek at the landscape through partly closed eyes and now add the main outlines to your sketch. Start with main features in the background (most distant), then middle-ground and lastly foreground. There will be a few shapes on your page, but no detail (see **FIGURE 2**).

FIGURE 2 Initial outline



Source: © Geography Teachers' Association of Victoria Inc. *Interaction*, journal of the GTAV, June 1998. Illustration redrawn by Harry Slaghekke.

Step 7

Using this base you can now add details and shading. Identify those aspects that are relevant to your study. In this coastal example, there are natural features — a wave-cut platform, a stack, a headland and limestone ridges — and a human feature, the boardwalk.

FIGURE 3 Further detail shading



Source: © Geography Teachers' Association of Victoria Inc. *Interaction*, journal of the GTAV, June 1998. Illustration redrawn by Harry Slaghekke.

Step 8

Annotate (label) your sketch to draw attention to the landscape features. Ask yourself what the connection is between the natural features and the human-altered features. Can your labelling assist in making this interconnection clear to those who view your field sketch?

Step 9

Add the finishing touches.

- On the border, add a direction indicator as to which way you are looking at the landscape.
- Title your sketch — identify the place with as much detail as possible.
- Date your drawing.

FIGURE 1 shows the completed field sketch with all features added.

on Resources

Video eLesson	Constructing a field sketch (eles-1650)
Interactivity	Constructing a field sketch (int-3146)

12.16.3 Let me do it

Complete the following activities to practise this skill.

12.16 ACTIVITIES

1. Your teacher may take the class into the school grounds and ask you to do a field sketch of an area within the school boundary, or you may be able to view an *environment* beyond the fence line.
   OR
   At home, select a street view or a garden view and complete an annotated field sketch. Use the checklist to ensure you cover all aspects of the task.
2. Study your field sketch and consider the *environment* to answer the following questions.
   a. What natural features have been labelled in the field sketch?
   b. What human-altered features have been labelled in the field sketch?
   c. Is there any *interconnectedness* between the natural *environment* and human activities?
   d. How do your five senses respond to this *environment*?
   e. How might this *place change* in the future?

Checklist

I have:

- drawn a border
- added a compass direction
- titled the sketch
- dated the sketch
- shaded to give depth
- clearly labelled the significant aspects.

LESSON
12.17 SkillBuilder: Creating and describing complex overlay maps

12.17.1 Tell me

What is a complex overlay map?

A complex overlay map is created when one or more maps of the same area are laid over one another to show similarities and differences between the mapped information. All maps must be at the same scale. Laid over a base map with information that is consistent (for example, landforms), traced copies of maps showing variables (for example, population) allow you to see the elements underneath. Traditionally, the second map is on tracing paper that is attached to the original map.

Why are complex overlay maps useful?

Complex overlay maps are analysed to show relationships between factors — the similarities and the differences in a pattern. They are useful when looking for the degree to which features are arranged in a similar pattern. In a complex overlay map there may be three or more layers, allowing three or more variables to be compared. Complex overlay maps also help you work out between which features there is the strongest or weakest relationship or interconnection.

In today's world of computers, geographic information system (GIS) programs do this task. Digitally, layers can be turned 'off' and 'on' to show the interconnection between factors in a distribution pattern.

Complex overlay maps are useful for:

- town planners to see new settlement patterns overlaid on the land's shape
- construction engineers to see original buildings and the interconnection of extensions to a building
- logistic engineers to overlay the distribution of a number of features to identify similarities
- farmers to seek alternative planting rotations with an increased knowledge of the features involved, such as soil types, rainfall and topography.

A good series of complex overlay maps has:

- been drawn in pencil first, then coloured
- been drawn in light colours, so that the base map remains clear
- a key on each overlay, offset so each can be seen
- been accurately taped together so the maps overlap exactly
- labelled features, if necessary
- included BOLTSS.

A clear description of complex overlay maps has:

- identified and communicated key features
- clearly represented and communicated the data.

12.17.2 Show me

How to create and describe a complex overlay map

You will need:

- three maps of the same region at the same scale showing different information (one to be a base map)
- one of these maps to act as a base map
- two pieces of tracing paper, at least as large as the base map
- a light grey pencil and coloured pencils
- a ruler
- an eraser
- adhesive tape.

Model

FIGURE 1 An illustration of a completed complex overlay map showing Australia's seasonal rainfall patterns (left), drainage catchments (centre) and average annual rainfall (right)

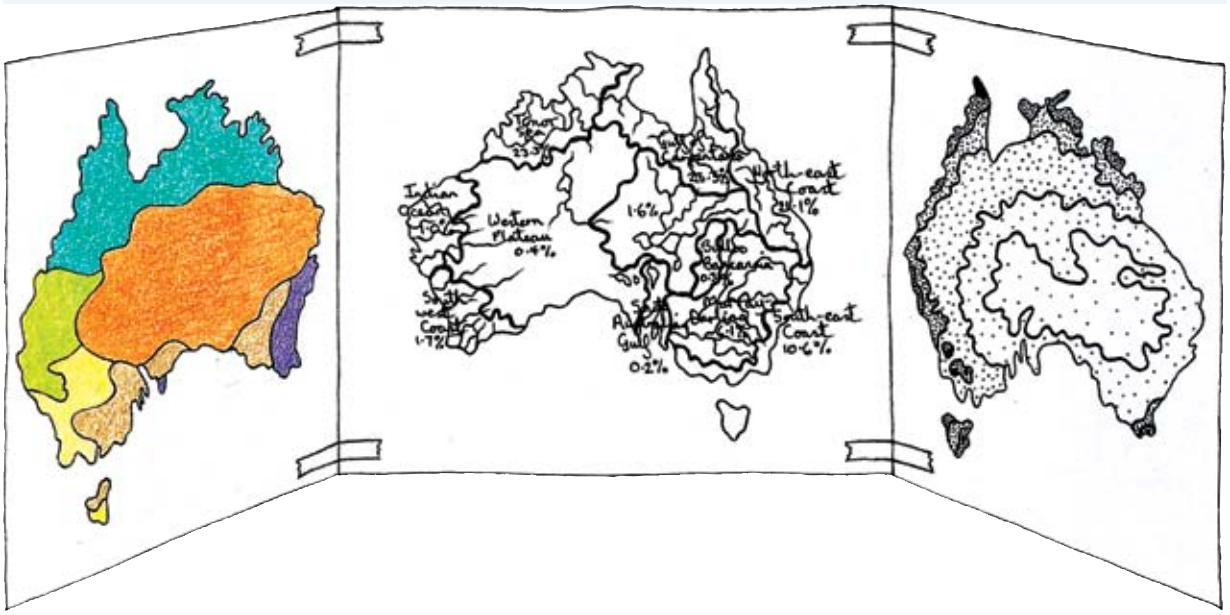


FIGURE 1 shows a map of Australia's drainage catchments used as the base map (centre) in a complex overlay. Taped to this on tracing paper is a map of Australia's average annual rainfall (shown at right in **FIGURE 1**), attached so as to be able to fold onto the base map. Taped to the opposite side of the base map is a map of Australia's seasonal rainfall patterns (shown at left in **FIGURE 1**). This is also attached so as to be able to fold onto the base map. Additional layers could be added by taping further maps (drawn on tracing paper) to the top and bottom of the base map.

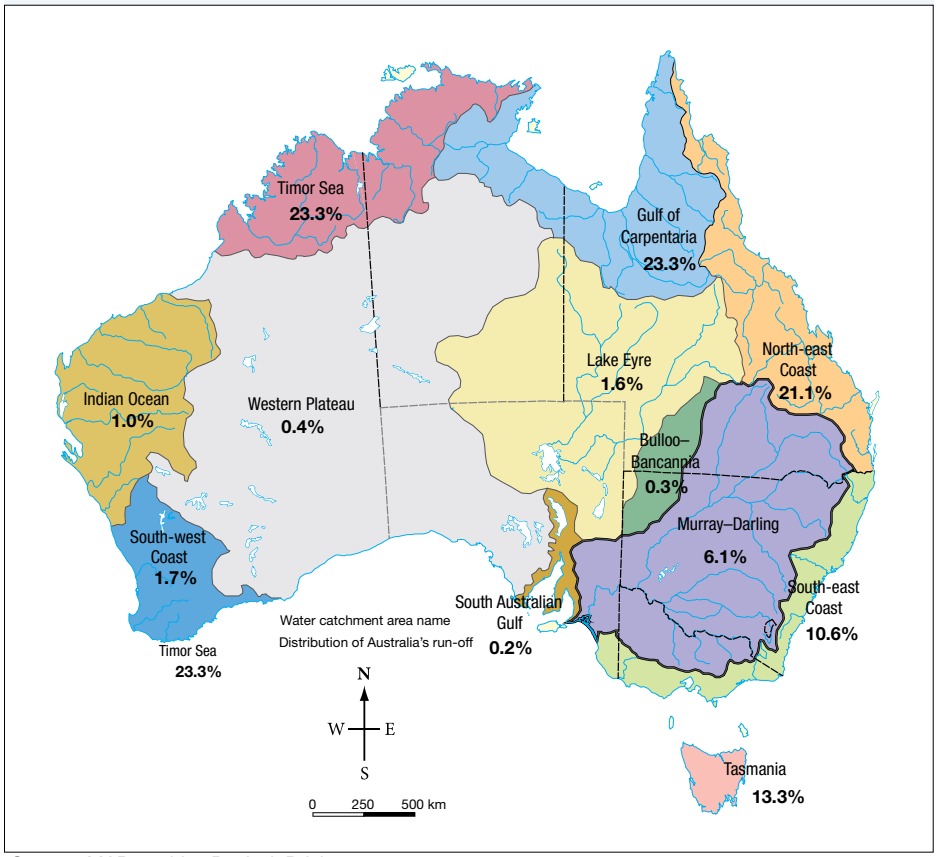
This series of map overlays provides an example of interconnection; in this case, the interconnection between annual rainfall and seasonal rainfall, between annual rainfall and drainage catchments, and between seasonal rainfall and drainage catchments.

Further analysis is required to show areas that are not connected and areas that are sometimes related, but not always. For example, the Murray–Darling Basin drainage catchment has a wide range of seasonal rainfall patterns across its area, varying from uniform rainfall to arid zones.

Procedure

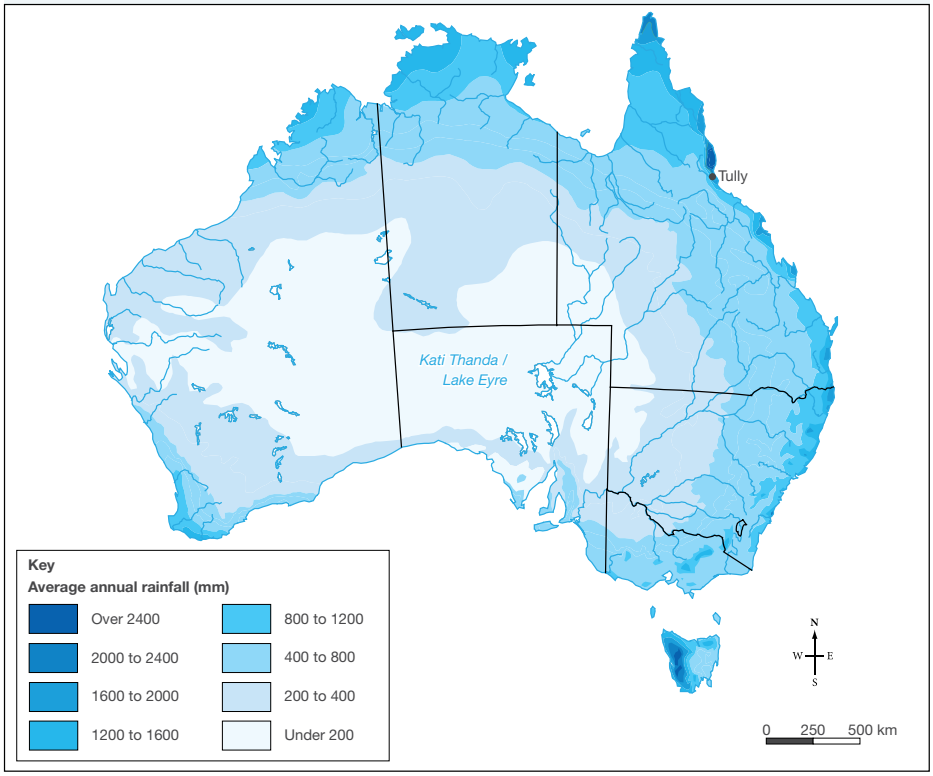
To complete and describe complex overlay maps you must have two or more maps of the same place and at the same scale with different information. For this example, we will use maps showing Australia's drainage catchments (**FIGURE 2a**), Australia's average annual rainfall (**FIGURE 2b**) and Australia's seasonal rainfall patterns (**FIGURE 2c**).

FIGURE 2(a) Australia's drainage catchments



Source: MAPgraphics Pty Ltd, Brisbane

FIGURE 2(b) Australia's average annual rainfall



Source: Bureau of Meteorology, 2003, on the Australian Water Map, Earth Systems Pty Ltd

Step 1

Select the base map — this will show information that is unlikely to vary. In this instance, it is the drainage catchments. You may need to trace the base map if it appears in a book, because it might not be possible to stick other maps to the original.

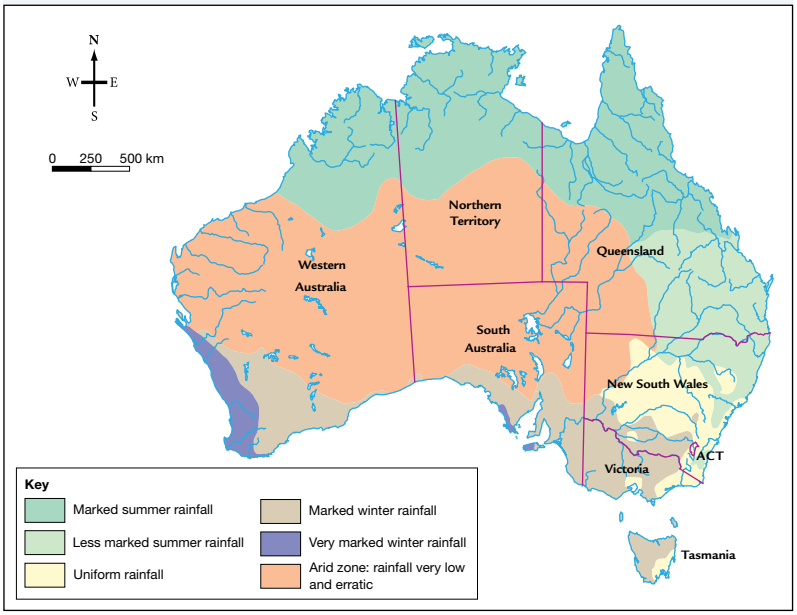
Step 2

Trace each of the other maps onto separate sheets of tracing paper. Don't forget to include BOLTSS on your maps. Each map should have its own title, its own key and its own source. The scale and north pointer need to appear only on the base map.

Step 3

Using adhesive tape, hinge the maps to fold on top of each other so that the map outlines (coastlines) match up. Alignment is very important, so choose obvious borders to line up. **FIGURE 3** shows the second map hinged to the right of the base map. **FIGURE 4** shows the third map added, hinged to the left of the base map.

FIGURE 2(c) Australia's seasonal rainfall patterns



Source: MAPgraphics Pty Ltd, Brisbane

FIGURE 3 Hinged map (first overlay) over base map

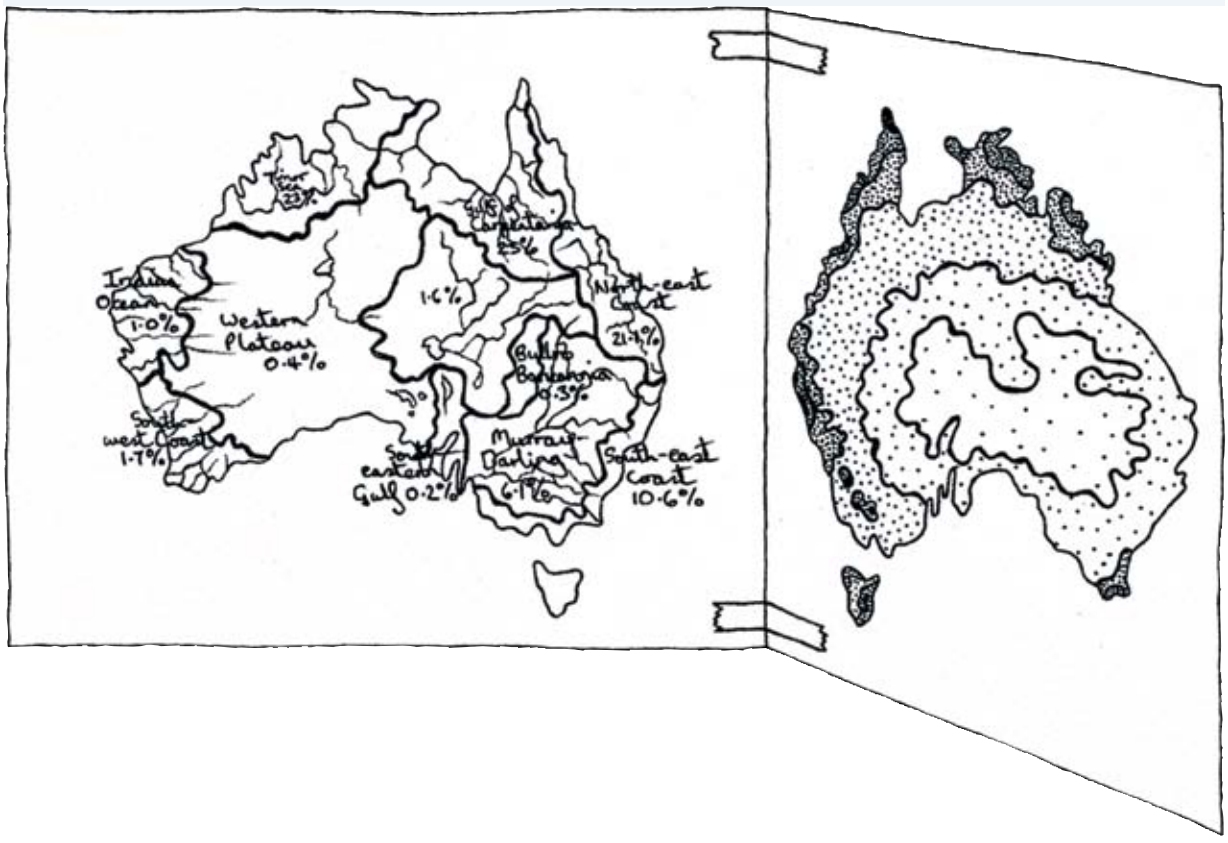
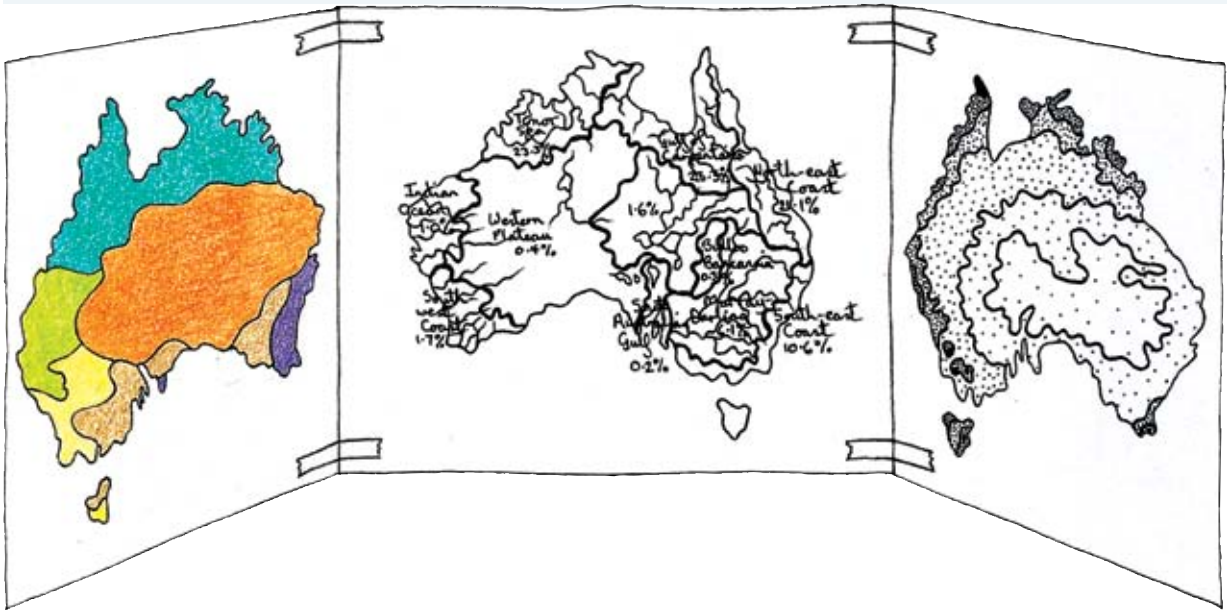


FIGURE 53 Two maps hinged to a base map, forming a complete overlay map shown prior to folding



Step 4

You are now able to lift each map separately from the others to see the information individually, or view two or more maps combined.

Step 5

To analyse the information that the overlay maps show, you should comment on where there is a relationship or interconnection of features. Lay any two maps together and identify any similar patterns. Write a sentence about these similarities. Then lay all three maps together, identify any similar patterns and write a sentence about these. An example is that the area with less than 400 mm of rainfall forms the arid zone, with erratic rainfall across the Western Plateau and Lake Eyre catchments.

Step 6

Next, look for significant differences across two maps. Write a sentence about these differences. Then look for significant differences across the three maps and write a sentence about these. For example, the very marked winter rainfall in south-west Western Australia does not produce greater annual rainfall than that in western Tasmania and near Tully, Queensland.

Step 7

Now go through the process again looking for unusual occurrences; that is, where things appear random and show no interconnection. An example is that the Murray–Darling Basin drainage catchment has a wide range of seasonal rainfall patterns across its area, varying from uniform rainfall to arid zones.

on Resources

Video eLesson Creating and describing complex overlay maps (eles-1656)

Interactivity Creating and describing complex overlay maps (int-3152)

12.17.3 Let me do it

Complete the following activities to practise this skill.

12.17 ACTIVITIES

1. Use **FIGURE 5**, which shows the topography of Borneo, and **FIGURES 6** and **7**, which show orangutan distribution in 2015 and rainforest distribution in 2020. Create an overlay map to show the ***interconnection*** between topography, rainforest distribution and orangutan distribution. Use the checklist to ensure you cover all aspects of the task correctly.
   Note: You will need to make your base map (from **FIGURE 5**) to the same scale as **FIGURE 6** and **7**. To do this, draw a 3 × 3 grid over the base map, then draw a smaller 3 × 3 grid on a piece of paper — this new grid should be the same size as **FIGURES 6** and **7**. Working one grid square at a time, sketch a copy of the base map into the new smaller grid.
2. Apply your skills in describing a complex overlay map by answering the following questions.
   a. Is there a pattern (relationship or ***interconnection***) between the location of the highest land and rainforest distribution in Borneo?
   b. Is there a pattern (relationship or ***interconnection***) between the location of rainforests and the distribution of orangutans in Borneo?
   c. Are there any areas in Borneo where there is no relationship between rainforest distribution and orangutan numbers?
   d. On what type of land might rainforests be found in the future?
   e. Between which of the following two features is the strongest relationship?
      - High land and rainforest distribution
      - High land and distribution of orangutans
      - Rainforest distribution and the orangutan population.
   f. What would explain this strong relationship?

FIGURE 5 Topography of Borneo



Source: Spatial Vision

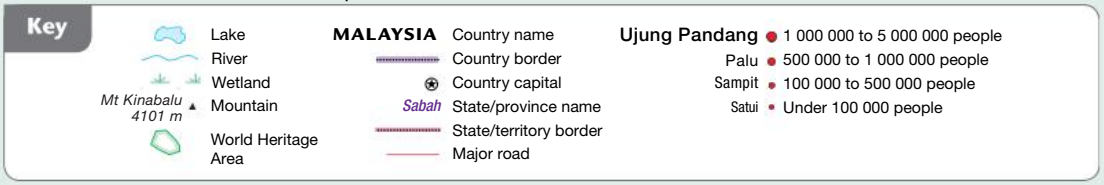
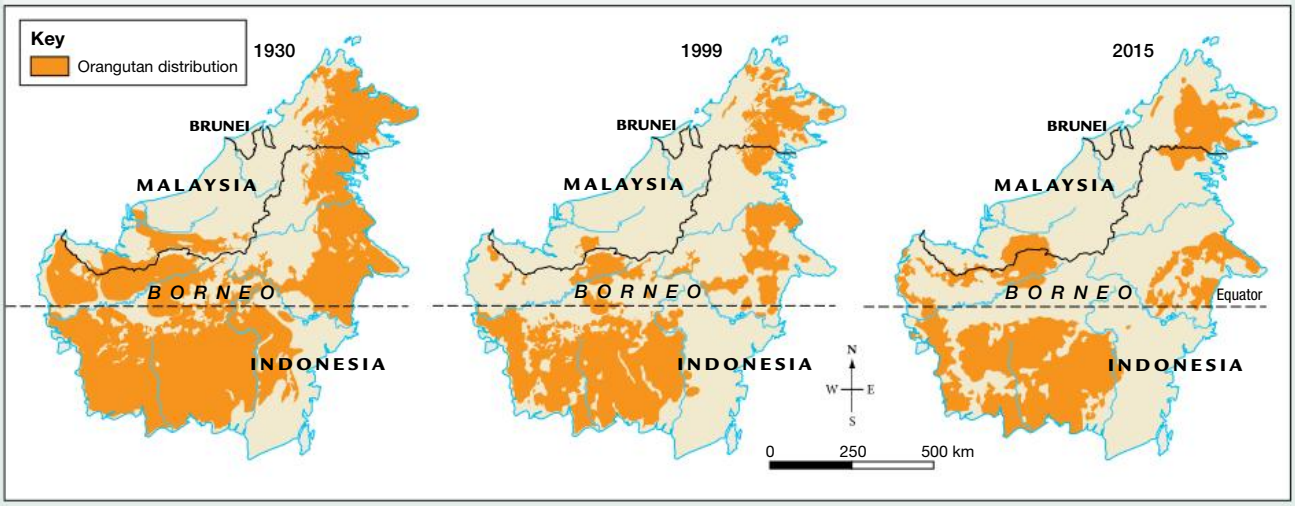
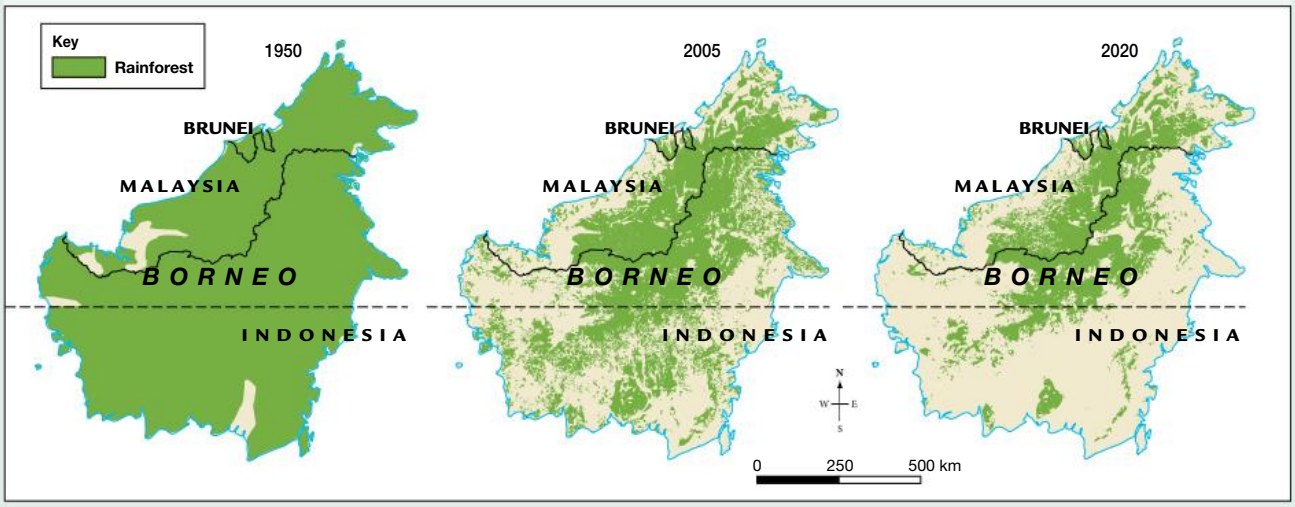


FIGURE 6 Orangutan distribution in Borneo, 1930–2015



Source: IUCN Red list

FIGURE 7 Rainforest distribution in Borneo, 1950–2020



Source: Spatial Vision

Checklist

In creating my complex overlay map, I have:

- drawn in pencil first, then coloured
- used light colours, so that the base map remains clear
- placed a key on each overlay, but offset it so each can be seen
- created hinges with adhesive tape at appropriate spots
- labelled features, if necessary
- included BOLTSS.

In describing my complex overlay map, I have:

- identified and communicated key features
- clearly represented and communicated the data.

LESSON
12.18 SkillBuilder: Drawing a précis map

12.18.1 Tell me

What is a précis map?

A précis map is a simplified map — the cartographer has decided which details to leave in and which to leave out. It is different from a sketch map, which includes all the main features.

Why are précis maps useful?

A précis map is a summary of an area. There may be just one feature shown, such as rainforest. Sometimes more features are shown, such as vegetation, urban areas and roads.

They are useful for:

- identifying a particular feature or features, such as rainforests or residential/industrial areas of a city
- close examination of a particular feature
- focusing the reader's attention on a feature, such as the distribution of a plant species
- showing or including detail not visible on a satellite image or aerial photograph.

A good précis map has:

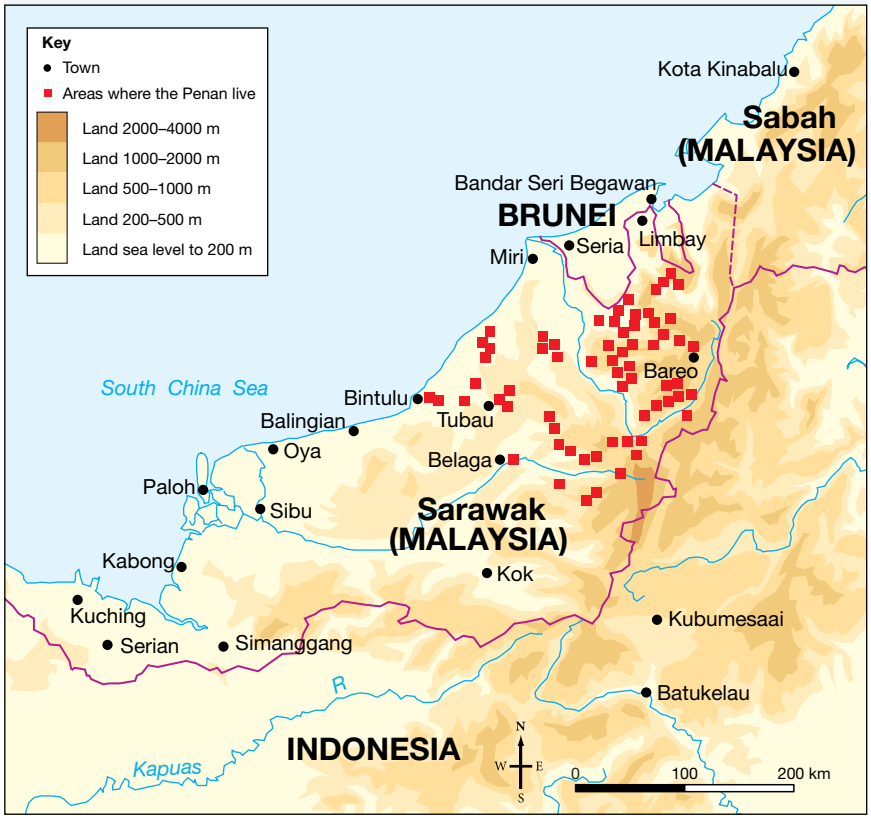
- been neatly presented
- been drawn in pencil
- been coloured or shaded and includes a key
- accurately shown a feature or features
- included BOLTSS.

12.18.2 Show me

How to draw a précis map

Model

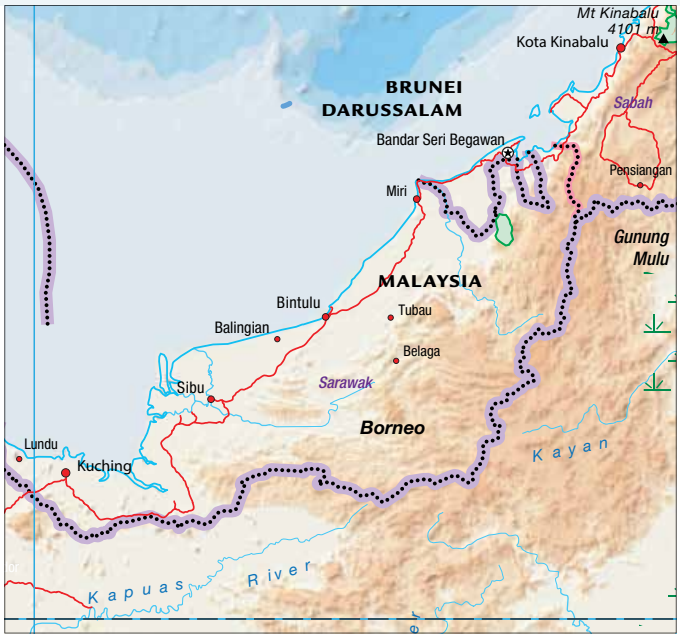
FIGURE 1 Précis map showing Sarawak, in Malaysian Borneo.



Source: MAPgraphics Pty Ltd, Brisbane

FIGURE 1 shows four aspects — the height of the land, the major towns, the rivers and the areas where the Penan people live. The cartographer has elected to omit aspects such as transport systems and vegetation. The areas in which the Penan people live have been drawn as symbols and in no way depict the boundaries of their locations. **FIGURE 1** is a précis of the complex map in **FIGURE 2**.

FIGURE 2 Complex map showing Sarawak, in Malaysian Borneo



Source: Spatial Vision

0 100 200 300
kilometres

N
W E
S

Key

	Lake	MALAYSIA	Country name	Kuching	500 000 to 1 000 000 people
	River		Country border	Sibu	100 000 to 500 000 people
	Wetland	⊛	Country capital	Lundu	Under 100 000 people
Mt Kinabalu 4101 m	Mountain	*Sabah*	State/province name		
	World Heritage Area		State/territory border		
			Major road		

You will need:

- a map of the region being considered
- a light grey pencil
- coloured pencils
- a ruler
- an eraser.

Procedure

Step 1

Determine the area that you want to use to create a précis map. In **FIGURE 57** this has been done by removing details for surrounding countries, so that only Sarawak is detailed.

Step 2

Rule a border on your page within which to create your map. Make this the same size as the original to avoid having to scale your drawing.

Step 3

Identify the feature/s and their extent that you are going to include on your précis map. In **FIGURE 1**, the cartographer has chosen to leave in land heights, rivers and towns, and has chosen to leave out roads and vegetation.

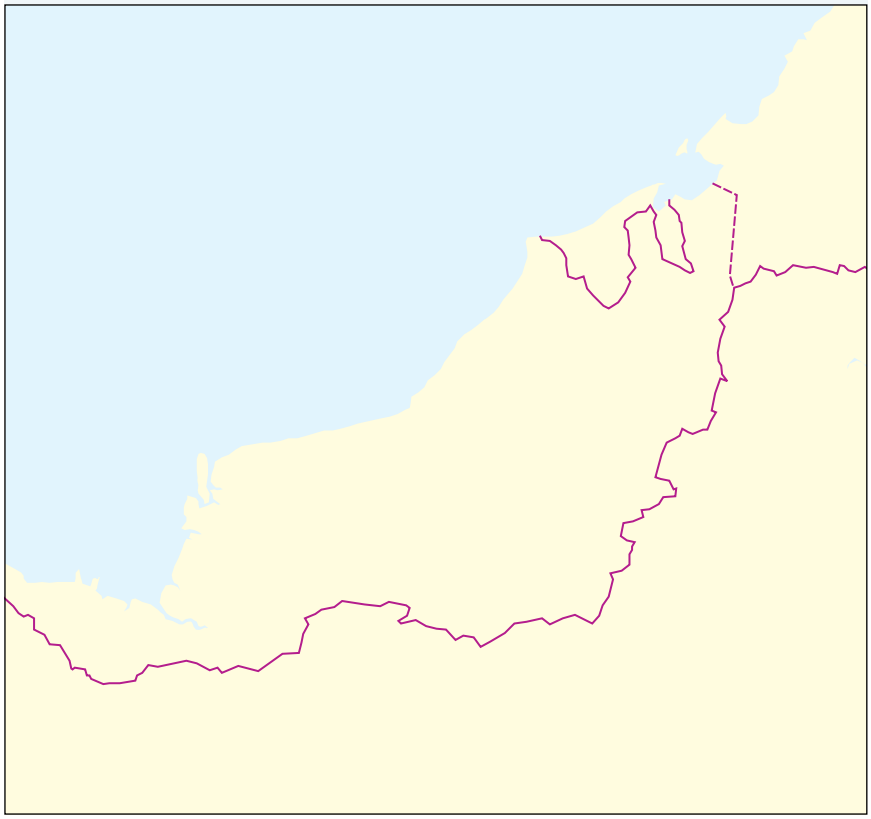
Step 4

Create a colour-coded key for each feature and place it next to or below the map.

Step 5

Within the border that you created in **Step 2**, draw an outline of the area that is to be mapped. Retain the scale of the original map that you are using.

FIGURE 3 Setting up the base map for the précis map



Step 6

Individually, take each of the features that you identified in **Step 3** and mark on your map, in a generalised way, the area that it covers. When you have completed one feature, colour it before moving to the next feature and mark your key appropriately (see **FIGURES 4, 5, 6** and **7**). It will prevent confusion if you complete the colouring as you go, rather than leaving it all until the end.

FIGURE 4 Land heights have been added to the base map.

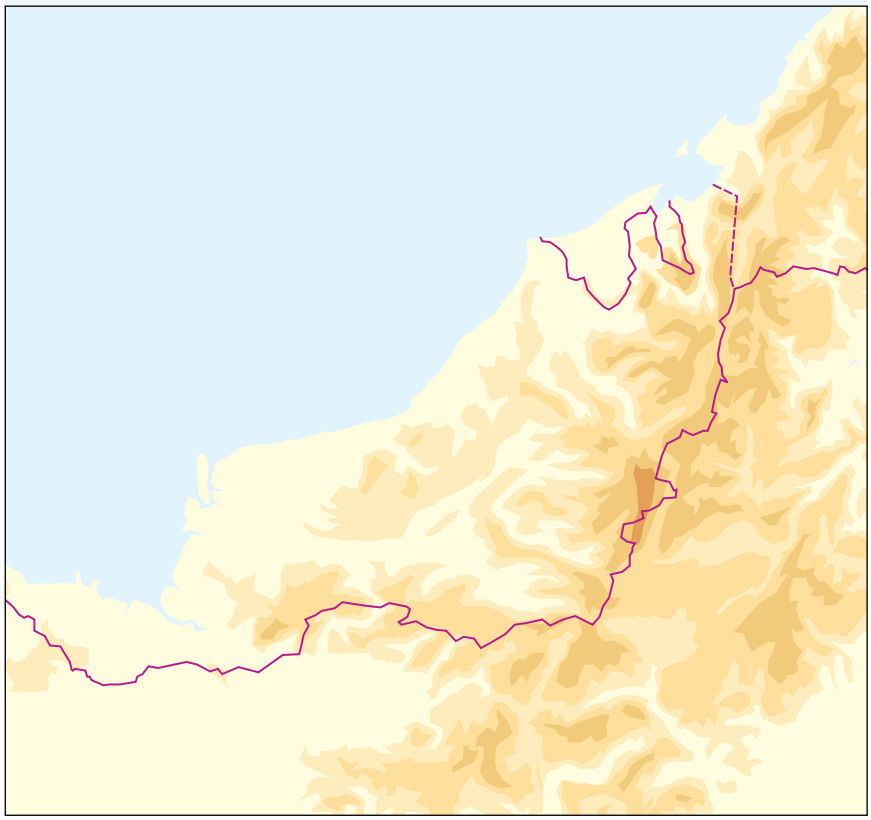


FIGURE 5 Rivers have been added to the base map.

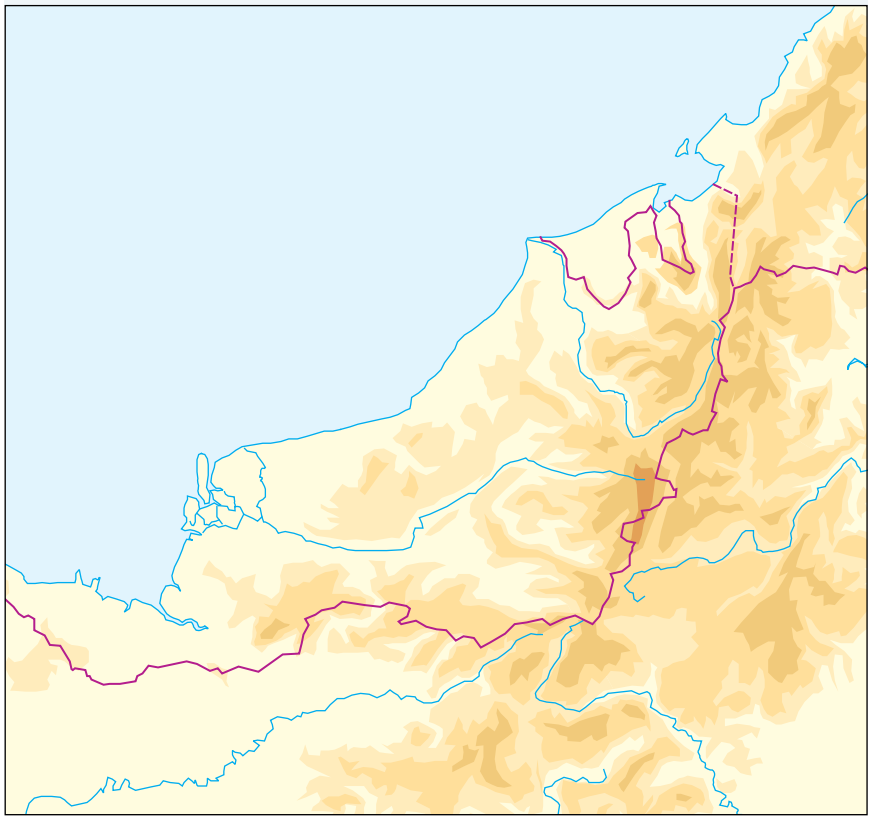
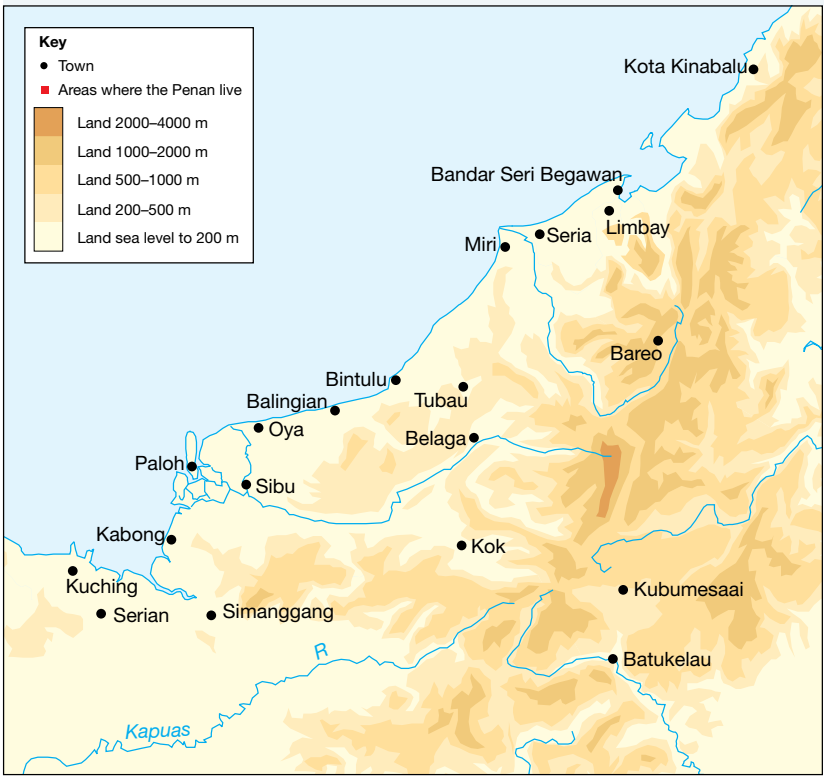


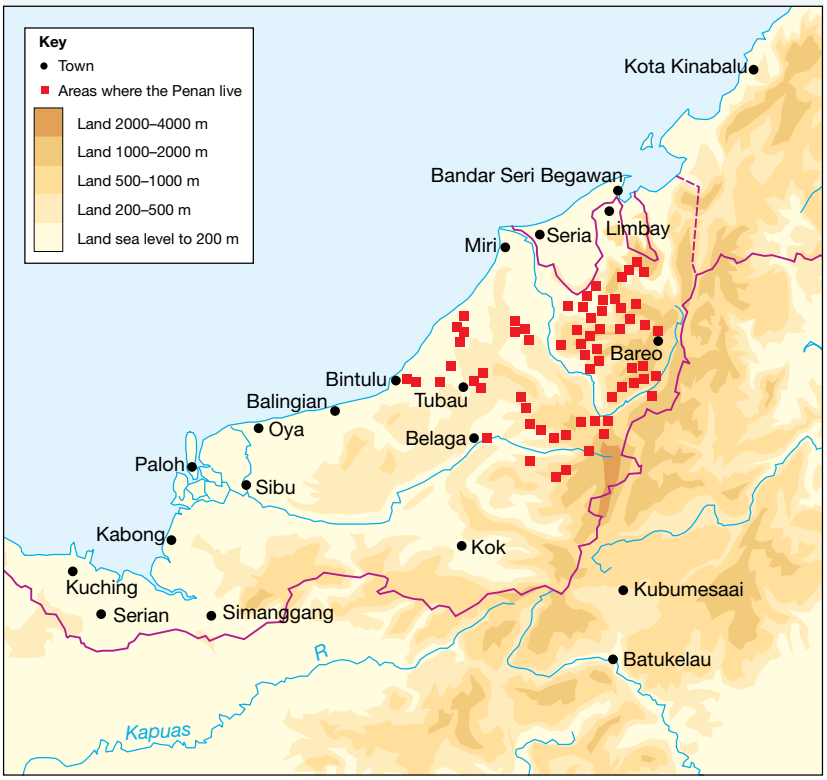
FIGURE 6 Towns have been added to the base map.



Step 7

Complete the précis map with BOLTSS.

FIGURE 7 The locations of Penan lands have been added to the base map.



Resources

Video eLesson Drawing a précis map (eles-1657)
Interactivity Drawing a précis map (int-3153)

12.18.3 Let me do it

Complete the following activities to practise this skill.

12.18 ACTIVITIES

1. Refer to the map of the Amazon shown in **FIGURE 8**. On a separate piece of paper, create a précis map showing only the levels of deforestation. Map the outline and include the borders of countries. To show levels of deforestation, you should include the areas of undisturbed natural forest (low or no threat), undisturbed natural forest (under threat) and disturbed forest. Ensure that you complete the conventions of good mapping (include BOLTSS). Use the checklist to ensure that you cover all aspects of the task.
2. Use your completed précis map to answer the following questions.

FIGURE 8 The Amazon Basin



Source: MAPgraphics Pty Ltd, Brisbane

a. What level of deforestation dominates the Amazon Basin?
b. Is there more area of forest under threat than there is deforested area?
c. Is there a greater area of forest under threat than there is not threatened?
d. In which area of the Amazon Basin is the majority of the least disturbed forest?
e. Describe the regions of the Amazon Basin where you would be most likely to see evidence of deforestation.

Checklist

I have:

- presented the information neatly
- drawn in pencil
- coloured/shaded with a key
- accurately shown a feature or features
- included BOLTSS.

LESSON
12.19 SkillBuilder: Creating and reading pictographs

12.19.1 Tell me

What is a pictograph?

A pictograph is a graph drawn using pictures to represent numbers, instead of the bars or dots that are traditionally used on graphs. Data can be drawn vertically or horizontally. Each picture is given a value.

Why are pictographs useful?

A pictograph is a simple way of representing data and conveying information quickly and efficiently in a different format. It is very visual for the reader.

Pictographs are useful for:

- simplifying data
- showing differences between data
- presenting data.

A good pictograph has:

- been drawn in pencil
- used clear and simple pictures or graphics of the same size.

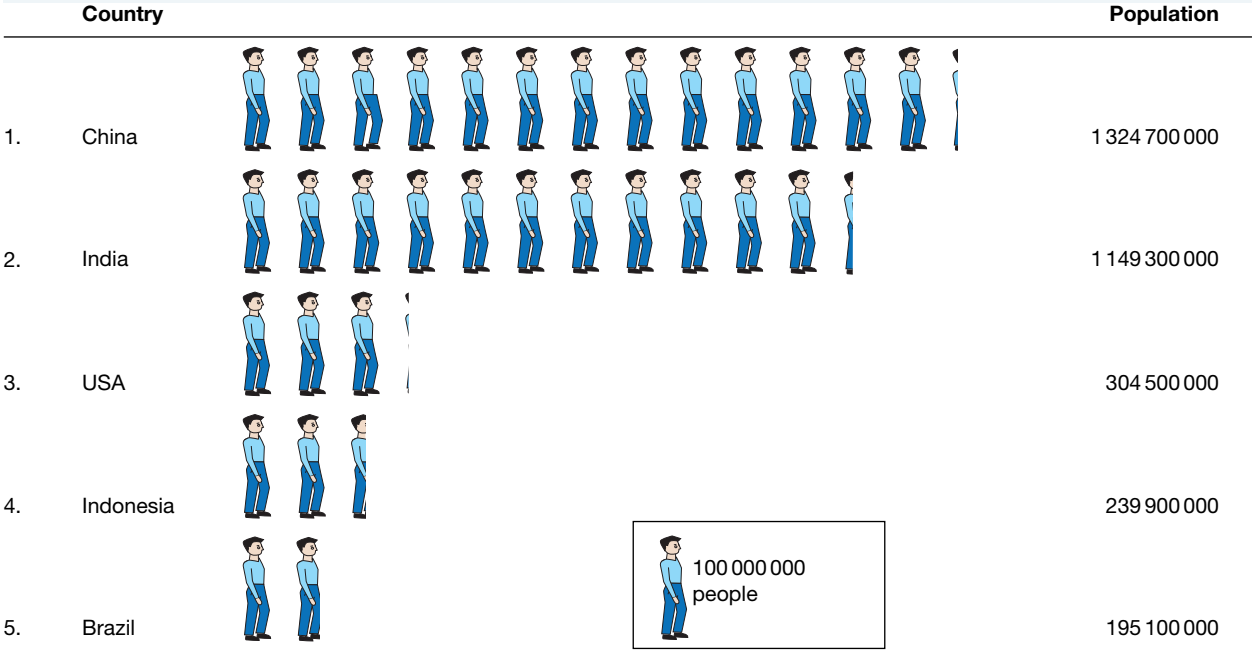
12.19.2 Show me

How to create and read a pictograph

Model

FIGURE 1 is a pictograph that shows that the populations of China and India are large in comparison to those of other countries. The populations of the United States and Indonesia appear to be similar, but the key shows that each complete symbol (person) represents 100 million people, so in fact there is a large difference in the population sizes. Indonesia's population is almost 250 million, while that of the United States is over 300 million.

FIGURE 1 Top five countries by population, 2008



You will need:

- a basic set of data
- a piece of paper on which to draw the pictograph
- a light grey pencil
- coloured pencils
- a ruler.

Procedure

To complete a pictograph you need a small set of data on one theme to graph.

Step 1

Decide on a simple picture to represent the data that you are going to graph. For example, you might decide to use stick figures to represent numbers of people, fish if your data is about fishing, or dollar signs if your data concerns money.

Step 2

Consider the data and determine a number that each picture should represent. In **FIGURE 1**, the drawing of one person is equivalent to 100 000 000 people in a population. Choose a scale that will not require too many pictures for each part of the graph, and check what the size of the graph will be when your representations are included. The pictograph must fit on the page or in the space you have available.

Step 3

Draw lines on your page, equal distances apart, to represent each variable (for example, country or year) for which you have data. On these lines you need to draw the appropriate number of pictures.

Step 4

Spend some time doing calculations to determine how many pictures you need to represent each number. Notice in **FIGURE 1** that 'part people' are used. For example, half a person in the pictograph would represent 50 000 000 people. Think about how your pictograph will show 'parts of the whole' to represent the data you are plotting.

Step 5

Complete your pictograph with its drawings. Ensure that the key is in place and that the pictograph has a clear title.

Step 6

Reading a pictograph requires you to carefully analyse the data provided. Check the title and the key, and determine the numbers represented by the graph. Write a few sentences summarising what the pictograph tells you. For example, **FIGURE 1** shows that the populations of China and India are large in comparison to those of other countries.

on Resources

Video eLesson SkillBuilder: Creating and reading pictographs (eles-1659)

Interactivity SkillBuilder: Creating and reading pictographs (int-3155)

12.19.3 Let me do it

Complete the following activities to practise this skill.

12.19 ACTIVITIES

1. Use the data below to draw a pictograph of the 10 cities with the largest populations. Use the checklist to ensure you complete the task correctly.

Rank	City	Country	Population (rounded figures, 2011)
1	Tokyo	Japan	35.7 million
2	Mexico City	Mexico	19.0 million
2	Mumbai	India	19.0 million
2	New York City	United States	19.0 million
5	São Paulo	Brazil	18.8 million
6	Delhi	India	15.9 million
7	Shanghai	China	15.0 million
8	Kolkata	India	14.8 million
9	Dhaka	Bangladesh	13.2 million
10	Jakarta	Indonesia	13.2 million

2. Apply your skills to answer the following questions.
   a. What did you immediately notice when you first looked at your completed pictograph?
   b. Which cities did you not expect to see on this list? Why?
   c. Which country did you think would contain one of the 10 cities with the highest populations, but does not?
   d. How much larger is Tokyo than Mexico City?
   e. Sydney is Australia's largest city (5.7 million in 2019). Add Sydney to your pictograph. What do you notice?

Checklist

I have:

- drawn in pencil
- used clear and simple pictures or graphics of the same size.

LESSON
12.20 SkillBuilder: Describing photographs

12.20.1 Tell me

What is meant by 'describing a photograph'?

A description is a brief comment (up to a paragraph) on a photograph, identifying and communicating features from a geographic point of view. Sometimes it is necessary to infer information from a photograph; for example, a cloud of dust in an image may tell us that the climate is dry, or that the place is experiencing drought, or that some movement disturbed the soil at the time the photograph was taken.

Why is describing photographs useful?

Photographs record the details of a place at a particular moment in time. As geographers, we use our understanding of the world to interpret the image and tell others about the main features or information the photograph reveals.

Photographs are also useful for:

- comparing features before and after a disaster
- showing land features when planning town expansions
- explaining about a place and the way people use space
- revealing the living conditions of people on the other side of the world.

A good description of a photograph:

- includes an overview of the main features
- has considered the angle of photography — aerial, oblique or ground
- has tried to identify the place in the photograph
- notes other relevant information from the photograph
- acknowledges the anomalies in the image (those things that seem out of place)
- includes any written information that came with the photograph
- has considered the time of the day and the date when the photograph was taken
- has looked for visual clues of *scale* (e.g. comparisons with people or building heights)
- clearly communicates what you want the viewer to notice or see in the photograph
- has considered whether there is evidence of bias from the photographer, especially with the size of the image.

12.20.2 Show me

How to interpret photographs

Model

FIGURE 1 is a ground-level photograph of a city, which shows a mix of traditional buildings of about 10 storeys in height and modern sky scrapers of at least double that height. You can see an inner-urban area with traffic lights, street vendors and one-way streets. A lone tree is struggling to grow in the shade of the buildings. Some of the people may be tourists, as the man in the light-coloured shirt seems to be looking around as he walks. It appears to be a warm day, because people are wearing short-sleeved shirts and sunglasses, and some buildings are casting shadows onto others. You can tell that people are at work in these offices, because the lights are on in many levels of the buildings. The street name (W 56 St) tells the viewer that this is a street in New York. It is likely that the photograph was taken within the last 15 years, because the man in the foreground wears earphones and is listening to music while he walks.

FIGURE 1 A modern city environment



You will need:

- a photograph of a built or natural environment.

Procedure

To interpret a photograph, you must have a geographic photograph of a place. Begin by using the 'See, Think, Wonder' technique.

Step 1

See

What can you see? Look for all the main details. What takes up most of the space? Look for all the small details. What are you wanting or needing to point out in this image? Do not try to explain anything. Make a list of the things that you can see. In **FIGURE 1**, this list would include high-rise buildings, traffic on the roads, pedestrians, street signs and more.

Step 2

Think

What do you think is happening? What do you think about it? Make a list of what you think. In **FIGURE 1**, you might think it is early morning and workers and tourists are in the street, going about their daily activities. Perhaps you think that the high-rise buildings contain offices within which people are beginning their work for the day.

Step 3

Wonder

What is the mystery? What do you wonder about this image? For example, in **FIGURE 1**, why are all the streets one way? Make a list of what you wonder about.

Step 4

Is there any information with the photograph? For example, information might be given about the photographer or when the image was taken. Does the photograph appear with an article?

Step 5

Have you determined where the place is? Can you suggest in which region of the world the photograph is taken, even if the exact country or place is difficult to decide? As you develop your geographic understanding, you will gain impressions from images. In **FIGURE 1**, the street name (using numbering) on the sign indicates that this is a city in the United States, probably New York.

Step 6

What does the light in the image indicate about the time of day when the photograph was taken? Are there any shadows? Are there any indications as to whether the sun is high in the sky, rising in the early morning, or setting in the evening? This might tell you about the activities of people at a particular time of day. In **FIGURE 1**, the light comes from an angle and so appears to be the light of early morning.

Step 7

Is this a recent or an old photograph? Clothes, cars and other items in the image, such as appliances, can help to date the photograph. Sometimes photographs have dates embedded in the corner of the image. **FIGURE 1** shows a man walking with earphones in, listening to a personal media player. This technology has only been widely available for around 15 years.

Step 8

At what angle is the photograph taken — aerial, oblique or ground? Think about why the photographer may have used this angle. Does the background information add to your understanding of the photograph? Think about the things that you cannot see. For example, what types of office work might happen in the buildings in **FIGURE 1**?

Step 9

Do you need to make a statement about the height of any objects in the photograph? Is there an item from which you can reference height? In **FIGURE 1**, each floor of a building represents about four metres.

Step 10

Ask yourself whether you think the photographer may be using bias in the photograph; that is, has the photographer unfairly influenced the image? Is it likely that left and right or top and bottom of this image show the same scene, or has the photographer selected these elements to tell a particular story? In **FIGURE 1**, bias does not seem to be apparent. The photographer has included what the eye can see. Look at **FIGURES 2 (a)** and **(b)** — is the story the same in both images?

FIGURE 2 (a) appears to be a scene of a peaceful rural or parkland environment. When the full image is shown in **FIGURE 2 (b)**, it becomes apparent that this place is part of a very urban space, in the centre of a large city.

FIGURE 2 (a) A peaceful rural environment? (b) Central Park, New York City

(a)



(b)



on Resources

Video eLesson	Describing photographs (eles-1660)
Interactivity	Describing photographs (int-3156)
Weblink	Kibera slum

12.20.3 Let me do it

Complete the following activity to practise this skill.

12.20 ACTIVITY

Use the **Kibera slum** weblink in the Resources panel to look at the photograph of the Kibera slum in Nairobi, Kenya. Using the online zoom tool, explore the details of the photograph. Interpret the image by answering the following questions. Use the checklist to ensure you cover all aspects of the task.

a. What activities are being carried out in the slum?
b. Describe the buildings in the slum, including size, construction techniques, building materials and density of buildings.
c. Describe the possible movement of people through the slum.
d. In the left foreground is a water tank. This seems unusual in this environment. Can you suggest what might be happening in this community?
e. What additional information would you like to have about this place, especially considering the presence of the multistorey buildings in the background?
f. Write a paragraph of text to describe the Kibera slum, following the steps outlined in the Procedure.

Checklist

I have:

- included an overview of the main features
- considered the angle of photography — aerial, oblique or ground
- tried to identify the place in the photograph
- noted other relevant information from the photograph
- acknowledged the anomalies in the image (those things that seem out of place)
- included any written information that came with the photograph
- considered the time of the day and the date when the photograph was taken
- looked for visual clues of *scale* (e.g. comparisons with people or building heights)
- clearly communicated what I want the viewer to notice or see in the photograph
- considered whether there is evidence of photographer bias, especially with the size of the image.

LESSON
12.21 SkillBuilder: Constructing a basic sketch map

12.21.1 Tell me

What is a basic sketch map?

A basic sketch map is a map drawn from an aerial photograph or developed during fieldwork. It identifies the main features of an area and is different from a précis map, in which the cartographer opts to include or leave out certain features.

Why are basic sketch maps useful?

Basic sketch maps are used to show the key elements of an area, so other more detailed characteristics are not shown.

They are useful for:

- summarising an idea for presentations about a feature
- identifying and communicating key features or characteristics of an area.

A basic sketch map has:

- been drawn in pencil
- not tried to show everything in great detail
- been coloured using a key
- included BOLTSS.

12.21.2 Show me

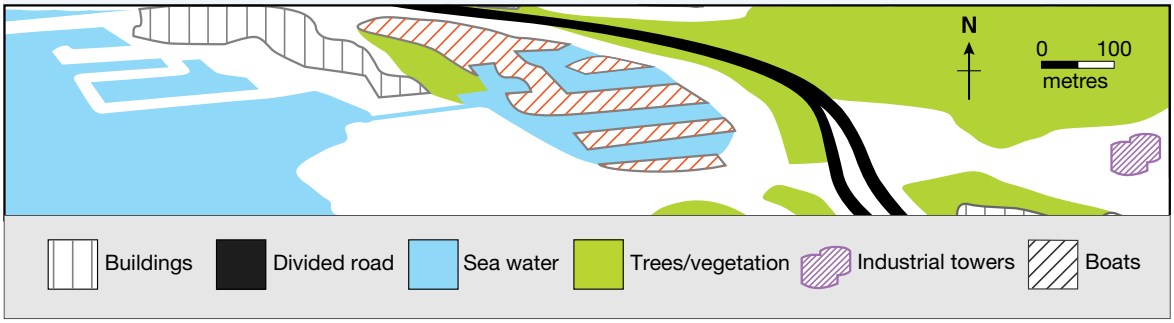
How to construct a basic sketch map

You will need:

- an aerial photograph
- a piece of paper on which to draw the map
- a light grey pencil
- coloured pencils
- a ruler
- an eraser.

Model

FIGURE 1 Sketch map of Darwin, Northern Territory, showing base features



Procedure

To complete a basic sketch map from an aerial photograph of a place, complete the following steps.

FIGURE 2 Aerial photograph of Darwin, Northern Territory



Step 1

Determine the relevant area of the aerial photograph that you want to use to make a basic sketch map.

FIGURE 3 The area for the sketch map is identified.



Step 2

Rule a border on your page within which to create your map. Keep the border the same size as the area of the photograph you are planning to draw, to avoid scale issues.

Step 3

Identify the feature(s), and their extent, that you are going to transfer onto your basic sketch map. Look for both natural and human features. In **FIGURE 3**, we can identify buildings, a divided road, sea water, trees and vegetation, industrial towers, and boats.

Step 4

Create a colour-coded key for each feature and place it near the map. If you want to use appropriate symbols, choose those too. For example, a red cross might be a suitable symbol to represent a hospital. You can add to your key as you go.

Step 5

Inside the border, draw an outline of the base features of the area, such as rivers, coastlines and major roads. These will guide your colouring.

Step 6

Individually, take each of the features that you have identified and mark on your base map the approximate area that it covers. When you have completed one feature, colour it before moving to the next feature. This will prevent confusion with colouring other features.

Step 7

You may wish to label some significant features of the sketch map. This shoud be done neatly and horizontally.

Step 8

Complete the simplified sketch map with BOLTSS.

on Resources

Video eLesson	Constructing a basic sketch map (eles-1661)
Interactivity	Constructing a basic sketch map (int-3157)

12.21.3 Let me do it

Complete the following activities to practise this skill.

12.21 ACTIVITIES

1. Using the aerial photograph of Darwin shown in **FIGURE 2**, complete a basic sketch map of the city and its *environments*. Use the checklist to ensure you have completed the task correctly.
2. Use your sketch map to answer the following questions.
   - **a.** Describe the natural *environment* of Darwin. Mention the base features that you used to make your sketch.
   - **b.** What type of buildings make up the greatest proportion of the built *environment* of Darwin?
   - **c.** Suggest two reasons for the focus of the city on marine activities.
   - **d.** There is vacant land to the right of the coastal road. On your sketch map, shade the land use that might appear here in 20 years' time. Justify your shading using labelling placed on your sketch map.
   - **e.** How does this city compare to the *place* in which you live?

Checklist

I have:

- drawn in pencil
- not tried to show everything in great detail
- used colour with a key
- included BOLTSS.

13 Landforms and landscapes



LESSON SEQUENCE

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LESSON
13.1 Overview

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How do human and natural processes shape environments and what impact does this have on the way people manage changing landscapes?

13.1.1 World landscapes and landforms

Landscapes are the visible features of the land, ranging from the icy landscapes of polar regions and lofty mountain ranges of Nepal through the grasslands of Tanzania and the forests of Brazil to the deserts of central Asia and the coastal plains. Shaped by physical processes over millions of years, they have been overlaid by the presence of humans.

FIGURE 1 Wave Rock is a natural rock formation near the town of Hyden, in the south-west of Western Australia.



on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10749)

Video eLesson World landscapes and landforms (eles-1623)

LESSON
13.2 Why do landscapes vary?

LEARNING INTENTION

By the end of this lesson you should be able to identify and classify different environments as part of either the natural or built environment.

You should be able to explain how people might use the environment and classify people's impact on environments as either positive or negative.

TUNE IN

Did you know the Earth has many different types of landscapes and that there are also variations within landscapes?

FIGURE 1 At 8848 metres, Mount Everest in the Himalayas is the highest mountain on Earth.



1. Brainstorm a list of different types of landscapes.
2. What factors do you think influence the formation of landscapes?
3. Select one of the landscapes you identified and suggest:
   a. how people could have a positive impact on this landscape
   b. how people could have a negative impact on this landscape.

13.2.1 Types of landscapes

There are many different landscapes across the Earth, and similarities can be observed within regions. Differences in landscapes are influenced by factors such as climate, geographical features (including mountains and rivers), latitude, the impact of humans, and where the landscapes are located.

FIGURE 2 The Ngilgi cave formations in Western Australia are protected. They are considered to be of both historical and cultural significance.

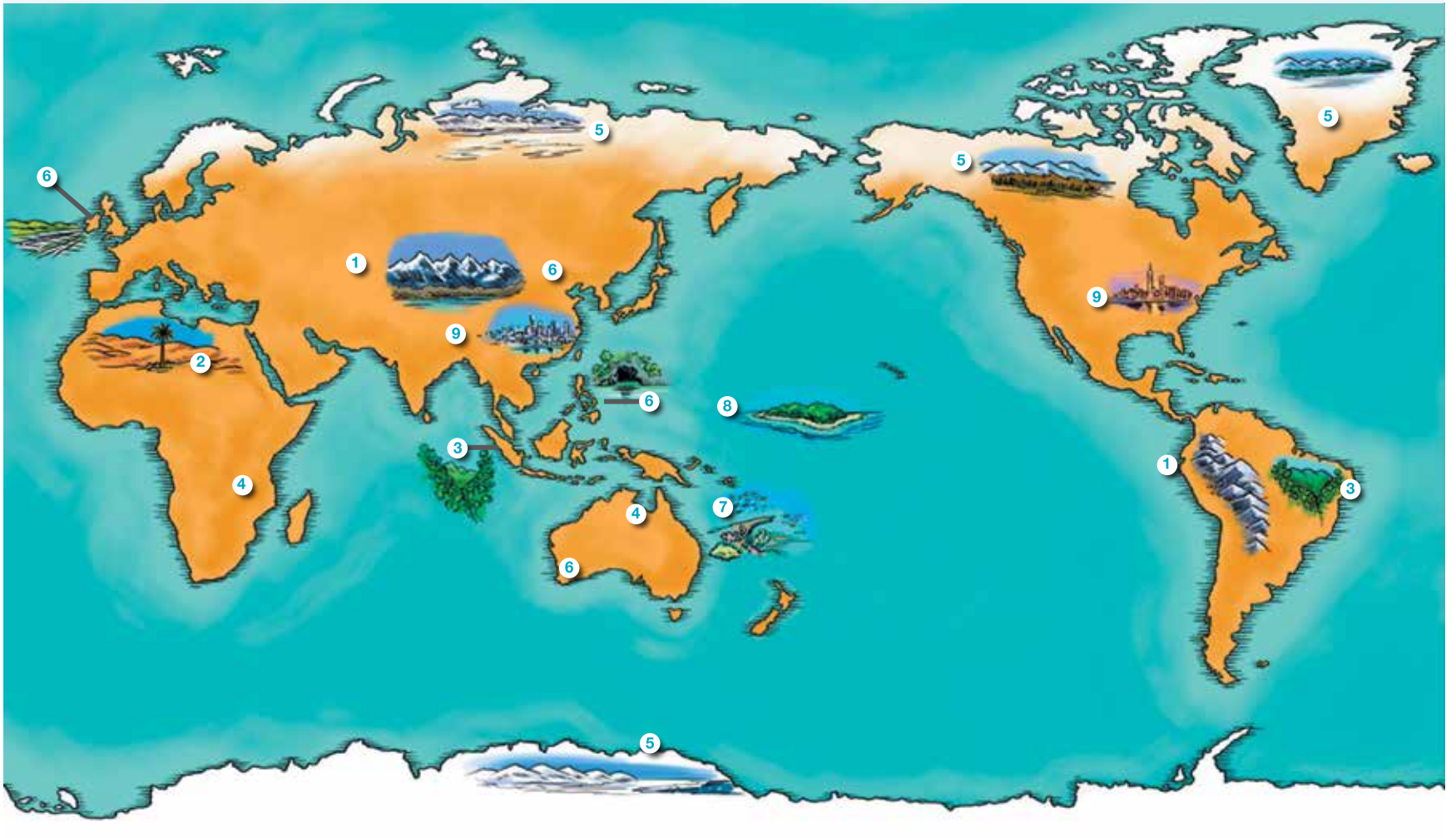


FIGURE 3 The Great Barrier Reef in Queensland is a protected marine environment made up of more than 3000 individual reefs.



int-3604

FIGURE 4 Selected world landscapes



1. Mountains rise above the surrounding landscape. They often have steep sides and high peaks and are the result of processes operating deep inside the Earth. Some reach high into the atmosphere, where it is so cold that snow is found on their peaks.
2. Deserts are areas of low rainfall; they are an arid or dry environment. They can experience temperature extremes: hot by day and freezing at night. However, not all deserts are hot. Antarctica is the world's largest desert, and the Gobi Desert, located on a high **plateau** in Asia, is also a cold desert.
3. Rainforests are the most diverse landscapes on Earth. They are found in a variety of climates, ranging from the hot wet tropics to the cooler temperate areas. The lush vegetation found in these regions depends on a high level of rainfall. Over 50 per cent of all known plant and animal species are found within them. In addition, many of our foods and medicines come from rainforests.
4. Grasslands, or savannas, are sometimes seen as a transitional landscape found between forests and deserts. They contain grasses of varying heights and coarseness, and small or widely spaced trees. They are often inhabited by grazing animals.
5. Polar regions and tundra can be found in polar and alpine regions. Characterised by **permafrost**, they are too cold for trees to grow. Vegetation such as dwarf shrubs, grasses and lichens have adapted to the extreme cold and short growing season. **Glaciers** often carve spectacular landscape features as they move down the mountains under the influence of gravity.
6. Karst landscapes form when mildly acidic water flows over soluble rock such as limestone. Small fractures form, which increase in size over time and lead to underground drainage systems developing. Common landforms include limestone pavements, disappearing rivers, reappearing springs, sinkholes, caves and karst mountains. Around 25 per cent of the world's population obtains water from karst **aquifers**.
7. Aquatic landscapes cover around three-quarters of the Earth and can be classified as freshwater or marine. Marine landscapes are the saltwater regions of the world, and include oceans and coral reefs. Freshwater landscapes are found on land, and include lakes, rivers and wetlands.
8. Islands are areas of land that are completely surrounded by water. They can be continental or oceanic. Continental islands lie on a continental shelf — an extension of a continent that is submerged beneath the sea. Oceanic islands rise from the ocean floor and are generally volcanic in origin. A group or chain of islands is known as an archipelago.
9. Human or built landscapes are those that have been altered or created by humans.

plateau an extensive area of flat land that is higher than the land around it. Plateaus are sometimes referred to as tablelands.
permafrost a layer beneath the surface of the soil where the ground is permanently frozen
glacier a large body of ice, formed by an accumulation of snow, that flows downhill under the pressure of its own weight
aquifer a body of permeable rock below the Earth's surface that contains water, known as groundwater

Resources

Interactivity Landscapes galore (int-3102)
Google Earth Mount Everest

13.2 SKILL ACTIVITY: Communicating

Scenario

A marketing agency has invited teams of students to create television commercials for a tourism campaign highlighting the landscapes shown in **FIGURE 4**. The aim of the commercials is to provide interesting and accurate information to convince the audience (potential tourists aged from 20–25) to visit different landscapes.

You can present your commercial as a PowerPoint showing what you would include or as an oral presentation with visual aids.

Before the presentation

Select a location somewhere in the world that contains one of the landscapes and **conduct research** on its features.

Your presentation must cover at least four of the following:

- location
- climate
- striking natural features
- unique or interesting animal and/or plant species
- specific cultural or historical human aspects.

During the presentation

Ensure you use geographical language to **describe** the landscape of your chosen place.

Keep in mind who your audience is and adapt your language choices to suit them.

Only include information that will persuade the audience to travel to the place.



13.2 Exercise

learnon

13.2 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 7	4, 5, 8	6, 9, 10

These questions are even better in jacPLUS!



- Receive immediate feedback
- Access sample responses
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Check your understanding

1. What is the difference between the terms 'natural' and 'built' environment?
   - A. Natural environments are created or altered by humans whereas built environment are not.
   - B. Built environments are created or altered by humans whereas natural environments are not.
   - C. There is no difference as neither of them are altered by humans.
   - D. Natural environments are larger than built environments.
2. Altitude, latitude, geographical features and climate are examples of factors that do not make landscapes different. True or false?
3. Which four of the following are human or built environments?
   - A. Forests
   - B. Zoos
   - C. Camping grounds
   - D. Caravan parks
   - E. Grasslands
   - F. Farms
4. **Explain** why you think people change landscapes.
5. **Select** two of the landscapes featured in this lesson and **explain** how they are different.

Apply your understanding

Communicating

6. Copy the following table into your workbook.

Characteristics	How it formed	How people use it	Positive impacts	Negative impacts	Human impacts both positive and negative

   a. **Select** one of the landscape types described in this lesson and complete the table, **stating** the positive and negative aspects of human use.
   b. Which list is larger — the positive impacts or negative impacts?
   c. Review the column of negative impacts. **Select** three of these impacts and propose a way in which the environment could be used more sustainably.
7. **Describe** how the scale of the following landscapes might differ around the world: deserts, polar regions, aquatic landscapes and islands.
8. Which of the featured landscapes would you like to know more about? **Create** a list of questions that you would like to have answered.

Concluding and decision-making

9. **Explain** why you think rainforests are described as 'the most diverse landscapes on Earth'.
10. **Identify** the featured landscape that you think would be the least diverse. **Justify** your answer.

LESSON
13.3 What processes shape landscapes?

LEARNING INTENTION

By the end of this lesson you should be able to explain the processes that have shaped the Earth and explain how soil is formed. You should also be able to define the key terms weathering, erosion, deposition, tectonic forces and transportation.

TUNE IN

Processes are at work to continuously sculpt and change the landscape. In the future, the Earth's surface will look very different from the way it looks today.

FIGURE 1 The Grand Canyon has formed over millions of years.



1. What actions or steps do you think have produced the Grand Canyon?
2. Describe how you think this landscape looked one million years ago.
3. Explain how this landscape might change over the next one million years.

13.3.1 Are all processes natural?

A variety of natural processes shape and reshape not only the surface of the Earth but also what lies beneath it. Natural processes include uplift, such as that caused by tectonic activity, **erosion**, **deposition** and **weathering**. People change the landscape when they clear land for agriculture or build cities and road networks. Sometimes they alter the course of a river or trap its flow behind the walls of a dam.

erosion the wearing away and removal of soil and rock by natural elements, such as wind and water, and by human activity
deposition the laying down of material carried by rivers, wind, ice and ocean currents or waves
weathering the breaking down of bare rock (mainly by water freezing and cooling as a result of temperature change) and the effects of climate

13.3.2 The role of tectonic forces

The Earth's surface, or crust, is split into a number of plates, which fit together like a giant jigsaw puzzle. These plates sit on a layer of semi-molten material in the Earth's **mantle** — the layer of the Earth between the crust and the core. Heat from the Earth's core creates **convection currents** within the mantle, causing the plates to move. Most of the Earth's great mountain regions were formed as a result of this movement.

When two plates collide, one plate often slides under the other, in a process known as subduction, and it becomes part of the mantle. Other rocks are forced upwards and bent or folded. Large mountain ranges that were formed in this way include the Himalayas in Asia and the Rocky Mountains in North America. You will find more information on how mountains are formed in topic 15.

13.3.3 How is the landscape worn away?

Erosion is the wearing away of the Earth's surface by natural elements such as wind, water, ice and human activity. The landscape is further eroded when agents such as wind, water and ice **transport** these materials to new locations. Eventually, transported material is deposited in a new location. Over time, this material can build up and new landforms result. The Grand Canyon in Arizona in the United States (**FIGURE 1**) is an example of these elements at work. Here the Colorado River has cut deep channels into the landscape to form the Grand Canyon. These processes work more quickly on softer rocks.

Human activity also contributes to erosion. Deforestation, agriculture, urban sprawl, logging and road construction all alter the natural balance and increase erosion by as much as 40 per cent in some areas. Vegetation not only provides valuable habitat for native animals but is also vital for binding the soil together. Once vegetation is removed, it is more easily broken down and removed by wind and water. When topsoil is removed, plants are unable to obtain the nutrients they need for growth. Sometimes wide, deep channels, known as gullies, form (see **FIGURE 2**).

mantle the layer of the Earth between the crust and the core
convection current a current created when a fluid is heated, making it less dense and causing it to rise through surrounding fluid and sink if it is cooled; a steady source of heat can start a continuous current flow
transport the movement of eroded materials to a new location by elements such as wind and water

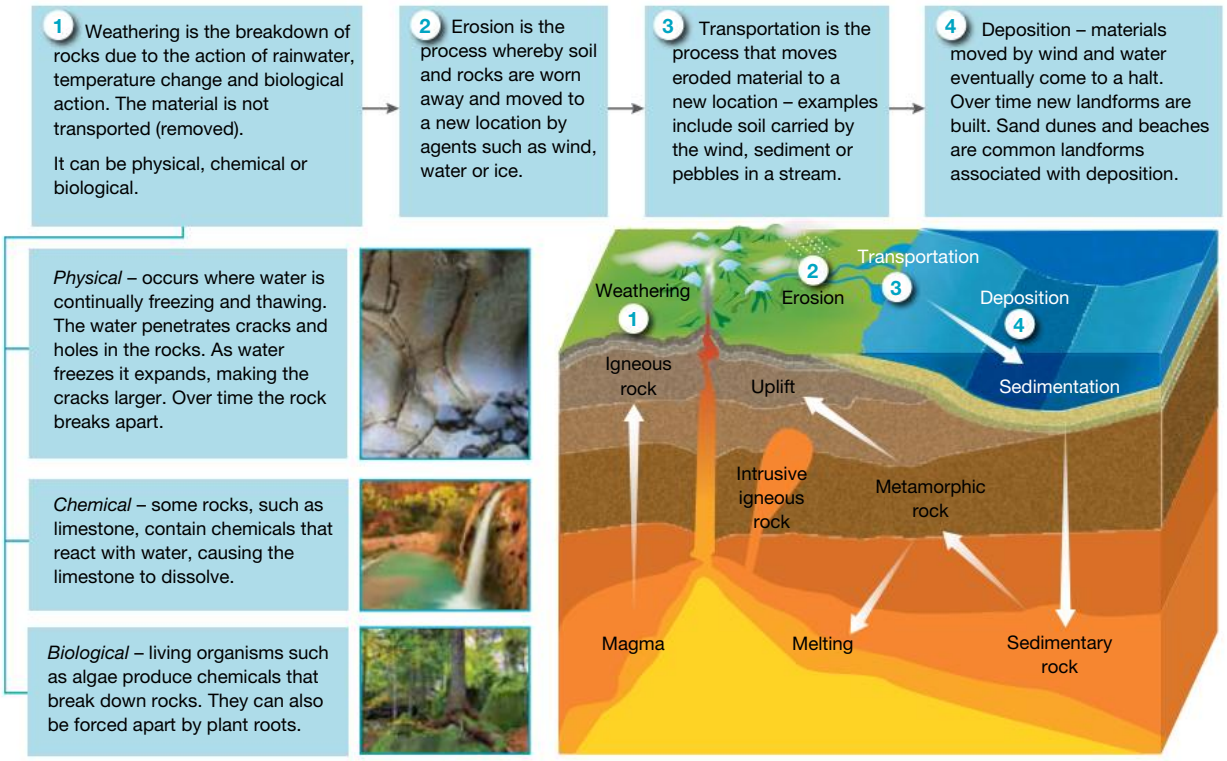
FIGURE 2 Note the scale of this gully compared to the people.



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tlvd-10611

FIGURE 3 After tectonic forces cause a section of the Earth to be raised (uplifted), other processes take over and resculpt the landscape.



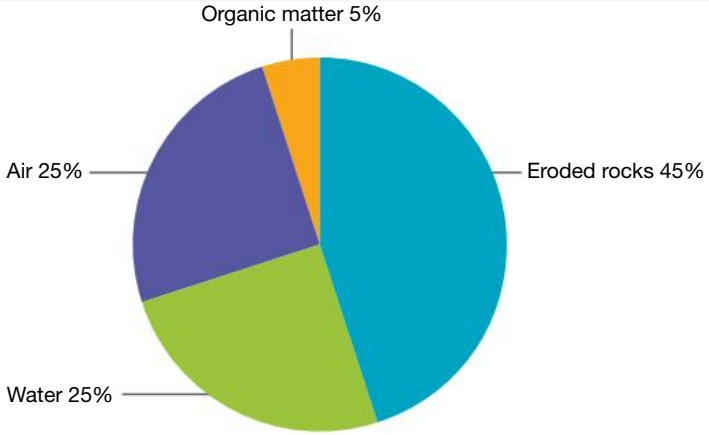
13.3.4 What is soil?

Formed as a result of the processes of weathering and erosion, soil is the basis of all life on Earth, providing the nutrients for plant growth and enabling people to grow crops and raise livestock.

The composition of soil is shown in **FIGURE 4** and the factors that influence soil formation are shown in **FIGURE 5**.

Australia generally has poor soils when compared with those found on other continents such as North America and Europe. Australian soils are generally low in nutrients and, in some areas, especially arid zones, they have a high salt content. Patches of good soil, though, are scattered throughout the continent.

FIGURE 4 While the composition of soil varies widely across the Earth, an average soil will have these characteristics.



How is soil formed?

Factors that influence soil formation are shown in **FIGURE 5**.

int-7831

FIGURE 5 Influences on soil formation

Climate



Climate affects the rate of weathering of soil. In high rainfall areas, soil develops more rapidly, but excess moisture also washes out or leaches nutrients. In rainforests, for example, the rich supply of **humus** from decaying plant matter produces lush vegetation. However, high rainfall means that without this constant supply of humus, soil fertility is quickly lost. In arid regions, where evaporation is high, soils often contain too much salt to support plant growth. Weather also plays a role; a climate with a freezing and thawing cycle will speed up the breakdown of rocks. In warm climates, the activity of soil organisms is high, and chemical processes also happen more quickly.

Parent material



Surface rocks and bedrock are broken down through weathering and erosion. The type of soil that forms depends on the parent material and the minerals it contains. A coarse, sandy soil will develop from sandstone. Bedrock that is mainly granite produces a sandy loam, while shale turns into heavy clay soil.

Soil



Plants and animals



Decaying plant and animal matter on the soil's surface is broken down by microorganisms into material that is incorporated into the soil, making it nutrient rich.

Topography



Surface features such as hills, valleys and rivers influence soil development. Soil is generally deeper on the top and at the base of a hill than on its slopes. Floodplains next to river valleys are often nutrient rich, due to sediment being deposited as floodwaters recede.

Time



These processes take place over long periods of time. Soils undergo many changes with the passage of time.

For example, there is:

- volcanic soil on the Darling Downs in Queensland and around Orange in New South Wales
- alluvial soil in river valleys such as around the Clarence River in New South Wales and Margaret River in Western Australia.

In many parts of Australia, it takes more than 1000 years for natural processes to produce 3 centimetres of soil.

humus nutrient-rich dark organic matter, created by decaying animal and plant matter

on Resources

Weblink Soil formation

Google Earth Grand Canyon

13.3 SKILL ACTIVITY: Questioning and researching, Communicating

Work with a partner to complete this task.

Use the internet to find an image of the MacDonnell Ranges or a mountain range that you find interesting. You and your partner will need to agree on the chosen landscape feature.

Your task is to create a presentation to:

- **explain** how physical processes have shaped and changed the landscape over time
- **describe** the traditional Dreaming creation story associated with your landscape and **explain** its significance to First Nations Peoples of Australia.

1. **Create** a physical or virtual model of your landform.
2. Copy and paste an image of your created landform into a Word document.
3. Using geographical language, annotate your image or model with accurate and explicit information about the mountain range's location and how it was formed.
4. Add further annotations to **describe** how your landform has changed over time and the processes that have resulted in these changes.
5. **Predict** how this landform might look in the future.
6. Add additional diagrams and annotations to **illustrate** the Dreaming creation story of First Nations Peoples.
7. **Explain** the significance of your chosen landscape or landform feature to First Nations Peoples of Australia.
8. Share your findings with the rest of the class.

FIGURE 6 The MacDonnell Ranges in the Northern Territory have formed over millions of years.



13.3 Exercise

learnon

13.3 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 4, 5, 7	8, 10	3, 6, 9, 11

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Check your understanding

1. **Determine** whether the following statements are true or false.
   a. Soil is the thin layer of material on the surface of the Earth in which plants can grow.
   b. Australia generally has superior soils when compared with those found on other continents such as North America and Europe.
   c. When one tectonic plate slips under another it is known as subduction.
   d. The breakdown of rocks (weathering) is only a physical process.
   e. Soil is generally shallower on the top and at the base of a hill than on its slopes.
   f. Erosion processes work more quickly on softer rocks.
2. Why is soil important?
   A. It is the basis for plant growth, which feeds both people and animals.
   B. It is not important.
   C. 75 per cent of mammals eat soil as their main source of nutrition.
   D. It protects the Earth from damage from the sun.
3. **Consider** the natural processes at work shaping the Earth and complete the following passage.
   _____ refers to the process of eroded or weathered material being moved to new locations by agents such as wind, water and ice. _____ refers to materials being dropped in new locations and may result in the new landforms being created.
4. _____ is the process whereby soil and rocks are worn away and moved to a new location by agents such as wind, water or ice.
   _____ refers to the breakdown of rocks due to the action of rainwater, temperature change and biological action.
5. **Identify** any human factors that might contribute to erosion.
   A. Conservation
   B. Deforestation
   C. Urban sprawl and road construction
   D. Planting trees and shrubs
   E. Logging

Apply your understanding

Communicating

6. **Explain** how and why human activity might contribute to weathering and erosion.
7. Using terms such as uplift, erosion, deposition, weathering and transportation, **explain** the interconnection between physical processes and the environment.
8. In your own words, **explain** how soil is formed and why it is not uniform across the surface of the Earth.
9. Using examples, **describe** two different ways that mountain ranges can be formed.
10. Australia is an ancient landmass. **Identify** which processes described in this lesson are currently shaping Australia's landforms. **Justify** your answer.

LESSON
13.4 What landscapes form underground?

LEARNING INTENTION

By the end of this lesson you should be able to explain how a karst landscape is formed.

TUNE IN

Did you know that the rocks that make up the karst landscape are composed of limestone and dolomite; both are carbonate rocks (a subclass of sedimentary rocks). They are highly susceptible to a form of chemical weathering known as oxidation (a chemical reaction that causes rocks to break down due the presence of water, oxygen or acid).

FIGURE 1 Lake Cave, Margaret River, Western Australia



1. How do you think sedimentary rocks were formed?
2. You can see oxidation at work when you cut an apple and it turns brown. What do you think is causing oxidation?
3. Brainstorm how you think the structures shown in **FIGURE 1** were formed.

13.4.1 What is karst?

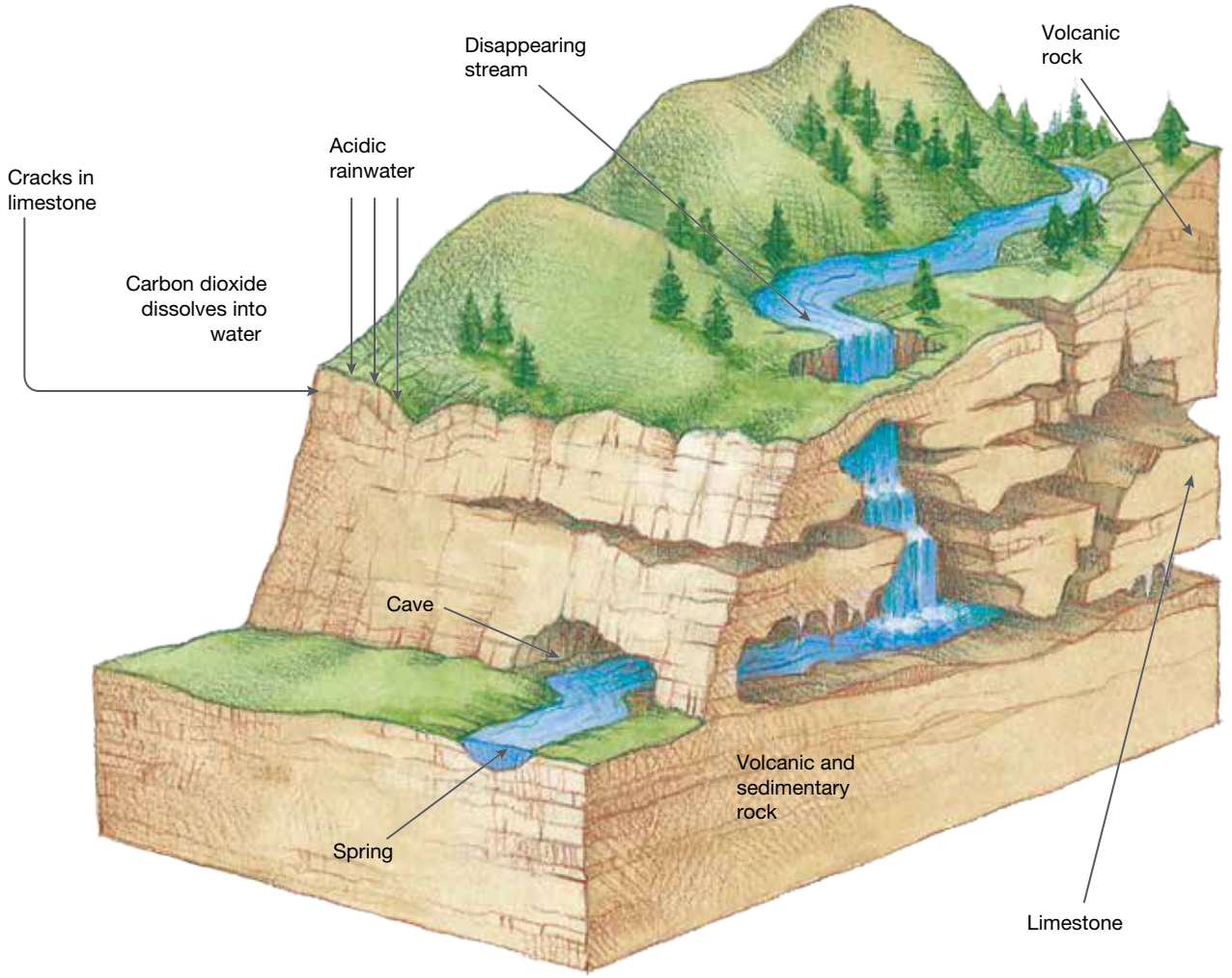
Apart from rivers and streams that flow across the surface of the Earth, vast networks of rivers also exist under the ground. The result is a network of caves and channels that carve a very different landscape, known as karst.

Karst is a landscape formed by water dissolving bedrock (solid rock beneath soil) over hundreds of thousands of years (see **FIGURE 1**). On the surface of the Earth, sinkholes (holes in the Earth's surface), vertical shafts (tunnels), and fissures (cracks) will be evident. Rivers and streams may seem to simply disappear, but intricate drainage networks are underground, complete with caves, rivers, **stalactites** and **stalagmites** (see **FIGURE 2**).

stalactite a feature made of minerals, which forms from the ceiling of limestone caves, like an icicle. They are formed when water containing dissolved limestone drips from the roof of a cave, leaving a small amount of calcium carbonate behind.
stalagmite a feature made of minerals found on the floor of limestone caves. They are formed when water containing dissolved limestone deposits on the cave floor and builds up.

tlvd-10612

FIGURE 2 Formation of a karst landscape



Karst topography makes up about 10 per cent of the Earth's surface; however, a quarter of the world's population depends on karst environments to meet its water needs.

13.4.2 How are karst landscapes formed?

Water becomes slightly acidic when it comes into contact with carbon dioxide in the atmosphere (as it does when raindrops form) or when it filters through organic matter in the soil and **percolates** into the ground. Acidic water is able to dissolve soluble bedrock, such as limestone and dolomite. This creates cracks or fissures, allowing more water to penetrate the rocks.

When the water reaches a layer of non-dissolving rocks, it begins to erode sideways, forming an underground river or stream. As the process continues, the water creates hollows, eventually creating a cave. Some karst landscapes contain aquifers that are capable of providing large amounts of water.

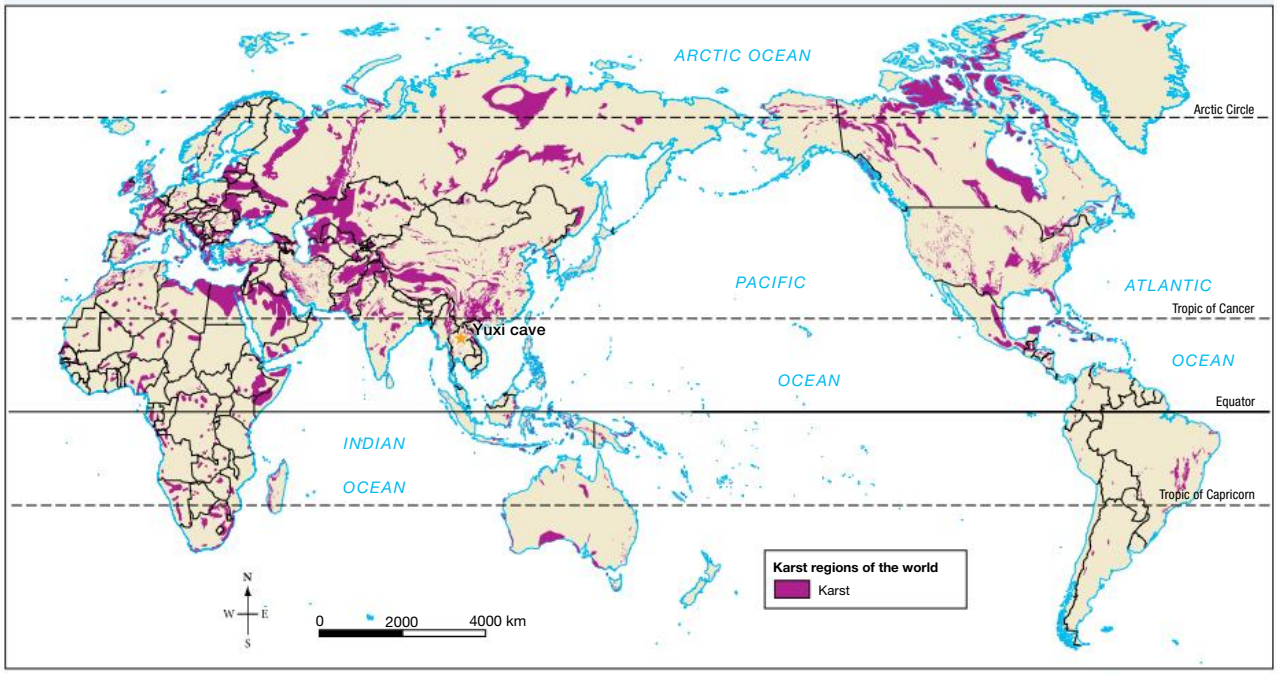
percolate filter through porous material such as soil

13.4.3 Where are karst landscapes found?

Karst landscapes are found all over the world, as shown in **FIGURE 3**, in locations where mildly acidic water is able to dissolve **soluble** bedrock such as limestone and dolomite.

soluble able to be dissolved in water

FIGURE 3 Karst regions of the world



Source: World Map of Carbonate Rock Outcrops v3.0.

In tropical regions, where rainfall is very high, karst mountains sometimes develop. This is because the high rainfall levels wear away the soluble rock much faster than rock is worn away in karst areas with lower rainfall. Examples of tropical karst mountains include the peaks of Ha Long Bay in Vietnam and the Guilin Mountains in China.

The Earth's largest arid limestone karst cave system is located on Australia's Nullarbor Plain, covering 270 000 square kilometres. It extends 2000 kilometres from the Eyre Peninsula in South Australia to Norseman in the Goldfields–Esperance region of Western Australia, and from the Bunda Cliffs on the Great Australian Bight in the south to the Victoria Desert in the north.

The extensive cave system provides a unique habitat for a variety of native flora and fauna. Within the caves are fossils that can reveal much about our distant past; indeed, fossils of thylacines (Tasmanian tigers) have been found in the cave systems south of Perth. These caves are also often important First Nations heritage sites.

on Resources

Interactivity Underground wonders (int-3103)

13.4 SKILL ACTIVITY: Questioning and researching, Communicating

Examples of karst landscapes in Australia include Buchan, Naracoorte, Jenolan, Labertouche, Princess Margaret Rose, Judbarra, Abercrombie caves and the Nullarbor Plain.

1. Working with a partner, **investigate** one of these environments and **create** an annotated visual display.

   Show the location of your karst environment on a map and include:
   - the scale
   - features
   - land use
   - any concerns or threats to the environment.

   Include information on what is being done to ensure the sustainable management of the place and the significance of this place to First Nations Peoples.

2. **Communicate** your findings with the rest of the class in a brief presentation.

13.4 Exercise

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13.4 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 6	4, 5, 8	3, 7, 9, 10

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Check your understanding

1. How are karst landscapes formed?
   - A. Chemical reaction
   - B. Transportation
   - C. Uplift
   - D. All of the above
2. Karst topography makes up about _____ per cent of the Earth's surface.
3. **Identify** two reasons why karst landscapes should be preserved.
   - A. For their natural beauty
   - B. 25 per cent of the world's population depends on karst aquifers as a water supply.
   - C. 90 per cent of the world's tourist attractions are found in karst landscapes.
   - D. 99 per cent of the world's population depends on karst aquifers as a water supply.
4. Karst landscapes are predominantly found underground. **Identify** evidence on the surface of the Earth that might indicate the existence of a karst landscape.
5. **Describe** the global distribution of karst landscapes.

Apply your understanding

Communicating

6. The world's largest arid limestone karst system is found on the Nullarbor Plain, Australia.
   - a. The Nullarbor Plain is an example of a desert landscape. **Propose** how an environment formed by water can occur in this location.
   - b. **Describe** how you think this landscape would be different if it were located in Australia's tropical north.
7. **Explain** how the karst landscape can provide us with a link to our distant past.
8. **Explain** how the karst landscape can provide a quarter of the world's population with water.

Concluding and decision-making

9. Karst is often described as a 'hidden landscape'. **Identify** reasons for this description.
10. **Propose** a reason for the absence of 'discovered' karst landscapes in Antarctica.

LESSON
13.5 What are the landforms and landform regions of Australia?

LEARNING INTENTION

By the end of this lesson you should be able to identify the key features of the Australian landscape and describe the processes that have shaped it.

TUNE IN

Many of Queensland's mountain peaks were formed by volcanic activity around 20 million years ago. The Glasshouse Mountains, north of Brisbane, are volcanic plugs. Over millions of years the volcano that once surrounded the plug has been worn away by weathering and erosion.

1. What do you think led to the formation of the volcanic plug?
2. Distinguish between weathering and erosion.
3. Why do you think the weathering and erosion wore away the volcano but not the plug?

FIGURE 1 The Glasshouse Mountains, Queensland



13.5.1 What processes have shaped Australasia?

The tectonic forces of folding, faulting and volcanic activity have created many of Australia's major landforms. Other forces that work on the surface of Australia, and give our landforms their present appearance, are weathering, mass movement, erosion and deposition.

Australia is an ancient landmass. The Earth is about 4600 million years old, and parts of the Australian continent are about 4300 million years old.

Over millions of years, Australia has undergone many changes. Mountain ranges and seas have come and gone. As mountain ranges eroded, sediments many kilometres thick were laid down over vast areas. These sedimentary rocks were then subjected to folding, faulting and uplifting. This means that the rocks that make up the Earth's crust have buckled and folded along areas of weakness, known as faults. Sometimes, fractures or breaks occur, and forces deep within the Earth cause sections to be raised, or uplifted. Over time the forces of weathering and erosion have worn these down again. Erosion acts more quickly on softer rocks, forming valleys and bays. Harder rocks remain as mountains, hills and coastal headlands.

Because it is located in the centre of a **tectonic plate**, rather than at the edge of one, Australia currently has no active volcanoes on its mainland, and has very little tectonic lift from below. This means its raised landforms such as mountains have been exposed to weathering forces for longer than mountains on other continents and are therefore more worn down.

About 33 million years ago, when Australia was drifting northwards after splitting from Antarctica, the continent passed over a large **hotspot**. Over the next 27 million years, about 30 volcanoes erupted while they were over the hotspot.

tectonic plate one of the slow-moving plates that make up the Earth's crust. Volcanoes and earthquakes often occur at the edges of plates.
hotspot an area on the Earth's surface where the crust is quite thin and volcanic activity can sometimes occur, even though it is not at a plate margin

The oldest eruption was 35 million years ago at Cape Hillsborough, in Queensland, and the most recent was at Macedon in Victoria around 6 million years ago. Over millions of years, these eruptions formed a chain of volcanoes in eastern and south-eastern Australia, known today as the Great Dividing Range (see **FIGURE 2**). At present, the hotspot that caused the earlier eruptions is probably beneath Bass Strait.

The present topography of much of Australia results from erosion caused by ice. For example, about 290 million years ago a huge icecap covered parts of Australia. After the ice melted, parts of the continent subsided and were covered by **sediment**, forming sedimentary basins (a low area where sediments accumulate) such as the Great Artesian Basin. On a smaller scale, parts of the Australian Alps and Tasmania were also eroded by glaciers during the last ice age.

sediment material carried by water

FIGURE 2 Relief map of Australia. The Great Dividing Range stretches from north of Cairns in Queensland to Mount Dandenong near Melbourne in the south.



Source: ©WorldSat International, 2017

Rivers and streams are another cause of erosion, having carved many of the valleys in Australia's higher regions.

When streams, glaciers and winds slow down, they deposit or drop the material they have been carrying. This is called deposition. Many broad coastal and low-lying inland valleys have been created by stream deposition. These areas are called floodplains.

13.5.2 Australia's landform regions

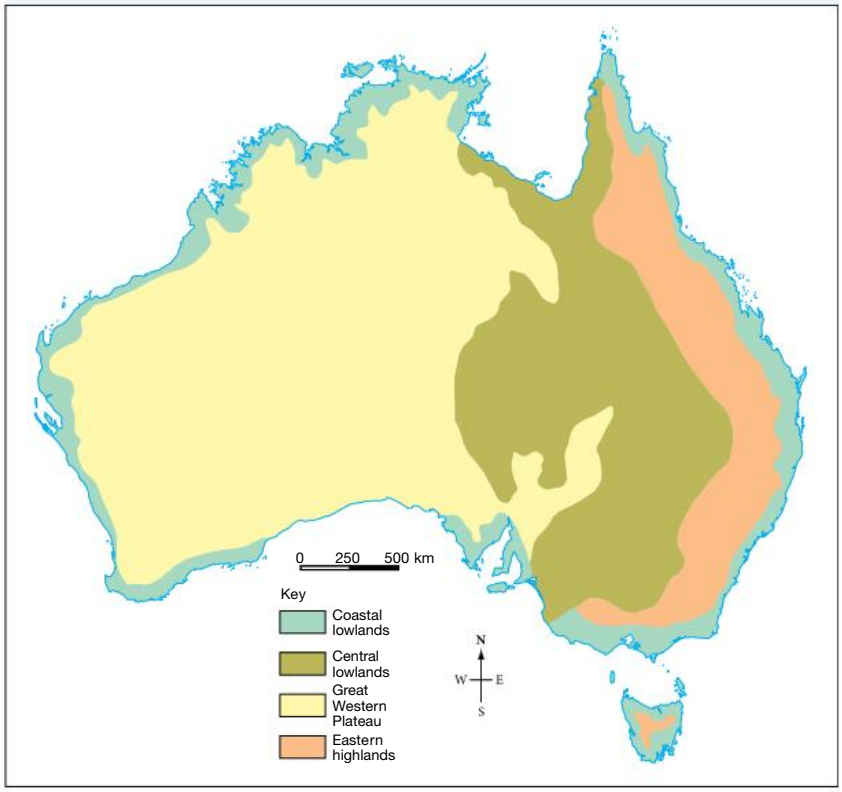
The topography of Australia can be divided into four major regions (see **FIGURE 3**).

Coastal lowlands

int-3606

The coastal lowlands around Australia's edge are narrow and fragmented. The plains often take the form of river valleys, such as the Hunter River Valley.

FIGURE 3 Australia's four major landform regions



Source: MAPgraphics Pty Ltd Brisbane

Eastern highlands

The eastern highlands region, which includes the Great Dividing Range, is mainly a series of tablelands and plateaus. Most of the area is very rugged, because rivers have cut deep valleys. It is the source of most of Australia's largest rivers, including the Fitzroy, Darling and Murray. The highest part is in the south-east, where a small alpine area is snow-covered for more than half the year.

Central lowlands

The central lowlands are a vast area of very flat, low-lying land that contains three large **drainage basins**: the Carpentaria Lowlands in the north, the Lake Eyre Basin in the centre (see **FIGURE 4**) and the Murray–Darling Basin in the south.

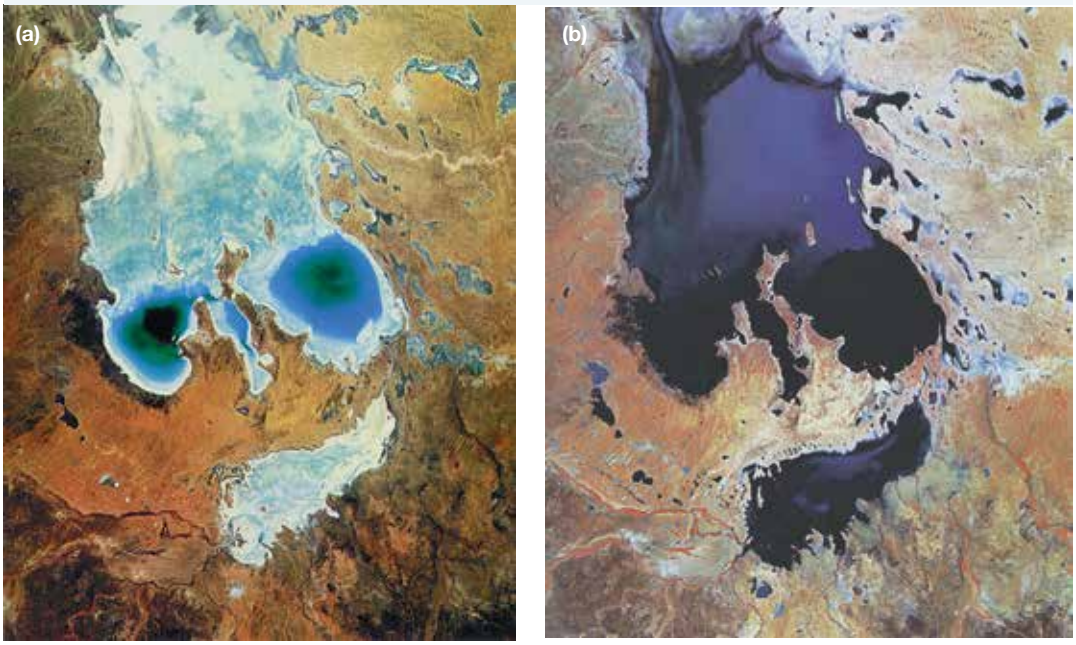
Great Western Plateau

The Great Western Plateau is a huge area of tablelands, most of which are about 500 metres above sea level. It includes areas of gibber (or stony) desert and sandy desert. There are several rugged upland areas, including the Kimberley and the MacDonnell Ranges.

drainage basin an area of land that feeds a river with water; or the whole area of land drained by a river and its tributaries

int-9006

FIGURE 4 Kati Thanda–Lake Eyre, the lowest point on the Australian mainland, is part of the Great Artesian Basin. It is 15 metres below sea level. Once a freshwater lake, the region is now the world's largest salt pan. The evaporated salt crust shows white in the satellite image (a) below. The lake fills with water only three or four times each century, transforming it into a haven for wildlife. Deep water is shown as black in image (b) below.



CASE STUDY: Water issues in the Murray–Darling Basin region

The Murray–Darling Basin covers about one million square kilometres, and more than 20 major rivers flow into it. It has a wide variety of landscapes, ranging from alpine areas in the south-east to plains in the west. The basin produces 43 per cent of Australia's food and over 40 per cent of Australia's total agricultural income.

The Murray–Darling Basin is the largest and most important drainage basin in Australia, covering one-seventh of the continent. However, the amount of water flowing through it in one year is about the same as the *daily* flow of the Amazon River.

FIGURE 5 Aerial view of the Murray River, where it enters the Coorong and Lake Alexandrina in South Australia



The basin is facing severe problems:

- Only about 20 per cent of the water flowing through the basin ever reaches the sea. The rest is diverted for agriculture, industry and domestic use.
- The Murray supplies about 50 per cent of Adelaide's drinking water. The quality of the water continues to decline, mainly because of salinity levels.
- Approximately 50 to 80 per cent of the wetlands in the basin have been severely damaged or destroyed, and more than a third of the native fish species are threatened with extinction. The number of water birds in the basin has halved.

- River system inflows vary from year to year. The long-term average is 9030 GL. In 2018, inflows were around 2740 GL, among the lowest on record.
- An estimate of weather trends shows that the flow to the Murray River mouth may be reduced by a further 25 per cent by 2030. However, with the added problem of climate change, it is predicted that precipitation in the Murray–Darling catchment will decrease, so that the reduction in flow to the mouth could be as high as 70 per cent.

13.5.3 How does water flow across the land?

Permanent rivers and streams flow in only a small proportion of the Australian continent. Australia is in fact the driest of all the world's inhabited continents. It has:

- the least amount of run-off
- the lowest percentage of rainfall as run-off
- the least amount of water in rivers
- the smallest area of permanent wetlands
- the most variable rainfall and stream flow.

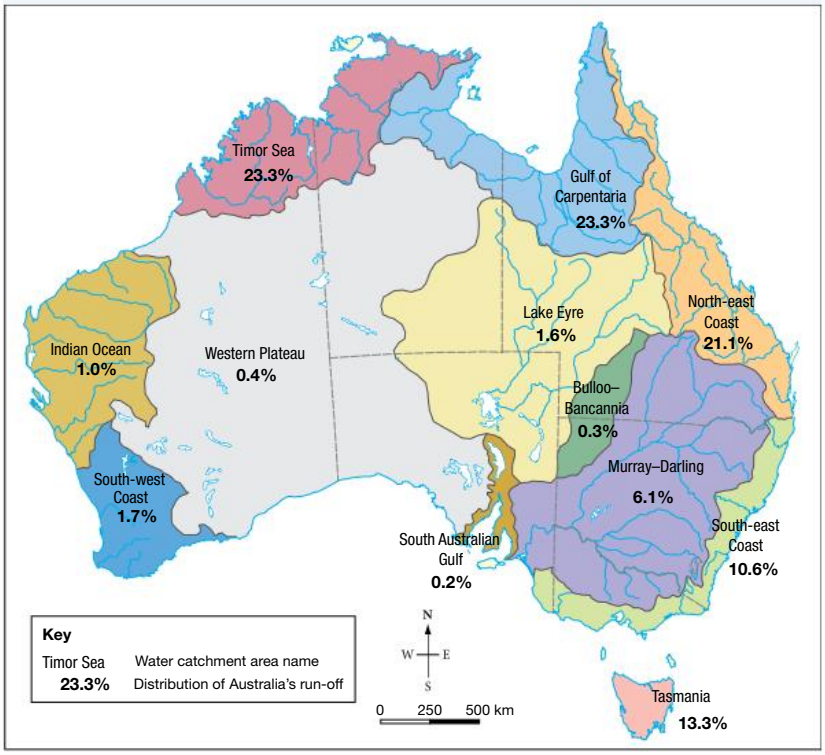
Australia has many lakes and drainage basins (see **FIGURES 7** and **8**). Many of our lakes hold little water compared with those found on other continents. The largest drainage basins are in the tropical north of Australia and they are far from our major population centres.

The Ord River Scheme in Western Australia was constructed near Kununurra to try to utilise some of the water that flowed into the Timor Sea. The Ord River dam can hold up to 5641 gigalitres, which is the equivalent of 11.2 Sydney Harbours. The water in the Ord River Scheme provides irrigation for farms throughout the region. It has created land suitable for a range of crops where previously only cattle ranches were economically viable. This is controversial, however, because some see the scheme as a waste of money and an environmental disaster. Others see the scheme as a potential bread basket for Western Australia and a provider of thousands of jobs and export dollars.

FIGURE 6 Lake Argyle

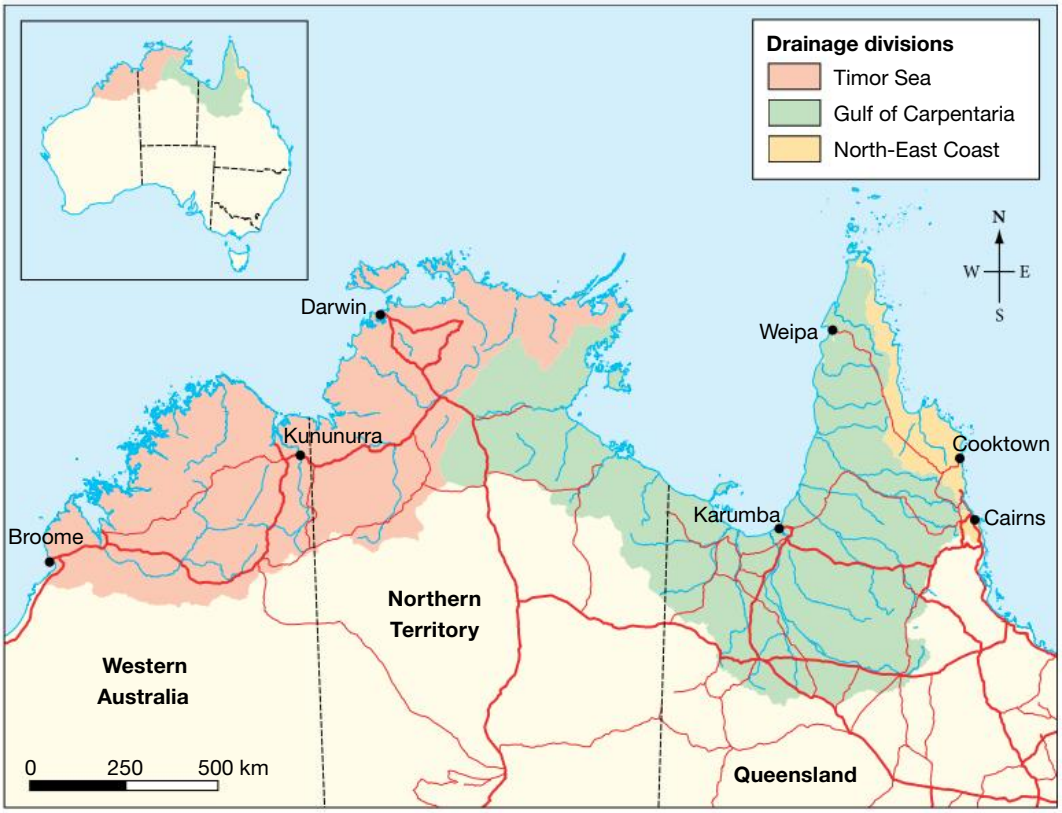


FIGURE 7 Australia's drainage basins



Source: MAPgraphics Pty Ltd Brisbane

FIGURE 8 The Northern Australian drainage basins



Source: Department of Sustainability and the Environment

on Resources

Google Earth Kununurra
Murray–Darling River

SkillBuilders to support skill development

- 13.10 SkillBuilder: Understanding thematic maps

13.5 SKILL ACTIVITY: Questioning and researching using geographical methods, Communicating

Divide your class into five groups and assign groups 1 to 4 one of Australia's landform regions to investigate. Collectively **compile** a list of landforms that are found in each region, have each member of the group **investigate** a different landform and prepare a series of PowerPoint slides that show the following:

a. the landform
b. where it is located
c. how it was formed
d. its importance to First Nations Peoples
e. reasons why it is or is not a popular place that people want to visit.

Group 5 should use their atlas to **locate** the highest mountains in each Australian state and territory.

a. What is the height of this mountain?
b. Where is it located?
c. How has it changed over time?
d. Its importance to First Nations Peoples — what creation story explains its formation?

Groups should work collaboratively online using Google Slides or a similar program to put their presentation together for viewing by the rest of the class.

13.5 Exercise

learnon

13.5 Exercise

Learning pathways

■ LEVEL 1	■ LEVEL 2	■ LEVEL 3
1, 4, 6	2, 3, 8	5, 7, 9, 10

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Check your understanding

1. Circle the correct options to complete the passage below.
   The Murray–Darling Basin covers **one-seventh** / **one fifth** of the Australian continent and is the largest drainage basin in Australia. It covers about **one** / **two** million square kilometres and is fed by more than **10** / **20** / **30** major rivers. The basin produces **25** / **43** / **62** per cent of Australia's food and over **40** / **60** / **90** per cent of Australia's agricultural income, making it the most important drainage basin in Australia.
2. Complete the following passage.
   Folding, faulting and uplift are processes that occur as a result of _____ activity. Pressures deep within the Earth's _____ cause the rocks that make up its _____ to buckle and fold, in much the same way that an aluminium can does when squeezed. Sometimes breaks occur or fractures develop, known as _____, and blocks or sections of the crust are pushed upwards, known as _____.
3. Australia is so low in altitude and flat compared with other continents because the continent is located in the middle of a tectonic plate, has no active volcanoes and very little tectonic uplift from below. True or false?
4. **Describe** some of the physical changes Australia's landmass has undergone.
5. **Describe** the major characteristics of Australia's four main landform regions.

Apply your understanding

Interpreting and analysing geographical data and information

6. Use your atlas to find the Cape Hillsborough and Macedon volcanoes, or refer to **FIGURE 2**.
   a. Calculate the distance between them.
   b. Use the information in this lesson to work out the rate at which the Australian landmass is moving.
   c. How far has Australia moved over the Bass Strait hotspot? Now calculate where under Bass Strait this hotspot might now lie.
   d. Use the information in this lesson to **explain** why this hotspot has changed its location over time.
7. It is said that the amount of water that flows down the Amazon River in a day is more than flows down the Murray in a year.
   a. **Consider** what this tells you about how dry Australia's climate is.
   b. **Describe** how this might affect the environment around the Murray River.
8. **Describe** the role of the Bass Strait hotspot in creating the landforms on Australia's east coast.
9. **Describe** how Kati Thanda–Lake Eyre has changed over time. **Identify** a reason for these changes.

Communicating

10. Approximately 80 per cent of the water flowing through the Murray–Darling Basin is diverted.
    a. **Identify** what this water is used for.
    b. **Predict** what impact this might have on people and the environment.

LESSON
13.6 What are deserts like in Australia and China?

LEARNING INTENTION

By the end of this lesson you should be able to describe the global distribution of deserts; identify, and make comparisons between, important desert landscapes in Australia and China; and explain why Uluru is an iconic Australian landmark.

TUNE IN

The actions of wind, and sometimes water, shape the rich variety of landscapes found in the desert regions of the world. Deserts may be hot or cold, and subject to temperature extremes.

1. What processes do you think created the landscape shown in **FIGURE 1**?
2. How can some deserts be hot, while others are cold?
3. Work with a partner to brainstorm a list of characteristics that define the desert landscape.
4. As a class, create a combined list of the characteristics of deserts.

FIGURE 1 While the extreme conditions make it difficult for people to survive, there are many desert locations around the world where people can and do live.



13.6.1 What defines a desert?

A desert is a hot or cold region with little or no rainfall. Around one-third of the Earth's surface is desert and they are home to about one billion people.

TABLE 1 Rainfall levels in different types of deserts

Rainfall (mm/year)	Type of desert	Examples
< 25	Hyper-arid	Namib; Arabian
25–200	Arid	Mojave
200–500	Semi-arid	Parts of Sonoran Desert

FIGURE 2 Although they receive little rainfall, most deserts receive some form of **precipitation**. Rain usually occurs as a few heavy storms that last a short time and can be so intense that normally dry rivers overflow their banks.



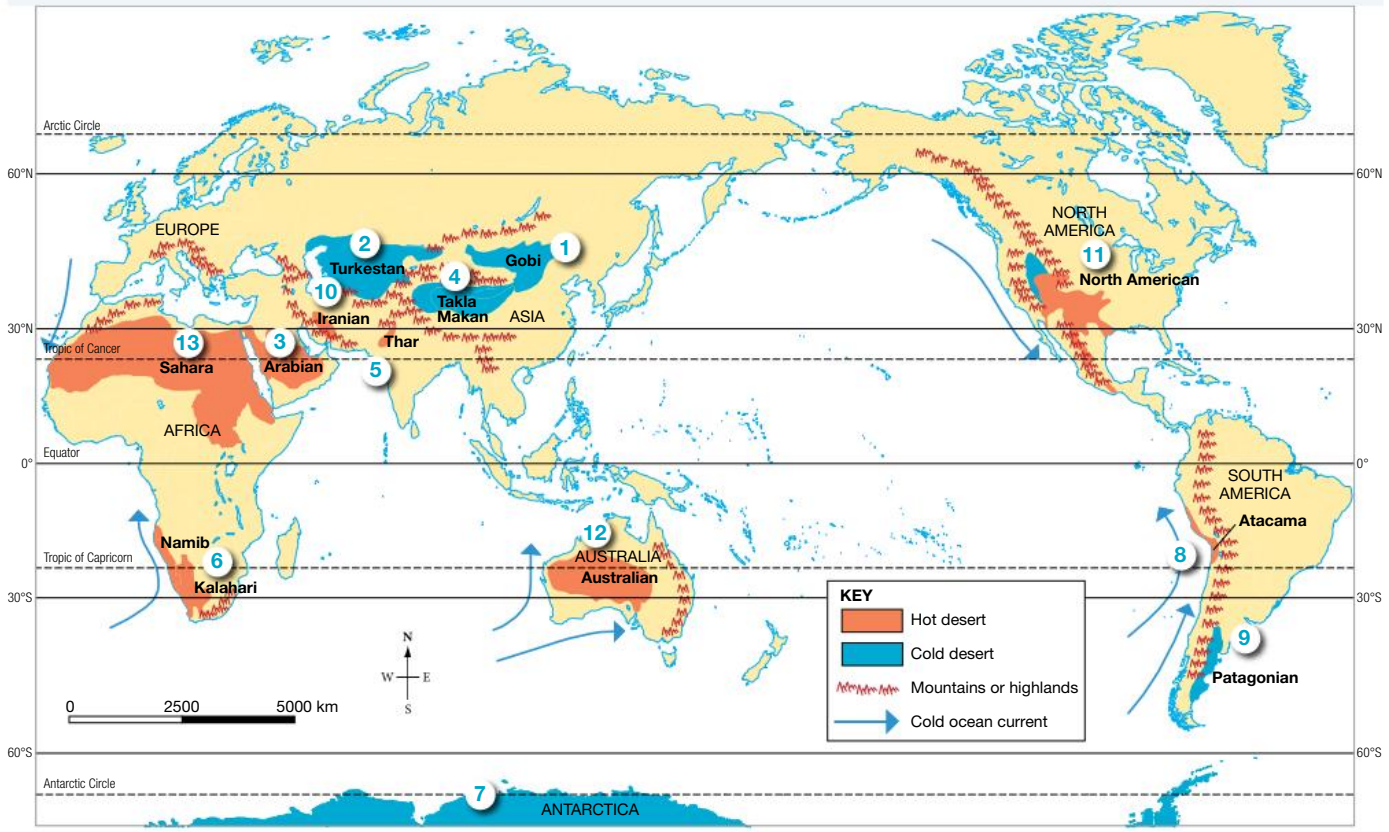
Hot deserts

Most of the world's hot deserts are located between the Tropic of Cancer and the Tropic of Capricorn (see **FIGURE 3**). They have very hot summers and warm winters. Temperature extremes are common, because cloud cover is rare, and humidity is very low; this means there is nothing to block the heat of the sun during the day or prevent its loss at night. Temperatures can range between around 45 °C and –15 °C in a 24-hour period.

precipitation the different forms in which moisture is returned to the Earth from the atmosphere, most commonly in the form of rain, hail, sleet and snow

int-9007

FIGURE 3 The distribution of the world's deserts



Source: MAPgraphics Pty Ltd, Brisbane

1. **Gobi Desert:** Asia's biggest desert, the Gobi, is a cold desert. It sits around 900 metres above sea level and covers an area of some 1.2 million square kilometres. Its winters can be freezing.
2. **Turkestan Desert**: The cold Turkestan Desert covers parts of south-western Russia and the Middle East.
3. **Arabian Desert:** This hot desert is as big as the deserts of Australia. Towards its south is a place called Rub al-Khali (meaning 'empty quarter'), which has the largest area of unbroken sand dunes, or ergs, in the world.
4. **Takla Makan Desert**: The Takla Makan Desert is a cold desert in western China. Its name means 'place of no return'. The explorer Marco Polo crossed it some 800 years ago.
5. **Thar Desert:** The Thar Desert is a hot desert covering north-western parts of India and Pakistan. Small villages of around 20 houses dot the landscape.
6. **Kalahari and Namib deserts:** The Namib Desert extends for 1200 kilometres down the coast of Angola Namibia and South Africa. It seldom rains there, but an early-morning fog often streams across the desert from the ocean. The dew it leaves behind provides moisture for plants and animals. It joins the Kalahari Desert, which is about 1200 metres above sea level.
7. **Antarctic Desert**: The world's biggest and driest desert, the continent of Antarctica is another cold desert. Only snow falls there, equivalent to about 50 millimetres of rain per year.
8. **Atacama Desert**: The Atacama Desert is the driest hot desert in the world. Its annual average rainfall is a tiny 0.1 millimetre.
9. **Patagonian Desert:** The summer temperature of this cold desert rarely rises above 12 °C. In winter, it is likely to be well below zero, with freezing winds and snowfalls.
10. **Iranian Desert:** Two large deserts extend over much of central Iran. The Dasht-i-Lut is covered with sand and rock, and the Dasht-i-Kavir mainly in salt. Both have virtually no human population.
11. **North American deserts**: The desert region in North America is made up of the Mojave, Sonoran and Chihuahuan deserts (all hot deserts) and the Great Basin (a cold desert). The Great Basin's deepest depression, Death Valley, is the lowest point in North America.

12 **Australian deserts**: After Antarctica, Australia is the driest continent in the world. Its deserts are generally flat lands, often vibrant in colour.

13 **Sahara Desert**: The largest hot desert in the world, the Sahara covers around 9 million square kilometres across northern Africa over 12 countries. Only a small part is sandy. It is the sunniest place in the world.

Cold deserts

Cold deserts lie on high ground generally north of the Tropic of Cancer and south of the Tropic of Capricorn (see **FIGURE 3**). They include the polar deserts. Any precipitation falls as snow. Winters are very cold and often windy; summers are dry and cool to mild.

13.6.2 Desert dwellers

Many of the people who live in desert regions ae nomadic and move with the seasons, obtaining their needs from the land or trade. In several parts of the world, nomadic tribes herd animals. The harsh climate and lack of water make it difficult for large cities to develop, although they can develop in coastal areas where permanent rivers provide a reliable water supply.

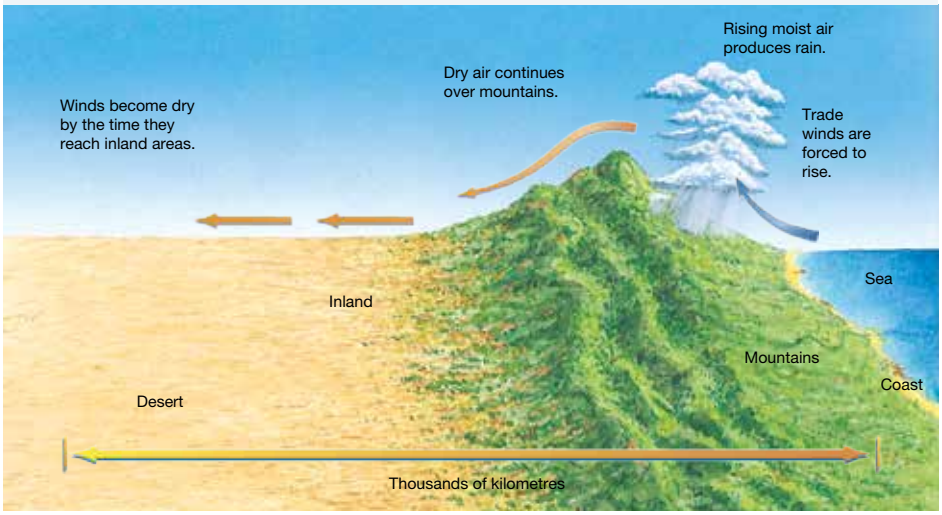
13.6.3 Comparing deserts in China and Australia

FIGURE 3 shows that deserts exist in many different parts of the globe: the subtropics; interior of continents; on the leeward side of mountain ranges; along the coast; and in polar regions. The only common factor is their low rainfall. The Gobi Desert is an example of both a rain-shadow desert (**FIGURE 4**) and an inland desert. While the deserts in Australia are also rain-shadow deserts, cold ocean currents (**FIGURE 5**) have played a significant role in in their formation. Look back at the map in **FIGURE 3**. What factors do you think led to their formation?

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FIGURE 4 The formation of rain-shadow deserts



int-3629

FIGURE 5 The formation of coastal deserts



The Gobi Desert

The Gobi Desert (**FIGURE 6**) is the second largest desert in Asia and the sixth largest in the world, covering parts of both North-western China and Southern Mongolia. It is classified as a cold desert.

FIGURE 6 The Gobi Desert is an example of a cold desert.



The Gobi Desert is a rain-shadow desert, as it lies on the leeward side of the Tibetan Plateau and the Himalayan Mountains prevent precipitation from the Indian Ocean from reaching it. Its location away from the coast and in the high latitudes (approximately 43 degrees north of the Equator) means that winter temperatures can drop as low as –40 °C, at the height of summer the temperature can reach as high as 45 °C, though this is rare.

The landscape in the Gobi Desert is varied, with sand covering only about 5 per cent. The most common landscape is the grassy plains that are exposed when the land is not covered in snow. The region is home to one of the Earth's most important paleontological sites; the cold conditions have led to the discovery of well-preserved fossils that are thought to be more than 88 million years old.

Australian deserts

Australia is the world's driest inhabited continent, with around 70 per cent classified as arid or semi-arid. However, only about 18 per cent of the continent is classified as true desert.

FIGURE 7 Uluru is an **inselberg** that rises above the surrounding desert landscape. To the Anangu People it is a significant landmark created during The Dreaming and seen as the resting place for generations of ancient spirits.



Lying predominantly between the Equator and the Tropic of Capricorn, Australian deserts are classified as hot deserts, as they receive less than 250 mm of rainfall each year and temperatures can soar past 50 °C. Humidity levels are low, with the average humidity lying between 10 to 20 per cent.

- Australian deserts, such as the Simpson Desert, are the result of a combination of factors. Australian deserts are rain-shadow deserts (**FIGURE 4**); the Great Dividing Range prevents warm moisture-laden air from the east coast reaching the interior of the continent.
- Cold ocean currents along the west coast contain little moisture and the winds are essentially dry as they move to the interior of the continent (**FIGURE 5**).

The Australian desert landscape is varied, including sandy deserts, grassy plains and stony areas (gibber plains). The climatic conditions of Australia's deserts have resulted in the preservation of fossil remains.

13.6.4 What processes shape desert landforms?

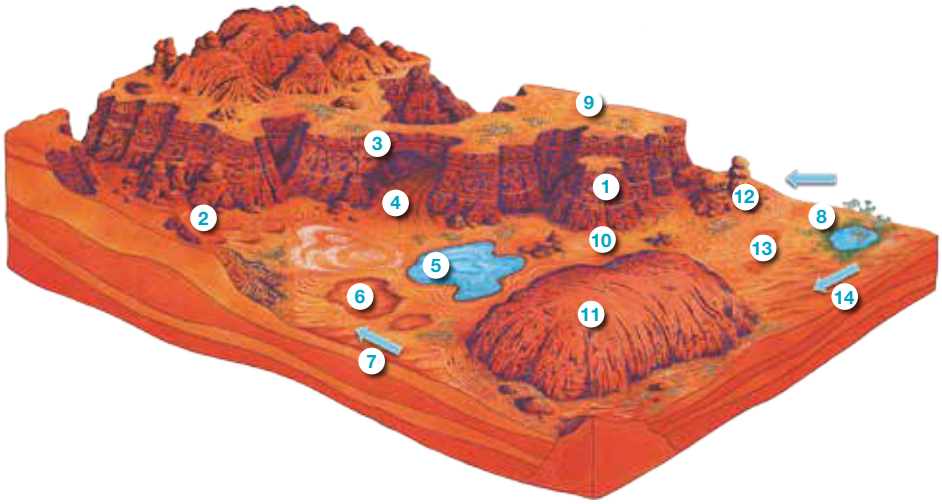
Sand covers only about 20 per cent of the world's deserts. Sand is the product of millions of years of erosion of other landforms such as rock and plateaus that, over time, are worn away by extremes of temperature, wind and water.

inselberg an isolated hill, knob, ridge, outcrop or small mountain that rises sharply from the surrounding landscape

The landforms and patterns of a desert are created by several natural processes. The unprotected land surfaces are prone to erosion. After heavy rain, often a long distance from the desert floodplains, erosion of ancient river channels can be major. Extreme temperatures, along with strong winds and the rushing water that can follow a desert rainstorm, cause rocks to crack and break down into smaller fragments. This process is called weathering.

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FIGURE 8 A variety of landforms are found in the desert. They result from the actions of wind and water. Can you pick the landforms created by erosion and those created by deposition?



1. A butte is the remaining solid core of what was once a mesa. It often is shaped like a castle or a tower.
2. Crescent-shaped barchan dunes are produced when sand cover is fairly light.
3. An arch, or window, is an opening in a rocky wall that has been carved out over millions of years by erosion.
4. An alluvial fan is the semicircular build-up of material that collects at the base of slopes and at the end of wadis after being deposited there by water and wind.
5. A playa lake may cover a wide area, but it is never deep. Most water in it evaporates, leaving a layer of salt on the surface. These salt-covered stretches are called saltpans.
6. Clay pans are low-lying sections of ground that may remain wet and muddy for some time.
7. The rippled surface on transverse dunes is the result of a gentle breeze blowing in one direction.
8. An oasis is a fertile spot in a desert. It receives water from underground supplies.
9. A mesa is a plateau-like section of higher land with a flat top and steep sides. The flat surface was once the ground level, before weathering and erosion took their toll.
10. Sand dunes often start as small mounds of sand that collect around an object such as a rock. As they grow larger, they are moved and shaped by wind.
11. An inselberg is a solid rock formation that was once below ground level. As the softer land around it erodes, it becomes more and more prominent. Uluru is an inselberg.
12. A chimney rock is the pillar-like remains of a butte.
13. Star dunes are produced by wind gusts that swirl in from all directions.
14. Strong winds blowing in one direction form longitudinal dunes.

Erosional landforms

Most erosion in deserts is caused by wind, and at times running water. Although deserts are areas of low rainfall, they sometimes experience heavy downpours and may receive several years of rain in one such event. Fast-flowing water carves deep channels into the ground forming deep gullies or the walls of a plateau (see **FIGURE 8**). An inselberg such as Uluru is an example of an erosional landform (see **FIGURE 7**).

Erosion can also result from the action of wind and from chemical reactions. Some rock types, such as limestone, contain compounds that react with rainwater and then dissolve in it. Wind is a very important agent of transport and deposition and can change the shape of land by abrasion — the wearing down of surfaces by the grinding and sandblasting action of windborne particles.

Depositional landforms

Materials carried along by rushing water and wind must eventually be put down. Over time these materials build up, forming different shapes and patterns in the desert. This process is called deposition.

Depositional landforms in deserts include alluvial fans and sand dunes (see **FIGURE 8**).

13.6 SKILL ACTIVITY: Communicating

The significance of Lake Mungo

The hot dry climate of Australia's deserts has meant that much of our distant past has been preserved. At Lake Mungo in the Willandra Lakes Region of New South Wales, for example, evidence of continuous human settlement by Australia's First Nations Peoples has been discovered.

The Willandra Lakes region is a World Heritage Area. It is important because of its archaeology and geomorphology. It is culturally significant to Australia's First Nations Peoples.

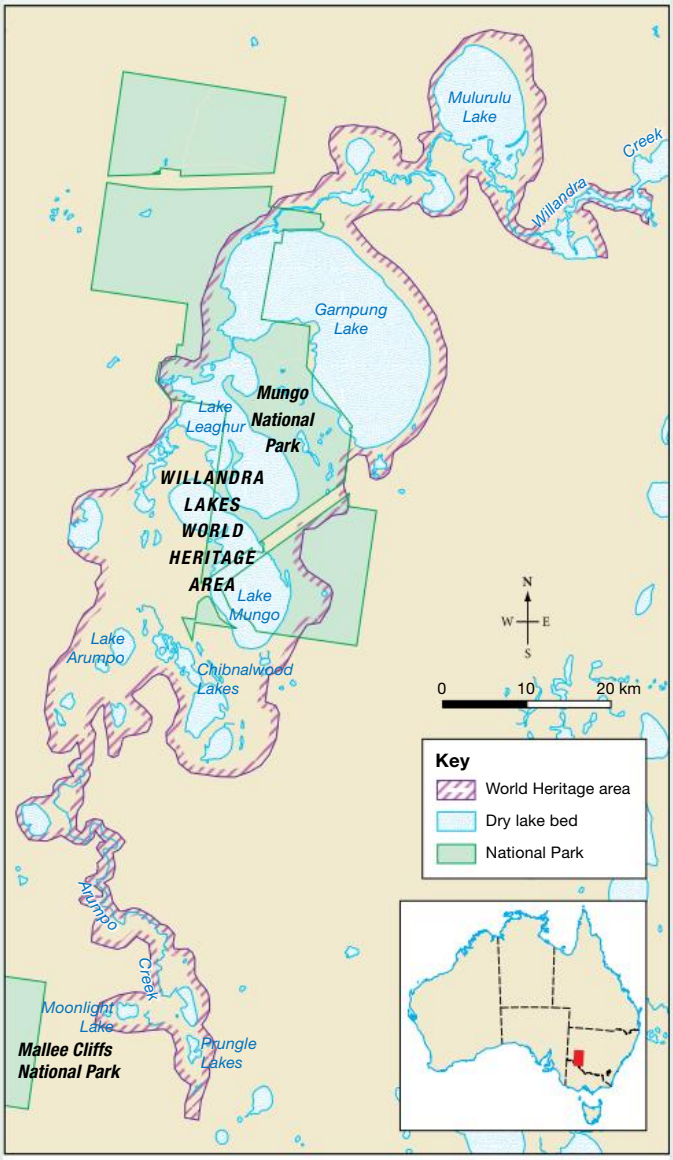
Use the internet to **investigate** the following:

1. How has Lake Mungo changed over time? Begin with its formation through to the present day. Use the **Timeline maker** weblink to **communicate** your findings.
2. **Create** a poster to **explain** what World Heritage listing means and why this place is culturally significant to First Nations Peoples.

FIGURE 10 Traditional custodians clean fossilised footprints at Lake Mungo.



FIGURE 9 Location of Willandra Lakes, including Lake Mungo



Source: Spatial Vision

Resources

Interactivity Location of Willandra Lakes, including Lake Mungo (int-3615)

13.6 Exercise

learnon

13.6 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 4, 5	3, 7, 8, 9	6, 10

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Check your understanding

1. **Identify** the sunniest place in the world from the following list.
   - A. Antarctica
   - B. Australian Desert
   - C. Sahara Desert
   - D. Namib Desert
2. Refer to the **FIGURE 3** map and **identify** two deserts in the Asia–Pacific region.
   - A. Patagonian
   - B. Thar
   - C. Australian
   - D. Iranian
   - E. Gobi
   - F. Arabian
3. **Determine** if the following statements are true or false.
   - a. Hot deserts are located between the tropics of Cancer and Capricorn.
   - b. Cold deserts are found only at high altitudes.
   - c. Hot deserts are always hot.
   - d. Cold deserts are always cold.
   - e. In cold deserts precipitation falls as snow.
4. **Describe** the climate conditions that are needed for hot and cold deserts to form.
5. **Identify** the major line of latitude on which Australian deserts are located.

Apply your understanding

Communicating

6. The Gobi Desert is a land of climate extremes. **Justify** the classification of the Gobi Desert as a cold desert.
7. **Describe** why Uluru is considered an iconic Australian landmark.
8. **Explain** the factors that have resulted in the formation of Australia's desert region.
9. **Compare** the characteristics of the Gobi Desert and the Australian desert region.
10. **Discuss** reasons that account for the rich source of well-preserved fossil remains in desert regions.

LESSON
13.7 How do the savanna grasslands of Australia and Africa compare?

LEARNING INTENTION

By the end of this lesson you should be able to describe the distribution of grasslands, explain the characteristics of grasslands and compare Australia's grasslands with those in the Serengeti.

TUNE IN

Indigenous communities use fire sticks to light fires, referred to as 'cool burns' as a method of land management. Only small areas are burnt, and careful attention is paid to the condition of the grass, temperature and winds. Fires are low and lit in the early morning or late afternoon when it is cooler to help prevent them from getting out of control. The dry undergrowth is burnt, reducing fuel load. The practice helps encourage new growth and maintains the grassland.

1. Discuss with a partner the benefits of landscape burning.
2. It has been suggested that more selective burning of bushland should take place during winter to reduce the threat of bushfires in summer. Brainstorm a list of advantages and disadvantages of this suggestion.

FIGURE 1 A cool burn

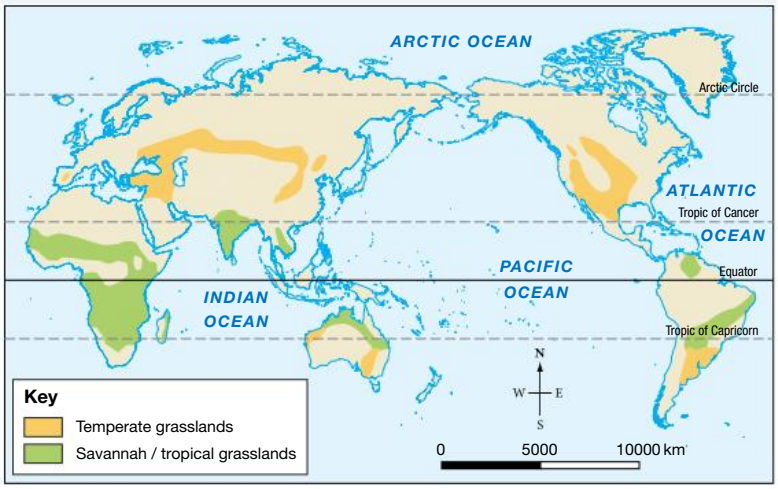


13.7.1 What are grasslands?

FIGURE 2 shows the location of both temperate and tropical grasslands that are often referred to as savannas (or savannahs). Grasslands are a landscape dominated by an almost continuous cover of grass. They are often referred to as a transitional landscape as they lie between rainforests and deserts. Rainfall is too high for the landscape to be classified as a desert but not high enough to support the tall trees and vegetation found in a rainforest.

Grasslands have sometimes been described as looking 'like a park', due to the absence of trees. When present, trees are scattered and often 'flat topped' or little more than stunted shrubs. Where water flows through the landscape in rivers or streams, narrow strips of forest referred to as 'gallery forests' may develop.

FIGURE 2 Grasslands are found on every continent except Antarctica.



Source: Based on data from Geography Teachers Associations of NSW. Map redrawn by Spatial Vision.

The ecosystem is maintained by grazing animals and Indigenous communities have used fire as a method of maintaining this landscape. Fire prevents the growth of trees and encourages the growth of grass, which in turn attracts grazing animals. Grasslands exist in a delicate state of balance and can easily be converted to desert if not managed carefully.

Climate in savanna grasslands varies; however, there are three main characteristics:

- wet summer — the wet
- dry winters — the dry
- hot all year round.

13.7.2 The Serengeti grasslands

The Serengeti is a savanna grassland located in northern Tanzania and southwestern Kenya. The grassland ecosystem is supported by rich volcanic soils; the mass migration of animals has had a positive ecological impact on the area.

Indigenous communities such as the Maasai traditionally lived a nomadic lifestyle as cattle herders and subsisting off their herds and the land. They believed that sedentary agriculture is damaging to the environment.

Today the lifestyle of the Maasai is threatened by restrictions imposed upon them due to drought; the government places limits on how land can be used within a national park. The tourism industry operates under strict controls (**FIGURE 3**).

FIGURE 3 The lifestyle of the Maasai and the opportunity to go on a wildlife safari has resulted in a massive influx of tourists into the Serengeti.

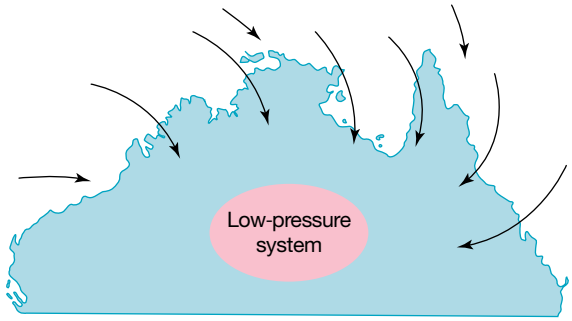


13.7.3 Australian grasslands

Australia's top end, stretching from Broome on the west coast to Townsville on the east coast, is a tropical grassland or savanna landscape. First Nations Peoples have maintained the grassland environment for thousands of years, relying on fire to regenerate the grasslands by using cool burns (see **FIGURE 1**) to encourage new plant growth. There is a distinct wet season that corresponds with the monsoon season (**FIGURE 4**). The lives of First Nations Peoples in northern Australia are governed by changes that occur during and between the wet and dry seasons.

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FIGURE 4 Australia's wet and dry seasons are the result of air movements and pressure systems.

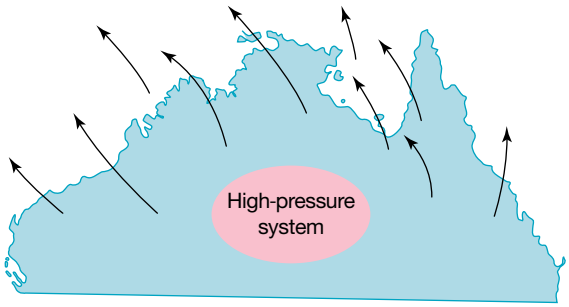


a. Summer months

→ Major wind direction

In summer

- The land heats up; the air is hot and light.
- Hot air rises and cools, creating a low-pressure system.
- Air moves in from over the ocean to replace the rising air.
- This air is wet and brings rain to northern Australia.



b. Winter months

→ Major wind direction

In winter

- The land cools down.
- The air is heavy and sinks, creating a high-pressure system.
- The air is dry as it has passed over the interior of the continent.
- Dry air moves to the north, bringing dry weather to northern Australia.

13.7 SKILL ACTIVITY: Interpreting and analysing geographical data and information, Communication

TABLES 1 and **2** contain the climate statistics for Cloncurry in Australian and Serengeti National Park in Tanzania. The lives of Indigenous communities are often governed by the climatic changes that take place throughout the year.

TABLE 1 Cloncurry Australia 21°S

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temp °C	31	30	29	26	22	19	18	20	23	27	30	31
Rain mm	112	108	61	18	13	15	8	3	8	13	33	69

TABLE 2 Serengeti National Park Tanzania 2°S

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temp °C	28	28	28	26	25	25	25	26	27	28	27	27
Rain mm	81	100	121	137	68	23	9	19	34	51	100	97

1. **Create** climate graphs, using geographic conventions, for both Cloncurry and Serengeti National Park.
2. Both places have a wet and a dry season. **Explain** what you understand by the terms wet and dry season.
3. The lives of the people in the Northern Territory recognise six seasons and their lives are governed by these seasons. Use the **Ngurrungurrudjba** weblink in the Resources panel to learn more about the way First Nations Peoples recognise changes in the environment. **Create** a calendar of seasons, or annotate your climate graph to show what occurs in each season.

Resources

Weblinks Serengeti
Ngurrungurrudjba

13.7 Exercise

learnon

13.7 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 3, 7, 9	2, 4, 6	5, 8, 10

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Check your understanding

1. Refer to **FIGURE 2**. The largest area of grasslands is found in
   - A. Africa
   - B. Australia
   - C. Europe
   - D. Antarctica.
2. **Identify** which continent does not have any grasslands.
   - A. Europe
   - B. Asia
   - C. Antarctica
   - D. Africa
3. The Maasai people live in the top end of Australia. True or false?
4. **Explain** why grasslands are described as a transitional landscape.
5. Which of the following statements is true?
   - A. The Serengeti is hotter and wetter than Australia's grasslands.
   - B. The Serengeti is cooler and drier than Australia's grasslands.
   - C. The Serengeti is hotter and drier that Australia's grasslands.
   - D. The Serengeti is cooler and wetter than Australia's grasslands.

Apply your understanding

Communicating

6. **Explain** why there are few trees in grasslands.
7. **Define** the term 'gallery forest'.
8. **Propose** a reason why gallery forests are usually found along watercourses, even when the watercourse is dry.
9. **Identify** the threats faced by the Maasai people of the Serengeti.

Interpreting and analysing geographical data and information

10. Refer to **FIGURE 4**. **Explain** the relationship between pressure systems and the climate of northern Australia.

LESSON
13.8 What makes a rainforest?

LEARNING INTENTION

By the end of this lesson you should be able to describe the characteristics and distribution of rainforests. Additionally, you should be able to explain the importance of rainforests.

TUNE IN

Did you know that rainforests have been described as the 'Earth's lungs' and play a key role in regulating the global climate?

1. What do you understand by the terms 'Earth's lungs' and 'regulators of global climate'?
2. Describe what you can see in **FIGURE 1.**
3. What message do you think **FIGURE 1** is sending?

FIGURE 1 The global climate is linked to our rainforests.

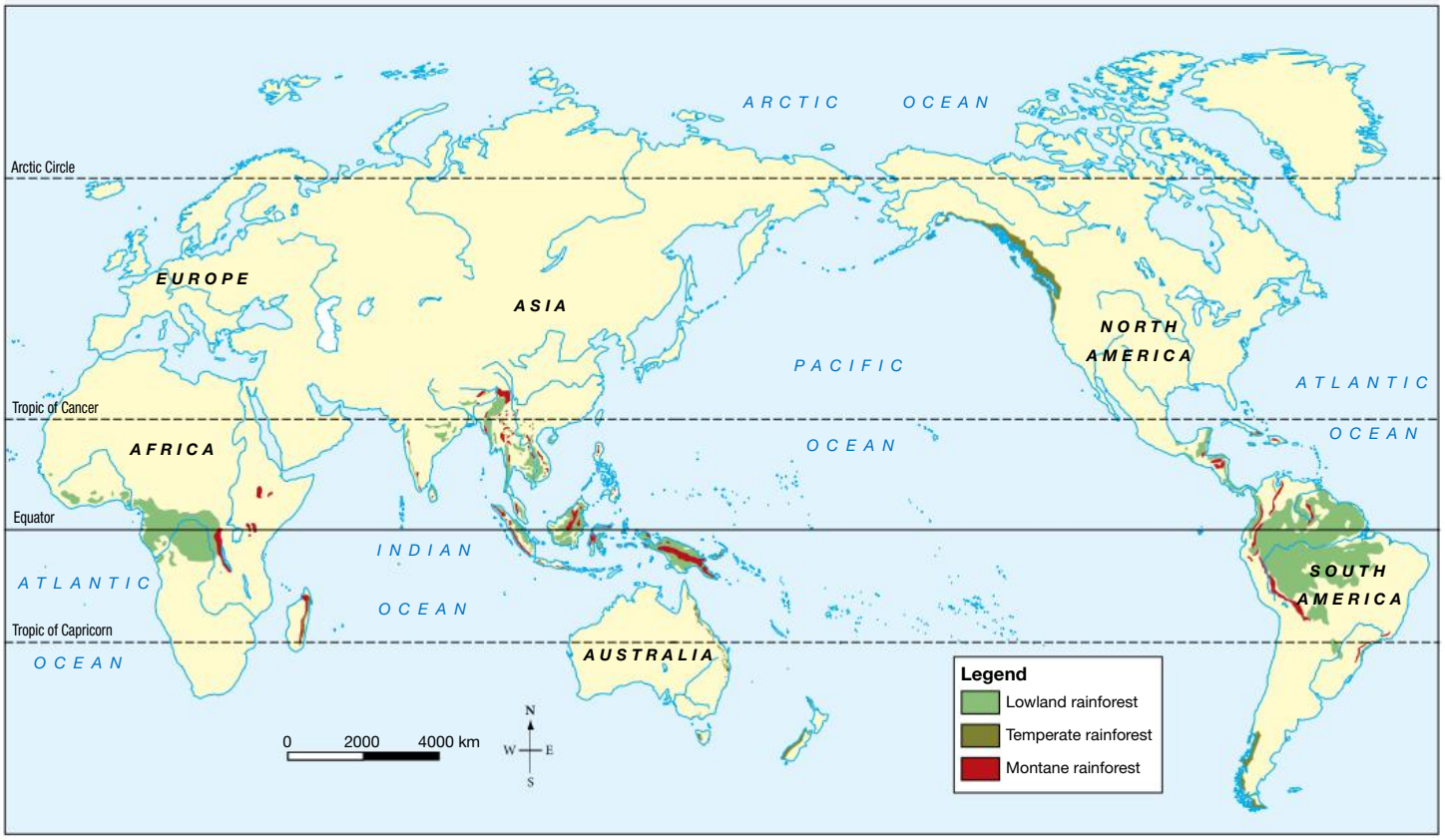


13.8.1 Where are the world's rainforests?

Rainforests grow in areas that are constantly wet. More than 1300 millimetres of rain spread evenly throughout the year is needed to support the rainforest ecosystem.

int-7852

FIGURE 2 World rainforest types



Source: MAPgraphics Pty Ltd Brisbane

Tropical rainforests are found where there are both high temperatures and high rainfall. These conditions stretch from the Equator to the Tropic of Capricorn (in the south) and the Tropic of Cancer (in the north).

Tropical rainforests that occur in the mountains more than 1000 metres above sea level are called montane rainforests, whereas those growing below 1000 metres are known as lowland rainforests. Temperate rainforests, on the other hand, are located between the tropics and the polar regions in what is known as the **temperate zone**.

13.8.2 The rainforest ecosystem

Rainforests are unique **ecosystems** consisting of four different layers — the emergent, canopy, understory and forest floor (**FIGURE 3**). Each layer can be identified by its distinct characteristics.

Emergents

These are the tallest trees, ranging in height from 30 to 50 metres. They are so named because they rise up or emerge out of the forest canopy. Huge crowns of leaves and abundant animal life thrive on plenty of available sunlight.

Canopy

This describes the array of treetops that form a barrier between the sunlight and the underlying layers. Their height can vary from 20 to 45 metres. This layer contains a distinct **microclimate** and supports a variety of plants and animals. The taller trees host special vines called lianas that intertwine the branches. Other plants called epiphytes use the tree trunks and branches as anchors in order to capture water and sunlight.

Understorey

This layer contains a mixture of smaller trees and ferns that receive only about five per cent of the sun's energy. Many animals move around in the darkness and humidity, using the vines as highways.

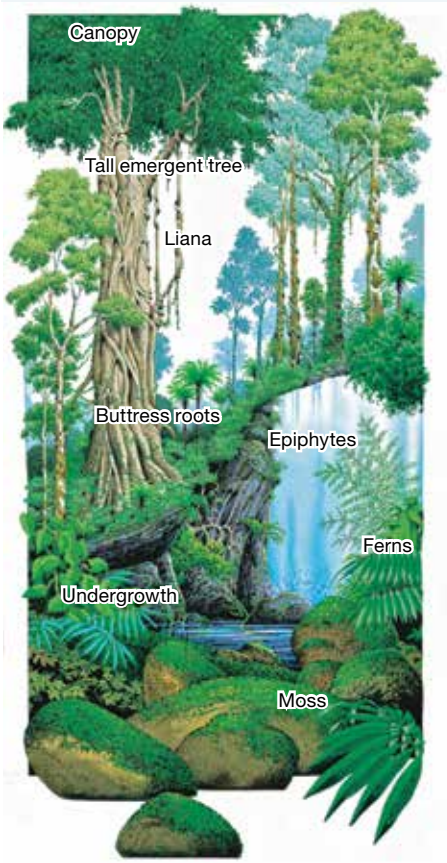
Forest floor

This bottom layer is dominated by a thick carpet of leaves, fallen trees and huge buttress roots that support the giant trees above. Rainforest soils give the impression of being fertile because they support an enormous number of trees and plants.

However, this impression is wrong, as the soil in rainforests is generally poor. Leaves and other matter are recycled by the many organisms to create a living **compost**. The roots of trees must 'snatch' these nutrients from the soil before heavy rains wash them away and they are lost through a process called **leaching**.

Larger animals also roam through this layer in search of food.

FIGURE 3 Layers in a tropical rainforest



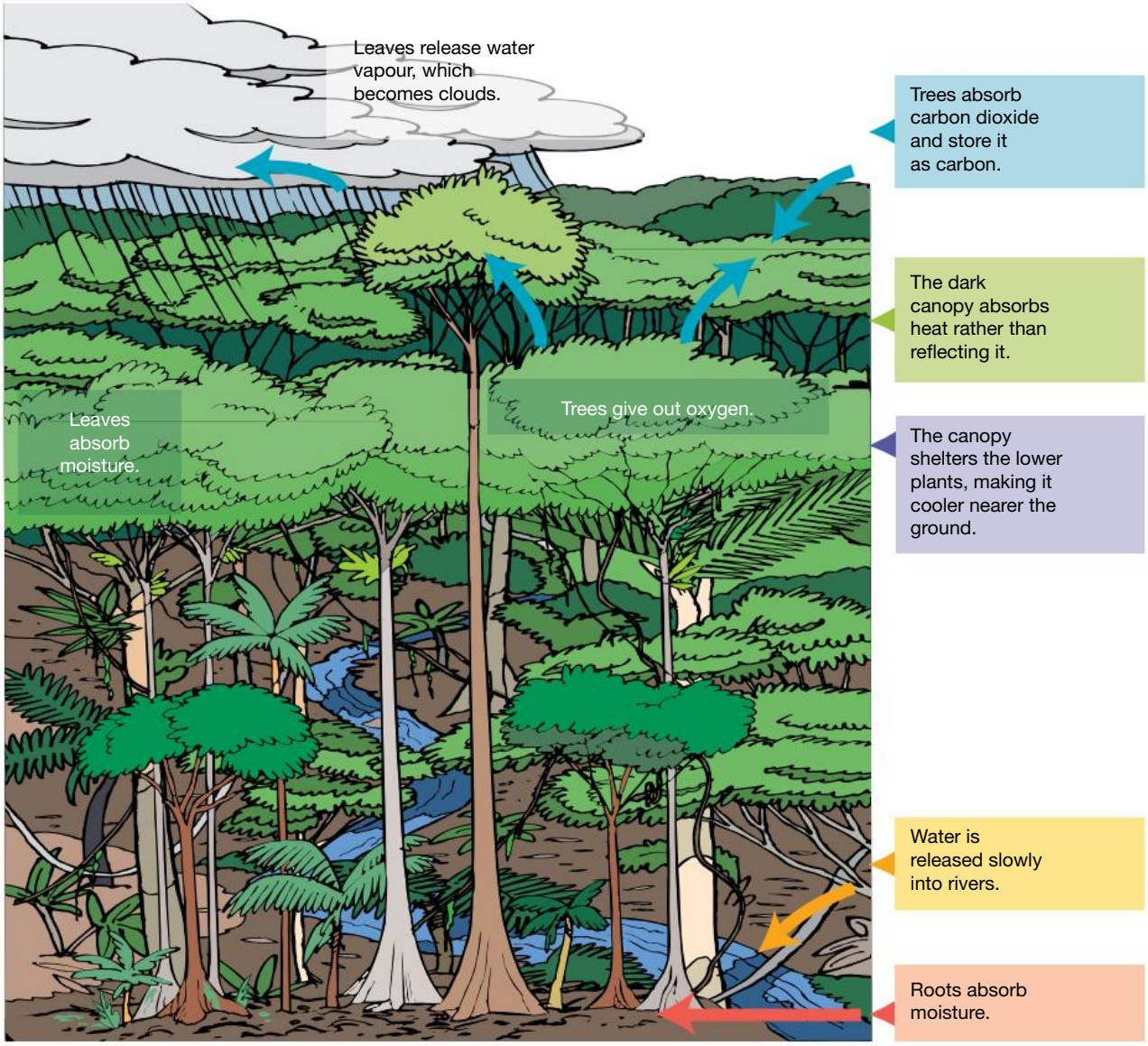
temperate zone describes the relatively mild climate experienced in the zones between the tropics and the polar circles
ecosystem an interconnected community of plants, animals and other organisms that depend on each other and on the non-living things in their environment
microclimate specific atmospheric conditions within a small area
compost a mixture of various types of decaying organic matter such as dung and dead leaves
leaching a process that occurs in areas of high rainfall, where water runs through the soil, dissolving minerals and carrying them into the subsoil. The process can be compared to a coffee pot in which water drips through the grounds.

13.8.3 Amazing rainforests

Most of us use rainforest products every day. More importantly, however, rainforests help control the world's climate and our oxygen supply (see **FIGURE 4**). So the next time you eat chocolate, treat your asthma, play a guitar or even take a deep breath, you should thank a rainforest.

tlvd-10679

FIGURE 4 Rainforests play a vital role in controlling the world's climate and oxygen supply. Scientists believe that half of the world's oxygen is produced by the Amazon rainforest alone.



- At least 50 million indigenous peoples live in rainforests worldwide. From the Kuna people of Panama and the Yanomami of Brazil to the Baka people of Cameroon and the Penan of Borneo (Indonesia), these people have traditionally lived a way of life that has little impact on their forest home.
- Rainforest trees are generally hardwood trees, making them resistant to decay and attractive for building. Well-known rainforest timbers are mahogany, teak, ebony, balsa and rosewood. Rosewood is particularly interesting, as it is considered the best timber in the world for guitar making. In many tropical countries, people also collect timber as fuel for cooking or heating.

- Chocolate first came from the cacao tree native to the Amazon rainforest. Today the chocolate you eat is most likely to come from cacao plantations in West Africa.
- Most of the fruits and nuts mentioned here are now grown by farmers rather than harvested directly from the forest, but it was in the rainforests that they originated.
- Brazil and cashew nuts, cinnamon, ginger, pepper, vanilla, bananas, pineapples, coconuts, paw-paws, mangoes and avocados were all originally rainforest plants.
- The gum used in chewing gum comes from a rainforest plant, as does the tree that produces rubber.
- More than 7000 modern medicines are made from rainforest plants. They can be used to treat problems from headaches to killer diseases like malaria. They are used by people who suffer from multiple sclerosis, Parkinson's disease, leukaemia, asthma, acne, arthritis, glaucoma, diabetes, dysentery and heart disease, among many others.
- The cacao tree is a source of compounds used to lower cholesterol, blood sugar levels and the risk of heart disease.
- Tree frogs from Australia give off a chemical that can heal sores, and a similar chemical from a South American frog is used as a powerful painkiller.
- Quinine, a key ingredient in the treatment of malaria, comes from the cinchona tree.
- The poisonous venom from an Amazonian snake is used to treat high blood pressure.
- Twenty-five per cent of all cancer-fighting drugs originate in the rainforest.

FIGURE 5 Many of the foods we eat come from rainforests.



FIGURE 6 Only one per cent of known rainforest plants and animals have been analysed for their medicinal potential.



13.8.4 Where have our rainforests gone?

Rainforests have the potential to provide a wide variety of useful resources. The temptation to use these pristine areas is often too difficult for people to resist, especially if they live in poverty. As a result, all around the world, rainforests are being destroyed for economic gain (see **FIGURE 7**).

- Around 31 per cent of the Earth's surface is covered by rainforests.
- Only 18 per cent of the Earth's rainforests are protected from deforestation.
- More than 8 million hectares of forest were lost between 1990 and 2020.
- Globally, around 2400 trees are cut down each minute — enough to fill one soccer field.
- NASA estimates that in 100 years there may be no rainforests left.

Factors causing deforestation

Agricultural production — removal of forest for plantation crops such as soy and palm oil, agricultural pasture, settlements and infrastructure. Beef and soy production account for more than two-thirds of deforestation.

Forest fires — millions of hectares are lost each year. Degraded forests are more prone to uncontrolled natural fires. Fires are also deliberately lit to clear the area for other uses.

Illegal and unsustainable logging — rainforest trees produce hardy timber that is in demand for commercial use in international markets.

Fuelwood harvesting — over-harvesting as a cheap source of fuel for locals living in poverty or for the commercial use in the production of charcoal.

Mining — mineral resources are abundant in rainforest regions. The land is cleared to extract these resources and build roads and other infrastructure to gain access to mines.

Climate change — climate change reduces rainfall and increased temperatures dry out the rainforest, increasing the risk of fire and further reducing rainfall.

FIGURE 7 Illegal gold mining in the Amazon not only destroys the rainforest but also contaminates rivers with mercury.



on Resources

Interactivities Deforestation dilemma (int- 3113)
Our living green dinosaurs (int- 3112)
Protecting or plundering rainforests (int- 3114)

13.8 SKILL ACTIVITY: Questioning and researching, Communicating

More than 3 million species call rainforests home, making them the most biodiverse places on Earth.

1. As a class, **brainstorm** a list of plants, animals, insects, amphibians and so on that are found in the rainforest. You might need to use the internet to help you.
2. Have each member of the class select a different species to **investigate**.
   a. Find an image of your species.
   b. **Annotate** your image to **explain** the characteristics of the species shown.
   c. **Create** a class collage to showcase your collective findings.

13.8 Exercise

learnon

13.8 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2	3, 4	5, 6

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Check your understanding

1. Rainforests thrive in locations that receive _____ of rainfall evenly spread throughout the year. This is most commonly experienced in the equatorial regions of the planet, where climatic conditions are moist and warm all year round.
2. **Compare** montane and lowland rainforests by inserting the correct type into the spaces.
   _____ rainforests are found at altitudes below 1000 metres. Trees are tall and include a greater variety of fruiting trees.
   _____ rainforests are found at an altitude of 1000 metres or higher. These rainforests are not as threatened as others.
3. **Compare** the different layers of rainforest environments by matching each layer with the amount of light it receives.

Emergent and canopy	
Understorey	
Forest floor	

- Dark
- Dark, only 5 per cent of the sun's light and energy
- Plenty of sunlight available

4. Why are rainforests sometimes called 'the lungs of the Earth'?
5. What percentage of deforestation is caused by agriculture in the Amazon?
   A. 20%
   B. 30%
   C. 55%
   D. 77%
   E. 90%

Apply your understanding

6. Refer to **FIGURE 2**. **Describe** the distribution of rainforests around the world. On which continents and between which latitudes are they found?
7. a. What name is given to the tallest trees in the rainforest?
   b. Why do you think they were given this name?
8. **Describe** the distribution of rainforests around the world. Think about in which continents and between which latitudes they are found, the size and scale of them, and whether they are continuous or scattered.
9. Many rainforest environments are located in developing countries. Why does this make the problem of rainforest destruction harder to solve?
10. Soils in the rainforest are generally poor but they support a diverse range of dense vegetation. **Explain** why the rainforest is able to support so much vegetation, but cannot sustain agricultural production without the addition of fertilisers.

LESSON
13.9 INQUIRY: The value of rainforests

LEARNING INTENTION

By the end of this lesson you should be able to explain why rainforests are important, describe the threats to rainforests and develop strategies for the preservation of rainforests.

Background

Newsflash — rainforests will soon be gone

Over the past 10 000 years, human activities have reduced the Earth's forest by about one-third. Trees have been felled to make way for urban development and agriculture, and to obtain fuel and building materials. Today, approximately 34 per cent of the world's land area is covered by forest.

Rainforests are one of the most complicated environments on Earth. Mostly found in warm, moist areas near the equator, rainforests contain nearly three-quarters of all varieties of life on Earth and perform several important functions on our planet. Australia's rainforests are very important, as they contain half of our plant and one-third of our native animals in a very small area (20 000 square kilometres).

Until this century, tropical rainforests were hardly touched by humans because the excessive heat, mosquito plagues, torrential rain and mountainous surroundings made tropical rainforests inaccessible to most humans. However, with increasing demand for timber and clear land, these rainforests are disappearing at a rapid rate all over the world.

Urgent action is needed, but we need more information before the important decisions are made. Reliable sources suggest the Department for Natural Resources and Environment are compiling a top-secret document detailing many factors in the 'Rainforest Debate'.







Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

In this inquiry you will work in a team to complete an in-depth study on tropical rainforests to learn why they are important and present strategies for the conservation of the world's remaining rainforests.

You may choose to focus on a specific rainforest, such as the Daintree in Queensland, the Amazon in Brazil or the rainforests of Indonesia, Malaysia, Papua New Guinea or the Congo.

Inquiry steps

Read the background information provided and **decide** what additional information you need. You can also use the topographic map of the Daintree Rainforest in lesson 13.9 in your research. Assign roles within your group.

Step 1: Questioning and researching using geographical methods

- **Create** your inquiry question.
- **Research** your question. Use the following weblinks from the Resources panel to get you started:
  - **Living rainforests** to find out more about the rainforest landscape.
  - **Rainforest threats 1** and **2** and to learn about the threats to rainforests.
  - **Protecting rainforests** to discover more about:
    - what is being done to protect rainforests
    - the structure of rainforests
    - their role in regulating climate
    - their role in oxygen production
    - rainforest habitats
    - rainforests as a source of food and medicine
    - threats to the rainforest
    - conservation strategies and their success.

Step 2: Interpreting and analysing geographical data and information, Concluding and decision-making

- **Analyse and evaluate:** do you need to adjust your inquiry question? Which information is relevant to your inquiry? Incorporate relevant maps and statistics.

Step 3: Communicating

- **Communicate:** what is the answer to your inquiry question? Present your findings. This could be in the format of a webpage, oral presentation or recorded documentary, for example.

Complete your self-assessment using the **Inquiry rubric** or access the 13.9 exercise set to complete it online.

on Resources

Digital document Inquiry rubric (doc-39535)

Weblinks
Living rainforests
Rainforest threats 1
Rainforest threats 2
Protecting rainforests

LESSON
13.10 Investigating topographic maps — Features of the Daintree rainforest

LEARNING INTENTION

By the end of this lesson you should be able to locate and describe the features of the Daintree rainforest on a topographic map.

13.10.1 Daintree rainforest

The Daintree rainforest, located in the Daintree National Park in far north Queensland, is one of the oldest surviving rainforests on Earth. It holds such significance to the biological diversity and geological history of Australia that it was recognised as a World Heritage Area in 1988.

This area forms part of the Wet Tropics of Queensland, which stretches along the northeast coast of Australia for 450 kilometres.

FIGURE 1 The Daintree area of northern Queensland: (a) A mangrove on the mudflats of Cooya Beach; (b) Newell beach; (c) Mossman Gorge



int-8410

FIGURE 2 Topographic map extract of the south-eastern section of the Daintree River National Park



Source: Map redrawn by Spatial vision, based on information taken from QSpatial, State of Queensland (Department of Natural Resources, Mines and Energy, Department of Environment and Science), http://qldspatial.information.qld.gov.au/catalogue/

on Resources

eWorkbook	Investigating topographic maps — Features of the Daintree rainforest (ewbk-10753)
Digital document	Topographic map of Daintree River National Park (doc-36254)
Video eLesson	Investigating topographic maps — Features of the Daintree rainforest — Key concepts (eles-6109)
Interactivity	Investigating topographic maps — Features of the Daintree rainforest (int-8410)

FIGURE 3 The Mossman River winds through the Daintree Rainforest.



13.10 Exercise

learnon

13.10 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 4	2, 5	3, 6

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1. According to **FIGURE 2**, the most common type of farming to occur in the area is _____.
2. **Identify** the features found at the following locations.
   a. GR262792
   b. GR332775
   c. GR311788
   d. GR307760
3. **Describe** what the landscape would look like if you were at the following locations.
   a. GR195768
   b. GR335765
   c. GR272867
4. **State** the six-figure grid references for:
   a. Dayman Point
   b. Port of Mossman
   c. Miallo.
5. **Identify** which features shown on the map provide evidence that this is a rainforest landscape.
6. **Explain** three ways that humans have had an impact on this rainforest environment.

LESSON
13.11 What cultural significance do landscapes have for First Nations Peoples of Australia?

LEARNING INTENTION

By the end of this lesson you should be able to explain the cultural significance of landscapes.

TUNE IN

First Nations Peoples are recognised as the first Australians. Evidence of their presence in Australia is found across the continent in archaeological records and their cultural heritage has been passed down through the generations.

FIGURE 1 This rock art depicting a cloud or rain spirit was found in Western Australia's Kimberley region.



1. What do you understand by the term 'rock art'?
2. Working with a partner:
   a. Develop a shared understanding of where this image may have been found and what you can see.
   b. What element of First Nations Peoples do you think is depicted in this rock art?
3. Share your thoughts with the rest of the class.

13.11.1 The Australian context

Landscapes are the product of processes that have operated for millions of years. While all humans have come to realise the importance of the landscape and the role it plays in our lives, First Nations Peoples of Australia have always known that it is important to work alongside nature rather than always seek to change and exploit it.

They rely on and nurture the plants, animals and the environment for their survival, and so have an understanding of the complex nature of Australia's varying landscape.

Europeans, on the other hand, arrived in 1788 and occupied areas of Australia. They had a very different view of the landscape, based on ideas they brought with them from Britain. They sought to change the landscape and adapt it to meet their needs. They established permanent settlements and depended on farming introduced species to provide for their needs.

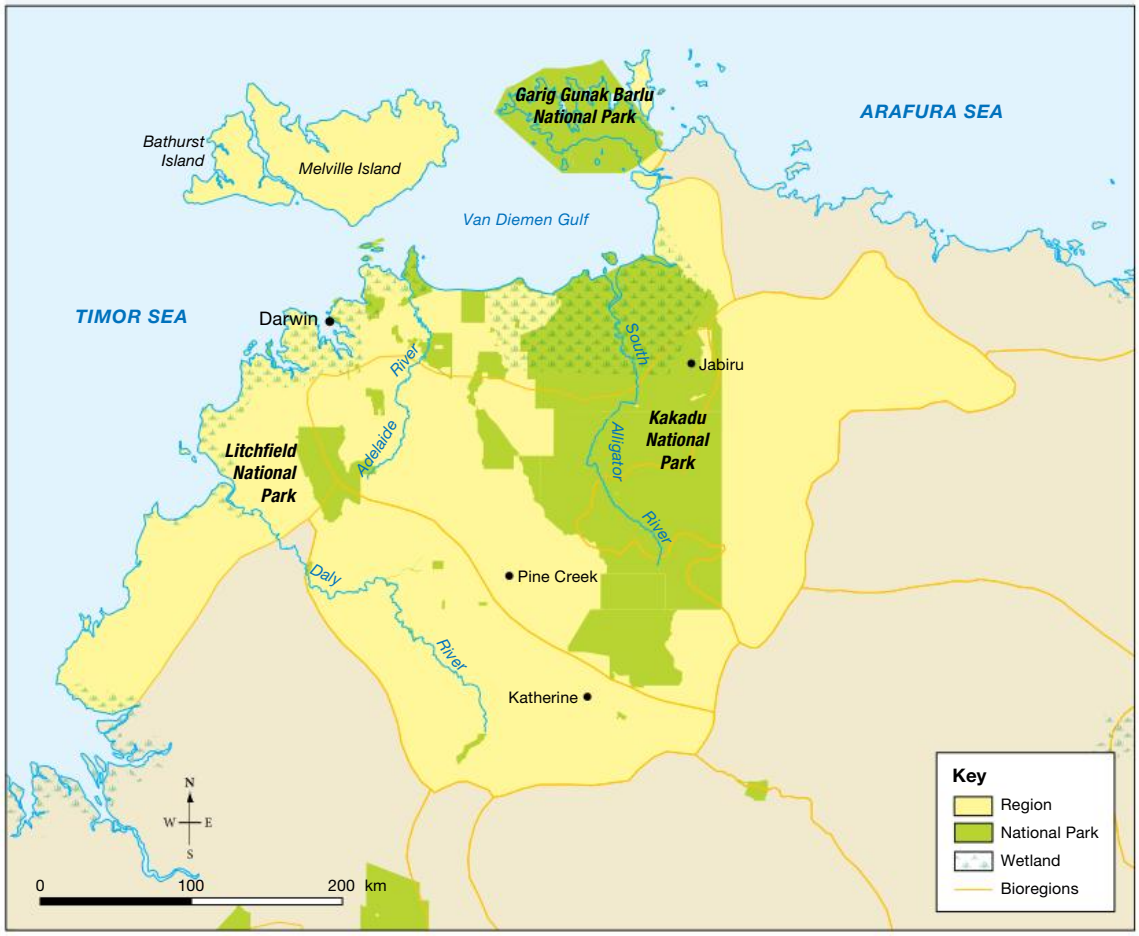
The perspective of First Nations Peoples of Australia is one of belonging to the landscape, while the European perspective is based on the idea of owning land.

13.11.2 Kakadu — Australia's first World Heritage Area

Kakadu National Park, as seen in **FIGURE 2**, covers an area of approximately 20 000 square kilometres of the Northern Territory — an area roughly a third the size of Tasmania. It stretches 200 kilometres from north to south, and spans 100 kilometres from east to west. Within the boundaries of the park are vast uranium deposits. Kakadu is unique in that it is recognised for both its natural beauty and its cultural value.

int-3609

FIGURE 2 Map of Kakadu National Park



Source: Spatial Vision

13.11.3 Kakadu and its resources

More than 200 000 tourists visit Kakadu National Park annually. Kakadu is a UNESCO World Heritage List site that is recognised for both its cultural and natural importance. Culturally, the area features some of the oldest rock art in the world, with Bininj/Mungguy paintings dating back 20 000 years. It is believed that Kakadu has been home to the Bininj and Mungguy peoples for over 65 000 years. The natural heritage of the area includes diverse native plant and animal species, vast wetlands, steep gorges and waterfalls (see **FIGURE 4**).

FIGURE 3 Consider how the Kakadu landscape is viewed and valued

1. More than 7000 sites preserve Bininj/Mungguy heritage; the rock art of Kakadu is one of the oldest and longest running accounts of culture on Earth.

2. Kakadu is home to a variety of plant and animal species that are unique to this region.

3. The land provides food such as wallabies and fruit; the rivers, fish and turtles; and the wetlands, bulbs and waterfowl.

4. Culture, traditions and nature are all linked, and connect people to their Country. People are responsible for looking after the land; they do not own it.

10. When Kakadu became a National Park, three possible uranium mining areas – Jabiluka, Ranger and Koongarra – were excluded from the park, even though they were surrounded by it. The Jabiluka mine site began development but has never been mined because of successful protests by the Mirarr people. Koongarra was added to the National Park in 2013 after campaigning by a senior Traditional Owner of the Djok clan. The Ranger mine is due to close at the end of 2020.



5. First Nations land management is very different to European farming; European settlers did not understand.

6. European land management involves ownership: building fences, restricting access and extracting resources to make a profit.

9. The region is remote, so there was much less European colonisation of the area, and little commercial interest until Uranium was found.

8. Native flora and fauna have been affected and some small native mammals have become extinct.

7. Europeans brought in new rules, religion, laws and diseases that affected the human experience and natural cycles of the landscape.

Kakadu also has vast deposits of uranium ore, which is a potentially valuable export for Australia. Opponents of uranium mining are concerned about the possibility that Australia's uranium could be processed and used to make nuclear weapons. Others fear the effects of mining on the environment and the potential for a devastating pollution event. Health studies on the First Nations population living in the vicinity of the mine have found that stillbirth rates are double the rate seen in women living in other parts of the Top End. Cancer rates were also 50 per cent higher.

FIGURE 4 Jim Jim Falls at Kakadu is a popular tourist destination.



The Ranger uranium mine has been operating since 1980 and lies within the boundaries of Kakadu National Park. Three kilometres downstream from the mine, the Mirrar people (a local First Nations community) swim and fish. Since the mine opened, there have been more than 200 leaks and spills, and the mine has generated some 30 million tonnes of liquid radioactive waste (see **FIGURE 5**). Uranium mining ended in 2012, but the processing of stockpiled ore continued until January 2021. The owners of the mining lease will continue to rehabilitate the area beyond its lease expiry date in 2026. The final cost of returning the site to its original state is expected to cost up to $2.2 billion.

on Resources

Google Earth Mount Everest
Kakadu

13.11 SKILL ACTIVITY: Interpreting and analysing geographical data and information, Concluding and decision-making

Review the information in this lesson related to Kakadu and its resources, and carefully study both **FIGURES 5** and **6**.

FIGURE 5 Timeline of major breaches at the Ranger uranium mine since 2002

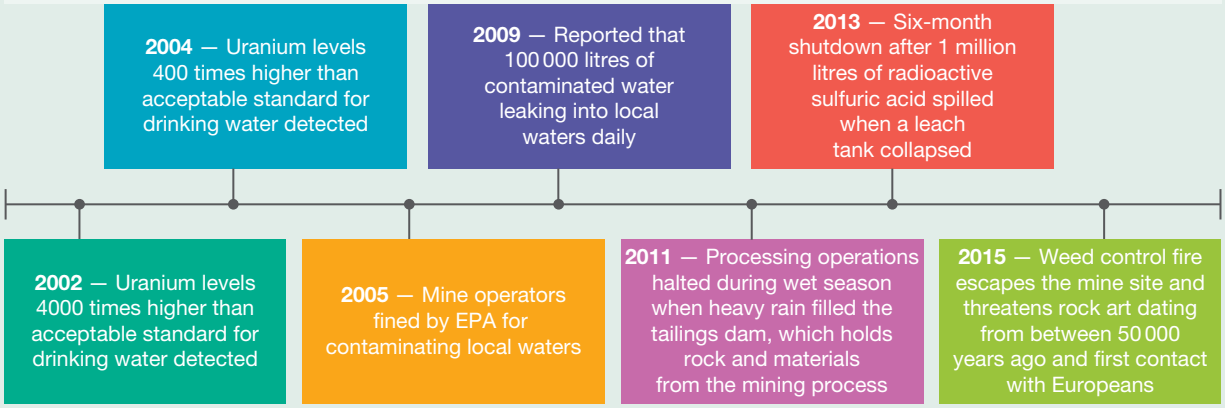


FIGURE 6 Aerial view of the rehabilitation and vegetation regrowth on the Jabiluka mine site from 2006 to 2018.



1. Referring to **FIGURE 5**, **describe** the impact of breaches at the Ranger Uranium mine on both people and the environment.
2. Annotate a diagram of **FIGURE 6**:
   a. **Describe** the changes that have taken place to the landscape at the Ranger Uranium mine from 2006 to 2018.
   b. Add an additional image and annotation to **predict** what the landscape might look like today.
3. **Determine** if you think the Kakadu region be completely restored. Use evidence to support your conclusion.

13.11 Exercise

learnon

13.11 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 5, 6	4, 8	7, 9, 10

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Check your understanding

1. Refer back to the information about Kakadu National Park.
   a. **Identify** the location of Kakadu National Park.
      A. Northern Territory
      B. New South Wales
      C. Queensland
      D. Western Australia
   b. **Select** the option that best explains why Kakadu National Park is important.
      A. Most of Australia sources water from there.
      B. It has cultural significance.
      C. Most of Australia sources fish from there.
      D. It is not important.
2. **Consider** the Australian landscape and the way it is viewed by First Nations Peoples and non-Indigenous Australians.
   Identify whether the following statements are true or false.
   a. First Nations Peoples of Australia see the land as something to farm and develop, whereas the European tradition views people as custodians of the land.
   b. First Nations Peoples of Australia look after the land as a community, whereas the European tradition is that people live on and own one specific piece of land.
   c. First Nations Peoples of Australia, exploited the land, whereas the European tradition involved careful management of the land and its resources.
3. Where are the more densely populated regions of Australia?
   A. Coastal regions
   B. Inland regions
   C. Population is evenly distributed across Australia.
   D. Forest regions
4. **Describe** the interconnection that First Nations Peoples of Australia have with the landscape. What evidence of this interconnection is found in this lesson?
5. **Consider** the resources in the Kakadu region.
   a. **Explain** what is uranium is used for and why it is considered a valuable resource.
   b. What risks does uranium mining pose in the Kakadu region?

Apply your understanding

Communicating

6. Think about your personal values and beliefs and **analyse** how they might be similar or different to those reflected in **FIGURE 3**.
7. Think back to section 13.7.3 on mining in the Kakadu region.
   a. **Predict** three possible impacts on the landscape if a new uranium mine was opened in the Kakadu region.
   b. Do you think changes would have a large-scale or a small-scale impact? **Explain**.
8. **Predict** what pressures decision-makers in Australia might face in future when balancing the needs of the different groups who have an interest in Kakadu's resources.
9. **Explain** how we have such an extensive knowledge of Bininj and Mungguy peoples' culture, history and beliefs.
10. **Propose** one argument for and one argument against granting leases to mine resources such as uranium in the Kakadu region.

LESSON
13.12 Why do we preserve and manage landscapes?

LEARNING INTENTION

By the end of this lesson you should be able to explain why landscapes need to be protected.

TUNE IN

Did you know that Australia's Gondwana Rainforest is made up of 50 separate reserves and national parks? Comprising 366 000 hectares of remnant rainforest across Queensland and New South Wales. Within these rainforests are fossil records dating back to the supercontinent Gondwanaland. It is on the World Heritage List because it has high conservation value for both its natural beauty and cultural significance.

FIGURE 1 Crystal Falls in Australia's Gondwana Rainforest



1. What do you understand by the concept of World Heritage listing?
2. Why do you think the Gondwana Rainforest comprises so many reserves and national parks?
3. Brainstorm a list of the types of evidence from Australia's past that might be found in the Gondwana Rainforest.
4. Have a class discussion about whether the Gondwana Rainforest should be preserved.

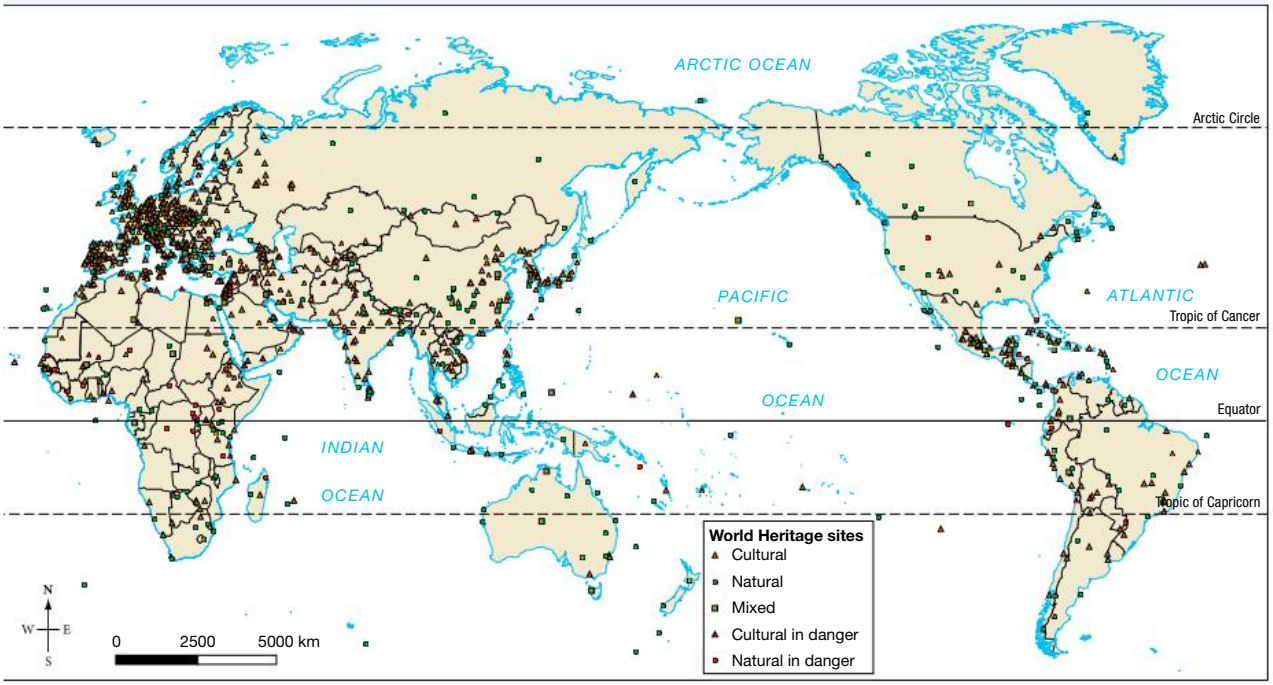
13.12.1 The World Heritage Convention

Worldwide, people recognise the value of landscapes and the need to protect their natural beauty and cultural heritage, and to manage their resources sustainably. Landscapes are easily damaged or destroyed, but are difficult to recreate and repair. The key is to ensure that they are carefully managed so the landscapes we value today are still present in the future.

From the middle of the twentieth century, concern grew about the need to protect areas of both cultural and natural significance (see **FIGURE 2**).

int-7833

FIGURE 2 The World Heritage List includes 1092 sites of significance.



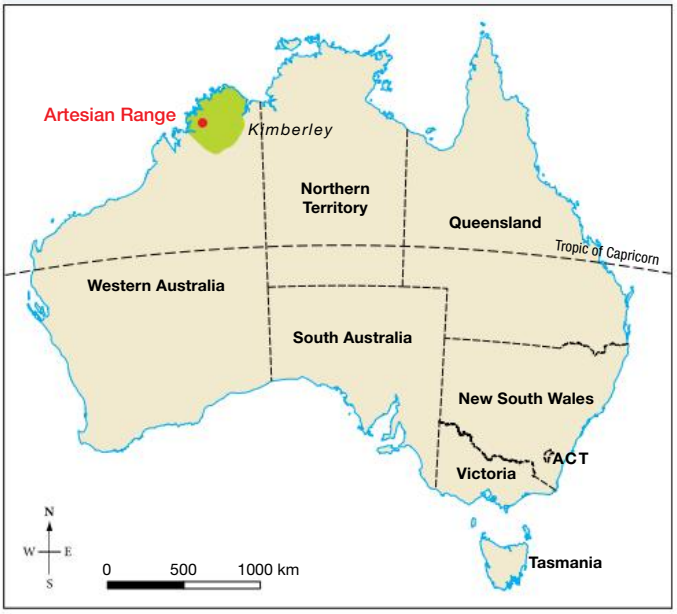
Source: Copyright © 1992–2019 UNESCO/World Heritage Centre. All rights reserved.

13.12.2 The Artesian Range

The Artesian Range is a unique part of the Australian landscape. It has been described as a lost world, a modern-day Noah's Ark, and our last opportunity to protect and preserve a part of the Australian mainland that has had little contact with modern civilisation. Within its hidden valleys and canyons lies a diverse range of flora and fauna. The rich tropical rainforests and woodlands provide vital habitats for some of Australia's most endangered wildlife.

The Artesian Range covers 1800 square kilometres (see **FIGURE 3**). It is largely inaccessible; the only way in is by helicopter or boat. It is a maze of hidden valleys and canyons, rocky ranges and plateaus, towering **escarpments**, wide valleys and deep gorges (see **FIGURE 4**). Its sandstone ranges were formed as a result of tectonic plate activity. These rock formations date back some 1.8 million years.

FIGURE 3 The Artesian Range covers 1800 square kilometres of the Kimberley region.



Source: Spatial Vision

Although it is difficult for humans to reach the area, exotic species such as donkeys, horses, pigs and cats have gradually invaded the Kimberley. And while fire is a natural part of the landscape, changing fire patterns and the increasing number of late-season wildfires are also a threat to the Artesian Range.

escarpment a steep slope or long cliff formed by erosion or vertical movement of the Earth's crust along a fault line

Australian Wildlife Conservancy (AWC), an independent non-profit organisation funded by donations, has now secured the land and manages it for conservation. AWC undertakes fire management, feral animal control, and biological surveys and monitoring, protecting the full length of the Artesian Range.

FIGURE 4 The Artesian Range is a rugged and largely inaccessible landscape, renowned for its natural beauty and unique wildlife.



on Resources

Weblink World Heritage list

13.12 SKILL ACTIVITY: Questioning and researching, Communicating

Use the **World Heritage list** weblink to **investigate** a World Heritage site in more detail.

Select a heritage site from one of the countries listed on the website.

Prepare a visual presentation of your chosen site that includes the following information:

- Show the location of your chosen site on a map that conforms to geographic conventions.
- **Illustrate** the importance of the site.
- **Identify** any threats to your site.
- **Explain** the strategies being used to protect your site.
- **Evaluate** these strategies
  - How successful have these strategies been?
  - Is enough being done?
  - Are any modifications needed?

13.12 Exercise

learnon

13.12 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 5, 6	4, 8	7, 9, 10

These questions are even better in jacPLUS!



- Receive immediate feedback
- Access sample responses
- Track results and progress

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Check your understanding

1. a. Where in Australia is the Artesian Range located?
   - A. North-east coast of Australia
   - B. North-west coast of Australia
   - C. South-west coast of Australia
   - D. South-east coast of Australia

   b. Suggest why the Artesian Range is unique.
2. Why has the Artesian Range been largely inaccessible to people?
   - A. Steep escarpments
   - B. Thick forests
   - C. Woodlands
   - D. There are no roads leading into the area
   - E. All of the above
3. **Identify** two management strategies used by the Australian Wildlife Conservancy (AWC) to manage and conserve the Artesian Range.
   - A. Increasing tourist numbers
   - B. Fire management
   - C. Native animal control
   - D. Biological surveys
   - E. Diverting water for public use
4. **Explain** why it is important to protect sites that have cultural or natural significance.
5. **Determine** if you think invasive species or wildfires pose the greatest risk to the Artesian Range. **Justify** your answer.

Apply your understanding

Communicating

6. **Explain** how exotic species such as cats, foxes and camels have been able to become established in the Artesian Range when it is difficult for people to enter the region.

Concluding and decision-making

7. **Evaluate** the ways in which the community demonstrates the value it places on cultural diversity and why this is important to the community.
8. The Artesian Range has been described as a 'modern-day Noah's Ark'. **Explain** what you understand by this description.
9. **Describe** the processes that have led to the formation of the Artesian Range and its different landscape features.
10. Uluru is considered to have both cultural and natural significance. **Propose** a reason for this classification.

LESSON
13.13 Review

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13.13.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

13.2 Why do landscapes vary?

- Landscapes are influenced by factors such as climate, geographical features and latitude.
- The type of landscape that develops is determined by the mix of these factors.
- There are variations within landscapes and they are impacted by human activity.

13.3 What processes shape landscapes?

- Landscapes are continually changing; tectonic forces are at work to build landscapes, and processes such as weathering and erosion wear them away.
- Human activity such as deforestation increases the rate of erosion.
- Soil varies across landscapes and ultimately determines the type of vegetation that a landscape can support.

13.4 What landscapes form underground?

- Karst landscapes are found all over the world, predominantly in tropical regions.
- Karst landscapes form where slightly acidic water filters through soluble bedrock, such as limestone, forming hollows and caves beneath the surface of the Earth.
- The largest arid limestone karst cave system is located on Australia's Nullarbor Plain.

13.5 What are the landforms and landform regions of Australia?

- Australia is an ancient landscape and has undergone many changes over millions of years.
- Tectonic forces have uplifted the land, creating mountain ranges. The landscape was been worn away and sculpted by the processes of weathering, erosion and deposition.
- Australia has also migrated, so that its climate and vegetation are vastly different from what they were millions of years ago.

13.6 What are deserts like in Australia and China?

- Desert landscapes are areas of low precipitation and can be either hot or cold.
- Approximately one-third of the Earth's surface is classified as arid or semi-arid.
- Latitude and topography play a role in determining where deserts are located.

13.7 How do the savanna grasslands of Australia and Africa compare?

- Grasslands are described as a transitional landscape as they are generally located between forests and deserts.
- Savana grasslands located in Africa are maintained by grazing animals and their migrations.
- First Nations communities maintain the savanna grasslands of northern Australia using fire.

13.8 What makes a rainforest?

- Rainforests are areas of very high rainfall and located between the Tropic of Cancer and the Tropic of Capricorn
- Rainforests are important regulators of global climate, produce oxygen medicine and the source of many of our foods and medicines.
- Rainforests are under threat due to exploitation and over-harvesting of their resources.

13.9 INQUIRY: The value of rainforests

- Inquiry into the importance of rainforests and strategies for their conservation

13.11 Investigating topographic maps — Features of the Daintree rainforest

- The Daintree Rainforest is located in far north Queensland.
- The Daintree region is a national park and a significant region with World Heritage status.

13.12 What cultural significance do landscapes have for First Nations Peoples of Australia?

- First Nations Peoples of Australia have been in Australia for over 60 000 years and have a close bond with the land.
- The Australian landscape is culturally significant to First Nations Peoples of Australia and their beliefs conflict with those of the European settlers.
- Addressing the competing needs of culture and resources involves striking a delicate balance.

13.13 Why do we preserve and manage landscapes?

- The World Heritage List ensures that places of natural and cultural significance are preserved and managed so they are not lost for future generations.
- Australia has several sites that are culturally significant and also considered natural wonders, such as the Artesian Range.
- The inaccessible nature of the Artesian Range has protected it from human activity; however, it is threatened by introduced species.

13.13.2 Key terms

aquifer a body of permeable rock below the Earth's surface that contains water, known as groundwater
compost a mixture of various types of decaying organic matter such as dung and dead leaves
convection current a current created when a fluid is heated, making it less dense and causing it to rise through surrounding fluid and sink if it is cooled; a steady source of heat can start a continuous current flow
deposition the laying down of material carried by rivers, wind, ice and ocean currents or waves
drainage basin an area of land that feeds a river with water; or the whole area of land drained by a river and its tributaries
ecosystem an interconnected community of plants, animals and other organisms that depend on each other and on the non-living things in their environment
erosion the wearing away and removal of soil and rock by natural elements, such as wind and water, and by human activity
escarpment a steep slope or long cliff formed by erosion or vertical movement of the Earth's crust along a fault line
glacier a large body of ice, formed by an accumulation of snow, that flows downhill under the pressure of its own weight
hotspot an area on the Earth's surface where the crust is quite thin and volcanic activity can sometimes occur, even though it is not at a plate margin
humus nutrient-rich dark organic matter, created by decaying animal and plant matter
inselberg an isolated hill, knob, ridge, outcrop or small mountain that rises sharply from the surrounding landscape
leaching a process that occurs in areas of high rainfall, where water runs through the soil, dissolving minerals and carrying them into the subsoil. The process can be compared to a coffee pot in which water drips through the grounds.
mantle the layer of the Earth between the crust and the core
microclimate specific atmospheric conditions within a small area
percolate filter through porous material such as soil
permafrost a layer beneath the surface of the soil where the ground is permanently frozen
plateau an extensive area of flat land that is higher than the land around it. Plateaus are sometimes referred to as tablelands.
precipitation the different forms in which moisture is returned to the Earth from the atmosphere, most commonly in the form of rain, hail, sleet and snow
sediment material carried by water
soluble able to be dissolved in water

stalactite a feature made of minerals, which forms from the ceiling of limestone caves, like an icicle. They are formed when water containing dissolved limestone drips from the roof of a cave, leaving a small amount of calcium carbonate behind.
stalagmite a feature made of minerals found on the floor of limestone caves. They are formed when water containing dissolved limestone deposits on the cave floor and builds up.
tectonic plate one of the slow-moving plates that make up the Earth's crust. Volcanoes and earthquakes often occur at the edges of plates.
temperate zone describes the relatively mild climate experienced in the zones between the tropics and the polar circles
transport the movement of eroded materials to a new location by elements such as wind and water
weathering the breaking down of bare rock (mainly by water freezing and cooling as a result of temperature change) and the effects of climate

13.13.3 Reflection

Complete the following to reflect on your learning.

Revisit the inquiry question posed in the Overview:

How do human and natural processes shape environments and what impact does this have on the way people manage changing landscapes?

1. Now that you have completed this topic, what is your view on the question? Discuss with a partner. Has your learning in this topic changed your view? If so, how?
2. Write a paragraph in response to the inquiry question, outlining your views.

on Resources

eWorkbooks Customisable worksheets for this topic (ewbk-10749)
Reflection (ewbk-10751)
Crossword (ewbk-10752)

Interactivity Introducing landforms and landscapes crossword (int-7595)

13.13 Review exercise

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Multiple choice

1. Distinguish between a natural and a human environment.
   - A. Natural environments are altered by humans whereas built environments are not.
   - B. Built environments are altered by humans whereas natural environments are not.
   - C. There is no difference because neither of them are altered by humans.
   - D. Natural environments are larger than built environments.
2. Select the statement that best explains how rivers and streams made physical changes to Australia's landmass.
   - A. Through the process of folding, faulting and uplifting
   - B. By transporting materials to new areas, creating floodplains and coastal landscapes
   - C. By forming the Great Dividing Range
   - D. None of the above

3. Why is soil important?
   - A. It is not important.
   - B. It is the basis for plant growth, which feeds both people and animals.
   - C. 75 per cent of mammals eat soil as their main source of nutrition.
   - D. It protects the Earth from damage from the sun.
4. Landscapes are in a state of continual change. Which two natural processes powered by water are most responsible for continually changing landscapes?
   - A. Erosion and weathering
   - B. Erosion and deposition
   - C. Transportation and deposition
   - D. Transportation and calcification
5. Which statements apply to savanna grasslands? Select two correct answers
   - A. They have many trees.
   - B. They have a distinct wet season and dry season.
   - C. They are found on every continent.
   - D. They are a transitional landscape.
6. Where is Kakadu National Park located?
   - A. New South Wales
   - B. Northern Territory
   - C. Queensland
   - D. Tasmania
7. What is the term used to describe the laying down of material carried by rivers, wind, ice and ocean currents or waves?
   - A. Erosion
   - B. Sediment
   - C. Transport
   - D. Deposition
8. Explain the importance of fire in maintaining savanna grasslands by combining two of the following statements.
   - A. It clears out the undergrowth and encourages new plant growth.
   - B. It creates new habitat for animals.
   - C. It prevents trees from taking over, as saplings are burnt in the process.
   - D. The soil becomes more fertile.

Short answer

Communicating

9. **Differentiate** between the terms erosion, deposition and transportation.
10. **Define** the term humus and explain why it is important.
11. **Propose** two reasons for the preservation of landscapes.
12. **Explain** how karst landscapes are formed.
13. **Identify** three factors that influence the formation of landscapes.

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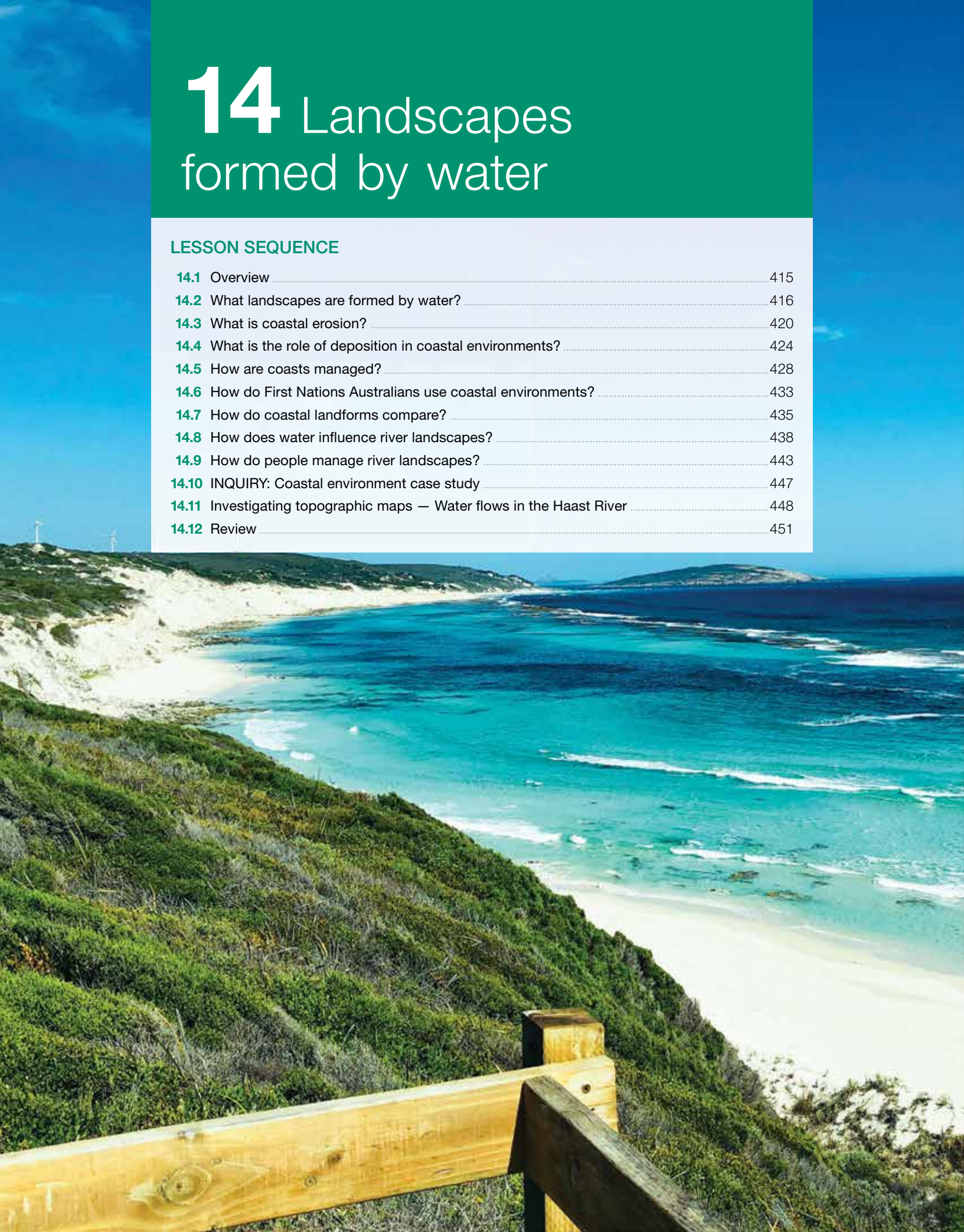
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14 Landscapes formed by water

LESSON SEQUENCE

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LESSON
14.1 Overview

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How does water form and transform landscapes?

14.1.1 Introduction

Water is one of the most powerful agents in creating landscapes. If you have ever been caught outside in a heavy downpour, walked through a fast-flowing creek, or been dumped in the surf, then you have felt and seen the energy of flowing water. It can knock you off your feet, move buildings and carve huge holes in the Earth's surface. Landscapes created by water are found everywhere.

FIGURE 1 The Horizontal Falls are a natural phenomenon located in the Kimberley region of Western Australia.



on Resources


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Video eLesson Landscapes sculpted by water (eles-1624)

LESSON
14.2 What landscapes are formed by water?

LEARNING INTENTION

By the end of this lesson you should be able to explain how water changes landscapes.

TUNE IN

Examine **FIGURE 1** and imagine the river water is flowing from right to left. Write three short sentences to describe the effect that the direction and speed of the moving water may have had on the soil and rocks in the Grand Canyon.

FIGURE 1 The Colorado River meandering through the Grand Canyon



14.2.1 How does water change landscape features?

A torrent of gushing water can shift rocks, remove topsoil or shape entire river valleys. Gentle rain can change the chemical structure of any surface material, sculpting the imposing coastal landforms we see around the world. In cold climates, compressed snow in glaciers works like a slow-moving bulldozer to erode land and create unique landscape features. Once fresh water has made its way to the ocean, the power of waves creates coastal landscape features.

Landscapes are predominantly changed or created by two processes: **erosion** and **deposition**. Through erosion, water can carve through rock — reducing once-mighty cliffs to lowly sea-stacks. Through deposition, water creates beaches, spits and sand dunes as it carries sand across the oceans of the world. In **FIGURE 2** you can see the power of water as it rushes over a rockface and carves pools in its hard surface. You may have seen pools of a similar shape carved by waves in rocky coastal landforms.

erosion the wearing away and removal of soil and rock by natural elements, such as wind and water, and by human activity

deposition the laying down of material carried by rivers, wind, ice and ocean currents or waves

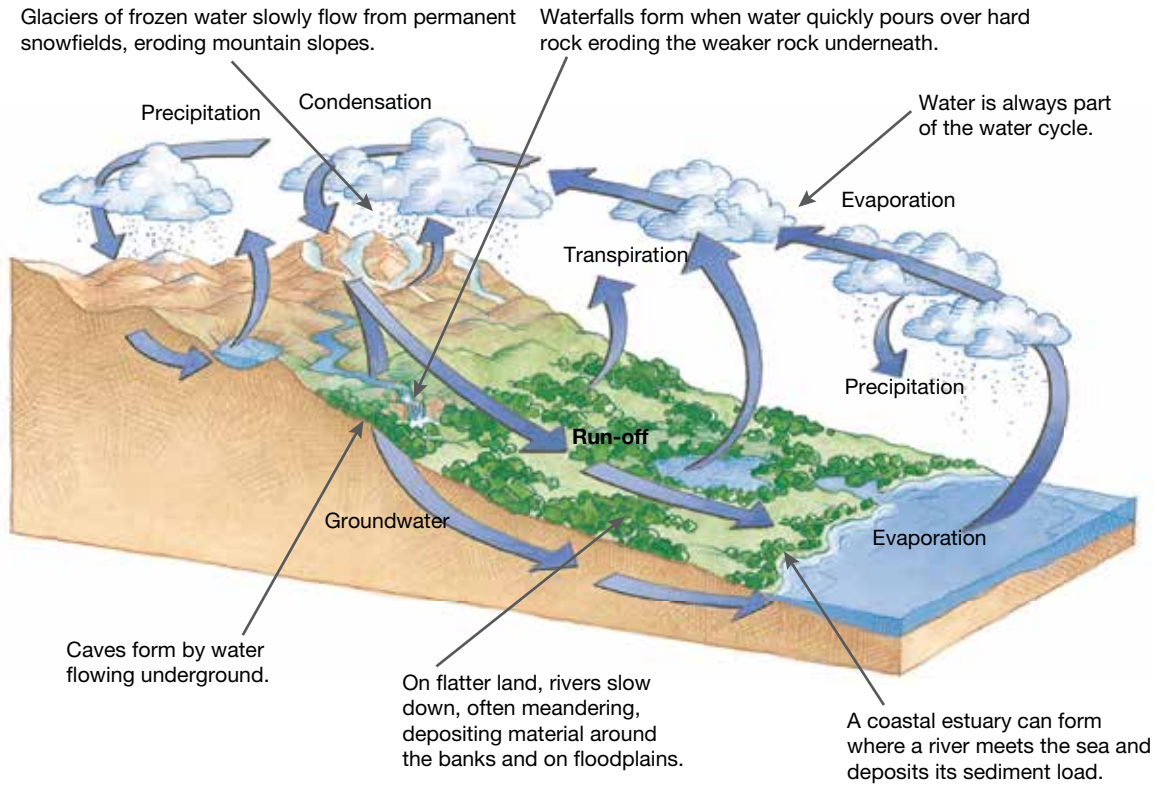
FIGURE 2 How is the flow of water changing the landscape in this photograph?



int-7834

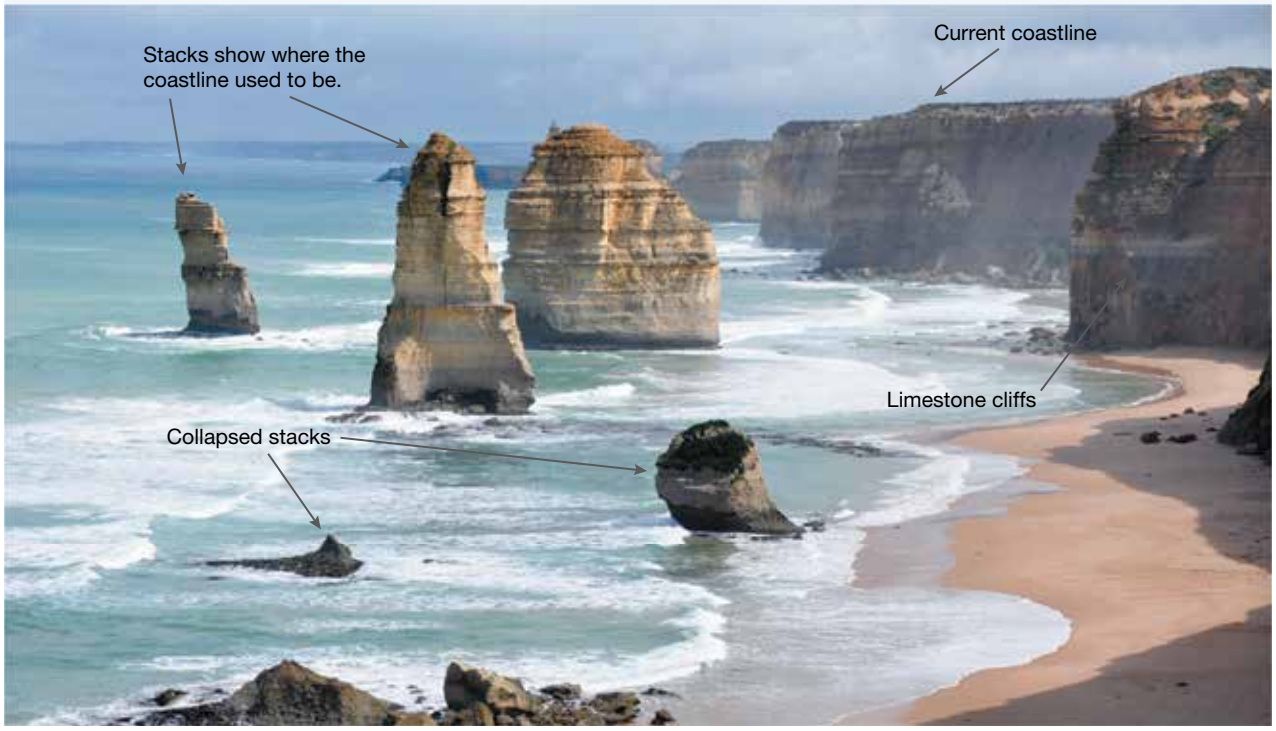
tlvd-10615

FIGURE 3 Water constantly moves over and through the Earth and through the air.



As water makes contact with landscapes, it can change the shape and size of its features or landforms (**FIGURES 2** and **3**). The coastal landscape that you see today is not the same as it was hundreds or thousands of years ago. **FIGURE 4** is a photo of the Twelve Apostles, located on the south-western coast of Victoria. The name suggests that there may once have been twelve pillars of rock, or stacks, visible along this stretch of coastline. In the foreground you can see the remnants of two quite recently collapsed stacks. Even these stacks were once joined to the cliffs as part of the mainland. This highly erodible coastline has been constantly altered by many years of rainfall and wave action on the soft limestone cliffs.

FIGURE 4 The Twelve Apostles in Port Campbell National Park, Victoria. How might the potential for erosion change along this coast if the waves were larger and it was high tide?



14.2 SKILL ACTIVITY: Questioning and researching using geographical methods

Create an annotated map which includes the following locations. You will need to use the internet to find each of these places.

a. The biggest glacier
b. The longest river
c. The biggest wave
d. The highest waterfall
e. The widest river
f. The biggest ocean
g. A world water fact of your choice

14.2 Exercise

learnon

14.2 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 4, 5	3, 9, 10	2, 6, 7, 8

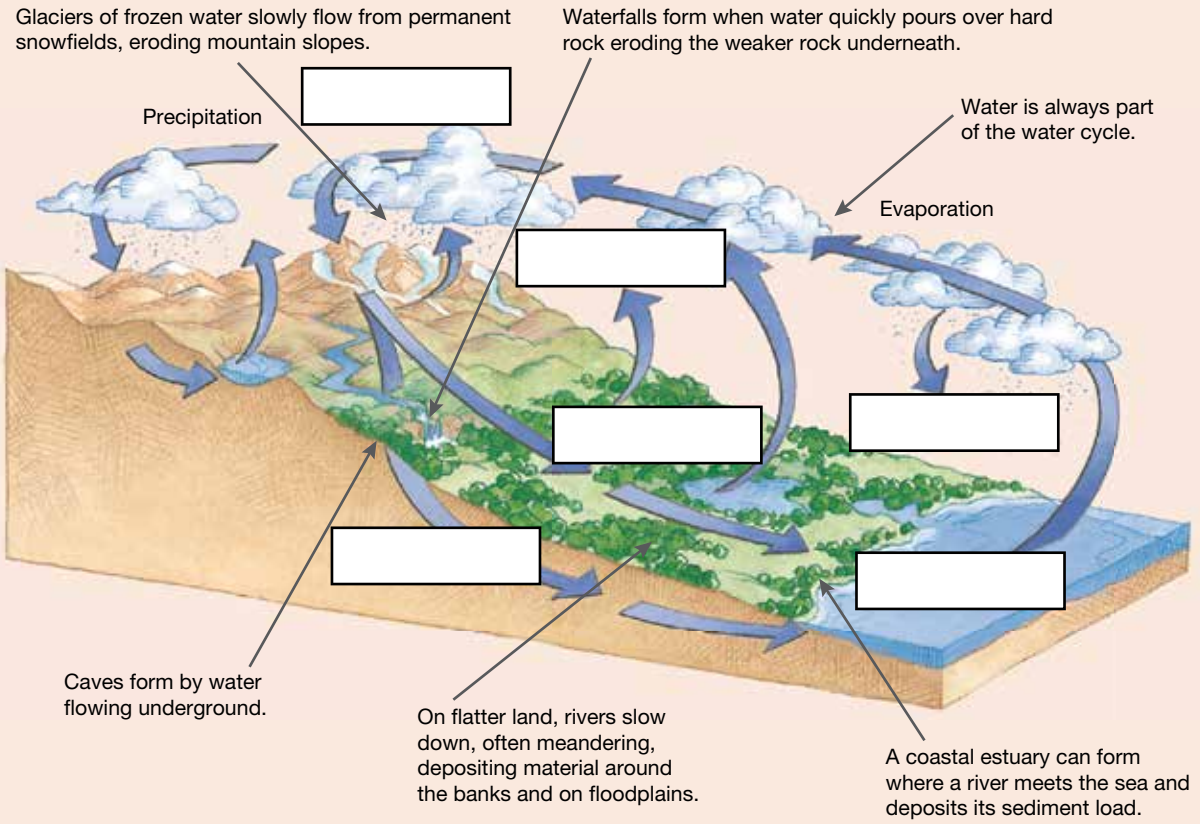
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Check your understanding

1. Deposition is a more powerful process than erosion. True or false?
2. **Explain** how the water cycle and the formation of landscapes are interconnected.
3. Where would **FIGURES 2** and **4** be placed on the landscape depicted in **FIGURE 3**? **Explain**.



4. Place the following terms in the correct locations on the diagram below: transpiration, precipitation, evaporation, groundwater, run-off, condensation.
5. a. Which two natural processes powered by water are most responsible for continually changing landscapes?
   - A. Erosion
   - B. Transportation
   - C. Deposition
   - D. Transpiration

   b. **Identify** how these two processes are linked.

Apply your understanding

Concluding and decision-making

6. Many landscapes change rapidly; for example, the Twelve Apostles.
   a. **Describe** another example of a landscape that has been shaped by the power of water.
   b. **Propose** whether you think the changes to the landscape have been positive or negative.
   c. **Suggest** why people should try to stop the changes caused by water.

Interpreting and analysing geographical data and information

7. Water can be considered one of the most important architects of desert landscape features. After looking at the images in this lesson, try to **explain** how you think water can change the landscapes of arid or desert environments.
8. **Identify** three possible ways that people can change the flow of water, either across the surface of the Earth or along the coast. **Predict** how you believe this may alter landscape features. Examples may include the use of river water for irrigation or the construction of a marina.

Communicating

9. Think back to the last time you visited a coastal environment. What features were prominent in the environment you visited? **Suggest** what processes were responsible for the creation of these features.
10. Erosion and deposition are two processes that can transform coastal landscapes. **Describe** an additional way in which coastal landscapes can be changed.

LESSON
14.3 What is coastal erosion?

LEARNING INTENTION

By the end of this lesson you should be able to identify coastal features created by erosion and distinguish between the impact of wave action and running water.

TUNE IN

FIGURE 1 shows damage to houses caused by a powerful storm surge in the Sydney coastal suburb of Manly.

1. How has moving water affected the coast in this area?
2. Suggest what might protect these houses in the future.
3. Do you believe these houses should be rebuilt? Explain your answer.

FIGURE 1 Damage to houses in Manly, Sydney after a powerful storm surge



14.3.1 How do waves change an environment?

The coast is the zone or border between land and ocean. It is in this collision zone that the movement of sea water and the impact of the ocean on the land together create coastal landscapes. Coastal landscapes have landforms that are common to coastlines in different places around the world because they are built up or worn away in similar ways.

Before we investigate the different types of coastal landforms that exist, we need to first understand the processes which shape these landforms. Coastal erosion is mostly caused by the continued presence of waves in an environment. Waves are caused when the wind blows over the ocean. The size of a wave depends on the strength of the wind and the distance the wind has been blowing (referred to as the *fetch*). A strong wind and a long fetch will result in a powerful wave with a high degree of erosive potential. These waves are called **destructive waves** and they are involved in creating landforms by erosion. A gentle wind and a small fetch will create less powerful waves known as constructive waves. While these waves are not involved in erosion, they do create depositional landforms (see lesson 14.4).

Next time you are walking along a beach, stop to check whether the waves in this environment are constructive or destructive. You can do this by analysing the strength of the **swash** and **backwash**. As a wave hits the shore it sends water (as well as sand, shells and other debris) onto the beach. This is called the swash. Water is then pulled back into the ocean by gravity in what is known as the backwash. If the swash is more powerful than the backwash, the waves are constructive and you should see depositional landforms. If the backwash is more powerful than the swash, the waves are destructive and you should see more landforms which have been caused by erosion. The structure of constructive and destructive waves can be seen in **FIGURE 2**.

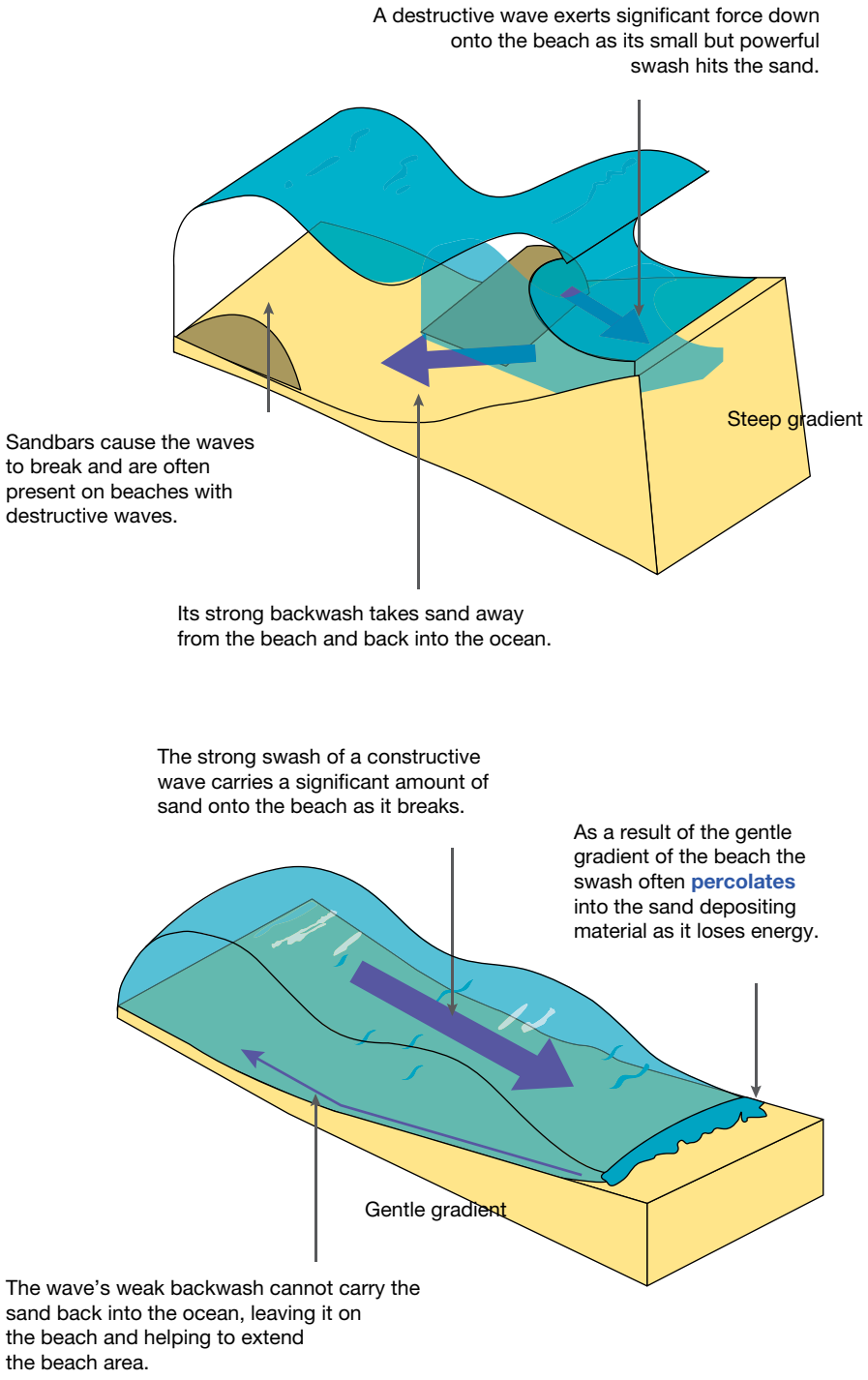
destructive wave a large powerful storm wave that has a strong backwash

swash the movement of water in a wave as it breaks onto a beach

backwash the movement of water from a broken wave as it runs down a beach returning to the ocean

int-7835

FIGURE 2 Comparing constructive and destructive waves



Coastal landforms are not solely created by the power of waves. Rainfall and constant strong winds can also influence the appearance of coastal landforms. For example, after a puddle of rain water evaporates, it leaves behind salts and minerals which can interact with rocks. This can lead to scarring of the rock surface and, over time, deep crevasses can be formed. Other physical processes can also greatly affect the coastal landscape; for example, the tectonic force of earthquakes and volcanoes; changing sea levels; and human activities such as building roads, ports and houses, and damming rivers.

percolate filter through porous material such as soil

Which coastal landscape features are created by erosion?

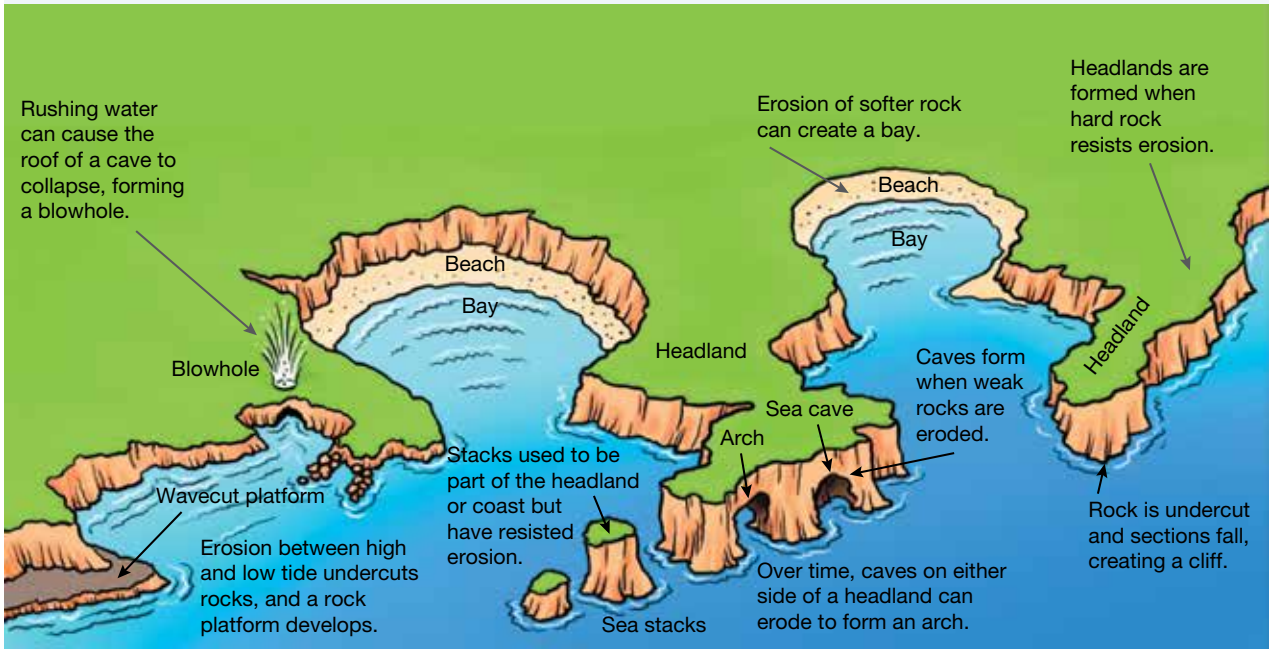
Features such as cliffs, headlands, bays, arches, caves, blow-holes and stacks are all landforms found along an eroding coastline (**FIGURE 3**). These features are formed by wave action and rainfall, which attack the cliffs and find points of weakness that are then eroded. Water running off a cliff face can carry eroded material into the sea below. When waves hit the cliff face, they undercut the base of the cliff to form a notch. As the notch increases in size it forms a cave and eventually the cliff gets undercut, becomes unstable and falls into the sea.

Destructive waves can also alter a sandy coastline. They can remove sand from a beach, destroy the vegetation on dunes, and remove management features designed to protect landscape features.

int-7836

tlvd-10616

FIGURE 3 Coastal landforms created by erosion



on Resources

Interactivity Coastal sculpture (int-3124)

Google Earth Twelve Apostles

14.3 SKILL ACTIVITY: Communicating

Create an annotated diagram that explains the difference between swash and backwash. An annotated diagram contains written descriptions that help the reader gain a deeper understanding of the information presented. **FIGURES 2** and **3** in this lesson are examples of annotated diagrams.

14.3 Exercise

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14.3 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 7	5, 6, 8	4, 9, 10

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Check your understanding

1. **Select** the correct term: A **beach** / **coast** / **river** / **cliff** is the zone or border between land and the ocean.
2. What are three physical processes that have influenced the creation of coastal landforms?
   - A. Swash
   - B. Construction
   - C. Backwash
   - D. Destructive waves
   - E. Wind
   - F. Damming rivers
3. **Identify** three human activities that have influenced the creation of coastal landforms.
   - A. Road construction
   - B. Constructive waves
   - C. Swash
   - D. Building houses
   - E. Damming rivers
   - F. Tsunamis
4. **Place** the following landforms in the order in which they would be created:
   - a. arch, cave, headland, stack
   - b. blowhole, cave, cliff.
5. **Explain** the difference between constructive and destructive waves.

Apply your understanding

Communicating

6. Find an image of a sandy coastline that has recently been affected by destructive waves. **Explain** the process that has occurred. Use the terms 'swash' and 'backwash' in your explanation.
7. **Identify** what the construction material that is deposited on a beach consists of.
8. Do you think people will still feel the same way about a coastal landscape such as the Twelve Apostles when only two or three are still standing? How might the changing landscape affect the value or pleasure people get from visiting this place? Write a short paragraph to **comment**.

Concluding and decision-making

9. Destructive waves are bad for all coastal environments and, as such, management techniques should be used to minimise their impacts. Do you agree or disagree with this statement? **Justify** your response.
10. Should we try to protect coastal landforms like the Twelve Apostles or should we simply let nature run its course? **Justify** your response.

LESSON
14.4 What is the role of deposition in coastal environments?

LEARNING INTENTION

By the end of this lesson you should be able to identify coastal features created by deposition and distinguish between constructive and destructive waves.

TUNE IN

The beaches at Reynisfjara in Iceland (**FIGURE 1**) are filled with striking black sand.

1. Why do you think this sand is black?
2. Where do you think the black sand has come from?

FIGURE 1 The black sand beaches of Reynisfjara, Iceland



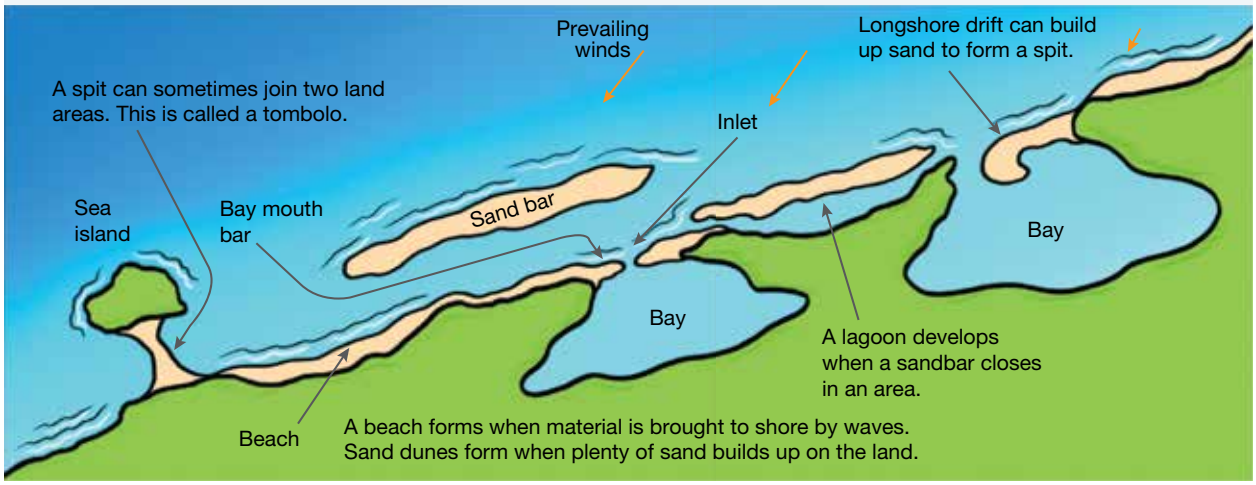
14.4.1 How are depositional coastal landforms formed?

As we learned in lesson 14.3, not all waves are destructive. Though they lack the sheer force of destructive waves, constructive waves still have an important role to play in the creation of coastal landforms. The movement of these waves towards the land is more likely to push material such as sand and shells and deposit them on the beach, building new coastal features.

A beach is a good example of a depositional coastal landform (**FIGURE 2**). Sand has been deposited and built up over a period of time. Constructive waves build coastal landscape features by repositioning wave-borne materials to also create spits, sand dunes and lagoons.

int-7837

FIGURE 2 Depositional landforms: coastal landforms created by deposition

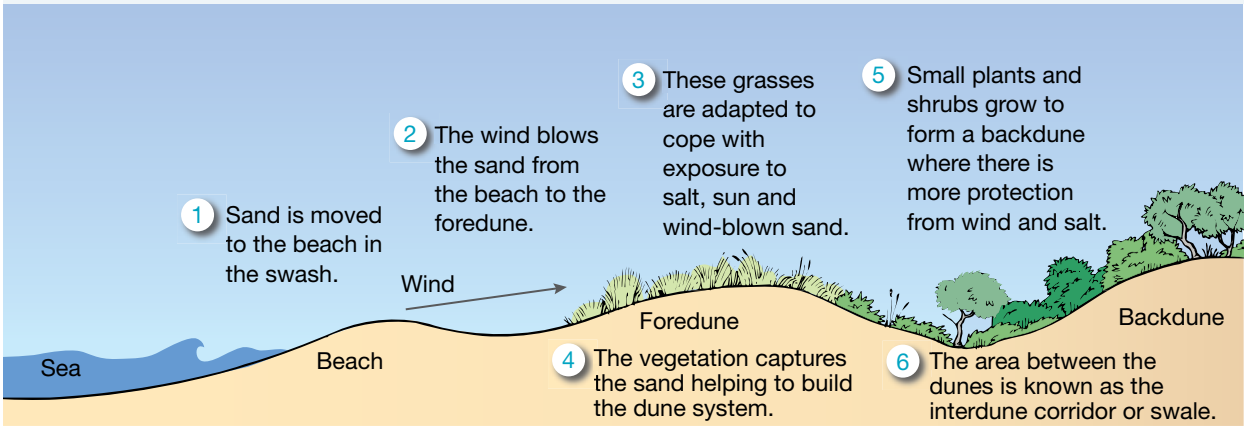


The coastal features created by deposition can be created only when material is brought onshore by the swash of constructive waves. The construction material is in the form of sand, shells, coral and pebbles. The source of the construction material may come from eroding cliffs, from an offshore source, or from rivers which, when they enter the sea, dump any material they were transporting.

This construction material is then shaped by prevailing winds. **FIGURE 3** illustrates the cross-section of a beach formed when there is plenty of sand being pushed onshore by the swash. This construction material is dried by the sun and blown inland to create dunes.

int-7838

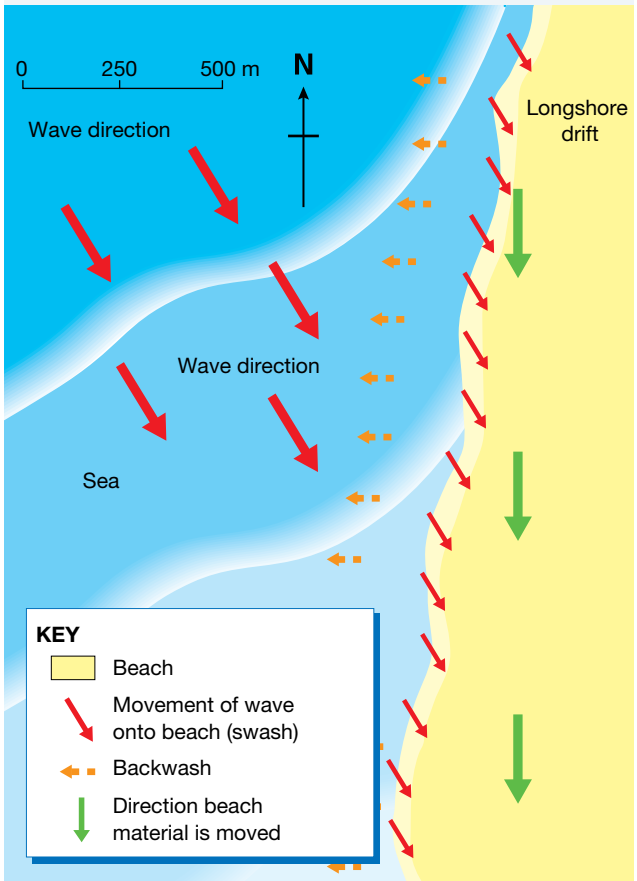
FIGURE 3 The formation of sand dunes



Beach material can also be shifted by waves, which get their energy from the wind. The wind influences or directs the angle that waves move towards the coast. Waves come from the direction of the **prevailing wind**. This means that waves often move towards the shore at an angle, and their swash pushes any material they are carrying onto the beach at an angle. As the backwash of the wave returns to the sea, its path takes the shortest possible route down the beach towards the water.

This action is known as **longshore drift**, and it is shown in **FIGURE 4**. Longshore drift moves material along the beach in a zigzag pattern that follows the direction of the prevailing wind. Longshore drift moves sand along the beach and creates spits and bars. If the prevailing wind changes direction, then so does the direction of longshore drift.

FIGURE 4 The process of longshore drift



prevailing wind the main direction from which the wind blows

longshore drift a process by which material is moved along a beach in the same direction as the prevailing wind

14.4.2 CASE STUDY: Cape Peron

A tombolo is a coastal depositional feature where a sand spit has joined an island to another island or to the mainland. One of the best examples of a tombolo in Western Australia is found at Cape Peron, south of Rockingham. Cape Peron and the surrounding islands are part of the Shoalwater Islands Marine Park.

At the end of the last ice age, some 10 000 years ago, Cape Peron was part of a limestone ridge which created high points in a north to south line along the coast. Sea levels rose, creating a chain of islands. Wave action slowly moved sand between the islands and a cuspate spit formed, connecting Cape Peron to the mainland. **Cuspate spits** form where wave action deposits material from two directions. In the last 2000 years, this process has slowly created a tombolo. Today, another island, Penguin Island, is slowly being joined to the coast by a sand bar. Tombolos tend to form in areas where the waves are constructive, and the area is sheltered from the prevailing winds. This is the case for Cape Peron and it is characterised by stretches of sandy beaches.

cuspate spits projections of a beach into an enclosed or semi-enclosed lagoon

Other parts of the marine park show evidence of erosion. Cape Peron has many erosive landform features such as cliffs, arches and collapsed bridges. These landforms tend to be more exposed to the prevailing winds and thus more destructive waves. To the west there are a number of offshore reefs and stacks. The eastern shore of Cape Peron is sheltered from storms and prevailing winds and is characterised by stretches of sandy beaches.

FIGURE 5 Coastal landforms at Cape Peron



SkillBuilders to support skill development

- 13.21 SkillBuilder: Constructing a basic sketch map

14.4 SKILL ACTIVITY: Communicating

In this activity, you will **create** a map which locates several depositional coastal landforms.

The format of the map is up to you — you can create a physical map or a digital map using the features of Google Maps.

Your map needs to include the following depositional landforms: a spit, a beach with dunes, a bay, a headland (point, cape or promontory) and an estuary. Find four examples of each landform and mark them on your map. Use an atlas or the internet to find each of the required locations.

FIGURE 6 Angel Road is a depositional landform connecting three small islands with the mainland in Japan.



14.4 Exercise

learnon

14.4 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 3, 5	2, 4, 7, 8, 9	6, 10

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Check your understanding

1. Where does beach building material come from? **Select** all possible answers from the options provided.
   - **A.** Rivers
   - **B.** Lakes
   - **C.** Eroding cliffs
   - **D.** Offshore
   - **E.** Winds
2. The formation of sand dunes cannot happen unless there is plenty of sand in the swash to allow them to grow. Use the information in **FIGURE 3** to **provide** the evidence for you to agree or disagree with this statement.
3. **Select** the correct terms in the following sentences:
   Longshore drift moves material along the beach in a **circular** / **zigzag** pattern that follows the direction of the prevailing wind.
   Longshore drift moves sand along the beach and creates spits and **bars** / **bays** / **inlets**. If the prevailing wind changes direction, then so does the direction of longshore drift.
4. Weather is not involved the formation of sand dunes. True or false?
5. **Explain** two ways in which the wind can help shape beach environments.
6. **Suggest** four strategies that could be used at Cape Peron to reduce the impact of human activities on the natural environment.

Apply your understanding

Communicating

7. **Study FIGURE 4**.
   - **a.** In which direction is sand moving on the beach?
   - **b.** How will this beach change if the longshore drift continues in this direction?
   - **c.** Redraw this diagram to show how the movement of sand along this beach would change this environment if the prevailing wind changed to come from the south-west.
8. **Describe** how coastal landforms are the result of interconnections between the sea and the atmosphere.
9. If it was a windy day, where on the beach or dune would it be best to take shelter? **Explain** your answer.
10. **Suggest** what might be some of the impacts on Cape Peron of the construction of a marina development in the area marked 'sandy beaches' on **FIGURE 6**.

LESSON
14.5 How are coasts managed?

LEARNING INTENTION

By the end of this lesson you should be able to identify strategies used to protect coastal environments. You should also be able to distinguish between soft engineering and hard engineering strategies and evaluate strategies for managing coastal erosion.

TUNE IN

The three images in **FIGURE 1** show different kinds of coastal management strategies.

FIGURE 1 Some examples of coastal management strategies



Working in pairs, study the images carefully and suggest purposes of each of these coastal management strategies.

14.5.1 How can a coast be managed?

It is possible to reduce or slow the change to coastal landscapes if we understand the **physical processes** and human activities that cause it. While it is not possible to change the speed and direction of the wind or the number of months each year when destructive waves reach a shoreline, it is possible to redistribute or trap the sand shifted by storm waves or longshore drift. It is also possible to protect coastal houses and roads using barriers to reduce the direct impact of waves.

Coastal management techniques are commonly divided into two main categories — hard engineering strategies and soft engineering strategies. **Hard engineering** strategies typically involve using physical structures to control the effects of natural processes. Sea walls, groynes, gabions and breakwaters are all examples of hard management techniques.

What is interesting about these kinds of strategies is that, over time, they can often create problems that are more severe than the ones which they were trying to solve. Let's use a seawall as an example.

As waves hit the shore in Seabird, Western Australia, they removed sand from the beach and decreased the stability of the dune system. Concerned that the dunes would eventually be washed away completely, the local shire decided to build a sea wall. Although the wall succeeded in protecting the dune, its presence inadvertently caused another management issue. As you can also see in the photograph, there is no sand in

physical processes continuing and naturally occurring actions such as wind and rain

hard engineering a coastal management technique that involves using physical structures to control the effects of natural processes

front of the sea wall. Before the wall existed, waves did indeed remove sand from the beach and dune system. However, they also replenished the sand over time in a natural cycle. The presence of the wall has interrupted this natural cycle, eventually resulting in the complete loss of beach area in front of the wall. This is just one example of how hard engineering strategies can often cause long-term issues in coastal environments.

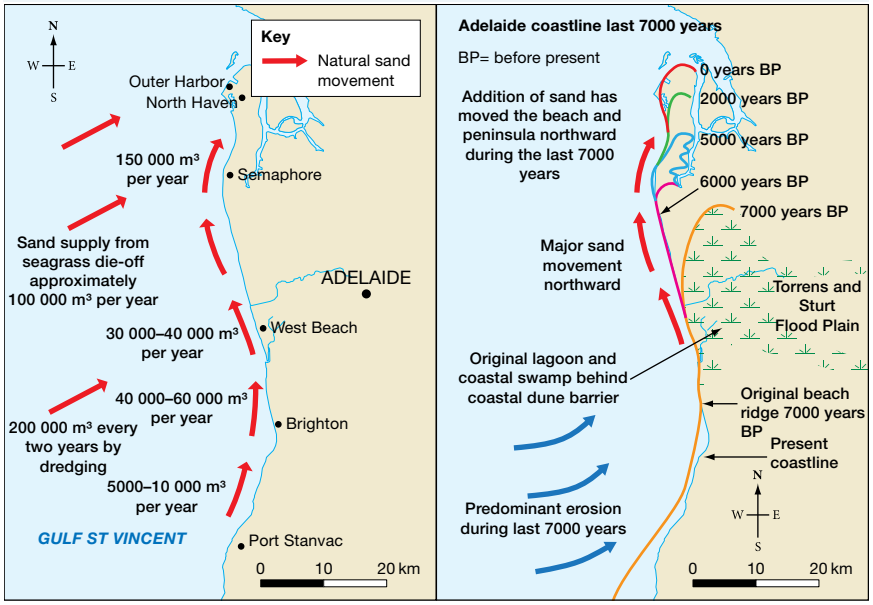
Due to the issues that often arise from hard engineering strategies, many of the strategies we see used today involve **soft engineering** techniques. Taking a more sustainable approach to coastal management, these strategies commonly use natural processes instead of permanent physical infrastructure. Instead of building a sea wall, the Shire of Gingin (responsible for the Seabird sea wall) could have revegetated the dune system to improve its stability. Dune revegetation is a common soft engineering strategy that involves planting natural grasses and shrubs. As these plants grow, their roots help bind the sand together, halting erosion.

14.5.2 CASE STUDY: Managing Adelaide's living beaches

The problem: The beautiful sandy beaches closest to Adelaide are under constant threat from erosion. **FIGURE 2** identifies the problem. For the past 7000 years the beaches south of Adelaide have been eroding, and the prevailing winds from the south-west have driven this material northwards.

This longshore drift has removed material from the south and relocated it in North Haven, where a **peninsula** has grown and a large dune system has been created. For the past 30 years the beaches in the south have been replenished by adding truckloads of sand. The plan is to find a better way to manage Adelaide's beaches by reducing the cost of moving sand.

FIGURE 2 The movement of sand northwards along the Adelaide Metropolitan coastline



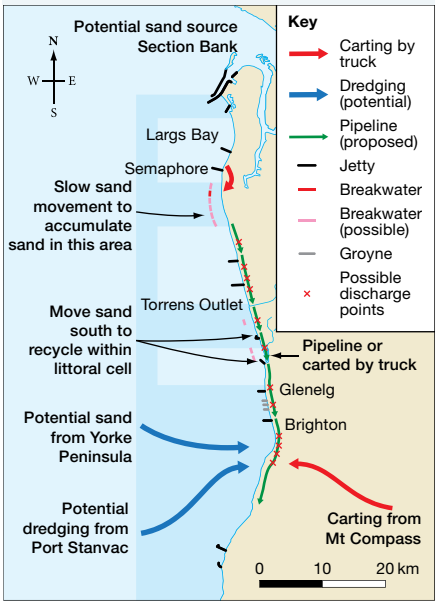
Source: Spatial Vision

The solution: Adelaide's Living Beaches Strategy. **FIGURE 3** illustrates the solution. Although sand will still need to be recycled from north to south, the plan is to use a pipeline instead of trucks to do most of the transportation. The pipeline will extend along the coast and will send sand back to the southern end of the beach. **FIGURE 4** shows sand being discharged at the southern end of the beach. A series of structures such as breakwaters and groynes will be built in several places to trap sand at important locations. Fewer trucks will be used, and it is expected that the cost of beach restoration will be reduced.

soft engineering a coastal management technique where the natural environment is used to help reduce coastal erosion and river flooding

peninsula land jutting out into the sea

FIGURE 3 Adelaide's Living Beaches Strategy



Source: Spatial Vision

FIGURE 4 Piping sand from north to south along Adelaide's beaches



14.5.3 Do coastal management strategies always work?

An integrated strategy like the one designed for Adelaide's beaches has a better chance of protecting existing coastal landscapes (particularly the beaches) and structures built nearby, because it has taken into account the prevailing wind conditions, as well as the movement of sand.

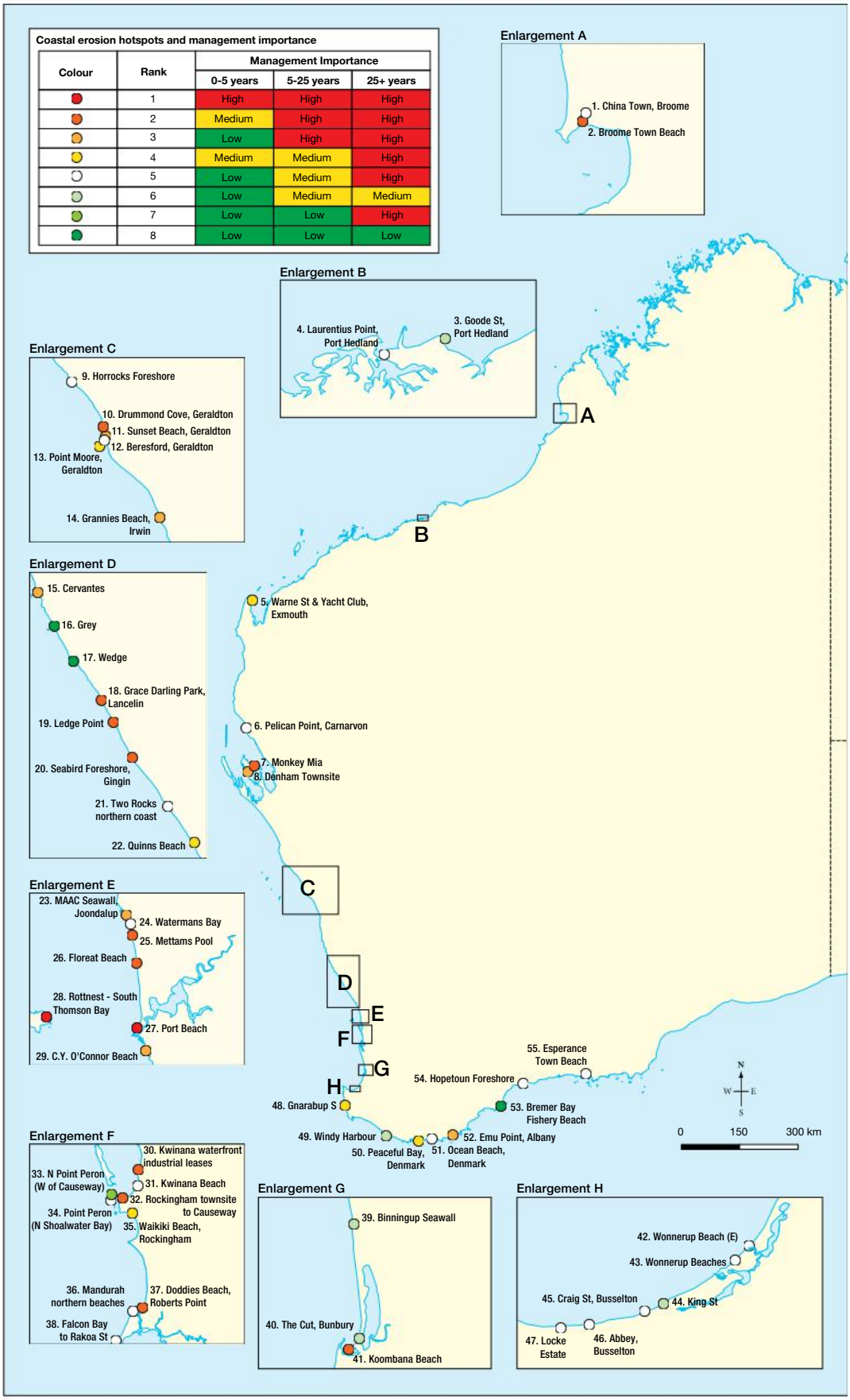
FIGURE 5 A groyne on Cottesloe Beach



If a structure like the groyne in **FIGURE 5** is built on a beach, it will certainly trap sand on the side that interrupts the direct flow of the longshore drift. But this structure will also reduce the flow of sand to beaches further along the coast, on the other side of the groyne. Building a sea wall or breakwater may interrupt the flow of longshore drift and actually silt up the mouth of the harbour it is protecting. A sea wall can deflect the power of waves and increase erosion on an unprotected part of the nearby coast, or reduce the erosion of material from a cliff face that had been replenishing sand on the local beaches.

Coastal management is quite a tricky issue. Do you manage to protect the existing coastal landscape or do you manage to allow the action of wind and waves to create a naturally evolving landscape?

FIGURE 6 Western Australian coastal erosion hotspots and management importance



Source: Department of Transport, WA Government

14.5 SKILL ACTIVITY: Concluding and decision-making

Imagine that you own a holiday house that is built on coastal dunes within 15 metres of the beach. After a powerful storm, the beach in front of your house is eroded and your house is now only five metres from the sea. What are your options?

Propose a series of strategies that you could implement which may save your house from falling into the sea. Include diagrams to **illustrate** your plan.

14.5 Exercise

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14.5 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 3, 7	4, 5, 6, 9	2, 8, 10

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Check your understanding

1. Answer the following.
   a. How do groynes help to manage or protect a coastal landscape?
      A. They trap sand moving along the beach.
      B. They assist in the movement of sand along the beach.
      C. They help longshore drift.
      D. They stop destructive waves from pounding the beach.
   b. How do sea walls help to manage or protect a coastal landscape? **Select** all correct answers.
      A. They protect the coastline from destructive waves.
      B. They help anchor sand on the beach.
      C. They prevent longshore drift.
      D. They prevent structures such as cliffs and roads being undercut.
2. **Select** the correct terms in the following sentences:
   Strategies that involve using physical structures to control the effects of natural processes are known as **green** / **medium** / **hard** / **solid** / **soft** / **easy** engineering.
   Techniques that take a more sustainable approach to coastal management and commonly use natural processes instead of permanent physical infrastructure are known as **green** / **medium** / **hard** / **solid** / **soft** / **easy** engineering.
3. **Identify** the problem that sea walls usually attempt to solve.
4. **Describe** one situation in which you would use a hard management technique instead of a soft management technique.
5. **Describe** one situation in which you would use a soft management technique instead of a hard management technique.

Apply your understanding

Communicating

6. **Describe** what will happen to Adelaide's southern beaches if they stop being replenished with trucks of sand.

Interpreting and analysing geographical data and information

7. Refer to **FIGURE 2**. **Describe** the changes that have occurred to Adelaide's coastline over the past 7000 years.
8. Refer to **FIGURES 3** and **4**. **Describe** the changes the Living Beaches Strategy has made to the Adelaide coastline and the reasons for these changes.
9. Refer to **FIGURE 5** and **describe** the direction of the longshore drift in this image.
10. **Draw** a diagram to demonstrate how revegetation could be used instead of a sea wall.

LESSON
14.6 How do First Nations Australians use coastal environments?

LEARNING INTENTION

By the end of this lesson you should be able to explain how ancient shell middens provide an insight into First Nations Australian lifestyles and coastal management practices.

TUNE IN

Take a close look at this photograph of a fish trap used by First Nations Peoples on the Barwon River, NSW in the late 1800s.

1. How do you think the trap functioned?
2. Why is it unlikely for us to find many traps like these remaining today?

FIGURE 1 A fish trap used by First Nations Peoples on the Barwon River, NSW (approx. 1890)



14.6.1 How did First Nations Australians use coastal environments?

First Nations Australians have been using coastal environments for at least 65 000 years. During this time they learned to manage their resources and practised careful and deliberate environmental management techniques. Although the coastal environments we see in Australia today are dramatically different to those used by the First Australians, some archaeological evidence does still exist.

shell middens First Nations Australian archaeological sites where the debris associated with eating shellfish and similar foods has accumulated over time

Scattered across coastal environments throughout Australia are thousands of fascinating archaeological sites which allow us to examine First Nations Australian coastal land use. These sites are called **shell middens** and contain the remains of shellfish, bones and sometimes stone tools (see **FIGURE 2**). Shell middens can be found across Australia but are particularly common in New South Wales, Victoria and Tasmania. Shell middens are usually located in scrubland behind sand dunes or in other sheltered positions along a coastline. First Nations Australians used middens to both store and cook their food, as suggested by the presence of heavy amounts of ash and charcoal at these sites. We can use the carbon in these remains to establish the age of individual sites. The oldest Victorian shell midden is located at Cape Bridgewater and was used over 12 000 years ago!

FIGURE 2 Shell midden on the Tarkine coast, Tasmania



While shell middens provide us with important archaeological evidence, they are also an important reminder for all Australians of the long and rich history of First Nations Peoples in Australia.

Physical links to this heritage are rare in some parts of Australia, and shell middens provide us with tangible connections to the past. As shell middens are usually situated in delicate and dynamic coastal environments, it is vital that we preserve the historical and cultural significance of these sites.

14.6 SKILL ACTIVITY: Questioning and researching using geographical methods

Shell middens are one example of a First Nations Australian archaeological site. Use the internet to find another type of First Nations archaeological site in Australia. **Identify** and **describe** the site and **explain** why it is historically and culturally significant.

14.6 Exercise

learnon

14.6 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 3, 4, 7	5, 6	5, 8, 9, 10

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Check your understanding

1. In which locations are shell middens particularly common? **Select** all that apply.
   - A. Tasmania
   - B. New South Wales
   - C. Queensland
   - D. Western Australia
   - E. Victoria
   - F. South Australia
2. What evidence is there in the middens that suggests First Nations Australians cooked their food?
   - A. Cutlery marks on the shells
   - B. Charcoal and ash found around the middens
   - C. Cooking utensils found among the shells
   - D. All of the above
3. **Select** the correct terms in the following sentence: Victoria's oldest shell midden is located at **Tarkine** / **Cape Bridgewater** and is over **12 000** / **20 000** / **32 000** years old.
4. **Explain** what a shell midden is.
5. **Explain** why shell middens are important to preserve.

Apply your understanding

Communicating

6. Most shell middens are found within a few kilometres of a coastline. **Explain** why this location would make these sites vulnerable.
7. **Suggest** a way that we could protect and preserve shell middens.
8. **Suggest** how shell middens could be used to boost tourism in regional areas.
9. **Develop** a proposal to the local member for Cape Bridgewater that the shell midden site should be nominated as a location of cultural significance.

Concluding and decision-making

10. Some middens have been found far from current coastal areas. **Suggest** how this is possible.

LESSON
14.7 How do coastal landforms compare?

LEARNING INTENTION

By the end of this lesson you should be able to identify the processes that have created coastal landforms in different parts of the world.

TUNE IN

The images in **FIGURE 1** show similar landforms at different locations. The image on the left is an arch at a beach in Santa Cruz, USA (a coastal environment) and the image of the right is an arch in Lake Powell, USA (an inland environment).

FIGURE 1 Two different arch landforms



Do you think these landforms were created by the same processes? Justify your response.

14.7.1 How do coastal landforms differ?

Although coastal landforms can be similar in different parts of the world, they can also be very different. Some differences are climatic and some are geomorphic. Coastal landscapes are created by the interconnections between the sculpting power of the oceans, coastal topography and the material that is available to sculpt.

Limestone stacks, such as the Twelve Apostles in Victoria (see **FIGURE 3** in lesson 14.2), have been shaped by the power of the Southern Ocean. Similar stacks have been formed by the erosive power of the waters off the coast of Thailand (**FIGURE 2**) and along the Portuguese and Welsh coasts. We can also compare two regions that feature coastal lake environments — Gippsland Lakes in south-eastern Victoria and the Icelandic Vatnajökull glacier.

The Gippsland Lakes are a network of coastal lakes and lagoons fed by six rivers but they are often cut off from the sea by a barrier of silt. The Gippsland Lakes are at the mouth of the Mitchell, Avon, Thompson, Latrobe, Nicholson and Tambo Rivers. When there is little rainfall, the rivers flow slowly and deposit sediment in the lakes. This, along with the longshore drifting of the sea current in Bass Strait, creates lakes by moving sediment to seal the lakes with offshore barriers. After heavy rainfall the level of water in the Lakes rises and the barrier breaks, allowing access of fresh water to the sea and salt water into the Lakes. This lake system had an artificial entrance cut by humans in the late 1800s to allow fishing boats into and out of the Gippsland Lakes and to reduce the chance of algal blooms.

FIGURE 2 Ko Tapu rock near Phuket, Thailand



In south-eastern Iceland the melting Vatnajökull glacier (**FIGURE 3**) flows into the Atlantic Ocean through a glacial lake.

FIGURE 3 Jökulsárlón Glacier Lagoon, Iceland



This glacier once flowed directly into the sea, but a warming local climate has meant that the glacier's snout is now 1.5 kilometres inland. The melting ice has created the large 18-square-kilometre glacial lake named Jökulsárlón. Since the climate is cold and the sunshine has little heat, the large chunks of ice that fall from the glacier remain as slowly melting icebergs. These icebergs float in the lake until they become small enough to roll down a channel into the sea. During winter the lake freezes and traps the icebergs until the summer thaw.

Humans have created a narrow channel to link Jökulsárlón with the sea. This channel is designed to reduce the chance of summer floods and to protect the major highway that brings tourists to this beautiful place.

These two coastal lakes have formed in very different places, with different climates, but the geomorphic process of deposition has meant that human intervention has been required to allow their waters to flow into the sea.

14.7 SKILL ACTIVITY: Questioning and researching using geographical methods

1. **a.** Use the internet to collect at least six images of limestone stacks from different places in the world.
   b. Attach these images to a Google map to **create** a global distribution of limestone landscapes.
   c. **Describe** the similarities and differences between the images.

14.7 Exercise

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14.7 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 9	3, 4, 5, 10	6, 7, 8

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Check your understanding

1. What material are the Twelve Apostles and Ko Tapu rock both made from?
   - **A.** Granite
   - **B.** Sandstone
   - **C.** Limestone
   - **D.** Marble
2. Which two statements about climate and the entrance of the Vatnajökull glacier into the sea are true?
   - **A.** The climate is getting warmer.
   - **B.** The climate is getting cooler.
   - **C.** The climate has not changed.
   - **D.** The entrance to the glacier is unchanged.
   - **E.** The glacier's snout has moved 1 kilometre inland.
   - **F.** The glacier's snout has moved 1.5 kilometres inland.
   - **G.** The glacier's snout has moved 2 kilometres inland.
3. **Describe** the way that the geological process of deposition has changed the Gippsland Lakes and Jökulsárlón.
4. **Explain** how the Gippsland Lakes area was formed.
5. The key similarity between the Gippsland Lakes and Jökulsárlón is that they are both coastal landscapes that have not changed over time. True or false?

Apply your understanding

Communicating

6. The Vatnajökull glacier is expected to have melted within 80 years. What might this place look like when there is no longer a glacier? **Draw** a sketch map to explain your answer.
7. Look at a map of the Gippsland Lakes. **Predict** how they might look if part of the barrier washes away during a huge storm. **Draw** a sketch map to **explain** your answer.
8. **Explain** how rainfall (or the lack of rainfall) can influence the appearance of the Gippsland Lakes region.
9. **Explain** how humans have changed the Gippsland Lakes region and Vatnajökull over time.

Concluding and decision-making

10. **Identify** the major threats to the two regions mentioned in this lesson. How can these regions be managed to avoid these threats?

LESSON
14.8 How does water influence river landscapes?

LEARNING INTENTION

By the end of this lesson, you should be able to identify the different phases of a river and describe the landform features that form from a river's source to its mouth.

TUNE IN

Many major cities are built near rivers, such as the Yarra River in Melbourne.

FIGURE 1 The Yarra River winds its way toward the city of Melbourne



Using the evidence provided by the image in **FIGURE 1**, brainstorm a list of the ways in which the people of Melbourne might use the Yarra River. Consider different groups within the population and share your brainstorm with the class.

14.8.1 Moving water

Erosion, transportation and deposition are the key processes through which rivers are able to sculpt landscapes. Some rivers, such as the Gordon River in Tasmania, are **perennial**; some, such as Coopers Creek in Queensland, are **intermittent**; others, such as the Colorado River in the United States, have eroded amazing landforms like the Grand Canyon.

Water is always on the move. It evaporates and becomes part of the water cycle; it rains and flows over the surface of the Earth and into streams that make their way to a sea, lake or ocean; and it soaks through the pores of rocks and soil into **groundwater**.

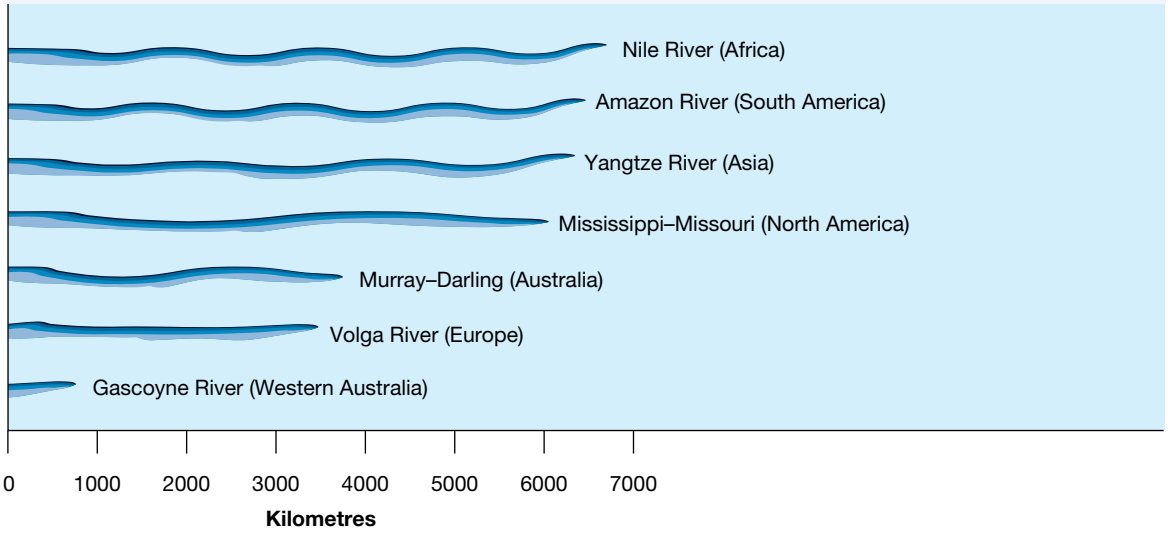
Groundwater is essential for keeping rivers flowing in dry months, as it is groundwater that stops many rivers from running dry.

perennial describes a stream that flows all year

intermittent describes a stream that does not always flow

groundwater water that seeps into soil and gaps in rocks

FIGURE 2 Rivers of the world: the longest river on each continent. How do each of these rivers compare to the Gascoyne River in Western Australia?



14.8.2 River systems and features

A river is a natural feature, and what we see is the result of the interaction of a range of inputs and processes. All parts of the Earth are related to the formation of river landscapes. This includes the lithosphere (rocks and soil), the hydrosphere (water), the biosphere (plants and animals) and the atmosphere (temperature and water cycle). Changes can happen quickly or over a very long period of time. Changes at one location along a river can have an effect at other locations along the river.

Water flows downhill, and the source (the start) of a river will be at a higher altitude than its mouth (the end). As the water moves over the Earth's surface, it erodes, transports and deposits material.

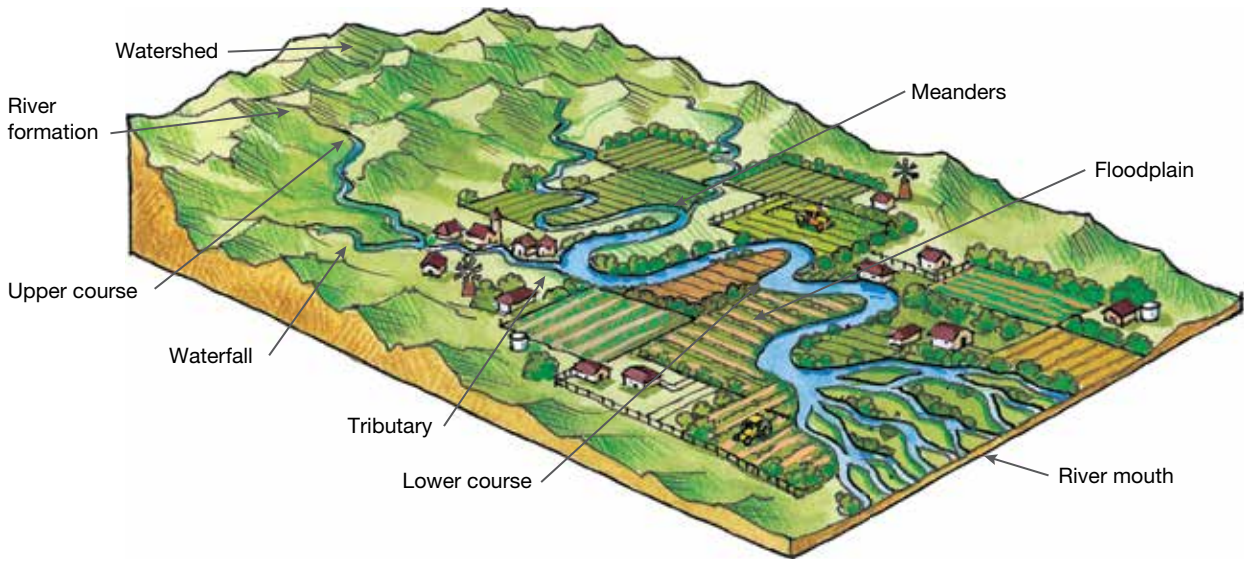
The volume of water and the speed of flow will influence the amount and type of work carried out by a river. A fast-flowing flooded river will erode enormous amounts of material and transport it **downstream**. As the speed or volume of the water decreases, much of the material it carries will be deposited. Rivers are commonly broken into three main sections — the upper, middle and lower course. Different processes and different types of landforms can be found in each section. Let's examine these sections more closely to see exactly how rivers work.

downstream nearer the mouth of a river, or going in the same direction as the current

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FIGURE 3 A river system



Upper course

A river gathers its water from a region known as a drainage basin or catchment (see **FIGURE 4**). The boundary of this region is identified by mountains, hills or any land that is higher than the surrounding area. This is often referred to as the **watershed** and it is the point that determines the direction of the river.

watershed an area or ridge of land that separates waters flowing to different rivers, basins or seas

FIGURE 4 The watershed and catchment, or drainage basin of a river system

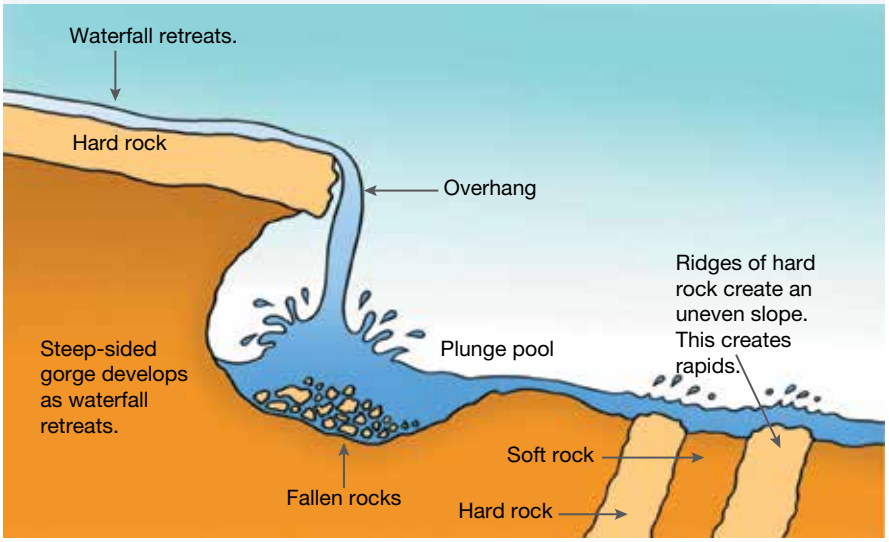


Within this region, water collects in small depressions in the ground (rills), which eventually become larger streams. Finally, these streams (also known as tributaries) combine to form the main trunk of the river itself.

Water moves quickly along the upper course of a river is it makes its way from areas of higher elevation to areas of lower elevation. The faster the flow of a river, the more power it has and the more erosion it causes.

It is common to see waterfalls, plunge pools and rapids along the upper course of a river.

FIGURE 5 A waterfall

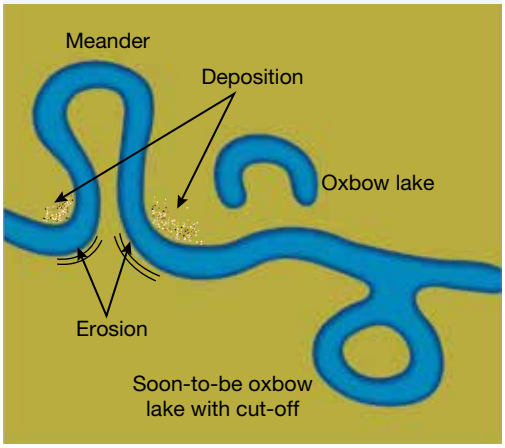


Middle course

A river will naturally follow the topography of the surrounding area. As the land flattens out, a river will stretch into long sweeping turns known as **meanders**. Here, the energy of the fast-flowing river we saw in the upper course is converted and allows the river to carve a new path through the flatter landscape of the middle course. Over time, a meandering river will change the path it follows, as some bends become more obvious and others disappear. A meander that has been cut off is called an oxbow lake. In Australia we call these billabongs.

During times of high rainfall, land on either side of the middle course can become inundated as the river struggles to contain excess water. Referred to as a **floodplain**, these areas are highly suitable for agriculture. As floodwaters subside, they leave behind the nutrient-rich sediment (alluvium) that the river had been transporting since it left the upper course.

FIGURE 6 The formation of a meander and oxbow lake



Lower course

As a river enters the lower course it slows down again, separating back into smaller streams called distributaries. The remaining sediment carried by the river is deposited in an area referred to as the delta. **River deltas** commonly take three main shapes: fan shaped, arrow shaped and bird-foot shaped. The shape of a delta is influenced by tides, waves and the volume of sediment and water carried by a river. Sometimes a river ends with a wide mouth where fresh water and salt water can mix. This is known as an **estuary**.

meander a winding curve or bend in a river

floodplain an area of low-lying ground adjacent to a river, formed mainly of river sediments and subject to flooding

river delta a landform created by deposition of sediment that is carried by a river as the flow leaves its mouth and enters slower-moving or stagnant water. Can take three main shapes: fan shaped, arrow shaped and bird-foot shaped.

estuary the wide part of a river at the place where it joins the sea

DID YOU KNOW?

Australia has no major river deltas as a result of the strong ocean currents surrounding the continent.

14.8 SKILL ACTIVITY: Questioning and researching using geographical methods

A river finishes its long journey at the delta. Here, the river deposits the material which it has carried along its course, creating landscapes with nutrient-rich soils. Agricultural activity often takes place in these regions due to the high quality of the soil. However, life in the delta is not without its hazards, with floods frequently occurring in these regions.

1. **Research** river deltas around the world, paying closer attention to the positive and negatives aspects of living in a delta region.
2. When you have completed your research, **create** a table which **identifies** and **explains** the costs (negative) and benefits (positive) of living in a delta.

FIGURE 7 Farmers salvaging rice crops after a flood in Bangladesh



on Resources

Interactivity River carvings (int-3104)

Google Earth Mississippi Delta

14.8 Exercise

learnon

14.8 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
2, 3, 4, 6	1, 7	5, 8, 9, 10

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Check your understanding

1. Which of the below statements is correct?
   - A. The Nile River is 1.8 times longer than the Murray–Darling River.
   - B. The Murray–Darling River is 1.8 times longer than the Nile River.
   - C. The Nile River is 2.3 times longer than the Murray–Darling River.
   - D. The Murray–Darling River is 2.3 times longer than the Nile River.
2. Study **FIGURE 5**. What feature, other than water, has to be present for waterfalls and rapids to form?
   - A. Rapids
   - B. Soft rock
   - C. Bands of hard rock
   - D. Heavy rainfall
3. Why do people settle and farm on floodplains? **Select** all possible answers.
   - A. The land is flat.
   - B. The land is steep.
   - C. Regular flooding improves soil fertility.
   - D. It is easy to sandbag during times of high river flow.
   - E. A river is a source of water.
4. **Explain** how rivers are part of the water cycle.
5. Refer to **FIGURE 2** and compare the scale of Australia's longest river with the world's longest river.

Apply your understanding

Communicating

6. **Identify** a river that flows through the capital city in one state or territory in Australia. Describe its source, any tributaries, and its mouth.

Concluding and decision-making

7. **Propose** what you think will happen to deltas if sea levels rise.
8. **Predict** the changes that will occur to the waterfall in **FIGURE 5**. **Justify** your answer.
9. **Discuss** what changes will occur along a river if there is unusually high rainfall in its upper course. Think in terms of erosion and deposition.
10. Do you think that governments should stop people from living in floodplains? **Justify** your response.

LESSON
14.9 How do people manage river landscapes?

LEARNING INTENTION

By the end of this lesson you should be able to identify strategies for managing a river system and explain why managing a river system is complex, using the Mekong River in Vietnam as an example.

TUNE IN

Have you ever shared a bedroom with a sibling or argued with a group of friends over whose turn it is to start at king in four-square?

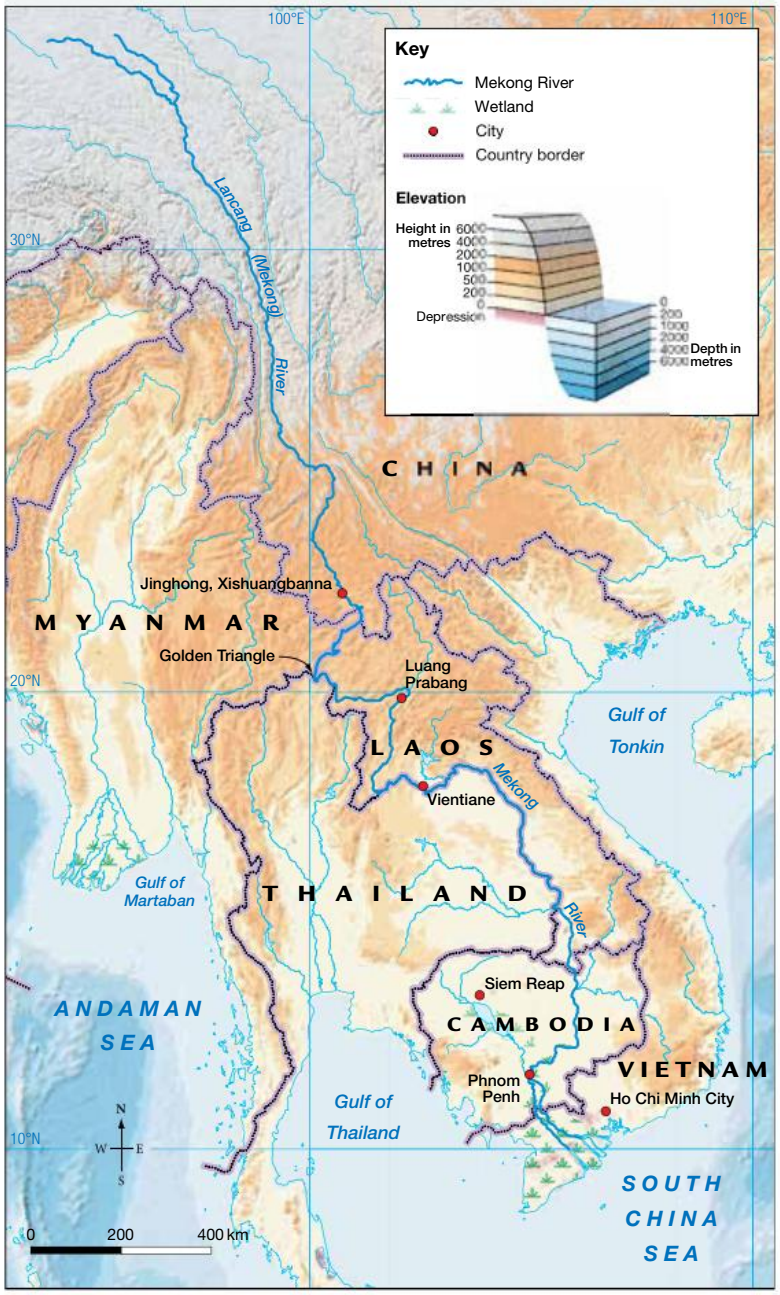
There are times in our lives when we need to share resources and this can sometimes lead to disagreements.

As Figure 1 shows, the Mekong River flows through several countries in South-East Asia, meaning they all have to share the resource.

1. With so many countries sharing this important water resource, suggest some issues that might arise and lead to disagreements.
2. Discuss ways that you think the different countries could approach solving at least one of the issues you've identified.



FIGURE 1 The Mekong River winds its way through six South-East Asian countries, ending in the Mekong Delta in Vietnam.



Source: Based on data from Natural Earth and ETOPO1: doi:10.7289/V5C8276M. Map drawn by Spatial Vision.

14.9.1 The Mekong River

If you follow the Mekong River from beginning to end, it will take you on a fascinating journey through six South-East Asian countries! The source of the Mekong River is high in the Tibetan Plateau, an area which is the birthplace of several of Asia's most important rivers. From here, the Mekong River winds its way through Myanmar, Laos, Thailand and Cambodia, finally coming to its end in southern Vietnam. The Mekong is the twelfth longest river in the world and the third longest in Asia. Although the Mekong is a challenging river to navigate for large-scale aquatic vehicles, it remains a crucial trade route, linking countries in the region. The Mekong also provides irrigation for agriculture throughout the region.

The importance of the river

The Mekong is a vital economic and environmental asset, not only to Vietnam, but to other countries in the region.

- It enables the transportation of goods between and within countries.
- It supplies cities and communities with water for agricultural activity and household use.
- Parts of the river are used for the production of hydroelectric power.
- It is the second most biodiverse river in the world, sustaining important fishing industries.

FIGURE 2 Floating markets of Soc Trang, in the Mekong Delta



Floods

Flooding is a regular occurrence along the various sections of the Mekong River. The most significant impacts are felt in Vietnam, where the river branches out into the delta. While seasonal flooding is a dangerous but accepted way of life, large-scale flooding can have devastating impacts on communities in the Mekong Delta. The most recent flooding event occurred in 2020 after a succession of extreme weather events battered the region. Over 100 people died, and more than 200 000 houses were inundated or damaged during this disaster. An estimated 1 million livestock and poultry were killed, with thousands of hectares of agricultural land also affected.

As we have learned earlier in this topic, living in a floodplain or delta can have many positive and negative aspects for people in these areas. The Mekong River Commission estimates that the annual average value that flood waters provide for the region is between US$8 billion and US$10 billion. However, the organisation also estimates that the annual average cost of flooding events ranges between US$60 and 70 million. Although these figures show that floods provided an overall economic benefit, the human cost of flooding must also be considered.

River management

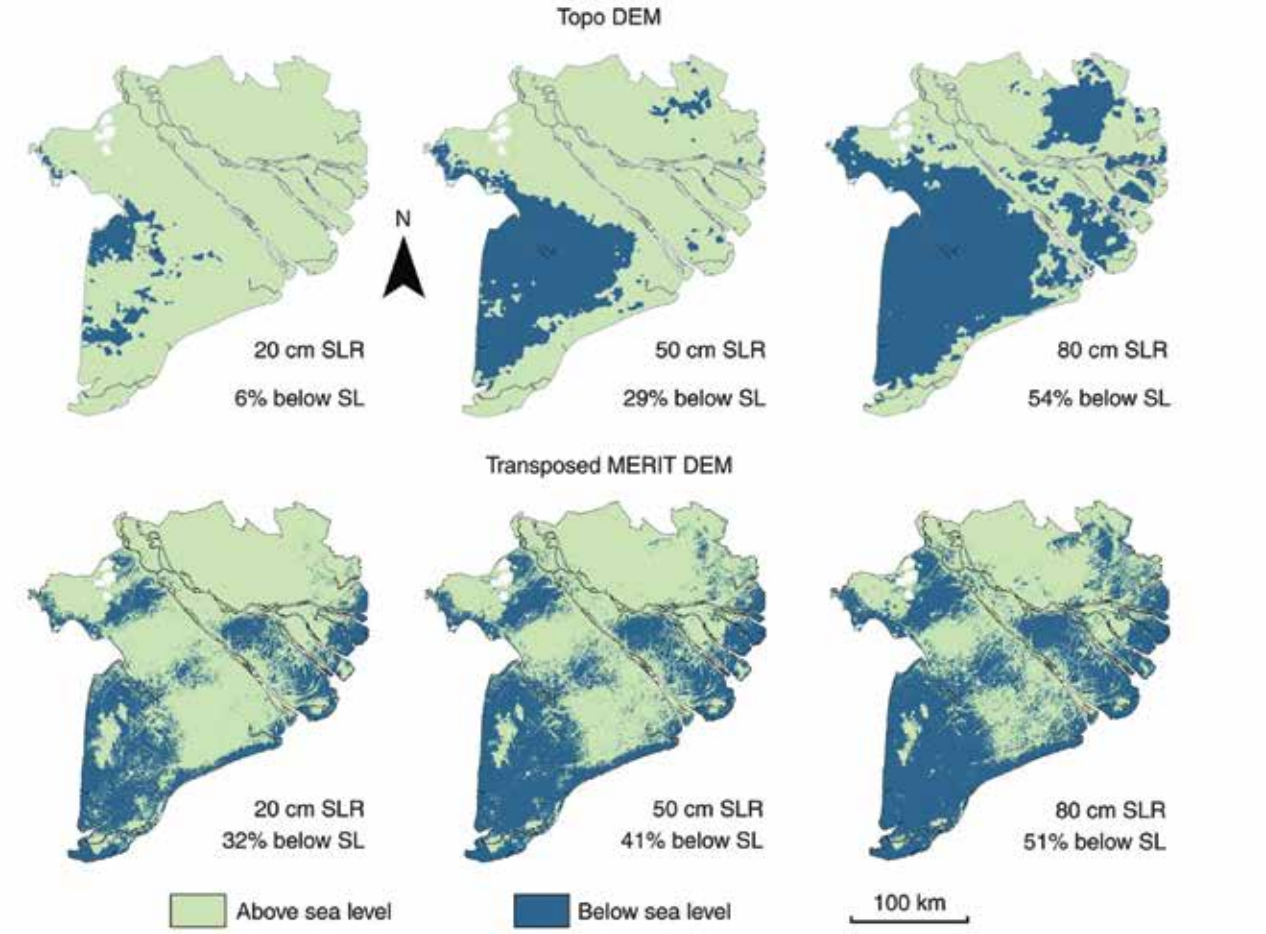
As the Mekong River is a transboundary river, management of the river system is complex. A transboundary river is one which creates a number of international boundaries. Each country through which the river flows has an interest in the way in which the river is managed. This includes irrigation, damming and other flood mitigation strategies. The way in which one country might want to manage the Mekong will differ depending on the priorities of that country. For example, countries that contain the upper course of the river may want to harness the power of the river's fast-flowing waters, converting this power to hydroelectricity. Yet countries in the lower course would be focused on irrigation and other agricultural benefits provided by the river. As decisions made by each country will directly impact the

others, management decisions need to be made through international cooperation or with the assistance of independent non-government organisations.

Management issues

- Transboundary rivers require complex inter-governmental management.
- Seasonal flooding creates consistent issues.
- Increased frequency and severity of extreme weather events.
- High population density in the Mekong Delta (20 per cent of Vietnam's population lives this region).
- Increasing use of dams in multiple countries along the Mekong's upper and middle courses.

FIGURE 3 This series of maps shows the potential impacts of sea-level rise on the Mekong Delta



14.9 SKILL ACTIVITY: Concluding and decision-making

Do you agree or disagree with the following statement? 'A strategy implemented in one part of the river will have an impact on another part of the river.'

As you find evidence from this lesson, place it in a table, or under subheadings. **Write** a conclusion based on your findings.

14.9 Exercise

learnon

14.9 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 6	3, 7, 8	4, 5, 9, 10

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Check your understanding

1. **Identify** the six countries through which the Mekong River flows.
   - A. China
   - B. Myanmar
   - C. India
   - D. Thailand
   - E. Bangladesh
   - F. Cambodia
   - G. Laos
   - H. Vietnam
   - I. Indonesia
2. **Determine** whether the following statements are true or false.
   - a. A transboundary river flows through only one country.
   - b. Floods in the Mekong Delta always have a positive impact on the region's economy.
   - c. The Mekong River is the second most biodiverse river in the world.
3. **Identity** three benefits that the Mekong River provides to the people of Vietnam.
   - A. Water for agriculture
   - B. Water sports
   - C. Fisheries
   - D. Method of transport for trade
4. Using the statistics provided, **calculate** the net economic impact of flooding in the Mekong Delta.
5. **Identify** who is responsible for managing the Mekong River system.

Apply your understanding

Communicating

6. **Explain** why flooding is a common occurrence along the Mekong River.

Concluding and decision-making

7. The resources provided by the Mekong are listed in this lesson. **Rank** these resources in order of importance and provide an **explanation** of your ranking.
8. **Discuss** why the management of a transboundary river is so complicated.
9. The impacts of flooding on residents of the Mekong Delta region could be avoided by relocating communities to other parts of Vietnam. **Identify** and **explain** two issues with this strategy.
10. If you were a farmer, would you choose to live in the Mekong Delta? **Explain** your response.

LESSON
14.10 INQUIRY: Coastal environment case study

LEARNING INTENTION

By the end of this lesson you should be able to describe and explain the coastal processes, threats and the management strategies of a particular coastal environment.

Background

For this inquiry, you will **investigate** and **evaluate** coastal processes and management strategies at a coastal location of your choosing. You can choose a coastal environment which is close to your home or perhaps one which you've visited before on a holiday. Use these steps to complete your inquiry activity.

Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

Inquiry steps

Step 1: Questioning and researching using geographical methods

Choose any coastal environment to use as your case study. **Conduct research** on this location using these questions to guide your investigation:

- Where is your chosen location?
- What are the dominant coastal processes which occur at your location?
- **Describe** the extent of human activity at your location.
- **Identify** any existing or potential issues which could be caused by the observed coastal processes or by human activity.
- **Identify** any existing management strategies which are currently being used in your location.

Step 2: Interpreting and analysing geographical data and information

For this section, you will need to use your research data and your knowledge of the relationship between coastal processes and management strategies.

If there are management strategies being used at your location, **determine** the effectiveness of these strategies. In other words, have the strategies been successful? If so, what evidence supports your observations?

Step 3: Concluding and decision-making

If the existing management strategies have been unsuccessful, what strategies could potentially be used at your location to solve the issues which you have previously identified? **Consider** both hard and soft management techniques as possible solutions. **Explain** which strategies you would use and what impacts you would hope to see in the future.

Step 4: Communicating

Prepare a report about your chosen location, its coastal processes and threats, as well as existing coastal management strategies to mitigate these threats. The report can be in any appropriate format, such as a written report, slide show or video, and should include visual information such as photographs and maps. The report should also evaluate the effectiveness of the existing management strategies.

Complete your self-assessment using the **Inquiry rubric** or access the 14.10 exercise set to complete it online.

on Resources

Digital document Inquiry rubric (doc-39539)

LESSON
14.11 Investigating topographic maps — Water flows in the Haast River

LEARNING INTENTION

By the end of this lesson you should be able to describe how water flows through a catchment by referencing a topographic map.

14.11.1 New Zealand's Haast region

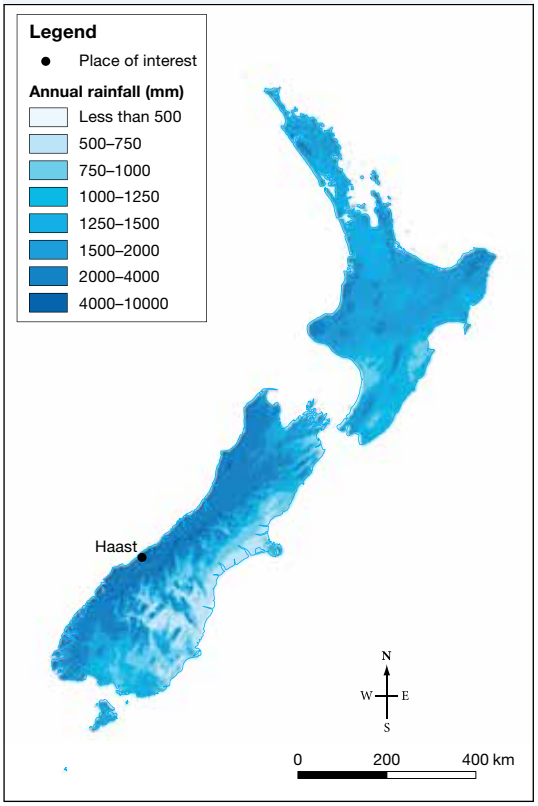
Haast is a World Heritage site located on the west coast of the South Island of New Zealand. The region is untamed, with majestic mountains, pristine lakes and rugged coastlines.

The Haast River discharges as much as six cubic kilometres of water annually, and the catchment extends into the Southern Alps. There are some areas of seasonal and permanent snows and very high rates of run-off in the region due to the steep mountainous terrain.

FIGURE 1 The Gates of Haast



FIGURE 2 Annual rainfall, New Zealand



Source: WorldClim

int-9011

FIGURE 3 Topographic map extract of Haast, New Zealand



Source: LINZ Data Service. License: CC BY 3.0 NZ https://data.linz.govt.nz/license/attribution-3-0-new-zealand/

Resources

eWorkbook	Investigating topographic maps — Water flows in the Haast River (ewbk-10756)
Digital document	Topographic map of Haast, New Zealand (doc-39540)
Video eLesson	Investigating topographic maps — Water flows in the Haast River — Key concepts (eles-6032)
Interactivity	Investigating topographic maps — Water flows in the Haast River (int-9011)
Google Earth	Haast, New Zealand (gogl-0136)

14.11 Exercise

learnon

14.11 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
2, 4	1, 5	3, 6

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Check your understanding

1. a. **Examine FIGURE 3.** On a hike, what direction would you have to travel to get from:
   - i. Mosquito Hill to the Haast Pass Highway
   - ii. the hut in AR9030 to the hut on Cattle Track near Coppermine Creek
   - iii. Buttress Point to the Haast Highway at Lake Paringa
   - iv. Mt Browne to Haast Beach?

   b. **State** the spot height and area reference of:
   - i. Mt Swindle
   - ii. Plover Crag
   - iii. Mosquito Hill.
2. **Identify** is the local relief in AR8057.
3. **Describe** the location of swamp areas found in the Haast region.

Apply your understanding

Interpreting and analysing geographical data and information

4. A tributary is a stream that flows into a larger river. **Explain** why there are so many tributaries that flow into the Haast River.
5. Examine **FIGURE 2.** **Explain** the reasons for a high volume of river flow in this area.
6. **Explain** how each of the following factors could affect water availability in the Haast region:
   - a. latitude
   - b. altitude
   - c. topography
   - d. climate change.

LESSON
14.12 Review

Hey students! Now that it's time to revise this topic, go online to:

Review your results

Watch teacher-led videos

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14.12.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

14.2 What landscapes are formed by water?

- Erosion and deposition are two processes through which water can shape landscapes.
- While all landscapes change over time, the rate of change seen in coastal landscapes, as well as other landscapes formed by water, can be relatively quick and dramatic.

14.3 What is coastal erosion?

- The coast is the zone between the land and the sea. The processes which occur in this zone determine the physical characteristics of that landscape.
- Waves are caused when the wind blows over the ocean; the size of a wave depends on the strength of the wind and the distance it has been blowing.

14.4 What is the role of deposition in coastal environments?

- Constructive waves are commonly involved in the creation of depositional landforms such as beaches, spits, sand dunes, lagoons and tombolos.
- The shape and appearance of depositional landforms are influenced by the strength and direction of the prevailing wind.
- Longshore drift is a process by which material is moved along a beach in the same direction as the prevailing wind.

14.5 How are coasts managed?

- Coastal processes need to be sufficiently understood before any management strategies can be developed and implemented.
- Coastal management strategies can be divided into hard and soft engineering strategies.
- Multiple coastal management strategies often need to be used simultaneously to achieve the best outcomes.

14.6 How do First Nations Australians use coastal environments?

- First Nations Australians have been using Australian coastal environments for at least 65 000 years.
- Shell middens provide archaeological evidence of First Nations Peoples' activity in coastal environments and are also a physical link to their culture and history.

14.7 How do coastal landforms compare?

- When comparing coastal environments from different locations, it is possible to see both similarities and differences in the landforms that are present in these environments and the way in which these landforms have been created.

14.8 How does water influence river landscapes?

- Rivers sculpt landscapes through the processes of erosion, transportation and deposition.
- Rivers can be perennial (flows consistently throughout the year) or intermittent (flows inconsistently throughout the year).
- Rivers consist of three sections — the upper, middle and lower course. Different processes and different types of landforms can be found in each section.

14.9 How do people manage river landscapes?

- People rely on rivers for a range of needs including agricultural, industrial, commercial, residential and recreational purposes.
- The human demand on rivers makes proper management essential.

14.10 INQUIRY: Coastal environment case study

- Many coastal locations use strategies to manage coastal processes with varying level of effectiveness.

14.11 Investigating topographic maps — Water flows in the Haast River

- The Haast River is situated in a World Heritage site located on the west coast of the South Island of New Zealand.
- The area has high water flow with the Haast River discharging as much as six cubic kilometres of water annually.

14.12.2 Key terms

backwash the movement of water from a broken wave as it runs down a beach returning to the ocean
cuspate spits projections of a beach into an enclosed or semi-enclosed lagoon
deposition the laying down of material carried by rivers, wind, ice and ocean currents or waves
destructive wave a large powerful storm wave that has a strong backwash
downstream nearer the mouth of a river, or going in the same direction as the current
erosion the wearing away and removal of soil and rock by natural elements, such as wind and water, and by human activity
estuary the wide part of a river at the place where it joins the sea
floodplain an area of low-lying ground adjacent to a river, formed mainly of river sediments and subject to flooding
groundwater water that seeps into soil and gaps in rocks
hard engineering a coastal management technique that involves using physical structures to control the effects of natural processes
intermittent describes a stream that does not always flow
longshore drift a process by which material is moved along a beach in the same direction as the prevailing wind
meander a winding curve or bend in a river
peninsula land jutting out into the sea
percolate filter through porous material such as soil
physical processes continuing and naturally occurring actions such as wind and rain
prevailing wind the main direction from which the wind blows
perennial describes a stream that flows all year
river delta a landform created by deposition of sediment that is carried by a river as the flow leaves its mouth and enters slower-moving or stagnant water. Can take three main shapes: fan shaped, arrow shaped and bird-foot shaped.
shell middens First Nations Australian archaeological sites where the debris associated with eating shellfish and similar foods has accumulated over time
soft engineering a coastal management technique where the natural environment is used to help reduce coastal erosion and river flooding
swash the movement of water in a wave as it breaks onto a beach
watershed an area or ridge of land that separates waters flowing to different rivers, basins or seas

14.12.3 Reflection

Complete the following activities to reflect on your learning.

Revisit the inquiry question posed in the Overview:

How does water form and transform landscapes?

1. Now that you have completed this topic, what is your view on the question? Discuss with a partner. Has your learning in this topic changed your view? If so, how?
2. Write a paragraph in response to the inquiry question, outlining your views.

on Resources

eWorkbooks Customisable worksheets for this topic (ewbk-10754)
Reflection (ewbk-10757)
Crossword (ewbk-10758)

Interactivity Landscapes formed by water crossword (int-7596)

14.12 Review exercise

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Multiple choice

1. A cave is formed by the process of:
   - A. erosion.
   - B. deposition.
   - C. transpiration.
   - D. condensation.
2. What is the main purpose of a 'groyne'?
   - A. To hold the sand and grass area at the back of the beach
   - B. To stop waves rushing onshore
   - C. To take sand from further up the beach or another area, or to pump it from offshore
   - D. To stop the sea from removing so much sand from the beach
3. What information can be shown by drawing a long profile of a river?
   - A. The slope followed by the river
   - B. The direction followed by the river
   - C. The distance travelled by the river
   - D. The speed at which the river travels

4. In which of the following places are glaciers found?
   - **A.** Greenland and Australia
   - **B.** New Zealand and Antarctica
   - **C.** Chad and the Himalayas
   - **D.** West Papua and Indonesia
5. What is the term that describes the movement of water in a wave as it breaks onto a beach?
   - **A.** Longshore drift
   - **B.** Swash
   - **C.** Watershed
   - **D.** Tributary
6. Which of the following is ***not*** a method used to protect beach areas from erosion?
   - **A.** Grommets
   - **B.** Sea wall
   - **C.** Sand renourishment
   - **D.** Rock walls
7. Identify which of the following is ***not*** a water feature that shapes the land.
   - **A.** Rain
   - **B.** Temperature
   - **C.** Glaciers
   - **D.** Oceans
8. Which country does the Mekong River ***not*** flow through?
   - **A.** China
   - **B.** Laos
   - **C.** Vietnam
   - **D.** Bangladesh
9. What is the name given to the smaller streams located toward the end of a river system?
   - **A.** Meanders
   - **B.** Tributaries
   - **C.** Distributaries
   - **D.** River deltas
10. Despite the risks of flooding, a high level of agricultural activity is often found in floodplains. Besides the availability of water, what is another reason that explains this pattern?
    - **A.** High human populations
    - **B.** High levels of nutrients in soils
    - **C.** High degree of sunlight
    - **D.** High diversity of plants and animals

Short answer

Communicating

11. Place each of the following features into the correct column of the table below: arch, beach, blowhole, cave, cliff, headland, lagoon, sand dune, spit, stack.

Features formed by erosion	Features formed by deposition

12. a. Why did First Nations Peoples of Australia tend to live near the coast?
    b. How have coasts been used since 1788?
13. a. What is the best way to avoid a rip current when swimming at the beach?
    b. **Identify** two ways in which a rip current looks different from surrounding water.
14. a. Refer to your fieldwork and explain the interconnection of physical processes and human activities.
    b. **Identify** three ways in which you can record data while in the field.
15. a. What information can be shown by drawing a long profile of a river?
    b. What information can be shown by drawing a cross-section of a river?
16. Match these features to the upper, middle or lower course of a river: V-shaped valley, floodplain, estuary, waterfall, meander, delta.
17. **Identify** at least one economic, one environmental and one social reason for devising strategies to manage a river.
18. Name two places where glaciers are found.

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15 Geomorphic hazards



LESSON SEQUENCE

15.1 Overview 457
15.2 What are plate tectonics? 458
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15.4 Where are the world's mountain ranges? 469
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15.7 What is a tsunami? 482
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LESSON
15.1 Overview

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How do magma, water and tectonic plates change environments and what are the impacts on people and places?

15.1.1 Introduction

The forces that form and shape our planet come from deep within the Earth, and have been shaping landscapes for millions of years. The Earth is a very active planet — every day, many volcanoes are erupting somewhere, and even more earthquakes are occurring. In this topic we will explore the tectonic forces that shape the world. We will also study earthquakes, tsunamis and volcanoes, and the effects they have on people and places.

FIGURE 1 Mt Agung in Indonesia



on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10759)

Video eLesson Majestic mountains (eles-1626)

LESSON
15.2 What are plate tectonics?

LEARNING INTENTION

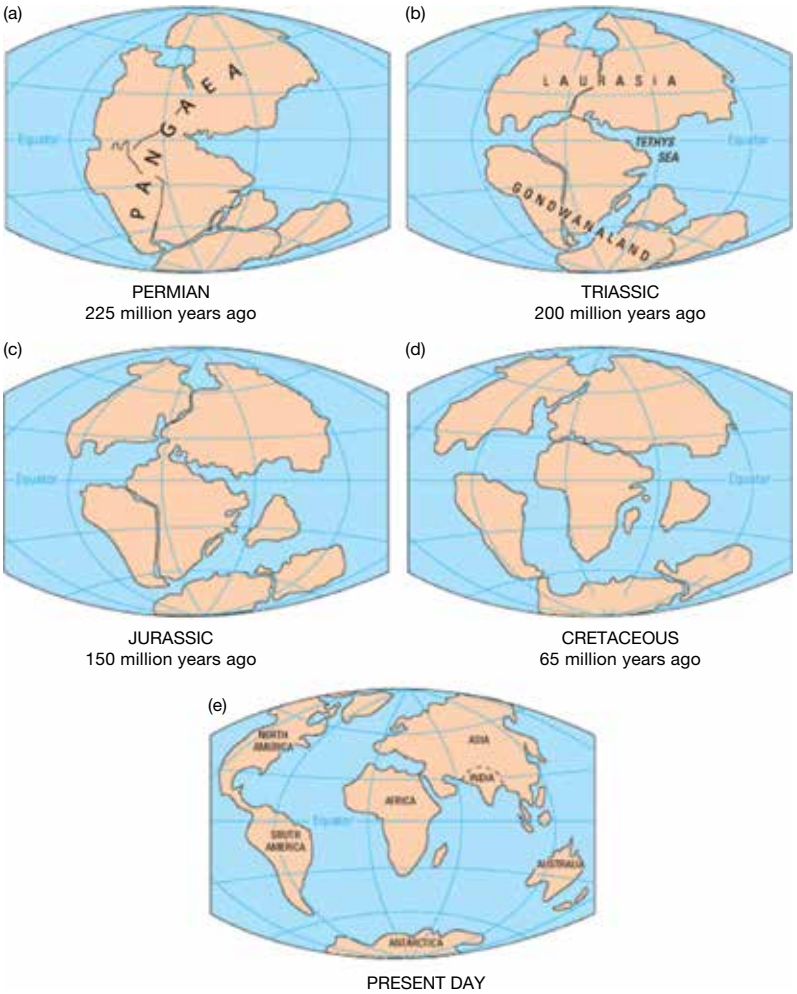
By the end of this lesson you should be able to define key terms ‘continental plates’ and ‘continental drift’ and explain the different ways continental plates can move. You should also be able to identify landforms that result from different types of plate movement and explain how continental drift and the movement of plates has led to the formation of mountains.

TUNE IN

Examine **FIGURE 1**. The continents used to be joined together in one landmass called Pangaea. Over time they moved and spread out into the formation that exists today.

tlvd-10618

FIGURE 1 Movement of the continents



In pairs, brainstorm and explain:

- Why you think the continents move.
- What evidence there might be to support this theory.
- Make a list of three to four questions that you want answered after looking at these images. See if you can answer them by the end of the topic.

15.2.1 Continental plates

The Earth's crust is cracked and is made up of many individual moving pieces called continental plates, which fit together like a jigsaw puzzle. These plates float on the semi-molten rocks, or magma, of the Earth's mantle.

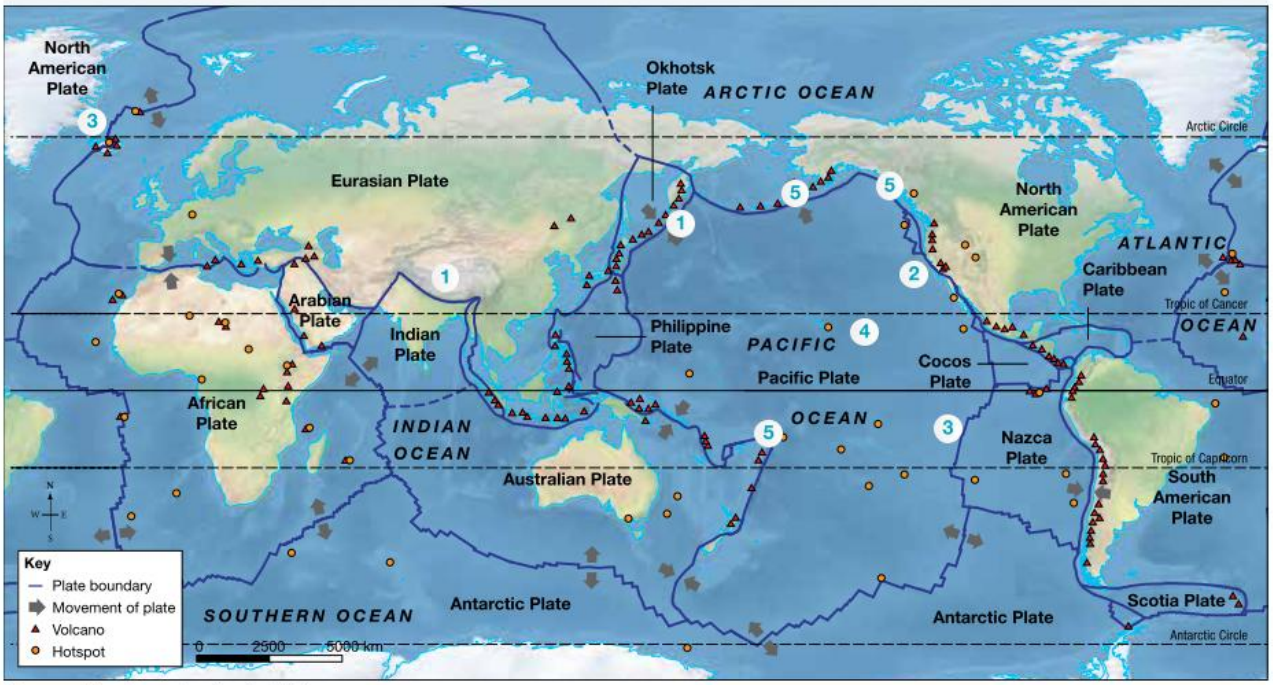
Enormous heat from the Earth's core, combined with the cooler surface temperature, creates **convection currents** in the magma. These currents can move the plates by up to 15 centimetres per year. Plates beneath the oceans move more quickly than plates beneath the continents. Scientific evidence shows that about 225 million years ago all the continents were joined.

convection current a current created when a fluid is heated, making it less dense, and causing it to rise through surrounding fluid and to sink if it is cooled; a steady source of heat can start a continuous current flow

int-9012

tlvd-10619

FIGURE 2 World map of plates, volcanoes and hotspots



Source: Map drawn by Spatial Vision

1 Convergent plates

When two continental plates of similar density collide, the pressure of the **converging plates** can push up land to form mountains. The Himalayas were formed by the collision of the Indian subcontinent and Asia. The European Alps were formed by the collision of Africa and Europe.

Oceanic and continental plates have different densities, so when they collide the thinner oceanic plate is subducted, meaning it is forced down into the mantle. Heat melts the plate and pressure forces the molten material back to the surface. This can produce volcanoes and mountain ranges. The Andes in South America were formed this way.

Subduction can also occur when two oceanic plates collide. This forms a line of volcanic islands in the ocean about 70–100 kilometres past the subduction line. The islands of Japan were formed in this way. Deep oceanic trenches are also formed when this occurs. The Mariana Trench in the Pacific Ocean is 2519 kilometres long and 71 kilometres wide, and is 10.911 kilometres deep, making it the deepest point on Earth. If you could put Mount Everest on the ocean floor in the Mariana Trench, its summit would lie 1.6 kilometres below the ocean's surface.

converging plate a tectonic boundary where two plates are moving towards each other

2 **Lateral plate slippage**
Convection currents can sometimes cause plates to slide, or slip, past one another, forming **fault** lines. The San Andreas Fault, in California in the western United States, is an example of this.

3 **Divergent plates**
In some areas, plates are moving apart, or diverging, from each other (for example, the North American Plate and the Eurasian Plate). As the **divergent plates** separate, magma can rise up into the opening, forming new land. Iceland was formed in this way and it continues to grow today. Underwater volcanoes and islands are also formed in this way.

4 **Hotspots**
There are places where volcanic eruptions occur away from plate boundaries. This occurs when there is a weakness in the oceanic plate, allowing magma to be forced to the surface, forming a volcano. As the plate drifts over the **hotspot**, a line of volcanoes is formed. The Hawaiian Islands are the best known example of land created by a hotspot.

5 **The Pacific Ring of Fire**
The most active tectonic region in the world is the Pacific Ring of Fire. It is located on the edges of the Pacific Ocean and is shaped like a horseshoe. The Ring of Fire is a result of the movement of tectonic plates. For example, the Nazca and Cocos plates are being subducted beneath the South American Plate, while the Pacific and Juan de Fuca plates are being subducted beneath the North American Plate. The Pacific Plate is being subducted under the North American Plate on its east and north sides, and under the Philippine and Australian plates on its west side. The Ring of Fire is an almost continuous line of volcanoes and earthquakes. Most of the world's earthquakes occur here, and 75 per cent of the world's volcanoes are located along the edge of the Pacific Plate.

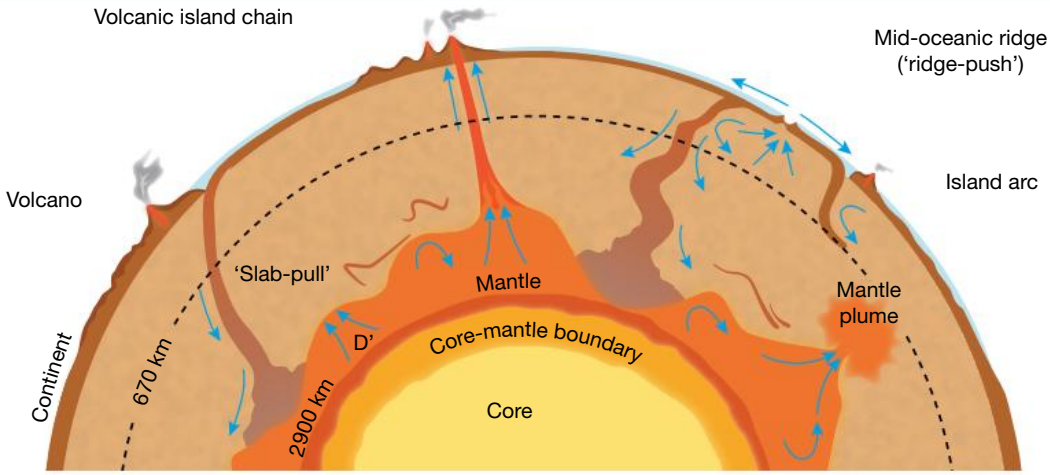
fault an area on the Earth's surface that has a fracture; a fault lies at the major boundaries between Earth's tectonic plates.

divergent plate a tectonic boundary where two plates are moving away from each other and new continental crust is forming from magma that rises to the Earth's surface between the two

hotspot an area on the Earth's surface where the crust is quite thin, and volcanic activity can sometimes occur, even though it is not at a plate margin

tlvd-10620

FIGURE 3 The Earth's core is very hot, while its surface is quite cool. This causes hot material within the Earth to rise until it reaches the surface, where it moves sideways, cools, and then sinks.



15.2 SKILL ACTIVITY: Questioning and researching using geographical methods

1. **Research** how plate tectonic theory first came to be accepted.
   a. Who came up with this theory?
   b. **Outline** three types of evidence cited to prove this theory.
2. Provide **annotated** diagrams of the three major plate boundaries. (Make sure you include in your diagrams the direction of the flow of the convection current in the mantle.):
   - Convergent boundary (subduction zone)
   - Lateral plate boundary
   - Spreading plate boundary.

15.2 Exercise

learnon

15.2 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 6	3, 5, 7, 8	4, 9, 10

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Check your understanding

1. a. **Determine** whether the following statements are true or false.
   - i. The world's volcanoes are randomly scattered over the Earth's surface.
   - ii. Most of the world's volcanoes are concentrated along the edges of certain continents.
   - iii. Island chains are closely linked with the location of volcanoes.
   - iv. There are a number of hot spots within the Pacific Ocean.

   b. Use the statements from parts a–d to write a **summary** paragraph, remembering to rewrite the false statements to make them true.
2. Convection currents
   - A. are the force that move continents.
   - B. are caused by heat rising and then cooling.
   - C. start beneath the Earth's surface in the core and travel through the mantle.
   - D. are all of the above.
3. The hotspot that helped form the Hawaiian Islands
   - A. is in the Central Pacific Ocean.
   - B. is in the Atlantic Ocean.
   - C. is no longer active.
   - D. is under the Antarctic ice sheet.
4. **Explain** the meaning of subduction when referring to plate movements. In your explanation include the plate that remains and the plate that subducts.
5. **Recall** two locations where plates are moving apart. What is happening to the sea floor in these places?
6. **Identify** the type of plate boundaries that surround the Pacific Ocean.
7. **Explain** why Australia has so few earthquakes or active volcanoes.

Apply your understanding

Communicating

8. **Describe** the distribution of volcanoes shown in **FIGURE 2**. What does this distribution have in common with the location of plate boundaries?

Concluding and decision-making

9. **Examine FIGURE 3**. How do convection currents help explain plate tectonics?
10. Refer to **FIGURE 2**. **Name** three places where plates are converging. What mountain ranges, if any, are located in these places?

LESSON
15.3 How do mountains form?

LEARNING INTENTION

By the end of this lesson you should be able to describe the different types of mountains and explain how different mountain ranges have formed. You should also be able to define the key terms 'lithosphere' and 'Pangaea' and discuss the spatial relationship between fault lines and mountain ranges.

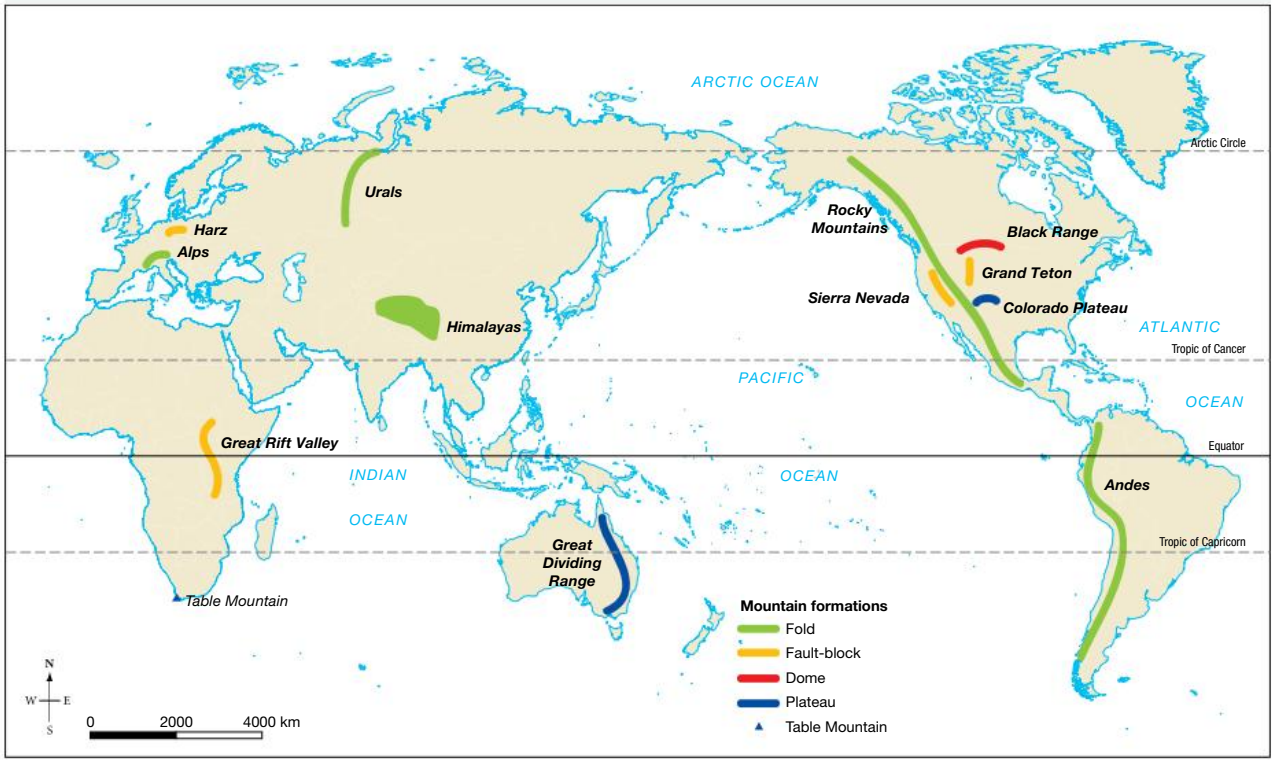
TUNE IN

Examine **FIGURE 1** which focuses on mountains from around the world and refer back to **FIGURE 2** in lesson 15.2 while completing the following tune in questions.

1. Can you see any similarities between the location of mountains and the location of plate boundaries? These kinds of similarities are known as spatial associations.
2. Which continent do you think has been the most tectonically active? Justify your response.
3. Think carefully about **FIGURE 1**. What other information would you like to see on this map?

int-9013

FIGURE 1 Selected world mountains



Source: Spatial Vision

A mountain is a landform that rises high above the surrounding land. Most mountains have certain characteristics in common, although not all mountains have all these features. Many have steep sides and form a peak at the top, called a summit. Some mountains located close together have steep valleys between them known as gorges.

Mountains and mountain ranges have formed over billions of years from tectonic activity; that is, movement in the Earth's crust. The Earth's surface is always changing — sometimes very slowly and sometimes dramatically.

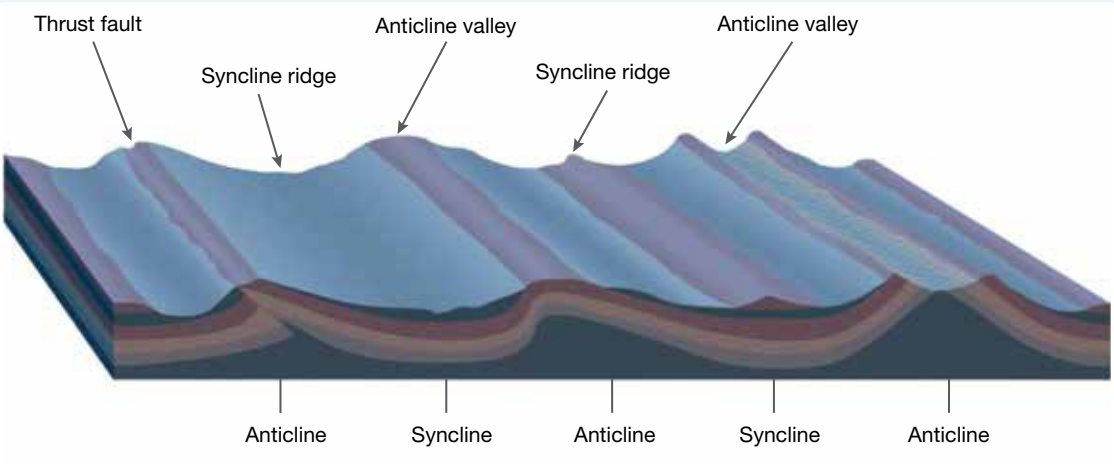
The different movements and interactions of the **lithosphere** plates result in many different mountain landforms. Mountains can be classified into five different types, based on what they look like and how they were formed. These are fold, fault-block, dome, plateau and volcanic mountains. (Volcanic mountains are discussed in lesson 15.9.)

lithosphere the crust and upper mantle of the Earth

Fold mountains

The most common type of mountain, and the world's largest mountain ranges, are fold mountains. The process of folding occurs when two continental plates collide, and rocks in the Earth's crust buckle, fold and lift up. The upturned folds are called anticlines, and the downturned folds are synclines (see **FIGURE 2**). These mountains usually have pointed peaks.

FIGURE 2 The formation of fold mountains



Examples of fold mountains include:

- the Himalayas in Asia
- the Alps in Europe
- the Andes in South America
- the Rocky Mountains in North America
- the Urals in Russia.

FIGURE 3 The pointed peaks of the Ural Mountains in Russia



Fault-block mountains

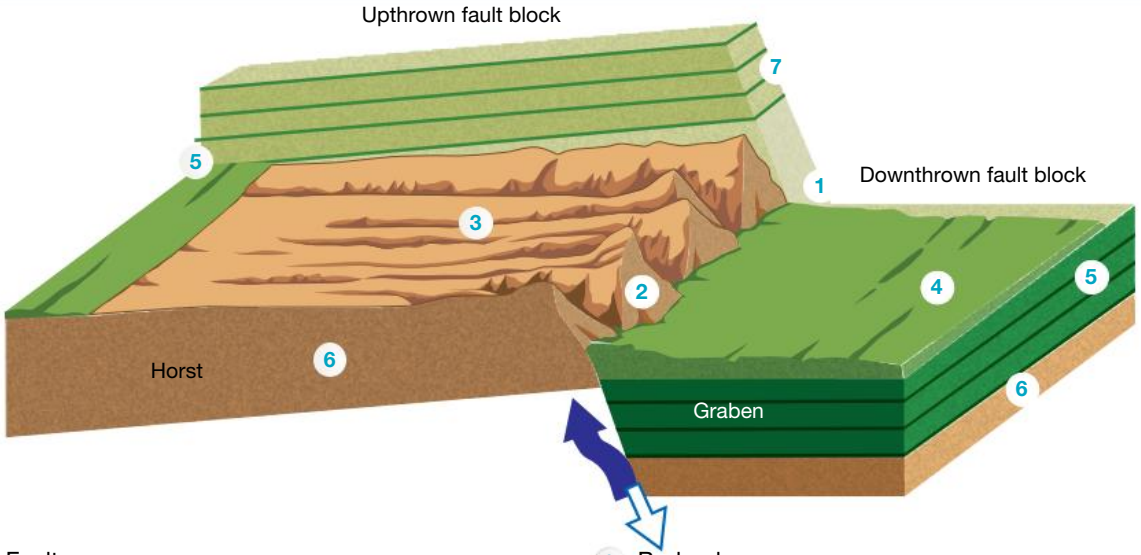
Fault-block mountains form when faults (or cracks) in the Earth's crust force some parts of rock up and other parts to collapse down. Instead of folding, the crust fractures (pulls apart) and breaks into blocks. The exposed parts then begin to erode and shape mountains and valleys (see **FIGURE 4**).

Fault-block mountains usually have a steep front side and then a sloping back. The Sierra Nevada and Grand Tetons in North America, the Great Rift Valley in Africa, and the Harz Mountains in Germany are examples of fault-block mountains. Another name for the uplifted (upthrown) blocks is *horst*, and the collapsed (downthrown) blocks are *graben*.

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FIGURE 4 The formation of fault-block mountains



1. Fault zone
2. Steep eastern face
3. Gentle western slope
4. Valley floors filled with sediments of cobbles, gravel and sand
5. Sedimentary rock layers
6. Bedrock
7. Sedimentary rock layers (5) now worn away.

FIGURE 5 Examples of fault-block mountains overlooking the Great Rift Valley in Northern Kenya, Africa



Dome mountains

Dome mountains are named after their shape, and are formed when molten magma in the Earth's crust pushes its way towards the surface. The magma cools before it can erupt, and it then becomes very hard. The rock layers over the hardened magma are warped upwards to form the dome. Over time these erode, leaving behind the hard granite rock underneath (see **FIGURE 6**).

FIGURE 6 Very hot magma pushes towards the surface to form dome mountains.

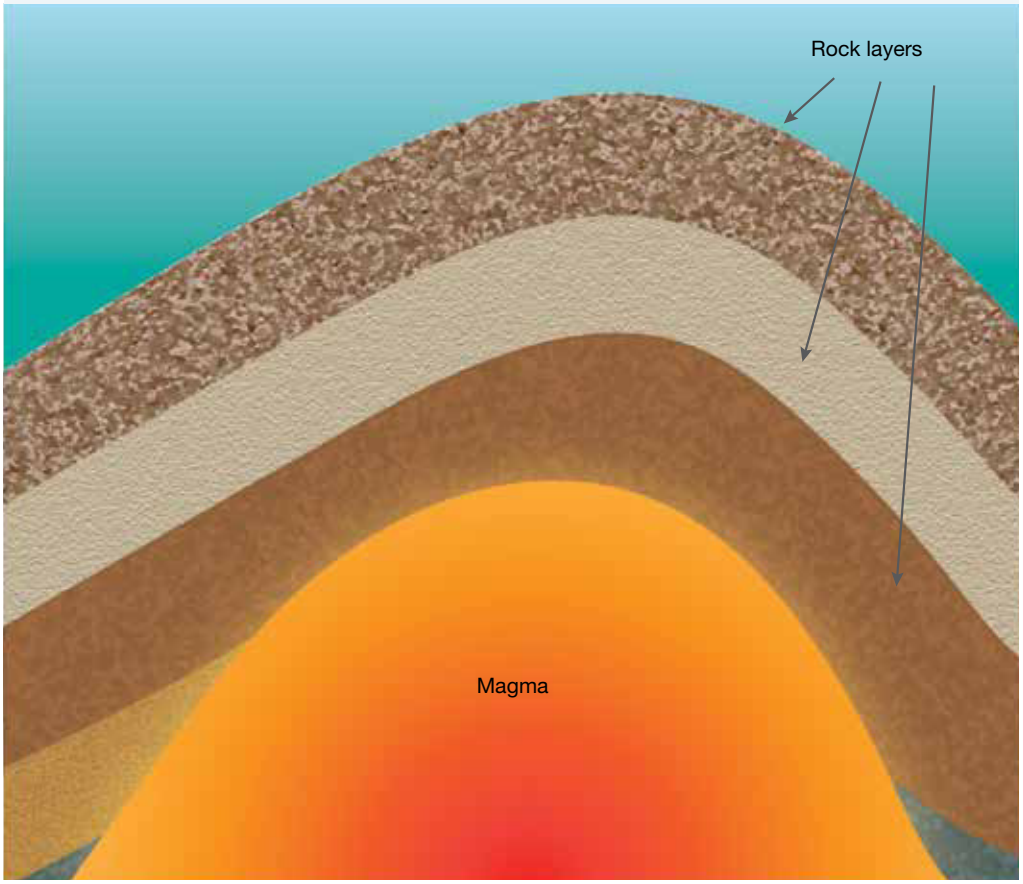


FIGURE 7 Ben Nevis in Scotland is an example of a dome mountain.



Plateau mountains

Plateaus are high areas of land that are large and flat. They have been pushed above sea level by tectonic forces or have been formed by layers of lava. Over billions of years, streams and rivers cause erosion, leaving mountains standing between valleys. Plateau mountains are sometimes known as erosion mountains.

Examples of plateau mountains include parts of the Great Dividing Range in Australia (see **FIGURE 8**), the Colorado Plateau (see **FIGURE 9**) in the United States.

FIGURE 8 The Blue Mountains in New South Wales, Australia are examples of Plateau mountains.



FIGURE 9 The Colorado Plateau in the United States was raised as a single block by tectonic forces. As it was uplifted, streams and rivers cut deep channels into the rock, forming the features of the Grand Canyon.



15.3.2 CASE STUDY: How were the Himalayas formed?

Before the theory of tectonic plate movement, scientists were puzzled by findings of fossilised remains of ancient sea creatures near the Himalayan peaks. Surely these huge mountains could not once have been under water?

The mystery was solved when scientists came to understand plate movements. About 220 million years ago, India was part of the ancient supercontinent we call **Pangaea**. When Pangaea broke apart, India began to move northwards at a rate of about 15 centimetres per year. About 200 million years ago, India was an island separated from the Asian continent by a huge ocean.

When the plate carrying India collided with Asia 40 to 50 million years ago, the oceanic crust (carrying fossilised sea creatures) slowly crumpled and was uplifted, forming the high mountains we know today. It also caused the uplift of the Tibetan Plateau to its current position and formed the Bay of Bengal.

Therefore, the Himalayas were formed when India crashed into Asia and pushed up the tallest mountain range on the continents.

The Himalayas are known as young mountains, because they are still forming. The Indian and Australian plates are still moving northwards at about 45 millimetres each year, making this boundary very active. It is predicted that over the next 10 million years it will travel more than 180 kilometres into Tibet and that the Himalayan mountains will increase in height by about five millimetres each year. It is important to note that movement of tectonic plates is often sudden and causes earthquakes. The continents don't slide easily across the Earth's surface.

Old mountains are those that have stopped growing and are being worn down by erosion.

FIGURE 10 The movement of the Indian landmass to its current location



Source: Map drawn by MAPgraphics Pty Ltd, Brisbane

on Resources

Interactivities	Mountain builders (int-3109)
	Grand peaks (int-3110)
Weblinks	Anticline and syncline
	Fold mountains
Google Earth	Great Rift Valley
	Ben Nevis
	Grand Canyon

Pangaea the name given to all the landmass of the Earth before it split into Laurasia and Gondwana, which over time became the continents we know today

15.3 SKILL ACTIVITY: Interpreting and analysing geographical data and information

1. Use the **Fold mountains** weblink in the Resources panel to **explain** the formation of fold mountains. You can **create** a flow chart to help with your explanation.
2. **Discuss** why this type of tectonic activity creates mountain ranges not individual peaks.
3. **Explain** why you think the largest mountains of the world are created through this process.

15.3 Exercise

learnon

15.3 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 7	5, 6, 8

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Check your understanding

1. **Determine** whether the following statements are true or false.
   a. Fold mountains are the most common type of mountain in the world.
   b. The Sierra Nevada Range was formed by the eastern part of a fault-block tilting up.
   c. Dome Mountains are found where magma has once been near the surface
   d. The Blue Mountains in New South Wales are examples of Plateau mountains
2. How does the shape of each of the mountains shown in this lesson provide clues as to how they were formed? **Select** the correct option for each statement.
   a. High peaks are **dome** / **plateau** / **fault** / **fold** mountains.
   b. Block-shaped mountains with one steep and one sloping side are **dome** / **plateau** / **fault** / **fold** mountains.
   c. Rounded summits are **dome** / **plateau** / **fault** / **fold** mountains.
   d. High areas of large, flat land with valleys are **dome** / **plateau** / **fault** / **fold** mountains.
3. The Himalayas are considered a young mountain range because they are still _____. The Himalayas are _____ mountains.
4. **Define** Pangaea and lithosphere.

Apply your understanding

Concluding and decision-making

5. **Explain** why there are extensive fold mountain ranges along the western coastlines of North and South America. (Refer to **FIGURES 1** and **2** in your response.)
6. Use **FIGURE 1** to **predict** where Australia will be located in 100 million years.
7. Think carefully about the battle between erosion and plate tectonics. **Theorise** as to why Australia is the world's lowest (least elevated) and flattest continent.
8. If there was no more tectonic activity (volcanic eruptions or earthquakes) in the world **discuss** what you think the world would look like in 100 million years. **Justify** your response.

LESSON
15.4 Where are the world's mountain ranges?

LEARNING INTENTION

By the end of this lesson you should be able to describe the location of the world's main mountain ranges on a world map and the effect of altitude on mountain weather.

TUNE IN

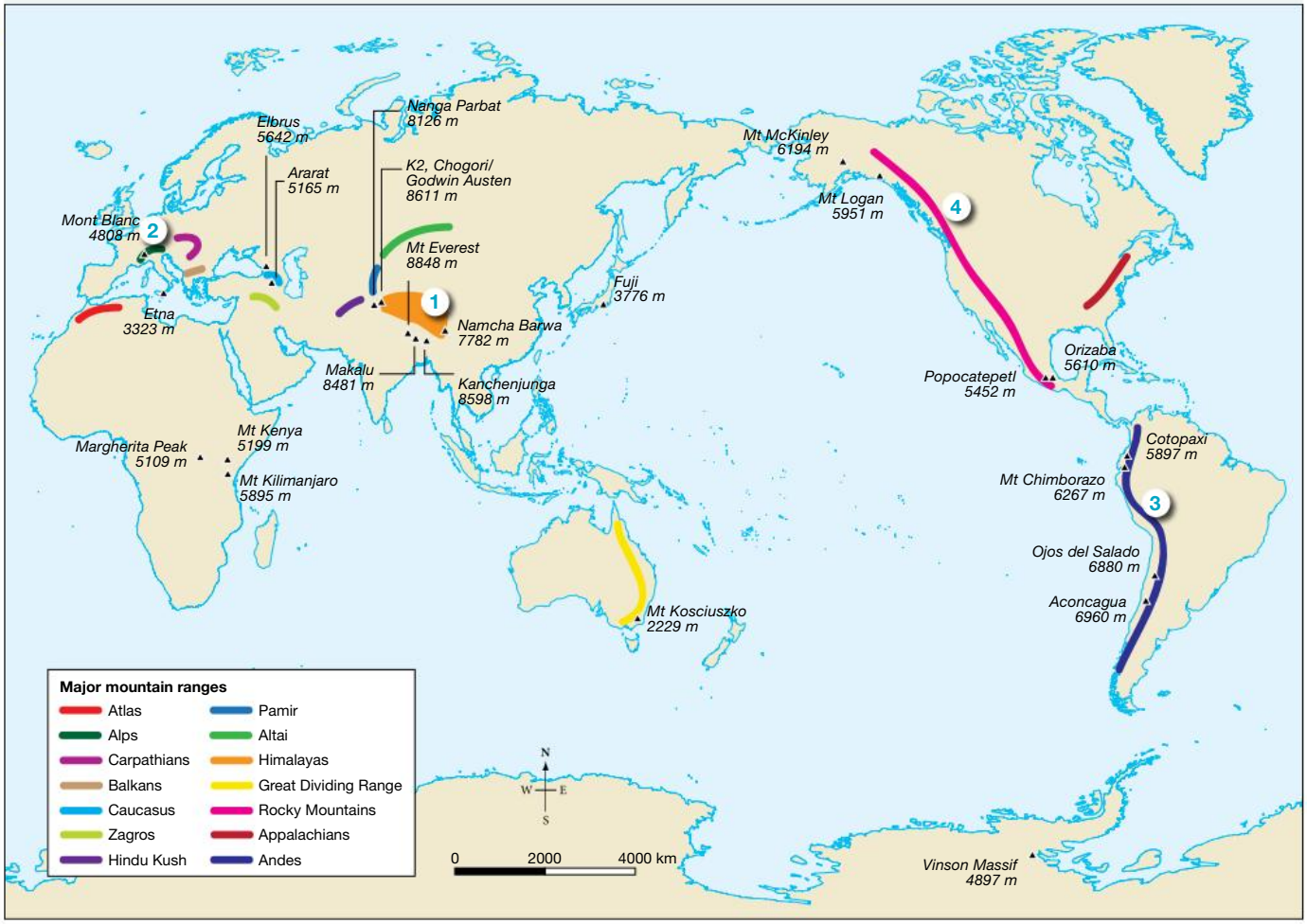
Examine **FIGURE 1** which details the main mountains and mountain ranges around the world.

1. Which are the two longest mountain ranges in the world? Why might they be located where they are?
2. Which is the highest mountain range in the world? Discuss why this may be the case.
3. Which mountain range has the lowest elevation in this map? Theorise as to why.

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FIGURE 1 The world's main mountains and mountain ranges



Source: Map drawn by Spatial Vision

1 The Himalayas

Located in Asia, the Himalayas are the highest mountain range in the world. They extend from Bhutan and southern China in the east, through northern India, Nepal and Pakistan, and to Afghanistan in the west. The Himalayas is one of the youngest mountain ranges in the world and the name means 'land of snow'. The 14 highest mountains in the world — all over 8000 metres above sea level — are all in the Himalayas.

(continued)

(continued)

2 **The Alps**
The Alps, located in south central Europe, is one of the largest and highest mountain ranges in the world. They extend 1200 kilometres from Austria and Slovenia in the east, through Italy, Switzerland, Liechtenstein and Germany, to France in the west.

3 **The Andes**
The Andes are located in South America, extending north to south along the western coast of the continent. The Andes is the second highest mountain range in the world, with many mountains over 6000 metres. At 7200 kilometres long, it is also the longest mountain range in the world.

4 **The Rocky Mountains**
The Rocky Mountains in western North America extend north–south from Canada to New Mexico, a distance of around 4800 kilometres. The highest peak is Mount Elbert, in Colorado, which is 4401 metres above sea level. The other large mountain range in North America is the Appalachian Mountains, which extends 2400 kilometres from Canada in the north to Alabama in the southern United States.

Mountains make up a quarter of the world's landscape. They are found on every continent and in three-quarters of all the world's countries. Only 46 countries have no mountains or high plateaus, and most of these are small island nations.

Some of the highest mountains are found beneath the sea. Some islands are actually mountain peaks emerging out of the water. Even though the world's highest peak (from sea level) is Mount Everest in the Himalayas (8850 metres high), Mauna Loa in Hawaii is actually higher when measured from its base on the ocean floor. Long chains or groups of mountains located close together are called a mountain range.

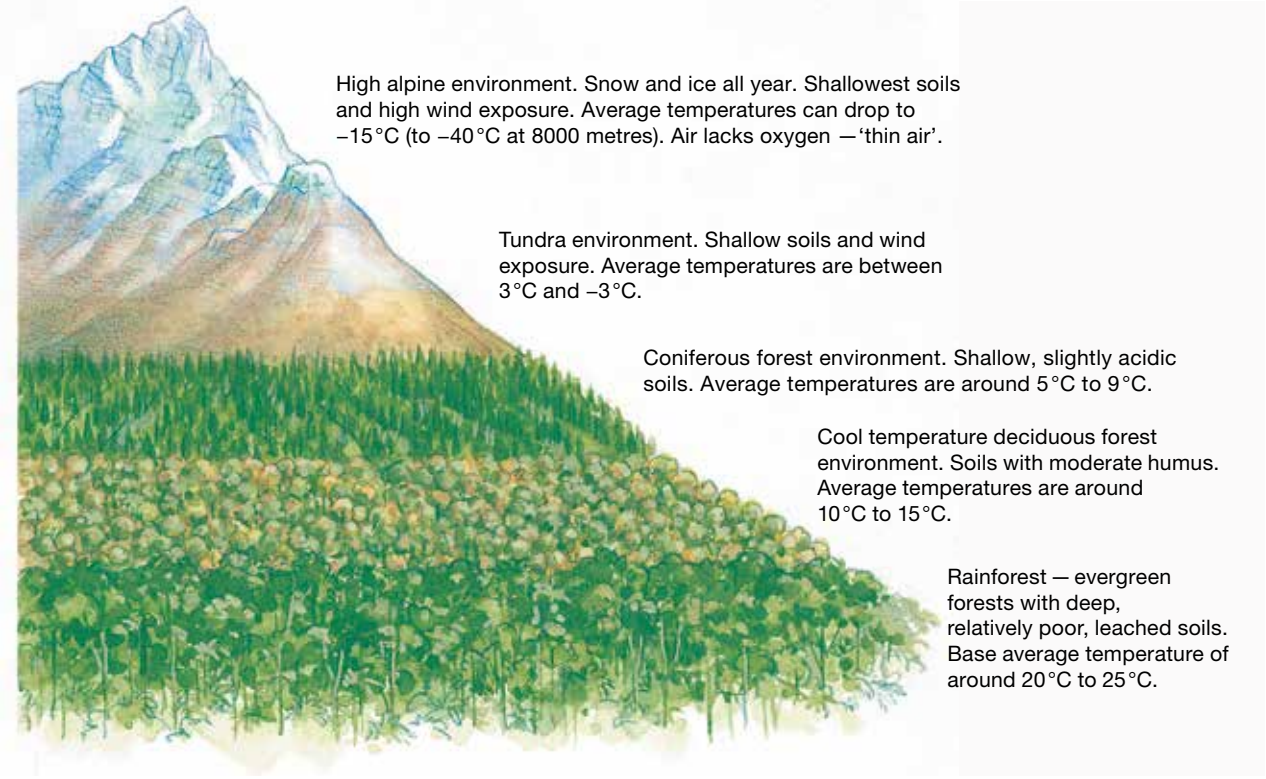
15.4.1 Mountain climate and weather

It is usually colder at the top of a mountain than at the bottom, because air gets colder with **altitude**. Air becomes thinner and is less able to hold heat. For every 1000 metres you climb, the temperature drops by 6 °C.

altitude height above sea level

tlvd-10623

FIGURE 2 Ecosystems change with altitude on mountains.



15.4 SKILL ACTIVITY: Questioning and researching using geographical methods

1. Work in groups of four to six to **investigate** some of the following mountain ranges
   - Antarctica — Antarctic Peninsula, Transantarctic Mountains
   - Africa — Atlas Mountains, Eastern African Highlands, Ethiopian Highlands
   - Asia — Hindu Kush, Himalayas, Taurus, Elburz, Japanese Mountains
   - Australia – MacDonnell Ranges, Great Dividing Range
   - Europe — Pyrenees, Alps, Carpathians, Apennines, Urals, Balkan Mountains
   - North America — Appalachians, Sierra Nevada, Rocky Mountains, Laurentians
   - South America — Andes, Brazilian Highlands.
2. Each student in the group should choose a different range and complete the following:
   a. Map the location of the range in its region.
   b. **Describe** the climate experienced throughout the range.
   c. **Name** and provide images of a selection of plants and animals found in the range.

15.4 Exercise

learnon

15.4 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 3, 4, 8	2, 6, 7	5, 9, 10

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Check your understanding

1. **25** / **50** / **75** / **90** per cent of the Earth's surface is covered by mountains.
2. **Name** the:
   a. highest mountain range in the world.
   b. longest mountain range in the world.
   c. second-longest mountain range in North America.
3. What name is given to long chains or groups of mountains located close together?
   A. Mountain line
   B. Mountain link
   C. Mountain range
   D. Mountain cluster
4. Which of the below are features of a high alpine environment? **Select** all that apply.
   A. Evergreen forests
   B. Average temperatures can drop to –15°C
   C. Snow and ice all year
   D. Tundra environment
   E. High wind exposure
   F. Shallowest soils
   G. Soils with moderate humus
   H. Average temperatures are between 3°C and –3°C.
   I. Air lacks oxygen
   J. Cool temperature deciduous forest environment
5. **State** what happens to oxygen in the atmosphere in high alpine environments.

Apply your understanding

Communicating

6. Refer to **FIGURE 2**. **Describe** how vegetation changes on a mountain.

Interpreting and analysing geographical data and information

7. Refer to **FIGURE 1**.
   a. **Describe** how the scale of the world's mountains varies across the continents.
   b. **Identify** where the Appalachian Mountains are located.
8. **Imagine** you are a mountaineer, climbing to the top of Mont Blanc. **Suggest** the type of clothing you will need to wear for such a climb.
9. **List** the countries through which the European Alps extend.

Concluding and decision-making

10. **Explain** why you think temperature and oxygen levels drop the higher you travel into mountains.

LESSON
15.5 How do people connect with mountains?

LEARNING INTENTION

By the end of this lesson you should be able to explain how people have learned to live in and use mountain landscapes. You should also be able to identify the limitations of living on mountains and explain the importance of mountains to different cultural groups.

TUNE IN

Discuss how you think rice crops grow and consider why the people who live here would need to build these terraces. If you have time, quickly research this information to find out how accurate you were.

Think about why hillsides and the slopes of mountains may provide ideal growing conditions. Discuss in a small group and present your theory to the class.

FIGURE 1 The Longshen rice terraces in China show how a mountainside can be changed to grow food.



15.5.1 Mountain people and cultures

People have moved through and lived in mountain areas for thousands of years. But few people live in the world's highest mountain ranges, where it can be very cold and difficult to grow food and make a living. Thousands of people visit mountains, often in remote areas, for recreation and to see the spectacular scenery, plants and animals, historic and spiritual sites, and different cultures. Mountains are also vital for global water supply.

Around 12 per cent of the world's people live in mountain regions. About half of those live in the Andes, the Himalayas and the mountains of central and eastern Africa.

Usually, population density is very low in these areas. One reason for this is that mountains are very difficult to cross, as they are often rugged and covered with forests and wild animals. They can also be hard to climb and may have ice, snow or glaciers that make travel dangerous. Another reason is that soil quality is often poor and intensive farming is difficult without significant effort and expertise.

15.5.2 Mountain landscapes in Australia

There are many Aboriginal and Torres Strait Islander Creation stories that are linked to mountain landscapes. These teachings help explain the formation and importance of each landscape and landform.

Aboriginal and Torres Strait Islander peoples are the guardians of culture and Country. Stories are passed on through the generations and explain the origin of the world and the environment.

The Stirling Ranges

The mountains of the Stirling Ranges and the Porongurups are some of the oldest in the world and extend across the Great Southern region in Western Australia (see **FIGURE 2**). These mountains lie on the Menang people's land and stories passed from generation to generation tell of how these ranges were interlaced from the very beginning.

FIGURE 2 Stirling Range National Park



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FIGURE 3 The story of the ranges, as told by Menang Elder Vern Gillies

"The Borrongup (the Porongurups) was regarded as a sacred but dangerous place, the home of the totem spirits.

Hunting was forbidden in the area. It was said that the wagyl, the snake, lived in the peaks of the mountain, and the jarnaks, or ghosts and evil spirits, lived among the rocks.

What and Watami were members of the Bronzewing Pigeon people, who lived to the west of the Porongurups.

One day What, the woman, went out into the bush to find food.

Every so often, she called out to her husband to tell him what she was looking for, and what she was finding. He wasn't happy with what she was finding.

Eventually, What found a snake which was considered to be a real delicacy, and she ate it all.

She didn't give any to her husband all the more for her.

But when Watami found out, he became very, very angry. He struck her and broke her leg, then he walked away and left her.

What became very sick, and she dragged herself along where the King River runs, until she reached the place that we know as Green Island she then lay down and died.

Her faithful dog then picked up her scent and followed her tracks, and when he found her he started to dig all around her.

And he dug, and dug and as he dug, he sprayed dirt over her to cover her, to make a grave for her. He dug for a long, long time, until the sea rushed in to form what we now know as Oyster Harbour.

In the meantime, What's son found out what his father had done, and went out seeking revenge.

He caught him, and he speared him at the first mountain in the Stirling Ranges, which is what we know as Yongah Mia. Yongah means man, and Mia is the throwing stick.

Remarkably, from the air, the mountain clearly looks like a throwing stick."

Source: ABC Great Southern WA, https://www.abc.net.au/local/stories/2014/04/15/3985939.htm.

15.5.3 Sacred and special places

Mountain landscapes often have special meaning to certain groups of people. This might be because the location includes sacred sites or religious symbols; it might also be because people want to be close to nature or to feel spiritually inspired or renewed.

Mountaineers who take great risks, climbing alone or in small groups, often find a special meaning in mountain environments. They may hold deep spiritual, **cultural** and aesthetic (relating to beauty) values and ideas, and these will often inspire such people to care for and protect mountain environments.

The following list gives examples of mountains that are connected to various beliefs and religions.

- Hindus and Buddhists have beliefs about Mount Kailash in the Himalayas.
- Hindus in Bali, Indonesia, have a special connection with Mount Gunung Agung.
- Tibetan Buddhists revere Chomolungma (Mount Everest).
- The landscape of Demojong in the Himalayas is sacred to Tibetan Buddhists.
- Nanda Devi in the Himalayas is a sacred site for both Sikh and Hindu communities, and is a UNESCO World Heritage site.
- Mount Fuji, in Japan, is a place of spiritual and cultural symbolism to Japanese people.
- Saint Katherine Protectorate in South Sinai, Egypt, is in an area holy to Jews, Christians and Muslims.
- Jabal La'lam is a mountain that is sacred to the people of northern Morocco.

cultural relating to the ideas, customs and social behaviour of a society

aud-0465

For the indigenous groups of the north-eastern American plains, the Sioux, or Dakota as they are sometimes referred to, and the indigenous Scandinavian people, the Sami, nature is recognised as sacred. The sacred places were not man-made temples or churches, but particularly spectacular or prominent features of the natural landscape. For the Sami, these sacred places tended to be large rocks (called *sieidi*), the sides of lakes, rocky crevasses or caverns or mountaintops. These sacred mountains were somewhat isolated and had a jutting tall peak. A sacred mountain named Haldi, which rests among a group of mountains near Alta, and an 814-metre-tall conical sacred hill named Tunnsjøguden in central Norway are examples. In general, the word *saivu* is applied to sacred mountains in the south while the terms *bassi, ailigas* and *haldi* are used for sacred mountains by northern Sami. Similarly, mountaintops, such as Harney Peak in modern-day South Dakota, were also of spiritual importance to Sioux groups who lived in their regions.

Source: www.utexas.edu/courses/sami/diehtu/siida/religion/paralellism.htm.

15.5.4 Skills to survive

It can be hard to make a living in mountain regions. People living in small, isolated mountain communities have learned to use the land and resources sustainably. Many practise shifting cultivation, migrate with grazing herds, and have terraced fields.

Some of the world's oldest rice terraces (see **FIGURE 1**) are over 2000 years old. Rice and vegetables could be grown quite densely on the terraces. This enabled people to survive in a region with very steep slopes and high altitude.

On very high ranges, below the snowline, there is a treeless zone of alpine pastures that can be used in summer to graze animals. Elsewhere, in the valleys and foothills, agriculture often occurs, with fruit orchards and even vineyards on some sunny slopes.

Mountains supply 60 to 80 per cent of the world's fresh water. This is due to **orographic rainfall** (caused by warm, moist air rising and cooling when passing over high ground, such as a mountain; as the air cools, the water vapour condenses and falls as rain). Where precipitation falls as snow, water is stored in snowfields and glaciers. When these melt, they provide water to people when they need it most.

orographic rainfall occurs when a topographic barrier such as a mountain blocks the path of a movement of air horizontally. This forces the air upward where it cools, thus increasing the likelihood of rain.

FIGURE 4 Living in mountain regions can be difficult.



Resources

Weblink Climate change and water shortage

15.5 SKILL ACTIVITY: Communicating

Choose one of the mountains linked to beliefs and religions from section 15.5.3.

1. Use the internet to **research** details of this connection.
2. **Create** a map with all aspects of BOLTSS and provide information on the natural and human features located here.
3. **Present** your information as a print or electronic brochure.

15.5 Exercise

learnon

15.5 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 3, 5	2, 4, 8, 10	6, 7, 9,

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Check your understanding

1. **Determine** whether following statements are true or false.
   a. People have lived in Mountain Ranges for thousands of years.
   b. Many people live above the snow line on the highest mountains on earth.
   c. Population density in mountain ranges is relatively low.
   d. Soil quality is often very good in mountain ranges.
2. What type of work and recreation can people undertake in mountain regions? **Present** this information in a written format or in a diagram.
3. Mountains are **useful / vital / harmful** for global water supply.
4. **Describe** how different groups of people value mountainous places. Use three examples in your description.
5. Where is the Jamison Valley located?
   A. The Glasshouse Mountains, QLD
   B. The Snowy Mountains, NSW
   C. The Blue Mountains, NSW
   D. The Bunya Mountains, QLD

Apply your understanding

Communicating

6. **Describe** how the natural mountain environment in **FIGURE 1** has been changed by people. You should also **create** a sketch of the photo and make notes to show the changes.
7. Imagine you work as a park ranger in the Stirling Ranges. **Explain** how Creation stories of the region can help other people understand this environment.
8. a. **Describe** how the natural mountain environment in **FIGURE 4** has been changed by people.
   b. **Explain** how it compares to the land changes in **FIGURE 1**.
9. Read through **FIGURE 3**. Many Dreaming stories have an underlying message; what do you think it is in this case? Might there be cultural reasons why people don't understand the significance of stories like this one.
10. Think of a mountain you have visited or seen. **Decide** if you feel inspired by mountain environments. How can spiritual or religious beliefs linked to mountain landscapes help in protecting them?

LESSON
15.6 What are earthquakes?

LEARNING INTENTION

By the end of this lesson you should be able to explain how earthquakes occur and define the key terms: epicentre, focus, seismic waves, primary waves and secondary waves.

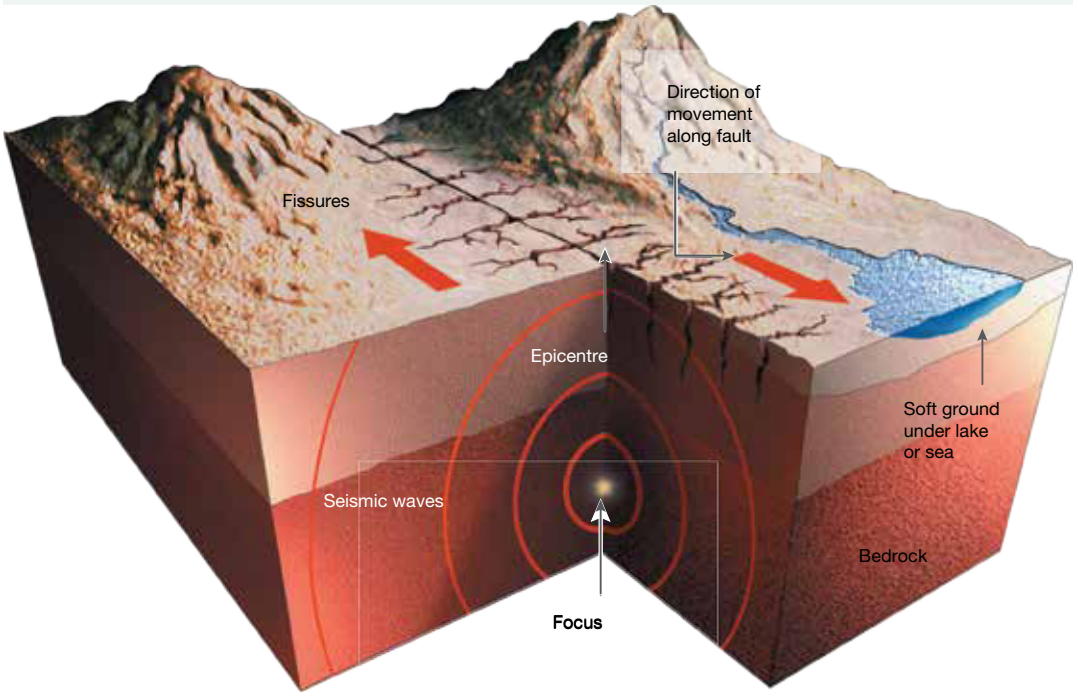
TUNE IN

Examine **FIGURE 1**, a diagram explaining what occurs during an earthquake.

1. Brainstorm what you think might be the difference between the focus and epicentre of an earthquake.
2. What factors might contribute to some earthquakes resulting in a lot of damage whereas others result in little damage?

tlvd-10624

FIGURE 1 What happens during an earthquake?



15.6.1 Earthquakes

Earthquakes and tsunamis are frightening events and they often strike with little or no warning. An earthquake can shake the ground so violently that buildings and other structures collapse, sometimes crushing people to death. Earthquakes occur every day somewhere on the planet, usually on or near the boundaries of tectonic plates. **FIGURE 2** in lesson 15.2 shows a strong relationship between the location of plate boundaries and the occurrence of earthquakes. Weaknesses and cracks in the Earth's crust near these plate boundaries are called faults (or the **fault plane**). An earthquake is usually a sudden movement of the layers of rock at these faults.

fault plane the area of a tectonic plate that moves vertically as a result of an earthquake

focus the point where the sudden movement of an earthquake begins

The point where this earthquake movement begins is called the **focus** (see **FIGURE 1**). Earthquakes can occur near the Earth's surface or up to 700 kilometres below. The shallower the focus, the more powerful the earthquake will be. Energy

travels quickly from the focus point in powerful **seismic waves**, radiating out like ripples in a pond. The seismic waves decrease in strength as they travel away from the **epicentre**. The strength of an earthquake is measured on the Richter scale.

The energy released at the focus can be immense, and it travels in seismic waves through the mantle and crust of the Earth. **Primary waves**, or P-waves, are the first waves to arrive, and are felt as a sudden jolt. Depending on the type of rock or water in which they are moving, these waves travel at speeds of up to 30 000 kilometres an hour.

Secondary waves, or S-waves, arrive a few seconds after the P-waves and travel at about half the speed. These waves cause more sustained up-and-down movement.

Surface waves radiate out from the epicentre and arrive after the main P-waves and S-waves. These move the ground either from side-to-side, like a snake moving, or in a circular movement.

Even very strong buildings can collapse with these stresses. The energy that travels in waves across the Earth's surface can destroy buildings many kilometres away from the epicentre.

seismic wave a wave of energy that travel through the Earth as a result of an earthquake, explosion or volcanic eruption

epicentre the point on the Earth's surface directly above the focus of an earthquake

primary wave also known as a P-wave; the first waves to hit an area during an earthquake, which cause a sudden jolt

secondary wave also known as a S-wave; the waves that arrive at an area after the P-waves, which cause a sustained up-and-down movement

Measuring earthquakes

Earthquakes are measured according to their magnitude (size) and intensity. Magnitude is measured on the Richter scale, which shows the amount of energy released by an earthquake. The scale is open-ended because there is no upper limit to the amount of energy an earthquake might release. An increase of one in the scale is 10 times greater than the previous level. For example, energy released at the magnitude of 7.0 is 10 times greater than the energy released at 6.0.

Earthquake intensity is measured on the Modified Mercalli scale, and indicates the amount of damage caused. Intensity depends on the nature of buildings, time of day and other factors.

15.6.2 CASE STUDY: What caused the 2015 Nepal earthquake?

On 25 April 2015, a 7.8-magnitude earthquake struck Nepal at around midday. The epicentre of this earthquake was quite shallow — only 15 kilometres below the Earth's surface. It occurred approximately 80 kilometres to the north-west of Kathmandu, Nepal's capital.

At this location, the Indian Plate to the south is subducting under the Eurasian Plate to the north (see **FIGURE 1** in lesson 15.2). This is occurring at a rate of approximately 45 millimetres per year and is causing the uplift of the Himalayas (see the case study in section 15.3.2).

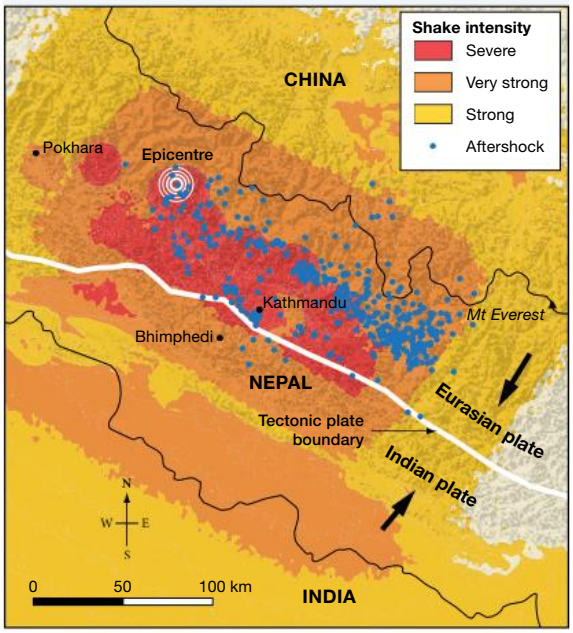
During the Nepal earthquake event, nearly 9000 people were killed and nearly 18 000 were injured.

FIGURE 3 shows that the earthquake released a large amount of energy and caused large slips of up to four metres of the Earth's surface. There were severe aftershocks immediately after the main earthquake and the aftershocks continued for many weeks — up to 100 in total. The shaking from this earthquake was felt in China, India, Bhutan and much of western Bangladesh.

On 12 May 2015, a huge aftershock with a magnitude of 7.3 occurred near the Chinese border with Nepal (between Kathmandu and Mount Everest). More than 160 people died and more than 2500 were injured as a result of this aftershock.

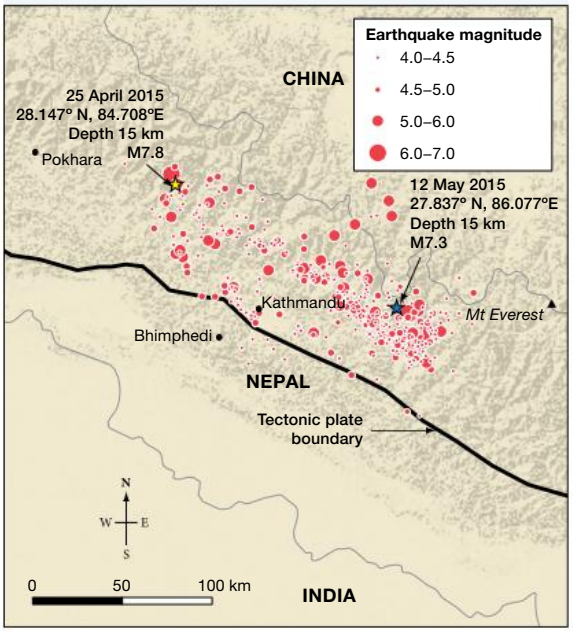
int-7845
int-7846

FIGURE 2 The shake intensity and the tectonic plate boundary involved in the Nepal earthquake



Source: USGS

FIGURE 3 Magnitudes of earthquake and aftershocks in Nepal, 2015



Source: USGS

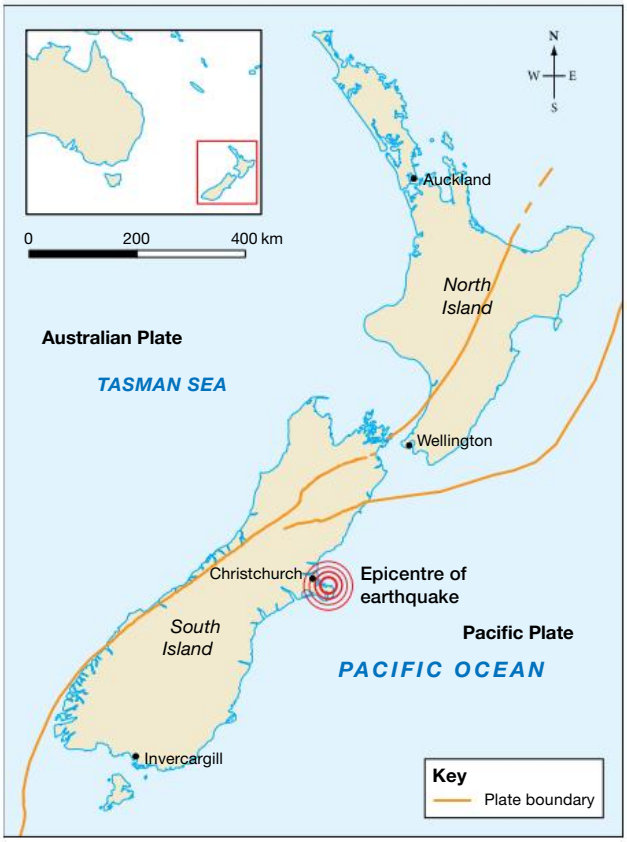
15.6.3 CASE STUDY: What caused the 2011 Christchurch, New Zealand earthquake?

A 6.3-magnitude earthquake struck Christchurch, New Zealand, on 22 February 2011. The city was badly damaged, 185 people were killed and several thousand were injured. The earthquake epicentre was 10 kilometres south-east of Christchurch's central business district, and was quite shallow — only 5 kilometres deep, which meant the shaking was particularly destructive.

The earthquake is considered to be an aftershock of an earthquake that occurred 5 months earlier in September 2010. Many buildings in the city had already suffered damage in the 2010 earthquake and either collapsed in the 2011 earthquake or had to be demolished afterwards.

New Zealand is located between two huge moving plates — the Australian Plate and the Pacific Plate — and it experiences thousands of earthquakes every year. Most are very small, but some have caused a lot of damage. These movements continue to shape and form New Zealand and its dramatic mountain landscapes.

FIGURE 4 Location of the Christchurch earthquake in New Zealand, 2011



Source: Map drawn by Spatial Vision

FIGURE 5 Earthquake damage in Christchurch





SkillBuilders to support skill development

- 13.10 SkillBuilder: Understanding thematic maps

15.6 SKILL ACTIVITY: Concluding and decision-making

Evaluate and **discuss** the following statement 'The largest Earthquakes are always the most damaging.'

1. Work in pairs. Use the information in this lesson and **conduct research** on several earthquakes of varying intensity. Ensure you have several that were quite powerful.
2. Make notes on the extent of damage caused in each and then **compare** the information for different sized earthquakes. You may like to draw up a table to help with this.
3. Use the information you've collected to agree, partially agree, or disagree with the statement.
4. **Present** your conclusion and evidence to the class.

Resources

Weblinks Nepal earthquake: before and after photos
Earthquake-vulnerable cities
Google Earth Christchurch, New Zealand

15.6 Exercise

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15.6 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 4, 5	2, 3, 7, 9	6, 8, 10

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Check your understanding

1. Complete the following statements by filling in the blanks.
   The point where the actual earthquake occurs under the surface is called the _____. The point directly above this on the Earth's surface is known as the _____. The shallower the earthquake the more _____ the earthquake will be. Energy travels out from an earthquake in _____ _____.The strength of an earthquake is measured on the _____ _____.
2. **Explain** how an earthquake occurs. **Create** a diagram to assist your explanation.
3. **Explain** how primary waves differ from secondary waves of earthquakes.
4. The Richter scale measures earthquake magnitude. How much more powerful is the magnitude of an earthquake at 7.0 than at 5.0?
   - A. 2 times greater
   - B. 10 times greater
   - C. 100 times greater
   - D. 1000 times greater
5. Study **FIGURE 3**. Are the following statements true or false? If they are false, rewrite them to make them true.
   - a. The earthquake and aftershocks were between 4.0 and 6.0 in magnitude.
   - b. The furthest earthquake and aftershocks were 100 kilometres apart.
   - c. The earthquake on 12 May was the same intensity as the earthquake on 25 April.
   - d. Most of the aftershocks were felt to the east of the main earthquake on 25 April.

Apply your understanding

Communicating

6. Geophysicists and other experts have warned for decades that Nepal was vulnerable to a deadly earthquake. **Consider** reasons as to why Nepal wasn't prepared for this event.
7. Study **FIGURE 2**.
   - A. **Identify** which direction the Indian Plate is moving. Is it moving under or over the Eurasian Plate?
   - B. **Describe** the location of the highest intensity shaking. How close was it to the epicentre? To the tectonic plate boundary?

Concluding and decision-making

8. **Discuss** whether the earthquake event in Nepal supports the idea that the Himalayas are a young mountain range that is still forming.
9. **Discuss** the factors that made the Christchurch Earthquake so damaging?
10. **Explain** why living with Earthquakes is something all New Zealanders have to do. Think carefully about how New Zealanders have to adapt to life with earthquakes. How might school in Christchurch be different to school in Australia as a result.

LESSON
15.7 What is a tsunami?

LEARNING INTENTION

By the end of this lesson you should be able to identify and explain the interconnection between earthquakes and tsunamis. You should also be able to define the key term 'Landslide,' and explain why tsunamis are different to other types of waves.

TUNE IN

FIGURE 1 shows a beach in Thailand in 2004. The water had rapidly receded out to sea, puzzling onlookers.

Moments later the devastating 2004 Indian Ocean Tsunami hit the area, and many other locations, killing approximately 230 000 people.

1. Imagine you were one of the people on this beach. What would you think was happening if the water suddenly disappeared? How do you think you would react?
2. **Discuss** why you think the water might first disappear from the beach right before a tsunami.

FIGURE 1 Hat Rai Lay Beach, Thailand December 26, 2004



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A tsunami is a large ocean wave that is caused by sudden motion on the ocean floor. The sudden motion could be caused by an earthquake, a volcanic eruption or an underwater **landslide**. About 90 per cent of tsunamis occur in the Pacific Ocean, and most are caused by earthquakes that are over 6.0 on the Richter scale.

A tsunami at sea will be almost undetectable to ships or boats. The reasons for this are that the waves travel extremely fast in the deep ocean (about 970 kilometres per hour — as fast as a large jet) and the wavelength is about 30 kilometres, yet the wave height is only one metre.

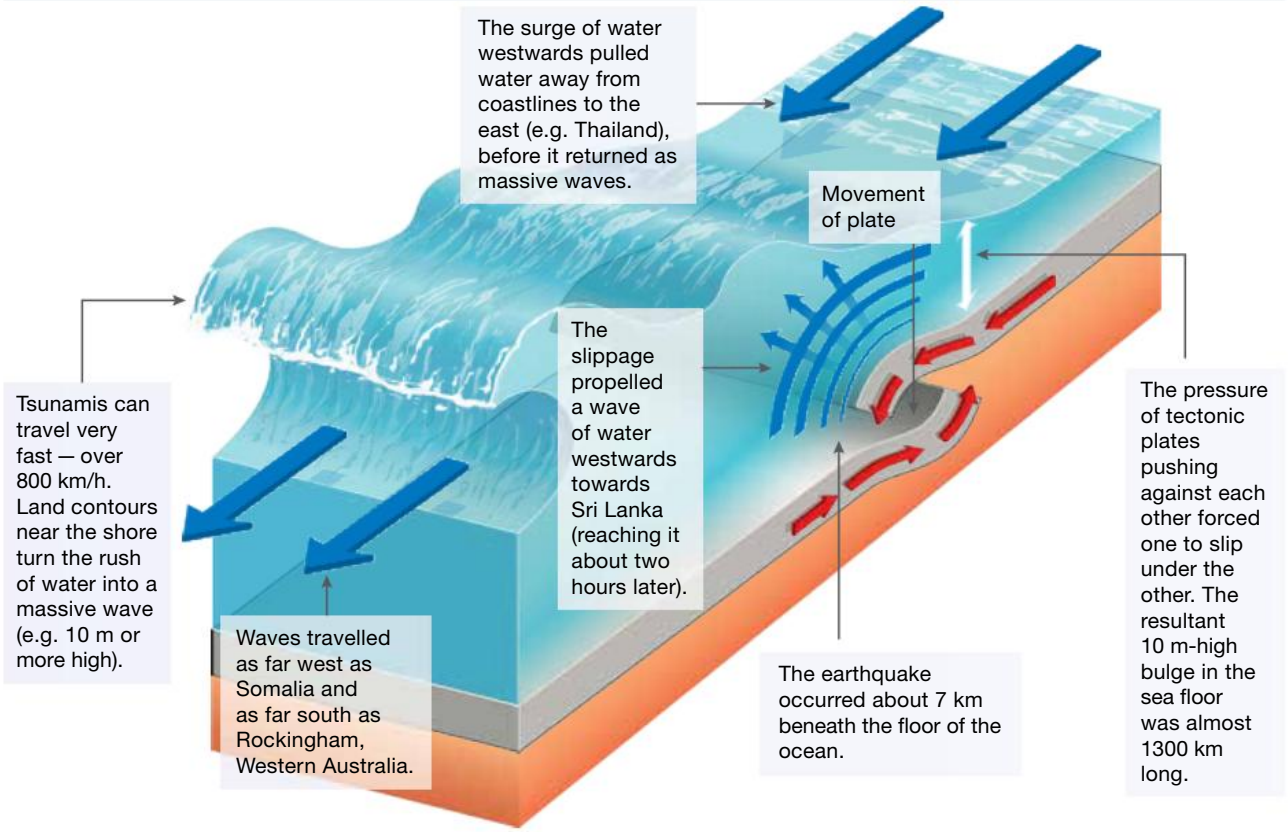
When tsunamis reach the continental slope, several things happen. The wave slows down and, as it does, the wave height increases and the wavelength decreases; in other words, the waves get higher and closer together. Sometimes, the sea may recede quickly, very far from shore, as though the tide has suddenly gone out. If this happens, the best course of action is to head to higher ground as quickly as possible.

A tsunami is not a single wave. There may be between 5 and 20 waves altogether. Sometimes the first waves are small and they become larger; at other times there is no apparent pattern. Tsunami waves will arrive at fixed periods between 10 minutes and 2 hours.

landslide a rapid movement of rocks, soil and vegetation down a slope, sometimes caused by an earthquake or by excessive rain

tlvd-10626

FIGURE 2 An earthquake and subsequent tsunami in the Indian Ocean in 2004 occurred along the boundary between tectonic plates.



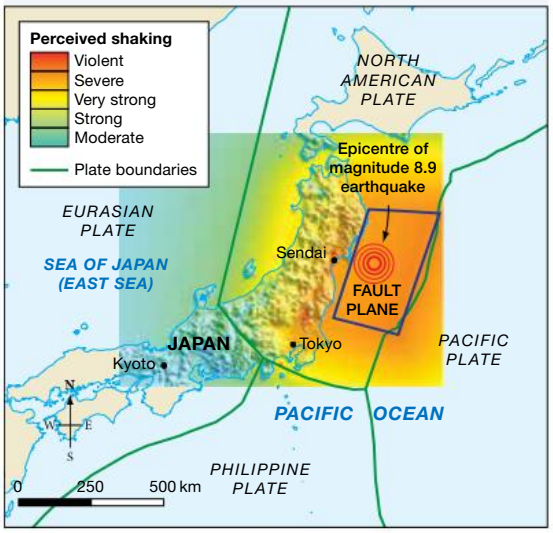
15.7.1 CASE STUDY: The Japanese tsunami, 2011

int-7847

The region of Japan is seismically active because four plates meet there: the Eurasian, Philippine, Pacific and North American. Many landforms in this region are influenced by the collision of oceanic plates. Chains of volcanic islands called island arcs are formed, and an ocean trench is located parallel to the island arc (see **FIGURE 2** in lesson 15.2).

On 11 March 2011, an 8.9-magnitude earthquake struck near the coast of Japan. The earthquake was caused by movement between the Pacific Plate and the North American Plate. It occurred about 27 kilometres below the Earth's surface along the Japan Trench, where the Pacific Plate moves westwards at about 8 centimetres each year. The sudden upward movement released an enormous amount of energy and caused huge displacement of the sea water, causing the tsunami. When the tsunami reached the Japanese coast, waves more than 6metres high moved huge amounts of water inland. Strong aftershocks were felt for a number of days. Nearly 16 500 people were killed and 4800 were reported missing.

FIGURE 3 The location and magnitude of the earthquake that caused the Japanese tsunami



Source: Map drawn by Spatial Vision

FIGURE 4 The tsunami caused by the 8.9-magnitude earthquake in March 2011 swept over the coastline at Sukuiso and inland, carrying debris with it.



on Resources

Interactivity Anatomy of a tsunami (int-3111)
Weblinks Climate change and water shortage
World's biggest tsunami

15.7 SKILL ACTIVITY: Concluding and decision-making

Use an atlas or Google Earth to locate Lituya Bay.

1. **Draw** a map to show the location.
2. Use the **World's biggest tsunami** weblink in the Resources panel to listen to eyewitness accounts of the tsunami that occurred there.
3. **Explain** how this helps give you a sense of the scale of this event.

15.7 Exercise

learnon

15.7 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 3, 6	2, 4, 7, 9	5, 8, 10

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Check your understanding

1. **Determine** whether the following statements are true or false.
   a. Most tsunamis occur in the Atlantic Ocean.
   b. Underwater landslides can trigger tsunamis.
   c. In deep water tsunamis can travel at up to 970 Kmph and can be undetectable to boats.
   d. A tsunami is a single wave.
2. Study **FIGURE 2**. Use your own words to **explain** how a tsunami occurs.
3. A tsunami doesn't change when it comes into shallow water. True or false?
4. **Elaborate** as to why there is still danger after the first wave of a tsunami strikes.
5. Read the 15.7.1 case study and **explain** the causes of the 2011 Japanese tsunami.
6. Approximately how big were the waves that struck Japan?
   A. 3 metres
   B. 6 metres
   C. 12 metres
   D. 20 metres

Apply your understanding

Interpreting and analysing geographical data and information

7. Read through the 15.7.1 case study. **Discuss** how the location of the epicentre of the earthquake that caused the Japanese tsunami impacted the ability of people to prepare for the incoming tsunami.
8. Study **FIGURE 3**.
   a. **Estimate** the size of the fault plane that moved vertically during this quake.
   b. **Discuss** why this was significant.
   c. **State** which tectonic plates were involved in this event.
9. Study the photo of the Japanese tsunami in **FIGURE 4**.
   a. Imagine you are a radio news reporter. **Describe** what you see and what might be happening to people in the area.
   b. Imagine you were a Sendai resident. **Describe** what you would have done to take care of yourself during the tsunami.

Communicating

10. **Create** a flow chart or cartoon strip that explains the journey of a tsunami from creation through to coming ashore.

LESSON
15.8 What are the impacts of earthquakes and tsunamis?

LEARNING INTENTION

By the end of this lesson you should also be able to describe the effects of earthquakes and tsunamis on people and the environment and explain why some people are more vulnerable to earthquakes than others.

TUNE IN

The effects of earthquakes and tsunamis extend beyond the obvious physical destruction.

FIGURE 1 Kensennuma City centre after an 8.9-magnitude strong earthquake struck on March 11 off the coast of north-eastern Japan, 2011



Examine **FIGURES 1** and **2** in pairs to create a mind map focusing on what you think might be the social, economic and environmental impacts of tsunamis and earthquakes.

Earthquakes and tsunamis can have an enormous impact. The degree of impact can be affected by several factors: the size of the quake; its location; the density of the population near the epicentre; and whether there are any densely populated areas nearby. Poverty also plays a role, because it can increase a country's or region's vulnerability to such disasters. Measuring an event by the impact can be difficult. Should it be measured by the number of people killed and made homeless (social impact); the cost of recovery (economic impact); or the effect on the surroundings (environmental impact)?

Impact on people

The data in **FIGURE 3** show some of the worst earthquake and tsunami disasters that have occurred. The amount of damage and death they cause does not always relate to the magnitude of the earthquake. Some smaller magnitude earthquakes can have a devastating impact. Likewise, to measure the impact of a tsunami, we have to look at its effect on people, not at the magnitude of the earthquake (or volcano) that caused it, and not at the size of the waves, which are difficult to measure.

Less-developed countries often do not have the resources to prepare adequately for an earthquake. Often, many people are housed in badly constructed buildings in densely populated areas on poor land. When a disaster strikes, poorer countries often do not have the resources to act quickly and get help for relief efforts. More developed countries have strict building codes and better infrastructure to withstand disasters. They have warning systems and better communication. Usually, help is quick to arrive, with army and police personnel sent in to help with rescue efforts.

Analysis of EM-DAT (The International Disaster Database) data also shows how income levels have an impact on disaster death tolls. On average, more than three times as many people died per disaster in low-income countries (332 deaths) than in high-income nations (105 deaths). A similar pattern is evident when low- and lower-middle-income countries are grouped together and compared to high- and upper-middle-income countries. Taken together, higher-income countries experienced 56 per cent of disasters but lost 32 per cent of lives, while lower-income countries experienced 44 per cent of disasters but suffered 68 per cent of deaths. This demonstrates that levels of economic development, rather than exposure to hazards, are major determinants of mortality.

Impact on the environment

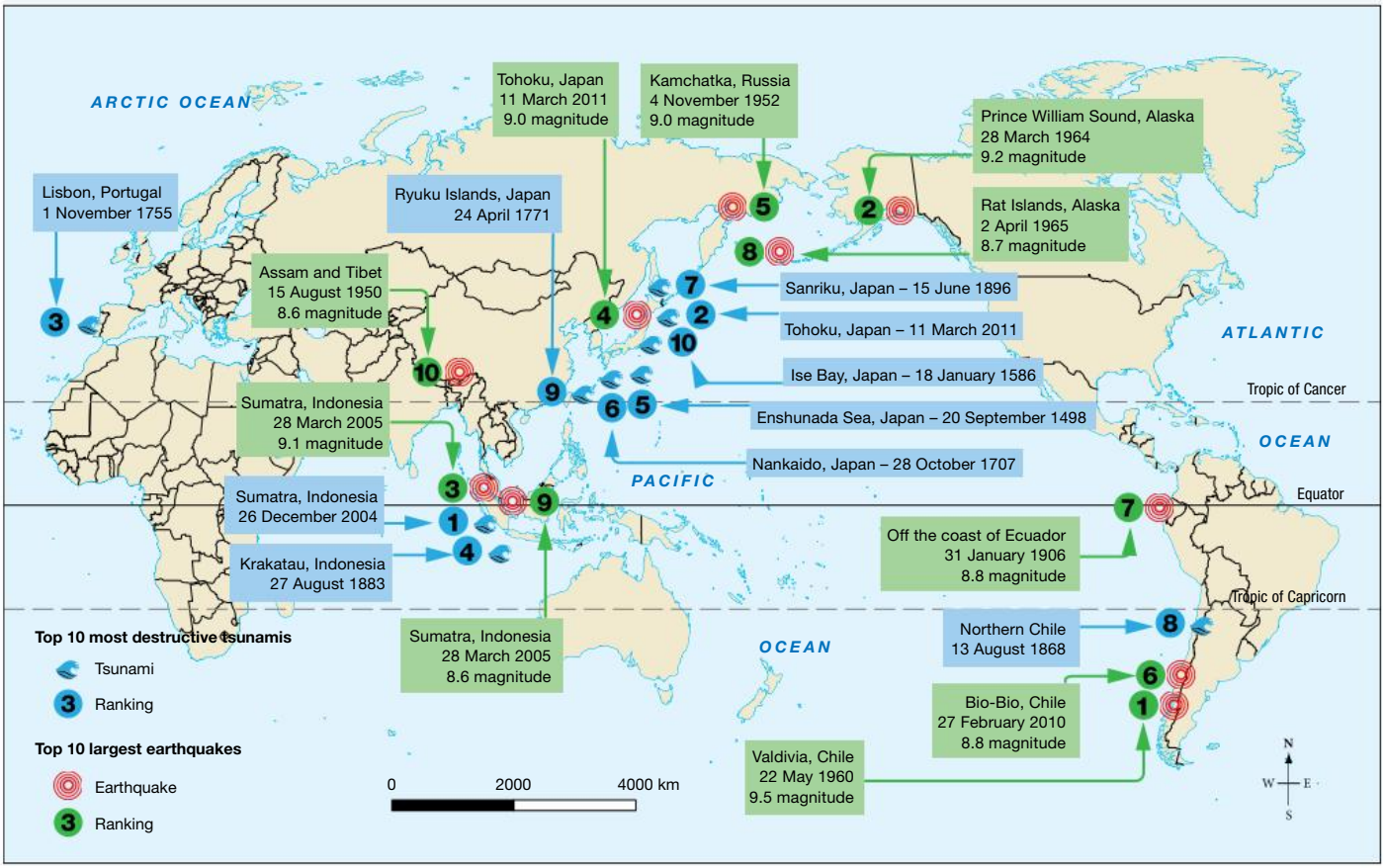
The impact of an earthquake or tsunami on a human environment can be catastrophic. It can damage and destroy entire settlements. Landslides can be triggered by earthquakes, permanently changing the landscape.

FIGURE 2 This landslide was caused by an earthquake in June 2008 in Honshu, Japan



int-7849

FIGURE 3 The 10 largest earthquakes and 10 most destructive tsunamis in recorded history



Source: Map drawn by Spatial Vision

TABLE 1 Tsunamis

No. on map and cause		Description and impact
1	9.1 earthquake	Tsunami 50 metres high, reaching 5 km inland near Meubolah. 230 000 people died. Estimated damages of US$10 billion.
2	9.0 earthquake	Tsunami waves of 10 metres swept over the east coast of Japan. 19 000 people died. Caused nuclear emergency at Fukushima Daiichi nuclear power plant. US$235 billion in damage.
3	8.5 earthquake	Waves up to 30 metres high struck towns along western Portugal and southern Spain. Earthquake and tsunami killed 60 000 in Portugal, Morocco and Spain.
4	Volcano	Tsunami linked to the explosion of the Krakatau volcano. Waves as high as 37 metres demolished the towns of Anjer and Merak. Killed 40 000 people, with 2000 deaths caused by the volcanic eruptions rather than the tsunami.
5	8.3 earthquake	Homes were flooded and swept away; 31 000 people killed.
6	8.4 earthquake	Waves up to 25 metres high struck the Pacific coasts of Kyushyu, Shikoku and Honshin. Nearly 30 000 buildings were damaged in the affected regions and about 30 000 people were killed.
7	7.6 earthquake (estimated)	Tsunami was reported to have reached a height of 38.2 metres, causing damage to more than 11 000 homes and killing around 22 000 people. Reports were also found of a corresponding tsunami hitting the east coast of China, killing around 4000 people and doing extensive damage to local crops.
8	Two 8.5 earthquakes	Waves up to 21 metres high affected the entire Pacific Rim for two or three days. Tsunami registered by six tide gauges as far away as Sydney, Australia. 25 000 deaths and estimated damages of US$300 million were caused along the Peru–Chile coast.
9	7.4 earthquake	Tsunami waves around 11–15 metres high destroyed 3137 homes, killing nearly 12 000 people in total.
10	8.2 earthquake (estimated)	Waves of 6 metres caused more than 8000 deaths and a large amount of damage to a number of towns.

TABLE 2 Earthquakes

No. on map and magnitude of earthquake		Description and impact
1	**9.5**	Killed 1655 people, injured 3000 and displaced two million. Caused US$550 million in damage. Two days later, Puyehue volcano erupted, sending ash and steam into the atmosphere for several weeks.
2	**9.2**	Resulting tsunami killed 128 people and caused US$311 million in damage.
3	**9.1**	Killed 227 900 people, displaced 1.7 million in south Asia and east Africa. On 28 December, a mud volcano began erupting near Baratang, Andamar Islands.
4	**9.0**	Earthquake caused tsunami that killed 19 000 people and injured 6000. Caused US$ tens of billions in damage. Economic impacts huge, especially with the shutting down of a nuclear reactor.
5	**9.0**	Generated a tsunami that caused damage of US$1 million in Hawaiian Islands. Some waves over 9 metres high at Kaena Point, Oahu. None killed.
6	**8.8**	Killed at least 521 people, with 56 missing and 12 000 injured. More than 800 000 people displaced, with a total of 1.8 million people affected across Chile, where damage was estimated at US$30 billion.

(*continued*)

No. on map and magnitude of earthquake		Description and impact
7	8.8	Earthquake caused tsunami that was reported to have killed between 500 and 1500 people in Ecuador and Colombia.
8	8.7	Generated a tsunami about 10 metres high that caused damage on Shemya Island, plus US$10 000 in property damage from flooding on Amchitka Island. No deaths or injuries reported.
9	8.6	Killed 1313 people, with more than 400 people as far away as Sri Lanka injured by the tsunami.
10	8.6	This inland earthquake caused widespread damage to buildings as well as large landslides. 780 people were killed in eastern Tibet.

Liquefaction

Liquefaction occurs when soil suddenly loses strength and, mixed with groundwater, behaves like a liquid. This usually occurs as a result of ground shaking during a large earthquake. The types of soils that can liquefy include loose sands and silts that are below the water table, so all the space between the grains is filled with water. Dry soils above the water table will not liquefy.

Once a soil liquefies, it cannot support the weight of the dry soil, roads, concrete floors and buildings above it. The liquefied soil comes to the surface through cracks and widens them.

liquefaction transformation of soil into a fluid, which occurs when vibrations created by an earthquake, or water pressure in a soil mass, cause the soil particles to lose contact with one another and become unstable; for this to happen, the spaces between soil particles must be saturated or near saturated

FIGURE 4 Cars swallowed by liquefied soil on a road in Christchurch, New Zealand, 2011



Source: © Photography by Mark Lincoln.

Resources

Weblinks World's biggest tsunami
Liquefaction

15.8 SKILL ACTIVITY: Interpreting and analysing geographical data and information

1. Use the **Liquefaction** weblink in the Resources panel to view a video of liquefaction occurring.
2. Write a paragraph **describing** what liquefaction is and why it occurs.

15.8 Exercise

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15.8 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 5	3, 4	6, 7, 8

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Check your understanding

1. **Complete** the following passage by filling in the blanks.
   The amount of damage and death caused by earthquake disasters does not always relate to the _____ of the Earthquake. Likewise to measure the impact of a tsunami we have to look at its effect on _____ not at the size of the earthquake or _____ that caused it and not the size of the _____ which can be difficult to measure. Less _____ countries often do not have the _____ to prepare adequately for an earthquake. Badly constructed _____ in densely _____ areas on poor land contribute to the scale of the disaster.
2. **Select** all factors that combine to cause a tsunami or earthquake to turn into a disaster.
   A. A country's lack of resources
   B. Sparsely populated areas
   C. Poorly constructed buildings
   D. Strong infrastructure
   E. Densely populated areas
   F. Poor land
   G. Well-constructed buildings
3. **Explain** why wealthier nations are less likely to experience large scale disasters.
4. **State** the different impacts that earthquakes can have.
5. Examine **TABLE 1** and **TABLE 2**. **Determine** if the following statements are true or false.
   a. The majority of large tsunamis are triggered by earthquakes.
   b. Tsunami waves can be over 30 metres in height.
   c. North America is the most affected continent by earthquakes and tsunamis.
   d. Australia has experienced no major earthquakes or tsunamis in recorded history that we know of.
   e. The largest Earthquake recorded was in Valdivia, Chile at 9.5 on the Richter Scale.
   f. Japan has experienced few tsunamis.

Apply your understanding

Interpreting and analysing geographical data and information

6. Study **FIGURE 3** in this lesson and **FIGURE 1** in lesson 15.2.
   Describe the interconnection between the distribution of earthquakes and the distribution of tectonic plates.

Concluding and decision-making

7. **Explain** why Japan might experience so many destructive earthquakes and tsunamis.
8. **Explain** why the potential damaging effects of liquification might impact the ways in which cities expand.

LESSON
15.9 What are volcanoes and how are they formed?

LEARNING INTENTION

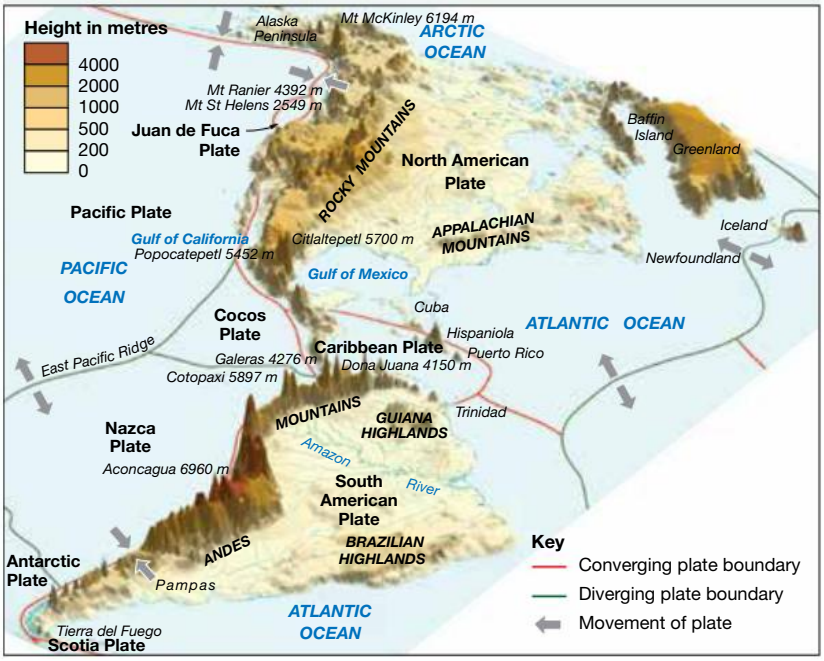
By the end of this lesson you should be able to explain how volcanoes are formed, describe the relationship between plate boundaries, the processes that cause volcanic eruptions and explain the term volcanic hotspot.

TUNE IN

Compare **FIGURE 1**, which focuses on the landforms of North, Central and South America with **FIGURE 2** in lesson 15.2, which shows a world map of plates, volcanoes and hotspots.

tlvd-10627

FIGURE 1 Landforms of North, Central and South America (not to scale)



Source: Map drawn by MAPgraphics Pty Ltd, Brisbane

1. Describe the spatial association between mountain ranges and volcanoes.
2. What is happening to the tectonic plates at these boundaries?
3. Theorise why some mountain ranges do not have volcanoes present.

15.9.1 How are volcanoes formed?

A volcano is a cone-shaped hill or mountain formed when molten magma in the Earth's mantle is forced through an opening or vent in the lithosphere. Almost all active volcanoes occur at or near plate boundaries. Some occur where two plates converge, and others occur where the plates are pulling apart, or diverging (see **FIGURE 1**). There is another group of volcanoes that are formed when plates move over hotspots.

Subduction zones

Some volcanoes are formed when an oceanic plate is pulled underneath a continental plate (see lesson 15.2). As the crust is forced down, it heats up and becomes magma. It can then rise to the Earth's surface through a magma chamber.

rift zone a large area of the Earth in which plates of the Earth's crust are moving away from each other, forming an extensive system of fractures and faults

Volcanoes in rift zones

The longest mountain range in the world is underwater, between the African and American continents, and is 56 000 kilometres long. It is called the Mid-Atlantic Ridge, and is made up of many volcanic mountains. The volcanoes are formed where two plates move away from each other in **rift zones**. The molten lava rises to the surface in the space between the plates, and the largest volcanoes appear above the water as islands. Examples of rift islands are Iceland, the Azores, Ascension Island, Gough Island and Bouvet Island. The rifting, or spreading apart, can occur on land or on the seabed.

The rifting of Iceland

The Mid-Atlantic Ridge passes through Iceland, where the island is splitting in two different areas (see **FIGURE 2**). This can be seen where Iceland's volcanoes are located, at the point where the North American Plate is drifting to the west and the Eurasian Plate is drifting to the east (see **FIGURE 3**). New crust is being formed in a rift below the sea, and eventually water from the Atlantic Ocean will fill the widening and deepening gaps between the separated parcels of land.

FIGURE 2 Rifting in Iceland



Source: Map drawn by MAPgraphics Pty Ltd, Brisbane

FIGURE 3 A chain of volcanoes in Iceland



The Great Rift Valley, Africa

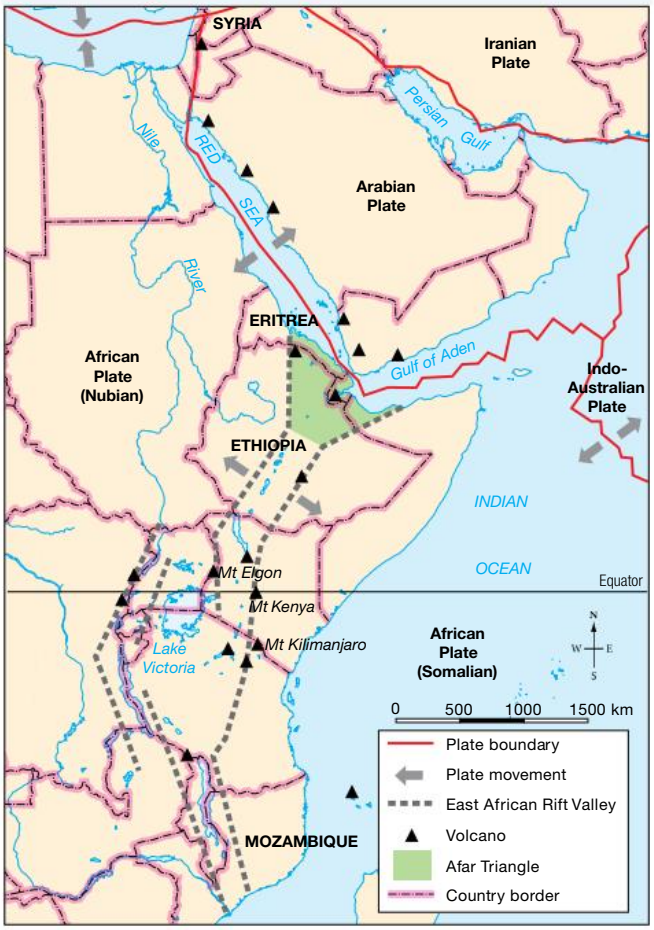
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The Great Rift Valley is in Africa (see **FIGURE 4**). It is about 5000 kilometres long, and stretches from Syria in the north to Mozambique in the south. The valley varies in width from 30 kilometres at its narrowest point to 100 kilometres at its widest. In some places it is a few hundred metres deep; in others it can be a few thousand metres deep.

The Great Rift Valley was created through separation that began 35 million years ago, when the African and Arabian plates began pulling apart in the northern region. About 15 million years ago, east Africa began to separate from the rest of Africa along the East African Rift. The volcanic activity in this region has produced many volcanic mountains, such as Mount Kilimanjaro, Mount Kenya and Mount Elgon.

As these rifts continue to grow, new ocean waters will flow into the valleys, separating the landmasses.

FIGURE 4 The Great Rift Valley, Africa



Source: Map drawn by MAPgraphics Pty Ltd, Brisbane

15.9.2 Volcano hotspots

Although most volcanoes are formed on plate boundaries, some are located in the middle of plates, a long way from plate boundaries. These volcanoes have formed above a hotspot — a single plume of rising mantle. Volcanoes form as the plates slowly move over the hotspot and, over time, a chain of volcanoes can form. Hotspots are found in the ocean and on continents. Examples include the Hawaiian Islands and many of Australia's extinct volcanoes. In Hawaii, the location of the volcanoes gives a clue to the direction and speed of the plate movement.

Resources

Weblinks Hawaii's hotspot

Google Earth Iceland
Great Rift Valley

15.9 SKILL ACTIVITY: Communicating

1. Go to the **Hawaii's hotspot** weblink in the Resources panel. Make notes on the information you find.
2. Using your notes, **explain** how hotspot volcanoes form.

15.9 Exercise

learnon

15.9 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 5	3, 4, 7	6, 8, 9, 10

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Check your understanding

1. Almost all volcanoes are found
   - A. near plate boundaries.
   - B. near the ocean.
   - C. exclusively near subduction zones.
   - D. in Asia.
2. Iceland has formed
   - A. where a subduction zone has led to significant volcanic activity.
   - B. where two plates are drifting apart.
   - C. as a result of earthquakes pushing the crust above the ocean.
   - D. where two landmasses have been pushed together to form an island.
3. Study the shape of the island of Madagascar shown in **FIGURE 5**. Try to imagine fitting this island back into the mainland. Using plate tectonic terms, write a paragraph to **describe** how Madagascar's location has changed over time.
4. **Describe** the changes occurring that are causing volcanoes to form in:
   - a. the Great Rift Valley
   - b. Iceland.
5. Very few active volcanoes occur at or near plate boundaries. True or false?FIGURE 5

FIGURE 5 The bottom of Africa, showing the location of Madagascar



Apply your understanding

Concluding and decision-making

6. **Explain** how the scale of the changes happening in Iceland is different from the scale of change happening in the Great Rift Valley?
7. **Discuss** how 'hot spots' lead to volcanic activity. Use examples in your analysis.
8. Refer to **FIGURES 2** and **3**. **Explain** why a chain of volcanoes, like the one in **FIGURE 3**, forms in Iceland. What is happening to the plates?

Communicating

9. **Draw** what you imagine Iceland will look like many thousands of years in the future after further rifting. Provide new names for each of the smaller islands. In which direction, and towards which continent, will each island drift? **Describe** key changes.
10. **Draw** a series of sketches to show what you predict will happen to the African landmass as the Great Rift Valley continues to rift. Include a map of Africa showing the change in shape that might occur. You need to **annotate** your sketches to justify the predictions you have made.

LESSON
15.10 Investigating topographic maps — Mount Taranaki, New Zealand

LEARNING INTENTION

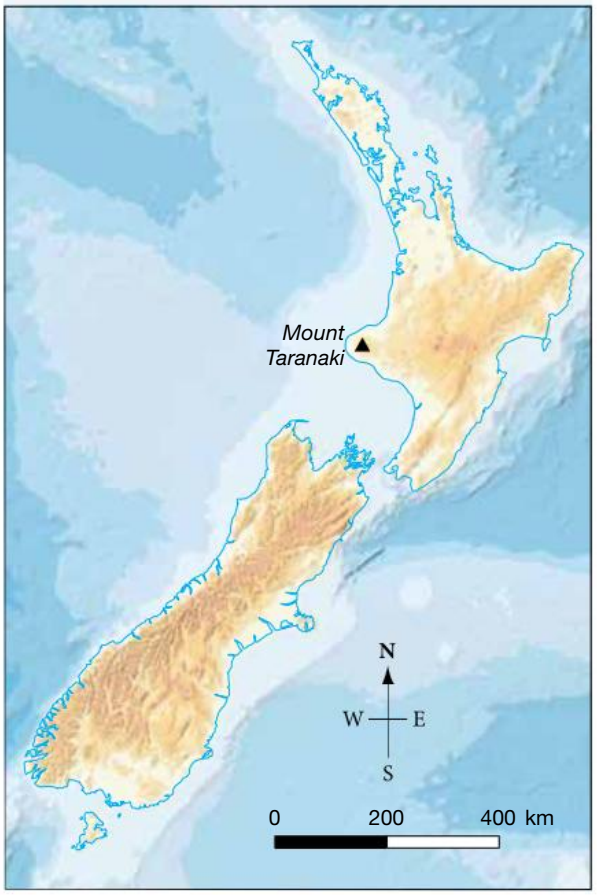
By the end of this lesson you should be able to investigate Mount Taranaki in New Zealand and interpret a topographic map.

New Zealand's Mount Taranaki is named after the Māori terms *tara* meaning 'mountain peak' and *ngaki* meaning 'shining' (because the mountain is covered with snow in winter).

Mount Taranaki is 2518 metres high and is the largest volcano on New Zealand's mainland. It is located in the south-west of the North Island (see **FIGURE 1**).

Mount Taranaki was formed 135 000 years ago by subduction of the Pacific Plate below the Australian Plate. It is a stratovolcano (composite cone) — a conical volcano consisting of layers of pumice, lava, ash and tephra. Mount Taranaki is symmetrical, looking the same on both sides of a central point. It is the only active volcano in a chain in this region. The other volcanoes were once very large but have been eroded over time.

FIGURE 1 Location of Mount Taranaki on the North Island of New Zealand



Source: Map drawn by Spatial Vision

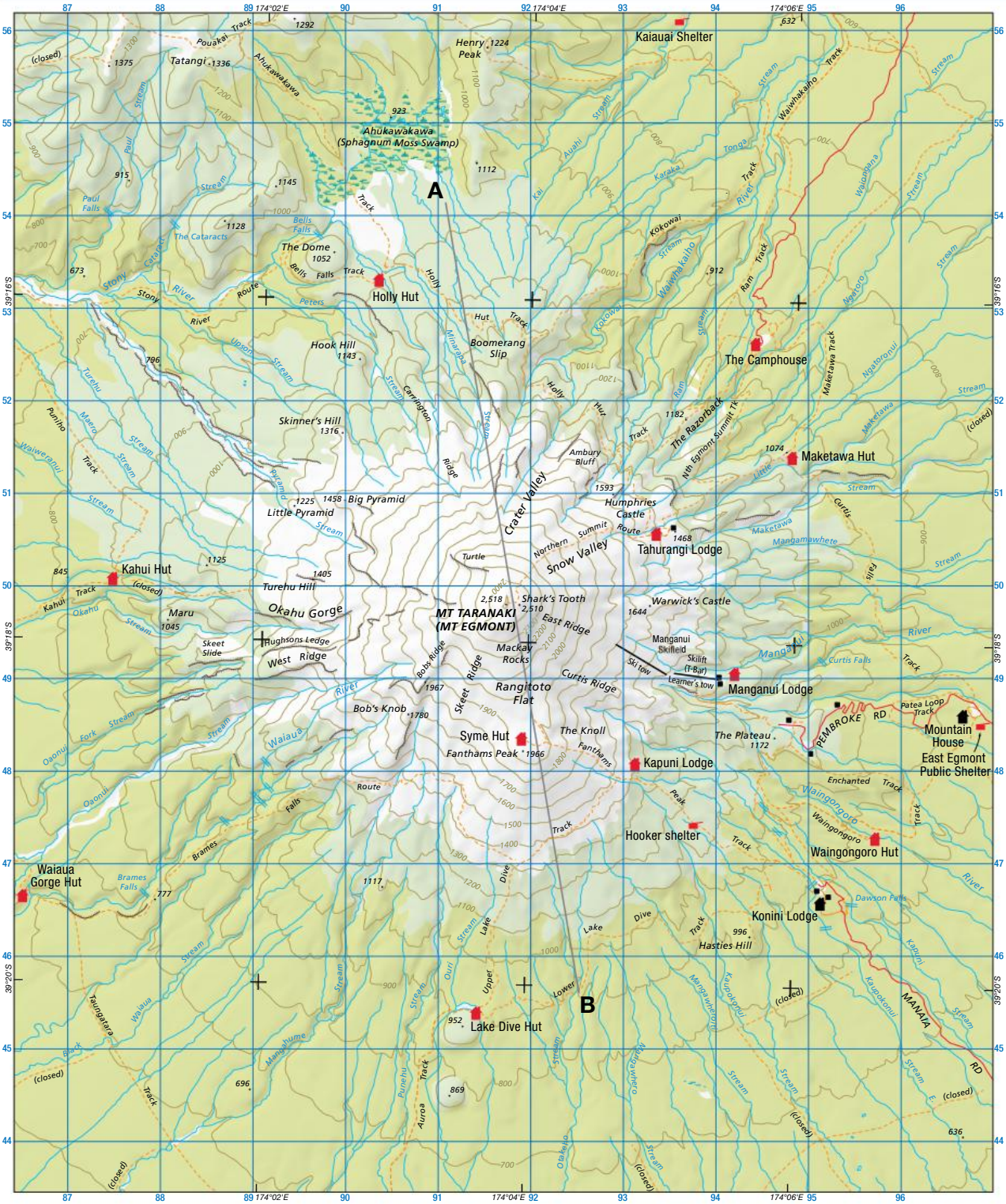
The summit of Mount Taranaki is a lava dome in the middle of a crater that is filled with ice and snow. The mountain is considered likely to erupt again. There are significant potential hazards from lahars (mudflows containing volcanic debris), avalanches and floods. A circular plain of volcanic material surrounding the mountain was formed from lahars (see **FIGURE 3**) and landslides. In the past, some of these flows reached the coast The volcano's lower flanks are covered in forest and are part of the national park. There is a clear line between the park boundary and surrounding farmland.

FIGURE 2 Aerial photo of Mount Taranaki



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FIGURE 3 Topographic map of Mount Taranaki



Source: LINZ Data Service. License: Creative Commons Attribution 3.0 New Zealand https://data.linz.govt.nz/license/attribution-3-0-new-zealand/. Map drawn by Spatial Vision.

FIGURE 4 Mount Taranaki has a near-perfect conical shape.



15.10 Exercise

learnon

15.10 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 5	2, 4	3, 6

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1. Mount Taranaki is located in the **east** / **south-west** / **north** / **south-east** / **south** / **west** of the **east** / **south-west** / **north** / **south-east** / **south** / **west** island of New Zealand.
2. **Explain** how Mount Taranaki formed.
3. Mount Taranaki receives between 3200 millimetres and 6400 millimetres of rainfall each year. **Explain** how this would contribute to the shape of this landform.
4. Refer to **FIGURE 3**.
   a. **State** the grid reference for the spot height of Mount Taranaki.
   b. **Calculate** the number of huts and lodges.
   c. **State** the area reference of the Manganui Ski field.
   d. **State** the highest elevation shown on the map.
   e. **Name** and give the grid reference of a lodge in which skiers could stay.
   f. **State** the area reference for the largest portion of swampland.
5. **Describe** evidence from the aerial photo in **FIGURE 2** that the national park has protected forests around the volcano.
6. a. Use **FIGURES 2, 3** and **4** to describe where you think lava would flow if Mount Taranaki erupted.
   b. **Describe** the potential changes to the human and natural environment.

on Resources

eWorkbook	Investigating topographic maps — Mount Taranaki (ewbk-10761)
Digital document	Topographic map of Mount Taranaki (doc-39541)
Video eLesson	Investigating topographic maps — Mount Taranaki — Key concepts (eles-6033)
Interactivity	Investigating topographic maps — Mount Taranaki (int-8408)
Google Earth	Mount Taranaki (gogl-0134)

LESSON
15.11 What are the types of volcanoes and how do they erupt?

LEARNING INTENTION

By the end of this lesson you should be able to describe the different types of volcanic landforms, why they have different shapes and how they erupt.

TUNE IN

Look closely at **FIGURE 1**. In the area around the erupting volcano you can see the lights of a built-up area.

FIGURE 1 An erupting volcano in Spain



1. Theorise as to why people would be living so close to an erupting volcano.
2. Describe what you can see being erupted. What impact might it have on the surrounding land?

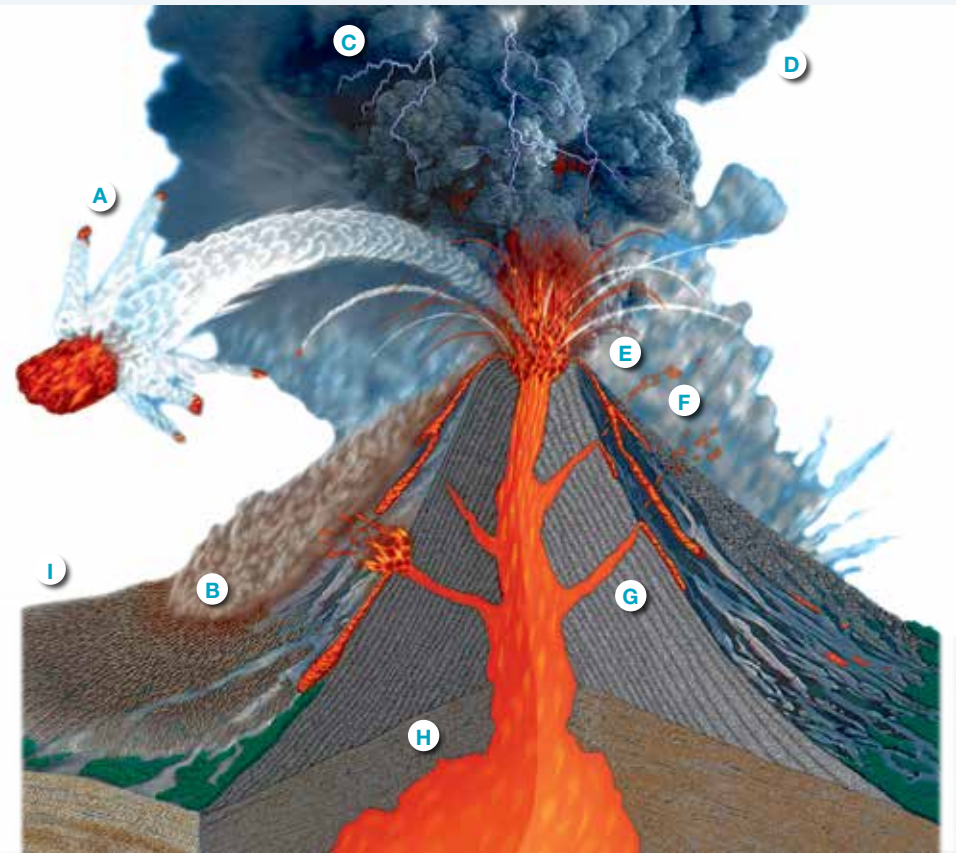
Volcanic mountains are formed when magma pushes its way to the Earth's surface and then erupts as lava, ash, rocks and volcanic gases. These materials build up around the vent through which they erupt.

A volcanic eruption can be slow or spectacular, and can result in a number of different displays (see **FIGURE 1**).

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FIGURE 2 The anatomy of a volcano



A A fragment of lava greater than 64 millimetres in diameter is called a volcanic bomb. They are often solid pieces of lava from past eruptions that formed part of the cone.

B A pyroclastic flow is a superheated avalanche of rock, ash and lava that rushes down the mountain with devastating effects. The flow can travel at up to 240 kilometres per hour and reach temperatures of 800 °C. When Mount Pelée erupted in 1902, on the island of Martinique in the Caribbean, a pyroclastic flow covered the town of Saint-Pierre, killing all but two of the town's 30 000 inhabitants.

C Lightning is often generated by the friction of swirling ash particles.

D As rock is pulverised by the force of the eruption, it becomes very fine ash, and is carried by wind away from the crater as an ash cloud. Volcanic ash may blanket the ground to a depth of many metres. In the eruption of Mount Vesuvius in 79 CE, volcanic ash completely covered two large towns: Pompeii and Herculaneum.

E A volcanic cone is made up of layers of ash and lava from previous eruptions. If the volcano has not erupted for thousands of years (i.e. is dormant), these layers will be eroded away.

F Lava may be either runny or viscous, and can flow for many kilometres before it solidifies, thereby building up the Earth's surface.

G Pressure may force magma through a branch pipe or side vent. In the eruption of Mount St Helens, in Washington in the United States, in the 1980s, the side of the mountain collapsed and the side vent became the main vent.

H Where two plates move apart, molten rock from the mantle flows upward into a magma chamber. More rock is melted and erupts violently upwards. Magma is generally within the temperature range of 700 °C to 1300 °C.

I When pyroclastic flows melt snow and ice, and mix with rocks and stones, a very wet mixture called a lahar can form. Lahars can flow quickly down the sides of volcanoes and cause much damage. One lahar that formed in 1985 on the Nevado del Ruiz volcano in Colombia, travelled at up to 50 kilometres per hour and was up to 40 metres high in some places. A wall of mud, water and debris travelled 73 kilometres to the town of Armero, devastating it. More than 23 000 people died that night and 5000 homes were destroyed.

15.11.1 Volcanic shapes

Volcanoes come in a variety of shapes and sizes, forming different landforms. There are four main types and each depends on:

- the type of lava that erupts
- the amount and type of ash that erupts
- the combination of lava and ash.

Lava that is rich in silica (a mineral present in sand and quartz) is highly viscous and is thick and slow moving. If the lava is low in silica, it tends to be very runny and may flow for many kilometres before it cools and hardens to become rock. Volcanoes that erupt runny lava tend to have broad, flat sides (shield volcanoes). Those that erupt thick, treacle-like lava tend to have much steeper sides (dome volcanoes).

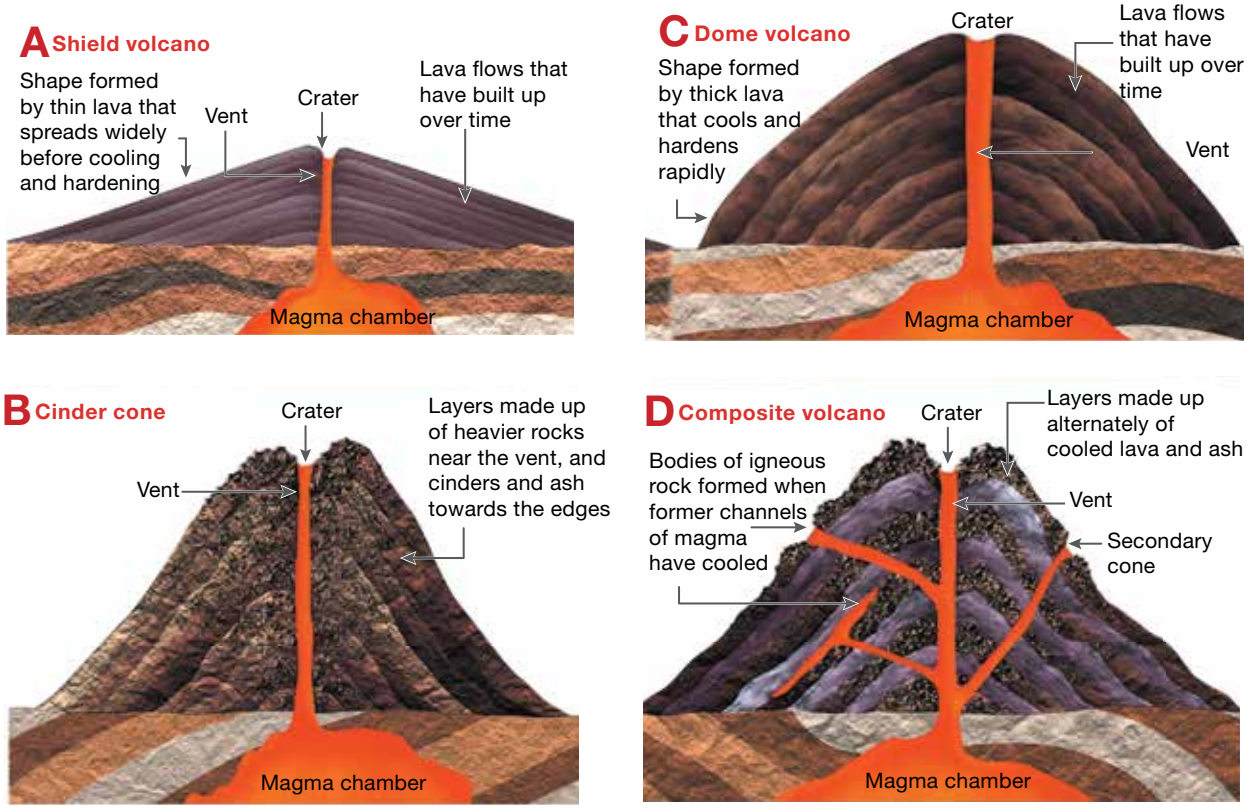
Heavy ash material, like volcanic bombs, settles close to the crater while lighter ash is carried further away. Volcanoes that are built up through falls of ash are steep-sided cinder cones. Volcanic ash is made up of a mixture of rock, mineral and glass particles. It is usually very small (often less than 2mm in diameter). Unlike the ash from woodfires, volcanic ash is very hard and when there is heavy ashfall, the weight can collapse roofs. Volcanic ash is a major concern for jet engines, as it can clog the motors and flights often need to be redirected when eruptions occur.

The most common type of volcano is one built up of both ash and lava; this is called a composite volcano.

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FIGURE 3 Four volcanic landforms

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15.11 SKILL ACTIVITY: Communicating

1. **Conduct research** to find pictures of volcanic landforms and materials. These include crater lakes, geysers, calderas, fields of ash deposits, volcanic plugs, lava tubes, hummocks and pumice. You could also find pictures of the two types of lava: a'a and pahoehoe.
2. Use your pictures to **create** a field guide to volcanic landforms. Each page should contain a picture of the landform, a brief description and a place where it can be found — sometimes they are tourist attractions.

15.11 Exercise

learnon

15.11 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 4, 5	2, 3, 6	7, 8, 9, 10

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Check your understanding

1. **Determine** whether the following statements are true or false.
   a. Volcanoes can erupt ash, gas and magma in the same eruption.
   b. The type of lava that erupts from a volcano can determine the shape of the cone.
   c. Volcanic bombs are blocks of magma so full of Sulphur dioxide that they "explode" when they hit the ground.
   d. A composite volcano is made up of both lava and ice.
   e. Lightning can be generated by the friction in volcanic ash.
2. a. **Define** pyroclastic flow.
   b. **Explain** why this is often viewed as the most dangerous aspect of a volcanic eruption.
3. **Explain** how a volcanic cone develops.
4. Study **FIGURE 3**. Match each volcano to its description to **explain** how the shape of volcanoes depends on the different materials being ejected.
   i. Shield volcano
   ii. Composite volcano
   iii. Dome volcano
   iv. Cinder cone

a. Thin lava spreads over a wide area before cooling.	
b. Made up of alternate layers of cooled lava (forming areas of igneous rock) and ash.	
c. Layers of rock build up near the vent and the outer part of the volcano is made up of cinders and ash.	
d. Formed by different layers of thick lava that cool and harden quickly.	

5. What is a stratovolcano?
   A. A volcano made up of layers of pumice, lava, ash and tephra
   B. A volcano created from passing over a hotspot
   C. A volcano made up of blocks of pumice and ash
   D. A volcano covered in snow and ice
6. a. **Define** Lahar.
   b. **Explain** how are lahars are linked to volcanoes with snow-capped peaks.

Apply your understanding

Concluding and decision-making

7. a. **Discuss** how volcanic ash is different from the ash in a fireplace. What are the implications of this when ash builds up on rooftops?
   b. **Explain** why volcanic ash is usually seen as being more dangerous than lava.
8. Refer to **FIGURES 1** and **2**.
   a. **Describe**, in detail, the changes to the environment that volcanic eruptions can cause.
   b. **Identify** which changes would impact on a small scale and which would impact on a larger scale.
9. **Theorise** as to how you might prepare a hazard map for a volcano. What would you have to take into account?
10. **Explain** why the relative size of a magma chamber is potentially significant.

LESSON
15.12 How do volcanic eruptions affect people?

LEARNING INTENTION

By the end of this lesson you should be able to describe the impact of volcanoes on people and the environment, and identify strategies to reduce the impact of a volcanic eruption.

TUNE IN

Volcanoes can have devastating impacts on the environment and the population.

FIGURE 1 Eyjafjallajökull-eruption, Iceland



In pairs or small groups complete the following tasks.

1. Make a list of all the risks associated with living near volcanoes.
2. Discuss reasons why people might want to live near volcanoes.
3. Under what conditions do you think it might be worth the risk of living near a volcano?

Share your responses with the class.

15.12.1 The worst volcanic eruptions

Volcanic eruptions both create and destroy landscapes. Most volcanic eruptions do not strike randomly but occur in specific areas, such as along plate boundaries. In some places there are high concentrations of people living near volcanoes.

Most of the world's active above-sea volcanoes are located near convergent plate boundaries where subduction is occurring, particularly around the Pacific basin. This is also the location of settlements across many countries. Over many years, volcanic eruptions have caused deaths and great damage.

How can the worst volcanoes be measured? Should it be based on the number of people killed or the cost of the damage and destruction? Or should it be the size of the explosion?

TABLE 1 The worst volcanoes based on number of deaths

Volcano	Location	Date	Number of deaths
Mt Tambora	Indonesia	5–10 April 1815	71 000+
Mt Pelee	West Indies	25 April–8 May 1902	30 000
Mt Krakatoa	Indonesia	26–28 August 1883	36 000+
Nevado del Ruiz	Colombia	13 November 1985	23 000
Mt Unzen	Japan	1792	12 000–15 000
Mt Vesuvius	Italy	24 April 79 CE	13 000+
Laki Volcanic System	Iceland	8 June 1783–February 1784	9350
Mt Kelud	Indonesia	1586	10 000
Mt Kelud	Indonesia	19 May 1919	5110

Source: EM-DAT, CRED / UCLouvain, Brussels, Belgium, www.emdat.be (D. Guha-Sapir), 14 April 2020 version.

TABLE 2 The worst volcanoes based on economic impact

Volcano	Location	Date	Estimated loss (million US$)
Nevado del Ruiz	Colombia	1985	1000
Mount St Helens	USA	1980	860
Calbuco	Chile	2015	600
Mount Pinatubo	Philippines	1991	211
Galunggung	Indonesia	1982	160
Tungurahua	Ecuador	2006	150
Gamalama	Indonesia	1983	149
El Chichon	Mexico	1982	117
Rabaul	Papua New Guinea	1994	110
Puyehue-Cordon Caulle	Chile	2011	104

Source: EM-DAT, CRED / UCLouvain, Brussels, Belgium, www.emdat.be (D. Guha-Sapir), 14 April 2020 version.

15.12.2 Why do people live near volcanoes?

Geoscience Australia (a national organisation that provides geographic information to the government) estimates that 180 million people in the Asia–Pacific region live within 50 kilometres of a dangerous volcano. There is also a strong relationship between the location of volcanoes and resources such as fertile soils, ore deposits and **geothermal energy**.

geothermal energy energy derived from the heat in the Earth's interior

volcanic loam a volcanic soil composed mostly of basalt, which has developed a crumbly mixture

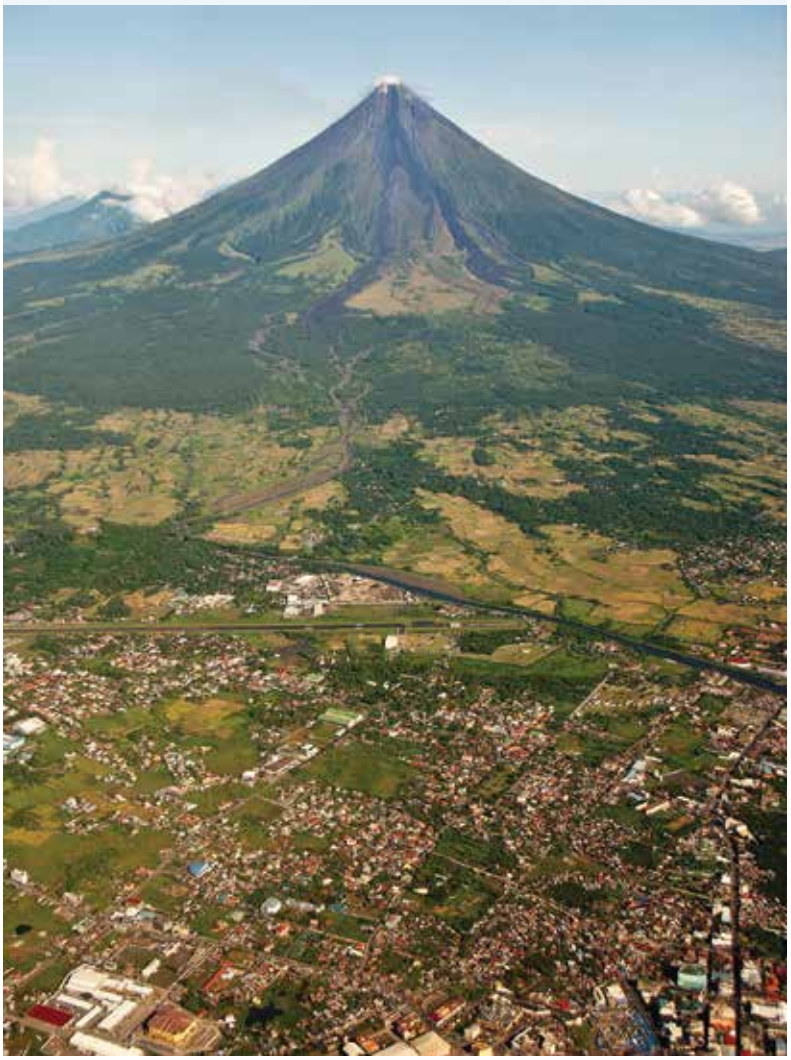
Fertile soils

Some of the most fertile soils on Earth have come from volcanic deposits of ash that is rich in nutrients, and from the physical breakdown of volcanic rocks over thousands or millions of years.

Fertile volcanic soils have been very important for rice growing in Japan and large areas of the Indonesian archipelago, especially on the islands of Java and Bali. There is also prime agriculture located in regions of rich soil; for example, around Naples, southern Italy, which generally has poor soils.

Another region of fertile volcanic soil is the agricultural area of the North Island of New Zealand. **Volcanic loam** in this area helps produce crops and pasture. Other regions include the western plains of the United States and the Hawaiian Islands. There is a small percentage of rich basalt soils in Australia, including the volcanic plains in Victoria, the north coast of New South Wales, the Scenic Rim of south-east Queensland, parts of Tasmania, and the Atherton Tablelands in north Queensland.

FIGURE 2 Agriculture and settlement near Mayon Volcano in the Philippines

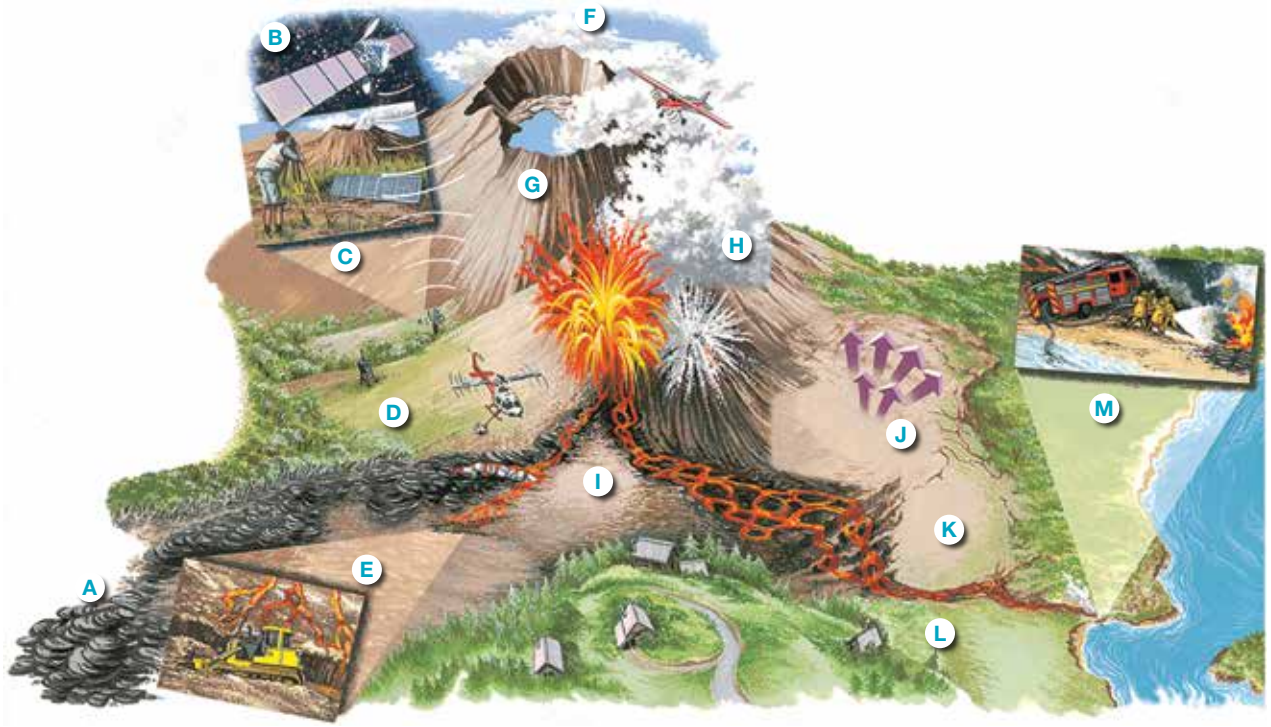


Geothermal energy

Geothermal energy can be used in locations where there are active or dormant volcanoes still producing heat deep under the Earth's surface. High-temperature hot springs and geysers produce steam, which can be used to drive turbines and generate electricity. At lower temperatures, the hot water can be used for home heating or to develop hot or warm springs at resort spas. Over one quarter of Iceland's electricity is generated from geothermal energy, and it provides heating for more than 85 per cent of its homes. The other main countries that make use of geothermal energy are the United States (in California), Italy, New Zealand and Japan.

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FIGURE 3 Predicting volcanic eruptions



A Geologists study records of past eruptions by examining flow patterns of mud, lava and ash. From these patterns they can draw danger maps that pinpoint dangerous areas.

B Satellites monitor changes in gas emissions and in the shape of the volcano. Specialised equipment can also measure heat increases.

C Seismographs can detect the small earthquakes caused by rising magma. These are linked by transmitters to computers so that scientists can quickly detect changes.

D Sound-measuring equipment was used to accurately predict an eruption in Mexico in 2000.

E In 1983, an attempt was made to divert a lava flow away from the towns of Rocco and Rogalna on Mount Eina. A channel was dug and barriers erected. The lava slowed and solidified before reaching the towns.

F Samples of gas can be collected and analysed. An increase in the amount of sulfur dioxide (SO_2) may indicate that magma is moving upwards.

G A rise in the temperature of a crater lake often precedes an eruption.

H It has been suggested that explosives could be used to breach crater walls, sending lava away from towns. This was first tried in Hawaii in 1935.

I Helicopters have been used to drop concrete blocks in front of flowing lava.

J As magma rises and collects in the magma chambers, the cone may bulge outwards, warning of possible eruptions. Sensitive tiltmeters on the ground and on satellites can detect this bulging.

K Any bulging can also cause tiny cracks to appear.

L Buildings in areas prone to ash eruptions should have steeply sloping roofs so ash does not accumulate.

M In 1973, sea water was sprayed onto lava that was threatening a town in Iceland. The lava cooled quickly and solidified.

15.12.3 How to prepare for volcanic eruption

Can volcanic eruptions be predicted? What are the warning signs? How can the risk of death, injury and damage be reduced?

With about 500 million people living close to active volcanoes, it is important to watch for changes and try to predict an eruption, hopefully giving nearby residents time to evacuate.

15.12 SKILL ACTVITY: Interpreting and analysing geographical data and information, Concluding and decision-making

1. a. Refer to an atlas map showing world population density, settlements and the location of volcanoes.
   b. Make notes on the patterns you see. How close are settlements to volcanoes? What populations do they have?
   c. Write two statements that **describe** the relationship between population density, settlements and volcano locations. **Explain** how this relates to people's risk.
2. Copy and complete a table like the following, **summarising** the measures required for living with volcanoes.
   a. Use the table to help you **classify** the information in **FIGURE 3**.
   b. **State** which of the measures you think is most effective. Give three reasons for your answer.

15.12 Exercise

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15.12 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 6	5, 7, 8

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Check your understanding

1. **Complete** the following statements by filling in the blanks.
   Volcanic eruptions both _____ and destroy landscapes. Most eruptions do not occur randomly but occur in specific area, such as along _____ _____. In some places there is a high number of _____ living near volcanoes. Most of the world's active volcanoes are located near _____ boundaries where subduction is occurring. This is also the location of many _____ across many countries. As a result volcanic eruptions have caused deaths and great _____.
2. Which of the following are advantages and which are disadvantages of living near a volcano?
   a. Eruption could cause destruction of natural environment.
   b. Fertile soils for agriculture
   c. Possibility for deaths if it erupts
   d. Geothermal energy to access for power
   e. Natural hot springs for tourism
   f. Possible damage caused by eruption
   g. The smell of sulphur
3. Geothermal energy is not a renewable resource. True or false?
4. **Define** volcanic loam and **identify** where it is found.

Apply your understanding

Communicating

5. **Create** a photo sketch of **FIGURE 2** and label the following: volcano, volcanic plain, lava flows, farmland, settlement.

Concluding and decision-making

6. **Explain** what geothermal energy is. What do you think could be some of the benefits of using this type of energy?
7. **Explain** how seismographs can be used to warn of a possible volcanic eruption.
8. Study **FIGURE 3**. List the different techniques that have been used to try to stop the flow of lava. Which technique do you think is the most effective and why?

LESSON 15.13 INQUIRY: Supervolcano report

Background

In this inquiry, you will investigate the recently discovered geomorphological feature known as a super volcano. In groups of three to four you will seek to develop a better understanding of super volcanoes. You will also use critical thinking skills to analyse and interpret information to assess the relative merits of sources of information before submitting a report that will inform the class.





There are estimated to be at least 12 super volcanoes scattered around the world. Each one has the capacity for a potentially globally significant eruption.

Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

Inquiry steps

Step 1: Questioning and researching using geographical methods

Research the world's super volcanoes. Choose one that you want to investigate further. Focus on the following:

- Where is it located?
- Why is it considered a supervolcano?
- Previous historic eruptions
- Any other interesting facts about your volcano.
  (Make sure you are conscious of the sources of your information. Use multiple sources to compile your data and discuss with your teacher ways in which you can verify the reliability of the source)

Step 2: Interpreting and analysing geographical data and information

Discover the facts about your super volcano's previous eruptions. What would a similar size eruption mean today. **Examine** the effects of an eruption on both a local, national and global scale

Step 3: Concluding and decision-making

Compile a series of recommendations that you would make for managing this hazard moving forward. You can base this on current monitoring and risk management programs or you can look at what is being done elsewhere in the world and recommend improvements if you think they are required.

Step 4: Communicating

Create a report for the rest of the class on your chosen super volcano. Be creative in the way you want to communicate your information. For instance you can prepare:

- A mock news report
- A front/double page spread for a newspaper
- A radio interview with a group of "geologists and volcanologists and politicians" Assigning different people a role.

The key is to ensure that your report is both informative and interesting.

Complete your self-assessment using the **Inquiry rubric** or access the 15.13 exercise set to complete it online.



on Resources

Digital document Inquiry rubric (doc-39542)

LESSON
15.14 Review

Hey students! Now that it's time to revise this topic, go online to:

Review your results | **Watch teacher-led videos** | **Practise questions with immediate feedback**

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15.14.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

15.2 What are plate tectonics?

- The Earth is made up of continental plates that are constantly moving slowly.
- Convection currents are the drivers of tectonic plate movement.
- Some plates converge; others diverge and others again slide past one another.
- Hot spots have created volcanic islands and landmasses around the world.
- The Pacific Ring of Fire is the world's most active tectonic region.

15.3 How do different types of mountains form?

- This tectonic activity (moving plates) is a process for forming mountains.
- Mountains are classified by what they look like and how they were formed.
- The most common formations are fold mountains.
- Other mountain formations include fault-block, dome and plateau.
- The Himalayas are the world's largest mountain range

15.4 Where are the world's mountain ranges?

- Mountains are found on every continent on Earth.
- There are major chains of mountains — mountain ranges — on all continents.
- The longest mountain ranges in the world are the Andes and the Rockies.
- Vegetation, climate and weather change as the altitude on mountains increases.

15.5 How do people connect with mountains?

- Mountains can be remote but often support low population densities.
- Mountain ranges are vital for the world's water supply.
- Specific mountain landforms are sacred and special places to First Nations Australians and other groups of people around the world.
- People have adapted a range of specialised techniques to farm in mountain ranges.

15.6 What are earthquakes?

- Earthquakes are a common occurrence each day across the Earth.
- There is a strong relationship between the location of plate boundaries (weaknesses in the Earth's crust) and the location of earthquakes.
- The focus of an earthquake is the place underground where the movement takes place and the epicentre is spot on the Earth's surface directly above the focus.
- Earthquakes generate both Primary and Secondary waves that radiate out from the focus.
- Earthquakes are measured using both a Richter scale and the modified Mercalli Scale.

15.7 What is a tsunami?

- A tsunami can result if a large earthquake occurs on the ocean floor.
- The shape of the sea floor as it nears land influences the impact of a tsunami.
- Tsunamis are not a single wave, they are anywhere from approximately 5–20 waves.
- The Japanese tsunami was the result of a massive earthquake (8.9 on the Richter scale) that produced waves of over 6 metres in height.

15.8 What are the Impacts of earthquakes and tsunamis?

- Earthquakes and tsunamis can affect people and result in deaths, injuries and damage to homes and infrastructure.
- The impact of a Tsunami or earthquake can vary greatly depending on a country's level of income.
- The environment can be affected through landslides, erosion and liquefaction.
- Ground Liquification occurs when soil suddenly loses strength and, mixed with groundwater, behaves like a liquid.

15.9 What are volcanoes and how are they formed?

- Volcanoes are formed when molten magma in the Earth's mantle is forced through an opening in the Earth's surface.
- Volcanoes can be formed in rift valleys and over hotspots.

15.10 Investigating topographic maps — Mount Taranaki, New Zealand

- Mount Taranaki is the largest volcano on New Zealand's mainland, on the North Island.
- Mount Taranaki is a dormant stratovolcano that is likely to erupt in the future.

15.11 What are the types of volcanoes and how do they erupt?

- The shapes and sizes of volcanic landscapes depend on the type of lava, the amount of ash and the speed of the eruption.
- Volcanic ash is actually tiny fragments of rock and as such it is denser and more damaging than ash from a wood fire.
- A pyroclastic flow is a superheated avalanche of rock, ash and lava that rushes down the mountain.
- A lahar is a flow of mud and ash that occurs when pyroclastic flows melt snow and ice, and mix with rocks and stones.

15.12 How do volcanic eruptions affect people?

- Volcanic mountains form when magma erupts to the Earth's surface.
- Volcanic eruptions can destroy landscapes and kill people.
- Large numbers of people across the world live near volcanoes because of the location of fertile soils, ore deposits and geothermal energy.
- Predicting the type and scale of a volcanic eruption is increasingly important with over 500 million people living so close to active volcanoes.

15.13 INQUIRY: Supervolcano report

- What is a supervolcano?
- Where are supervolcanoes located?
- What could happen if a supervolcano erupted?

15.14.2 Key terms

altitude height above sea level
convection current a current created when a fluid is heated, making it less dense, and causing it to rise through surrounding fluid and to sink if it is cooled; a steady source of heat can start a continuous current flow
converging plate a tectonic boundary where two plates are moving towards each other
cultural relating to the ideas, customs and social behaviour of a society
divergent plate a tectonic boundary where two plates are moving away from each other and new continental crust is forming from magma that rises to the Earth's surface between the two
epicentre the point on the Earth's surface directly above the focus of an earthquake
fault an area on the Earth's surface that has a fracture; a fault lies at the major boundaries between Earth's tectonic plates.
fault plane the area of a tectonic plate that moves vertically as a result of an earthquake
focus the point where the sudden movement of an earthquake begins
geothermal energy energy derived from the heat in the Earth's interior
hotspot an area on the Earth's surface where the crust is quite thin, and volcanic activity can sometimes occur, even though it is not at a plate margin
landslide a rapid movement of rocks, soil and vegetation down a slope, sometimes caused by an earthquake or by excessive rain
liquefaction transformation of soil into a fluid, which occurs when vibrations created by an earthquake, or water pressure in a soil mass, cause the soil particles to lose contact with one another and become unstable; for this to happen, the spaces between soil particles must be saturated or near saturated
lithosphere the crust and upper mantle of the Earth
orographic rainfall occurs when a topographic barrier such as a mountain blocks the path of a movement of air horizontally. This forces the air upward where it cools, thus increasing the likelihood of rain.
Pangaea the name given to all the landmass of the Earth before it split into Laurasia and Gondwana, which over time became the continents we know today
primary wave also known as a P-wave; the first waves to hit an area during an earthquake, which cause a sudden jolt
rift zone a large area of the Earth in which plates of the Earth's crust are moving away from each other, forming an extensive system of fractures and faults
secondary wave also known as a S-wave; the waves that arrive at an area after the P-waves, which cause a sustained up-and-down movement
seismic wave a wave of energy that travel through the Earth as a result of an earthquake, explosion or volcanic eruption
volcanic loam a volcanic soil composed mostly of basalt, which has developed a crumbly mixture

15.14.3 Reflection

Complete the following to reflect on your learning.

Revisit the inquiry question posed in the Overview:

How do magma, water and tectonic plates change environments and what are the impacts on people and places?

1. Now that you have completed this topic, what is your view on the question? Discuss with a partner. Has your learning in this topic changed your view? If so, how?
2. Write a paragraph in response to the inquiry question, outlining your views.

on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10759)
Reflection (ewbk-10762)
Crossword (ewbk-10763)
Interactivity Geomorphic hazards crossword (int-9017)

15.14 Review exercise

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Multiple choice

1. Most active, above-sea volcanoes are associated with what type of plate boundary?
   - A. Convergent
   - B. Divergent
   - C. Hotspots
   - D. Lateral plate slippage
2. Volcanoes are not evenly distributed, but are often clustered. Which plate boundary is spatially associated with the largest number of active volcanoes?
   - A. Eurasian
   - B. African
   - C. Pacific
   - D. Caribbean
3. The eruption of Mount Eyjafjallajökull, Iceland, in April 2010, caused an estimated loss of US$1.7 billion dollars. Much of this was in the form of losses to the airline industry as airports across much of Europe were closed. Which of the below posed the greatest risk to aircraft?
   - A. Ash
   - B. Lava
   - C. Steam
   - D. Pyroclastic flows
4. While volcanoes can bring death and destruction, they can also benefit people. From the list, select three benefits that volcanoes bring to people.
   - A. Fertile soils from the gradual breakdown of mineral-rich lava
   - B. Ash build up in rivers
   - C. Geothermal energy
   - D. Pyroclastic flows
   - E. Spectacular scenery and tourist destinations
5. Fold mountains usually have
   - A. rounded peaks.
   - B. flat peaks.
   - C. pointed peaks.
   - D. cratered peaks.
6. The epicentre of an earthquake is
   - A. the point below the Earth's surface where an earthquake occurs.
   - B. the point on the Earth's surface directly above the focus of the earthquake.
   - C. the area affected directly by an earthquake.
   - D. the centre of the Earth.
7. The lithosphere is
   - A. the crust of the Earth.
   - B. the Earth's upper mantle.
   - C. the crust and lower mantle of the Earth.
   - D. the crust and upper mantle of the Earth.

8. Volcanic loam is
   - A. the plume of smoke and ash arising from a volcano.
   - B. the fiery centre of a volcano.
   - C. a volcanic soil.
   - D. hot molten ash created by a volcano.
9. Altitude is
   - A. the height of a mountain.
   - B. height measured in metres.
   - C. height above sea level.
   - D. height above ground level.
10. Geothermal energy is
   - A. energy derived from waves.
   - B. energy derived from the sun.
   - C. energy derived from rocks.
   - D. energy derived from heat within the Earth's interior.

Short answer

Communicating

11. a. **Define** and **explain** of continental drift and plate tectonics. Use your own sketched and labelled diagrams to help with your explanation.
    b. **Describe** the relationship between the location of mountains and mountain ranges and plate tectonics. Choose three examples from different *places* for your explanation.
12. **Describe** the general location and distribution of the world's earthquakes and volcanoes. What is the relationship between this distribution and the location of plate boundaries?
13. **Explain** the terms *subduction, convergent plate, divergent plate* and *focus*. How is each involved in mountain building?

Concluding and decision-making

14. Many earthquakes are not the largest that have ever occurred, but they have resulted in enormous loss of life and damage.
    Do you think that earthquakes and tsunamis should be measured by their size on the Richter scale, by the number of people killed, or by the cost of the damage caused? **Justify** your response.
15. 'If people are well prepared for earthquakes and volcanic eruptions, there will be fewer deaths and injuries and less destruction and damage.' What is your opinion about this statement? **Justify** by using some examples.

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16 Urbanisation and migration



LESSON SEQUENCE

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LESSON
16.1 Overview

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Why do people move between and within countries, and what are the consequences of that movement?

16.1.1 Introduction

There are many reasons why people move from one country to another, or to different places within a country. Some of the reasons may be political, economic, social, or environmental. Some reasons may be immediate and urgent, whereas others may be carefully considered. In some cases, people are forced to move, whereas in others the decision is voluntary. Regardless of the factors involved, the movement of people from place to place has consequences, including that of **urbanisation**.

urbanisation the growth and expansion of urban areas and the increasing proportion of people living in urban areas as compared to rural areas

urban relating to a city or town; the definition of an urban area varies from one country to another depending on population size and density

Since the emergence of the earliest cities around 5000 years ago, the number of people living in **urban** areas has gradually increased. In 2008, the proportion of the global population living in urban areas was more than rural areas, for the first time in history. In this topic, we will explore patterns of migration between and within countries and examine the effects of these patterns, such as increased urbanisation, along with the advantages and disadvantages that brings.

FIGURE 1 Pedestrians crossing a busy intersection



on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10764)

Video eLesson Urbanisation and migration (eles-6034)

LESSON
16.2 What is migration?

LEARNING INTENTION

By the end of this lesson you should be able to define key terms related to the concept of migration and outline different types of migration.

TUNE IN

A range of factors influence the decision of people to move from one place to live in another. Some factors may be more significant than others.

FIGURE 1 Examples of push factors include lack of medical services, war, crop failure, prolonged drought and desertification, famine, poverty and lack of educational opportunities.



Consider **FIGURES 1** and **3** that illustrate different push and pull factors of migration.

1. What do you think is meant by the term 'push' factor?
2. What do you think is meant by the term 'pull' factor?
3. Discuss: Imagine that you live in Syria — what three factors would be the most important in influencing your decision to move away? Now imagine that you live in Canada. Would those same three factors still be the most important? Why/why not?

16.2.1 How do we define migration?

When people move from one place to settle in another, this is known as migration. Migration types can be categorised by time, location, and degree of choice. The table below outlines some examples.

TABLE 1 Types of migration

Time	Location	Degree of choice
• *Permanent* — migrants choose to move and remain in their new location indefinitely. • *Temporary* — migrants may choose to move again, or even return to their original location. • *Seasonal* — migrants move for a specific period of time for employment or due to climatic reasons.	• *International* — migrants choose to move from one country to another. • *Internal* — migrants choose to move from one place within a country to another.	• *Forced* — migrants have no option but to move, due to conflict, natural disasters etc. • *Voluntary* — migrants freely choose to move for reasons that benefit them.

For every individual migrant, their personal migration story will link to each of the categories outlined. For example, comedian, actor, artist and author Anh Do, fled Vietnam with his family as refugees in 1980. They eventually settled in Australia, where Anh has lived, studied and worked since. Therefore Anh's migration was:

- forced (as refugees)
- international (as he moved from one country to another)
- permanent (as he has remained in Australia ever since).

16.2.2 What do we mean by push and pull factors?

When making a decision to move from one place to another, migrants will be influenced by a range of push and pull factors.

FIGURE 2 Push factors often lead to people taking risks to move to another place.



Push factors

Push factors are those characteristics, qualities or attributes of a place that are unfavourable or negative, and make people want to move away from it. **FIGURE 1** illustrates a range of possible push factors that may influence someone in deciding to move from one country to another.

Pull factors

Pull factors are those characteristics, qualities or attributes of place that are positive and attractive, and encourage people to move there. **FIGURE 3** illustrates a range of potential pull factors.

push factor unfavourable quality or attribute of a person's current location that drives them to move elsewhere

pull factor favourable quality or attribute that attracts people to a particular location

FIGURE 3 Examples of pull factors include religious tolerance, improved healthcare, job opportunities, family links, better housing and infrastructure, political freedom and better educational opportunities.



16.2 SKILL ACTIVITY: Questioning and researching using geographical methods

1. As a class or in small groups, **create** a survey to gather migration information from your class, your year level, your whole school, or your wider community.

   Develop questions that address:
   - the categories of migration types
   - whether the migration was international (between countries) or internal (within a country)
   - the place of origin
   - the place of destination
   - push factors
   - pull factors.
2. After gathering your data, **decide** on the best way to **present** your findings. You may wish to consider creating maps, graphs, or tables, and incorporate the use of relevant images.

16.2 Exercise

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16.2 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 5	3, 4, 6	7, 8

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Check your understanding

1. Anh Do's family migrated internationally. **Identify** their country of origin.
   - A. Cambodia
   - B. Vietnam
   - C. Laos
   - D. Indonesia
2. **Determine** whether the following statements are true or false.
   - a. The decision to migrate was forced for Anh Do and his family. This means that they freely chose to move for reasons that benefitted them.
   - b. War is a pull factor.
   - c. Religious freedom is a push factor.
   - d. Desertification is a push factor.
   - e. Internal migration is when migrants choose to move from one place within a country to another.
3. Seasonal migrants move for a specific period of time for _____ or due to _____ reasons.
4. **List** two examples of push factors.
5. **List** two examples of pull factors.

Apply your understanding

Communicating

6. **Distinguish** between push and pull factors.
7. 'Transport and pollution are not problems in large urban areas because so many people live in the city that they don't have to use transport to get to and from work.'
   Determine whether this statement is true or false. **Justify** your answer.
8. Imagine you live in a poor rural village in India with no education or work. **Create** a list of all the possible attractions of moving to an urban area.

LESSON
16.3 Why do people migrate between countries?

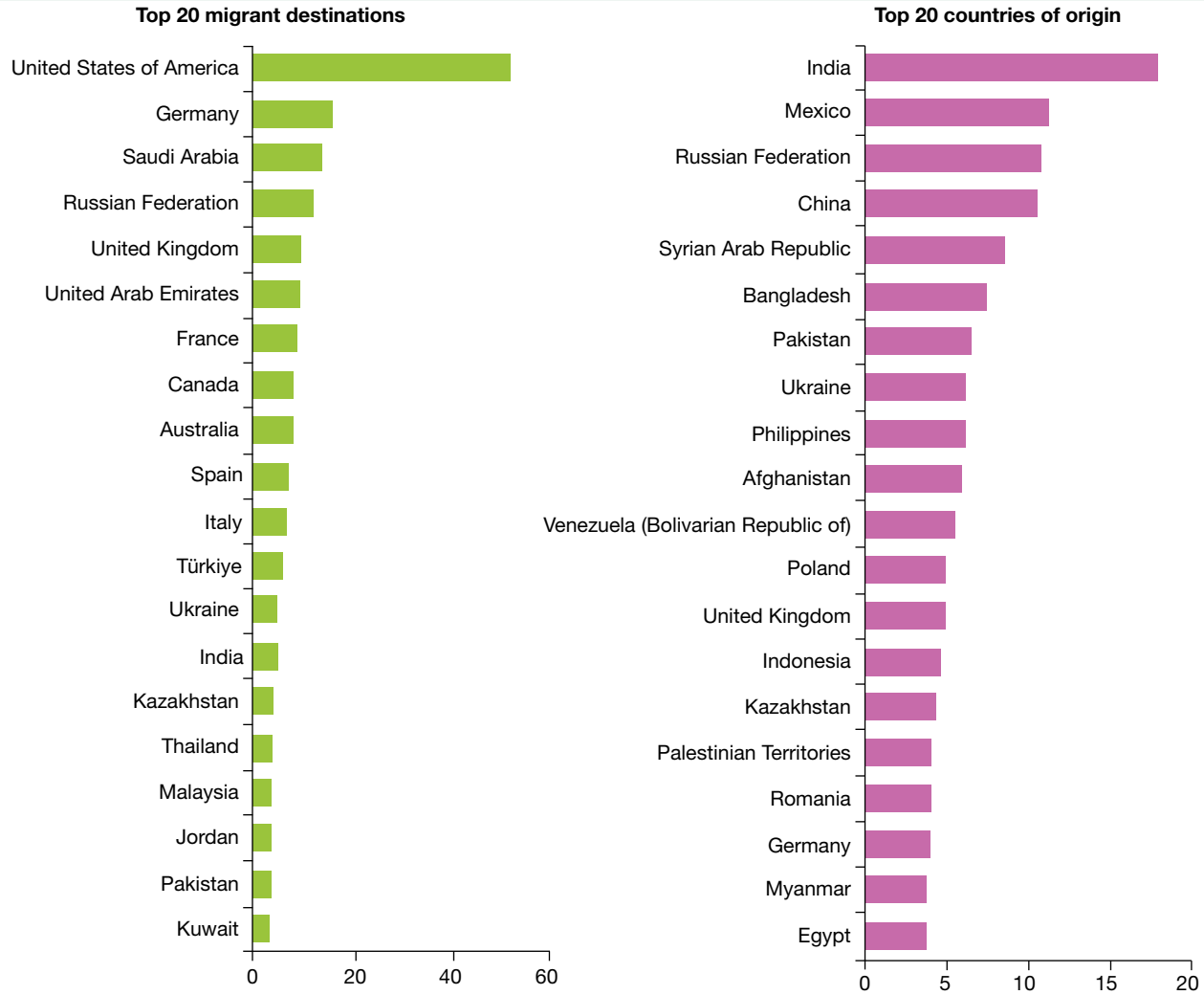
LEARNING INTENTION

By the end of this lesson you should be able to describe patterns of, reasons for, and effects of international migration, with a particular focus on migration to Australia.

TUNE IN

The International Organization for Migration (IOM) is part of the United Nations system. In addition to providing services and advice to governments and migrants, they also track migration data. Every year they release a report on migration. **FIGURE 1** lists the top 20 destinations of international migrants as well as the top 20 countries of origin.

FIGURE 1 Top 20 destinations (left) and origins (right) of international migrants in 2020 (millions)



Source: UN DESA, 2021a.

With a partner, consider the figure and use the thinking routine of 'See, Think, Wonder' to discuss your ideas and then share them with the class.

- See — observe a piece of information provided by the figure.
- Think — what does this information make you think about migration destinations or origins?
- Wonder — what question could you ask about this information? What are you curious to know more about?

16.3.1 What is the difference between an emigrant and an immigrant?

When people move from one country to live in another, they are considered to be both emigrants and immigrants. They are emigrating, or exiting from, their country of origin, and immigrating, or moving into, their destination country. For example, a person moving from Thailand to live in Australia would be emigrating *from* Thailand and immigrating *to* Australia. In this scenario, Thailand is the country of origin (sometimes called the donor country) while Australia is the destination country (sometimes called the host country).

16.3.2 Where are people moving to and from internationally?

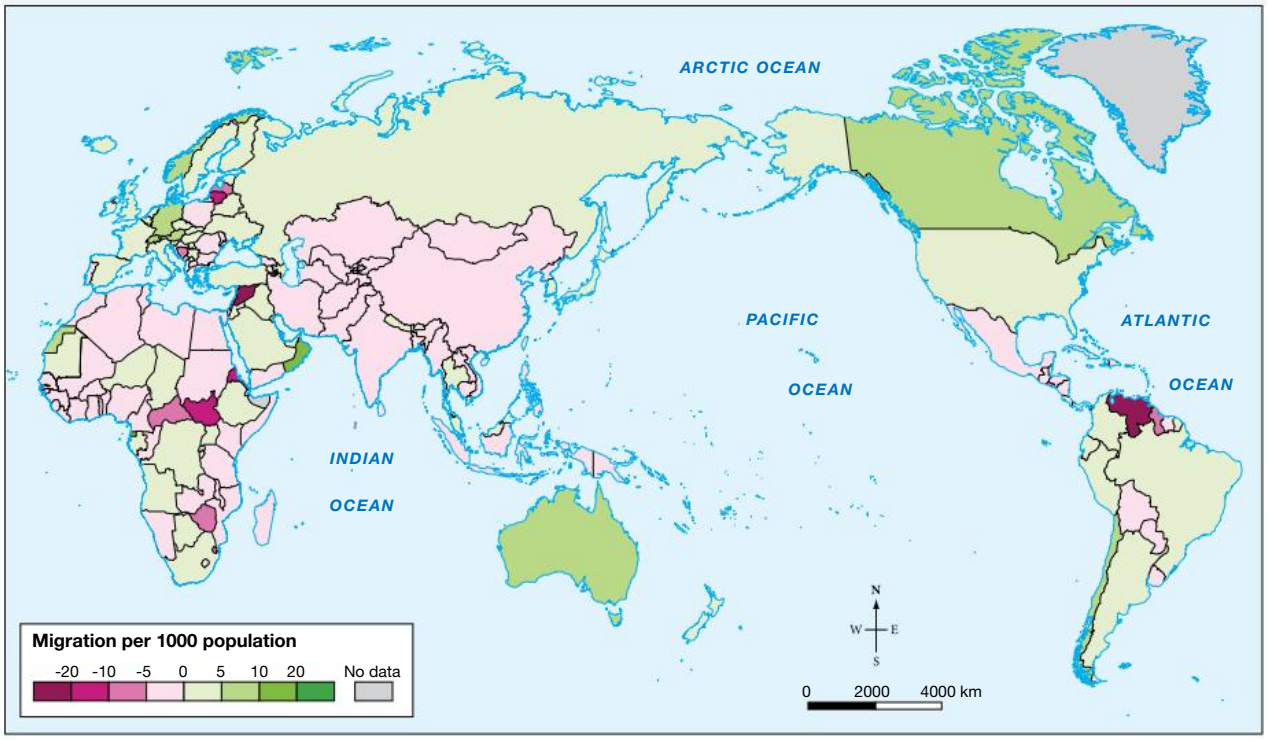
FIGURE 1 lists the top 20 destinations of international migrants as well as the top 20 countries of origin. In 2020, the United States of America was the most popular destination for international migrants, while the highest number of migrants were coming from India. Australia was a top ten destination for migrants in 2020. Some countries feature on both lists.

Annual net migration takes into account the difference between the number of people who move to a country and the number of people who leave it over the course of a year. **FIGURE 2** provides a global picture of annual net migration from 2015–20. Countries in green are those who received more immigrants (people arriving) than emigrants (people leaving), whereas the opposite occurred in countries that are red. If more people arrive than leave, this is called positive net migration; if more people leave than arrive, this is called negative net migration.

int-9018

tlvd-10630

FIGURE 2 Annual Net Migration rate, 2015–20



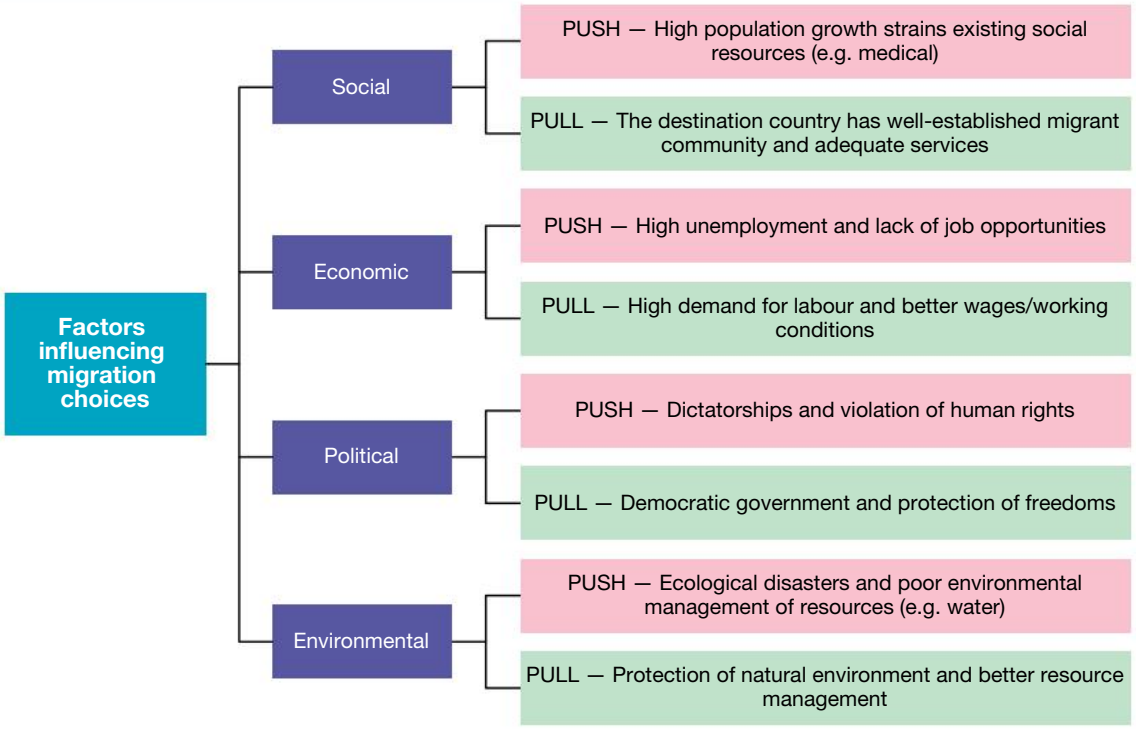
Source: Based on data from United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019, Online Edition. Rev. 1. Map redrawn by Spatial Vision.

16.3.3 Why are people moving internationally

There are a range of push and pull factors that influence why people choose to move and where they choose to move to, and these can be broadly categorised as social, economic, political or environmental reasons (see **FIGURE 3**).

int-9019

FIGURE 3 Factors influencing migration choices

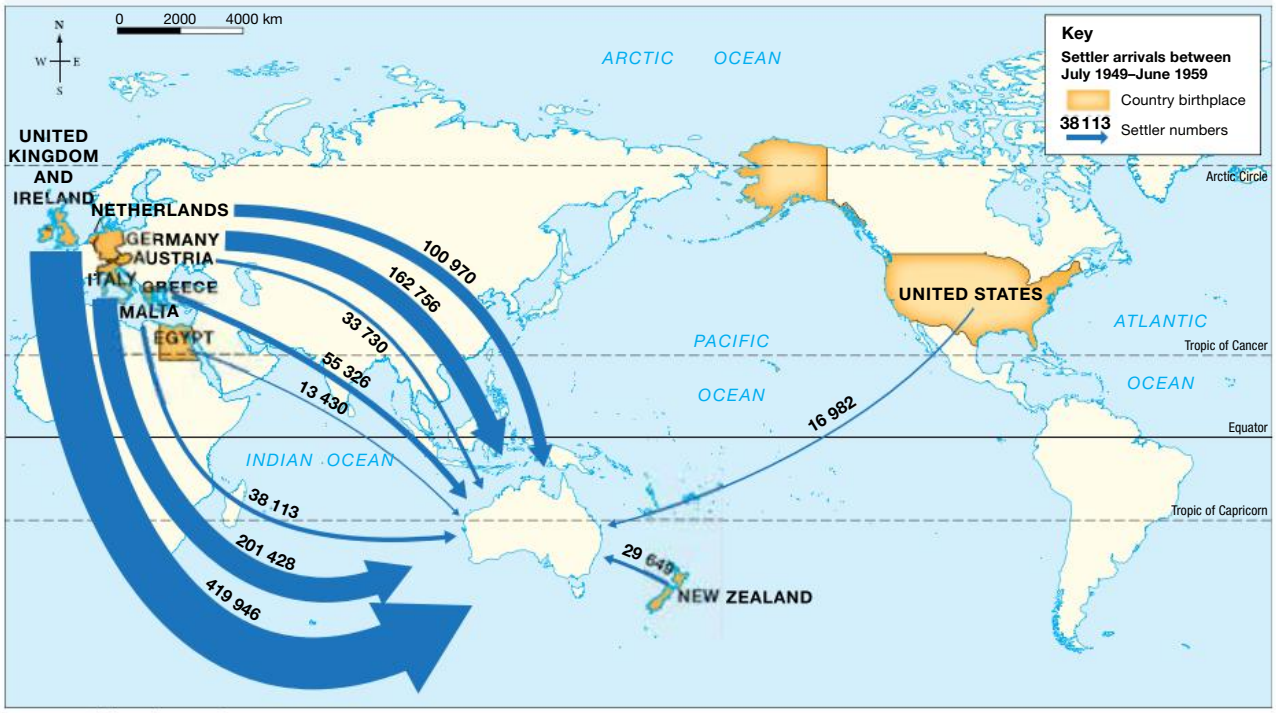


16.3.4 Where are international migrants to Australia from?

Between 1851 and 1861 more than 600 000 people came to Australia. While the majority were from Britain and Ireland, 60 000 came from Continental Europe, 42 000 from China, 10 000 from the United States and just over 5000 from New Zealand and the South Pacific. However, since 1975, the country has attracted more immigrants from Asia (see **FIGURES 4** and **5** and **TABLE 1**).

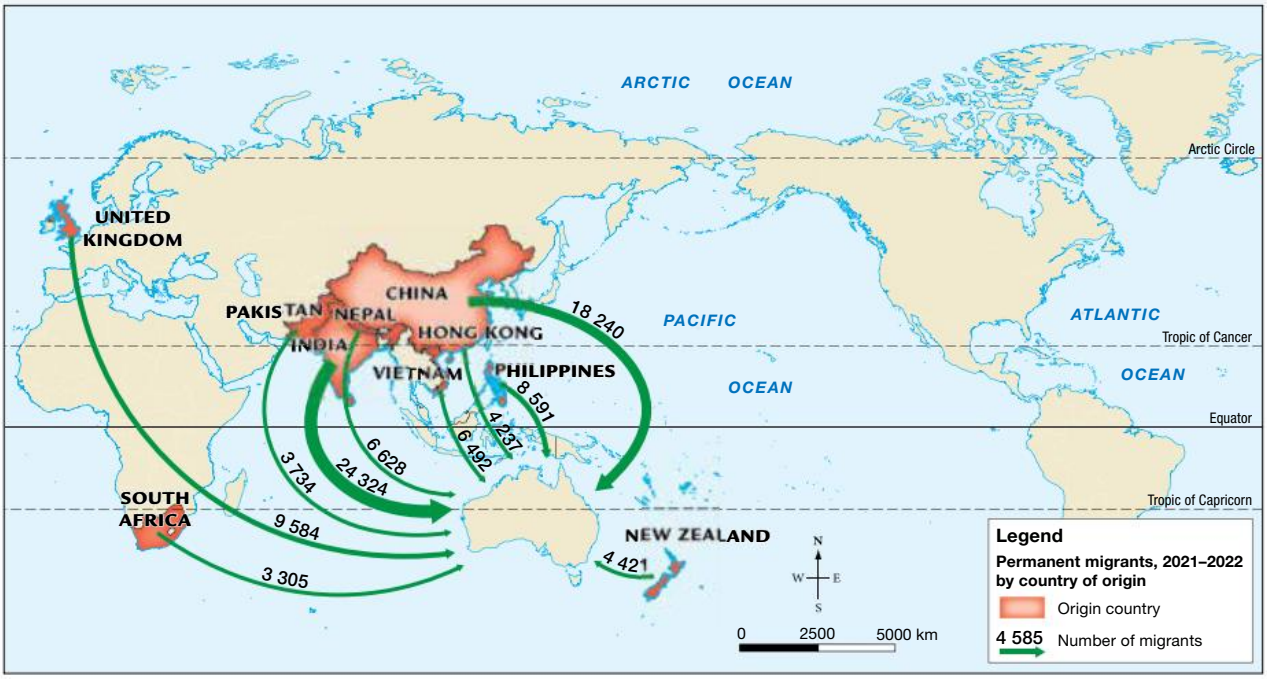
tlvd-10689

FIGURE 4 Origins of Australia's migrants, 1949–59



Source: Map drawn by Spatial Vision.

FIGURE 5 Settler arrivals by country of birth according to the 2021 census



Source: Australian Government, Department of Home Affairs.

About one-third of the population of our large cities was born overseas. Migrants from certain countries tend to be attracted to certain Australian states and territories more than others (see **TABLE 1**).

TABLE 1 Top five countries of birth by state or territory ('000), 2016

ACT	NSW	NT	Qld	SA	TAS	VIC	WA
England (13.3)	China (256.0)	England (6.7)	New Zealand (200.4)	England (103.7)	England (20.5)	England (192.7)	England (213.9)
China (11.9)	England (250.7)	Philippines (7.0)	England (219.9)	India (29.0)	New Zealand (5.4)	India (182.8)	New Zealand (87.4)
India (10.9)	India (153.8)	New Zealand (5.6)	India (53.1)	China (26.8)	China (3.3)	China (176.6)	India (53.4)
New Zealand (5.0)	New Zealand (127.9)	India (4.2)	China (51.6)	Italy (20.2)	India (2.1)	New Zealand (102.7)	Philippines (33.4)

Most recent data available at time of publishing

FIGURE 6 Queensland has been a popular destination for migrants from New Zealand.



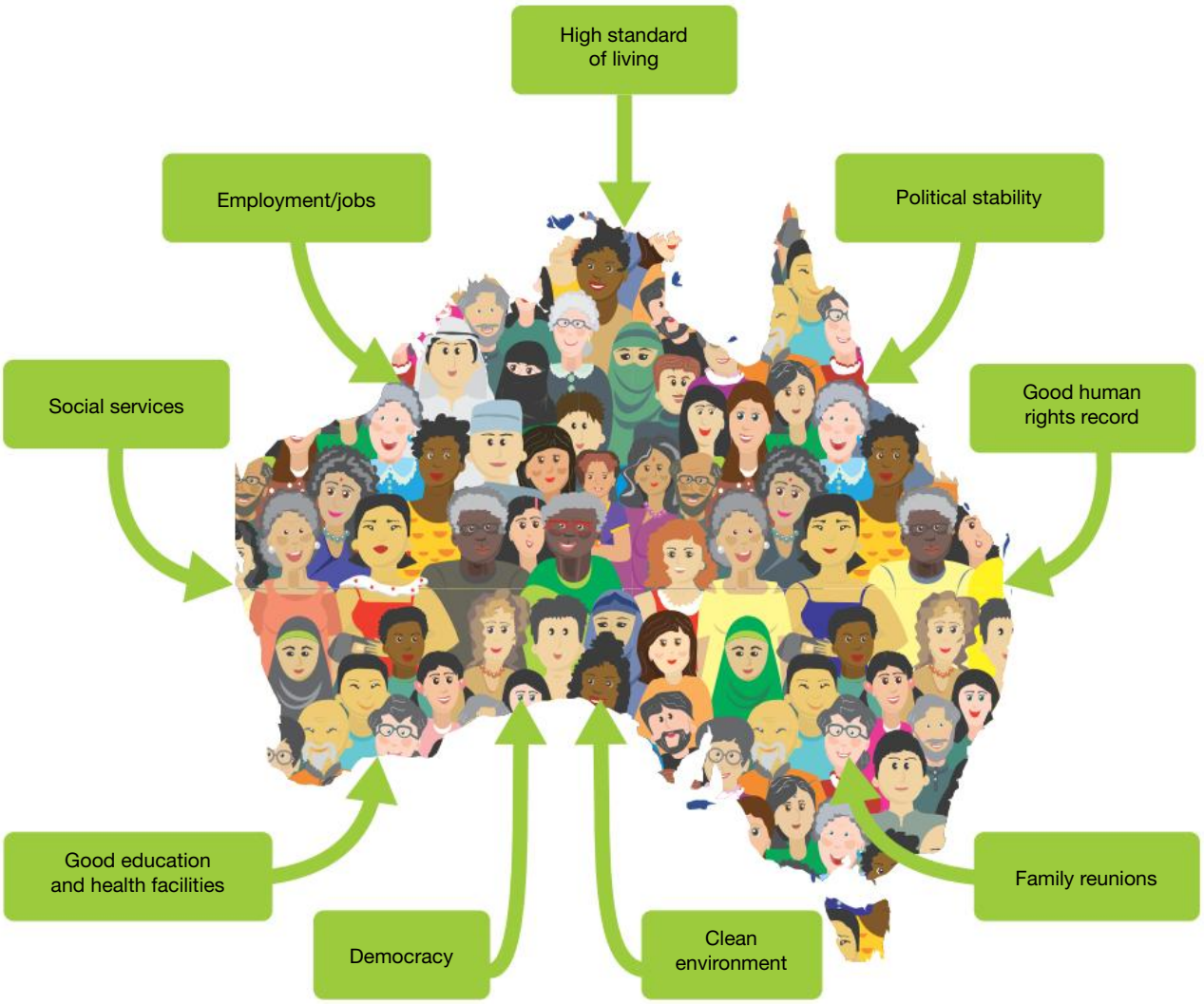
16.3.5 Why have people migrated to Australia?

Australia is a land of **migrants**. In a way, all non-First Nations Australians are migrants — at some stage in the past, our ancestors came to this country to live. In 2021, nearly half of Australia's population was born overseas.

migrant a person who leaves their own country to go and live in another

Since the earliest times, people have moved from one part of the world to another in search of places to live. Migrants have come to Australia for many reasons (see **FIGURE 7**).

FIGURE 7 Reasons for immigration to Australia



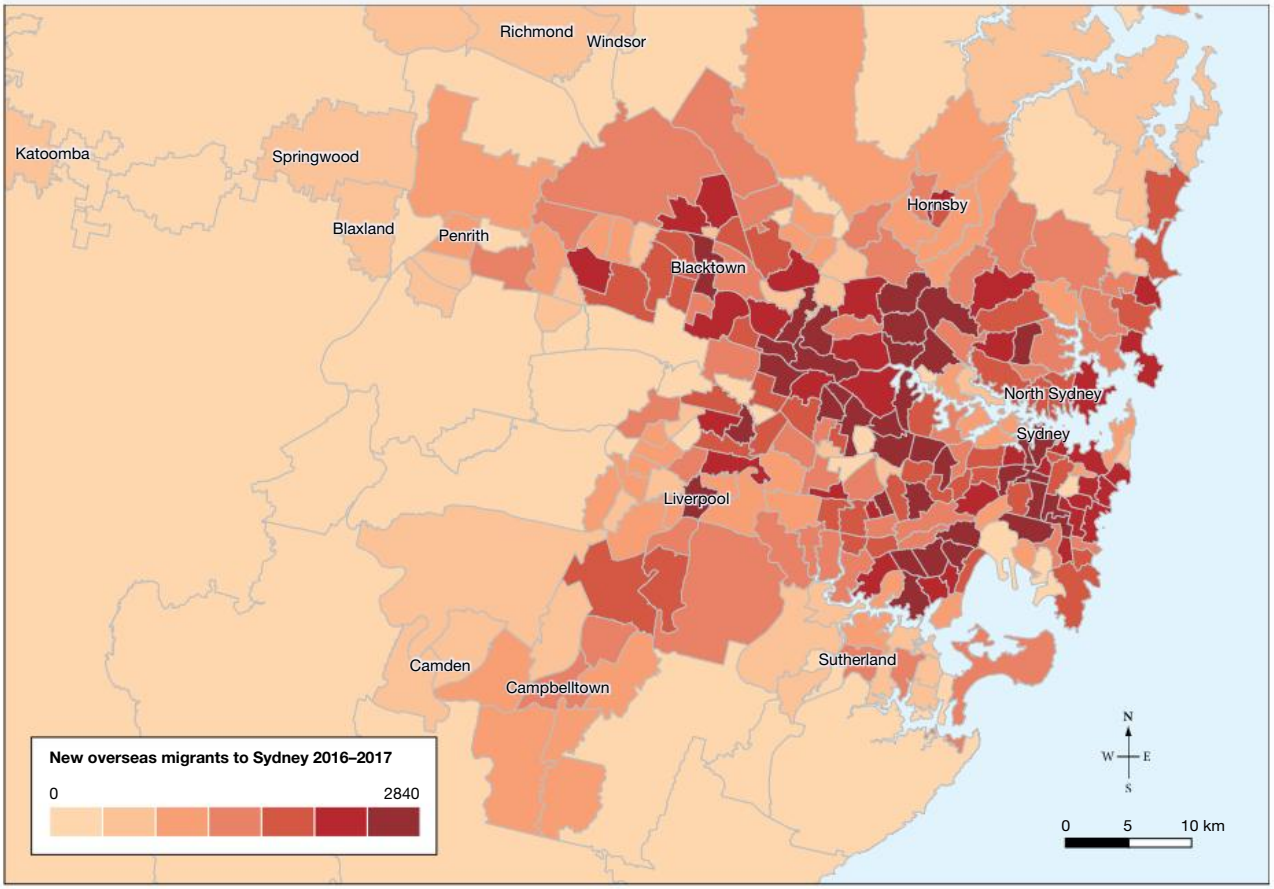
In addition, Australia is interconnected to Asia, particularly through trade and geographic proximity. This makes Australia appealing as a destination country for migrants from China, India, Vietnam, and other Asian countries. The shared historical connections and/or common language may increase the appeal of Australia as a destination country for migrants from other English-speaking countries such as England and New Zealand.

16.3.6 What are the effects of international migration to Australia?

Social effects

Migration has helped increase Australia's population. The increase in population from only seven million at the end of World War II to more than triple that now is caused by both the arrival of migrants and increased birth rates since then (see **FIGURE 9**).

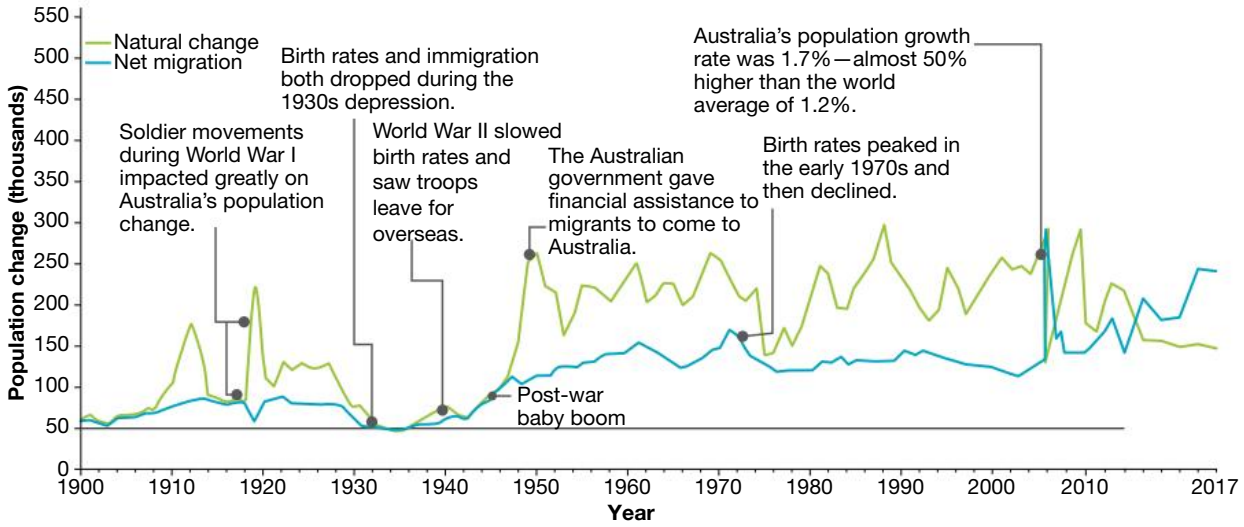
FIGURE 8 Distribution of new overseas migrants to Sydney, 2017



Source: *The Sydney Morning Herald*.

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FIGURE 9 Australia's population growth, 1900–2017



Migrants to Australia have contributed to our society, culture and prosperity. Many communities hold festivals and cultural events where we can all share and enjoy the foods, languages, music, customs, art and dance.

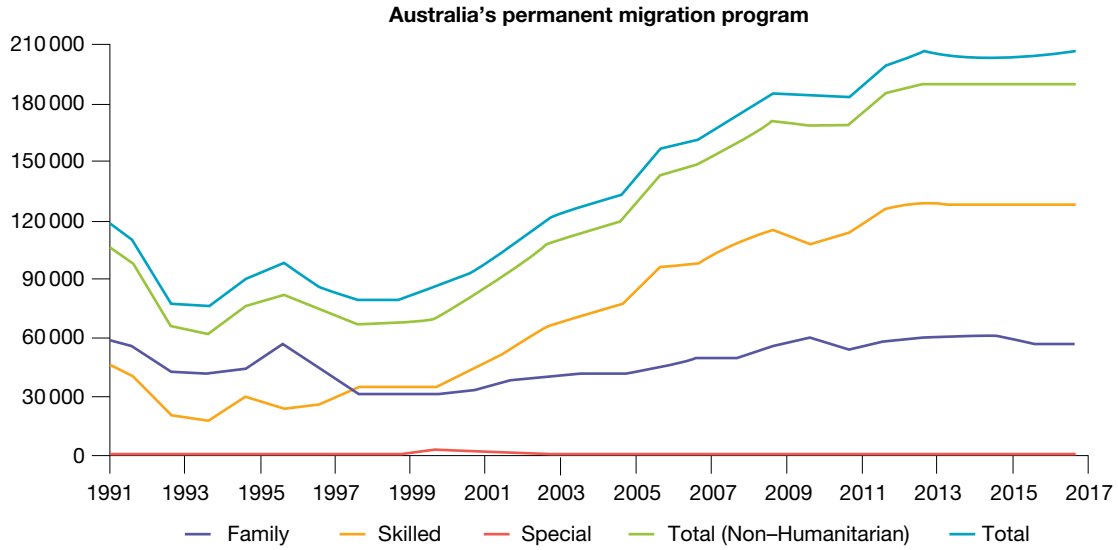
Australian society is made up of people from many different backgrounds and origins. We have come from more than 200 countries to live here. Therefore, we are a very multicultural society, one that needs to respect and support differences, and the rights of everyone to have their own culture, language and religion.

Economic effects

An increased population also means a greater demand for goods and services, which stimulates the economy. Migrants need food, housing, education and health services, and their taxes and spending allow businesses to expand. Apart from labour and capital (money), migrants also bring many skills to Australia (see **FIGURE 10**).

Migrants generate more in taxes than they consume in benefits and government goods and services. As a result, migrants as a whole contribute more financially than they take from society.

FIGURE 10 Types of migrants to Australia, 1991–2017



Source: Department of Immigration.

Environmental effects

In the past, people argued that immigrants put pressures on Australia's environment and resources by increasing our population and the need for water, energy and other requirements. However, today many people believe that Australia's environmental problems are not caused by migration and population increase, but by inadequate planning and management.

16.3 SKILL ACTIVITY: Interpreting and analysing geographical data and information

1. Refer to **FIGURE 1** and write down the top ten destination countries and the top ten origin countries (note down any countries that appear on both lists).
2. **Select** one colour to represent the destination countries.
3. **Select** a different colour to represent the origin countries.
4. **Select** a third colour for any country that appears on both lists.
5. On a blank map of the world (ideally A3 in size), use your chosen colours and highlight the countries from your list. Use a political map in an atlas to assist you in locating each country.
6. On your completed map, remember to include all BOLTSS.
   a. *Legend* — tell your reader what colours are used to represent the different categories of countries.
   b. *Title* — this should be specific and informative. The title of the graph your sourced your data from is a good starting point.
   c. *Source* — this should tell your reader where you got your information from (therefore it will be the same source as the graph's source).
7. *Going further:* **Discuss** your map with a classmate. Can see you any patterns? Where are most of the destination countries located? Where are most of the origin countries located? What are some push and pull factors that may apply to this data?

16.3 Exercise

learnon

16.3 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
2, 3	1, 4, 5, 8	6, 7, 9, 10

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Check your understanding

1. Refer to **FIGURES 4** and **5**. **Describe** how the origins of our migrants have changed since 1949.
2. **Determine** whether the following statements are true or false.
   a. The greatest number of migrants are in Australia for family reasons or are skilled workers.
   b. In 2020, Australia was the most popular destination for international migrants.
   c. Since 1975, Australia has attracted more immigrants from Asia.
3. **Select** from the words in the table to complete the statement below.

emigrant	donor	immigrant	host

A person leaving one country to move to another is called an _____. The country they are moving from can be considered the _____ country. When they enter a new country, they become classified as an _____ and the new country is considered the _____ country.

4. Refer to **FIGURE 9**. **Describe** how important migration has been in terms of Australia's population growth.
5. **Consider FIGURE 1**. A number of countries feature on the list of top 20 destination countries for international migrants as well as the list of top 20 origin countries. **Select** those that apply from the list below:
   A. Thailand
   B. Romania
   C. Russian Federation
   D. India
   E. Mexico
   F. Kazakhstan
   G. Australia

Apply your understanding

Interpreting and analysing geographical data and information

6. Refer to **FIGURE 10**. **Explain** the general pattern for each of the following types of migration to Australia between 1991 and 2020.
   a. Skilled migrant
   b. Family
   c. Total numbers
7. Refer to **TABLE 1** and **FIGURE 8**. **Describe** how the distribution of the areas of settlement by migrants varies within Australia.
8. Refer to **FIGURE 7**. **Consider** the main reasons why people would migrate to Australia.

Communicating

9. **Determine** the two main benefits of migration to Australia. Give reasons for your answer.
10. What types of skills would you place at the top of the list for skilled migrants to Australia? **Justify** your answer.

LESSON
16.4 Why do people migrate within countries?

LEARNING INTENTION

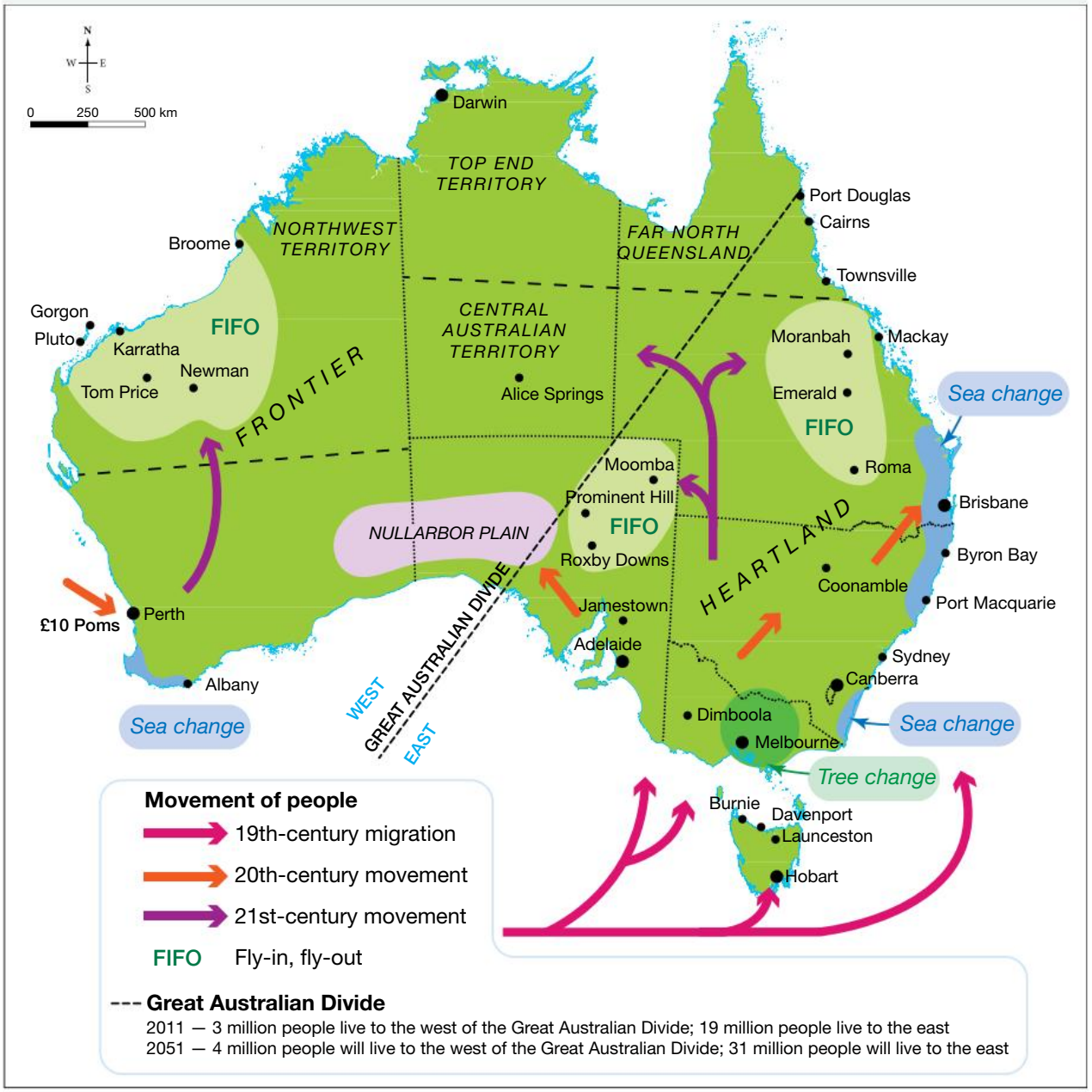
By the end of this lesson you should be able to explain why people within Australia and China move domestically, and describe the concept of internal displacement.

TUNE IN

Australians move from place to place within Australia for a number of reasons; some of these are illustrated in **FIGURE 1**.

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FIGURE 1 Australia's moving population



Source: Map drawn by MAPgraphics Pty Ltd, Brisbane; most recent data available at time of publishing.

1. What do you think is meant by the terms ‘sea change’ or ‘tree change’?
2. FIFO is an acronym that refers to workers who ‘Fly-In, Fly-Out’ of locations. Look at the regions identified as FIFO on the map. What do you know about these regions? What is the focus industry for these regions that workers are employed within?
3. Do you personally know any FIFO workers or people who have been involved in a sea or tree change?

16.4.1 What makes people move within Australia?

People move for many reasons. The average Australian will live in 11 houses during their lifetime — this means that many people will live in more. You may move to live in a larger house, or a smaller house as your family size or income changes. On retirement you may want to live near the mountains or the sea.

Fifty per cent of Australians changed the place where they lived in the five years between 2011 and 2016. Most of the moves were limited to local areas, especially within capital cities, but some moves involved a change of state or territory.

The major movements of Australians since 1788 are shown in **FIGURE 1**. The Great Australian Divide separates Australia into two regions, known as the Heartland and the Frontier. This means the Heartland is home to approximately 21 million people who live in a modern, urbanised, industrial state. The Frontier is a sparsely populated region of around five million people who live in a place that is remote but rich in resources.

Sea change or tree change

The population movement caused by ‘**sea change**’ or ‘**tree change**’ — a move from an urban environment to a rural location — is a national issue affecting coastal and forested mountain communities in every state in Australia. The movement involves people who are searching for a more peaceful or meaningful existence, who want to know their neighbours and have plenty of time to relax. Local communities in high-growth coastal and mountain areas often cannot afford the services and increased infrastructure, such as roads, water and sewerage, that a larger population requires. Geelong, Bussleton, Wollongong, Cairns and the Gold Coast are all popular places for sea changers to settle.

sea change movement of people from major cities to live near the coast to achieve a change of lifestyle

tree change movement of people from major cities to live near the forest to achieve a change of lifestyle

Not every sea changer loves their new life, and many return to the city. Factors such as distance from family, friends, cultural activities and various professional or health services may pull people back to their previous city residences.

FIGURE 2 Geelong, Victoria is a popular location for sea changers.



Fly-in, fly-out workers

Employment opportunities have grown within the mining industry in places such as the Pilbara in northern Western Australia. However, local towns do not have the infrastructure, such as water, power and other services, to support a large population increase. Rental payments for homes can be as high as $3000 per week. One way to attract workers to these regions is to have a **fly-in, fly-out (FIFO)** workforce. FIFO workers are not actually 'settlers', because they choose not to live where they work. Some mine workers from the Pilbara live in Perth or even Bali, and commute to their workplace on a weekly, fortnightly or longer-term basis. The permanent residents of these remote towns are uneasy with the effects of the FIFO workforce because they change the nature of the town but choose not to make it their home. By not living locally, their wages leave the region and are not invested in local businesses and services.

Seasonal agricultural workers

Many jobs in rural areas are seasonal, such as the picking and pruning of grapes and fruit trees, which requires a large workforce for only a few months each year. Many children born in rural areas leave their homes and move to the city for education, employment or a more exciting lifestyle than the one they knew in the country. This means that there are not enough agricultural workers to cover the seasonal activities.

Backpackers and people from Asia and the Pacific Islands on short-term work visas often provide the seasonal workforce in these regions. Country towns such as Robinvale in northern Victoria now have Asian grocery stores, an Asian bakery and a shop selling Tongan canned goods, providing the seasonal farm workforce with a taste of home. Robinvale has many people from different nationalities living as both permanent residents and seasonal workers. These include people from a wide variety of countries, including Italy, Tonga, Vietnam, Malaysia, New Zealand, China and Greece.

fly-in, fly-out (FIFO) a system in which workers fly to work, in places such as remote mines, and after a week or more fly back to their home elsewhere

population distribution the pattern of where people live; population distribution is not even – cities that have high population densities and remote places such as deserts usually have low population densities

16.4.2 What makes people move within China?

For the sea/tree changers, FIFO workers, and seasonal workers of Australia, the internal migration is mainly from urban areas to rural locations. The opposite is true of China.

China has been experiencing a changing **population distribution**. In 2012, the country's urban population became larger than that of rural areas for the first time in its history, as rural people moved to towns and cities to seek better living standards. China has become the world's largest urban nation.

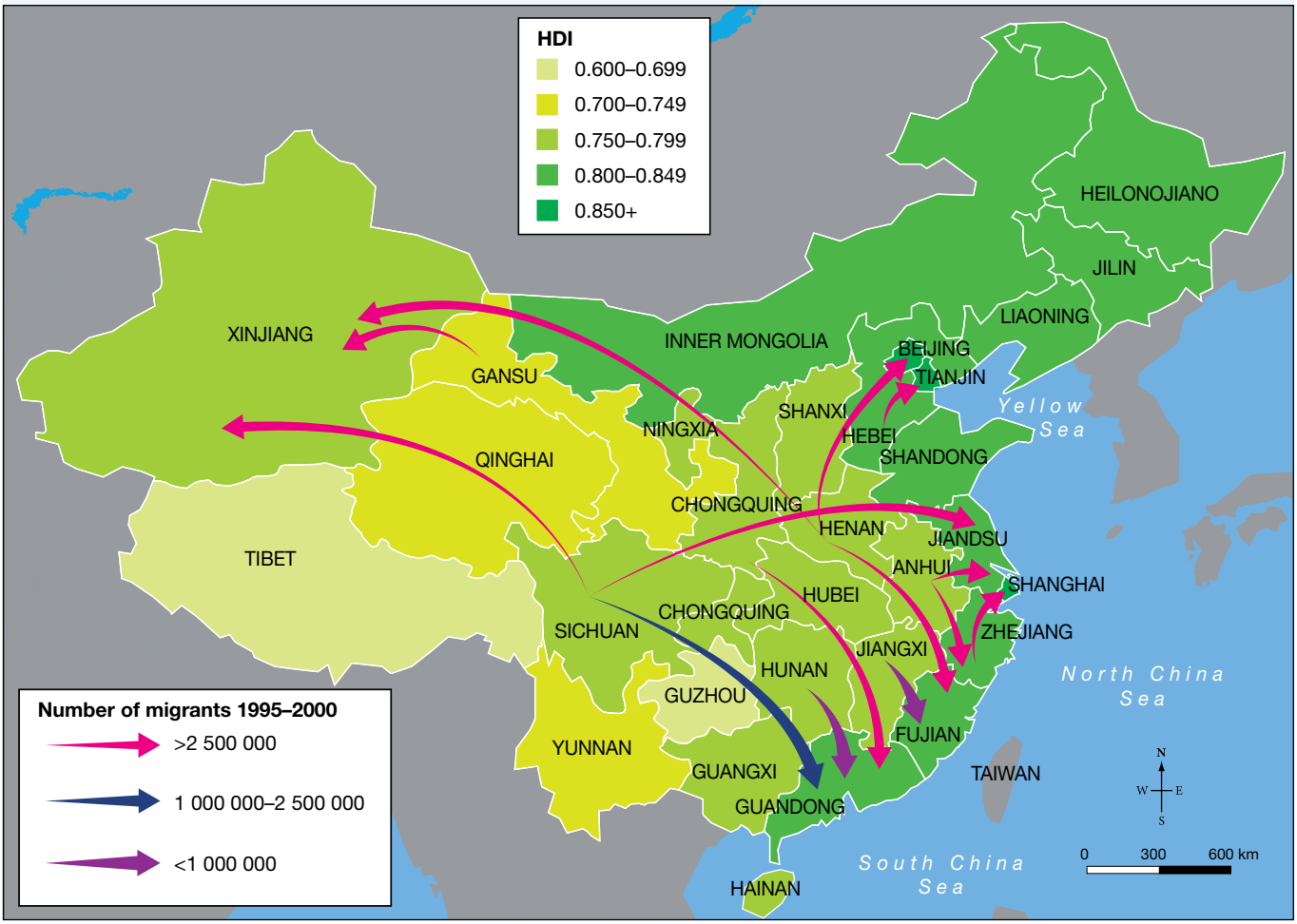
FIGURE 3 A dramatic rural–urban migration shift has been occurring in China.



Chinese labourers from the provinces have been moving to coastal cities in search of job opportunities, following reforms in 1978 that opened up China to foreign investment. Until then, rural–urban migration was strictly forbidden in China. Since then, more than 150 million peasants have migrated from the inner provinces to cities, mainly on the east coast. About half of rural migrants moved across provinces. This is the largest migration wave in human history (see **FIGURE 4**).

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FIGURE 4 People from Chinese inland provinces with lower wages and Human Development Index (HDI) values have moved to cities and provinces with higher HDIs and incomes.



Source: Map drawn by Spatial Vision.

Pull factors

Pull factors are factors about a place that attract people to move to them. Migrants from rural areas are attracted to urban regions largely for economic reasons — a higher income is achievable in a city. The average income of rural residents is about one-fifth that of urban residents on the east coast of China. Social factors are also important, with more opportunities for career development being available in cities. Many people also desire a more modern urban lifestyle, with the benefits brought about by access to improved infrastructure and technology.

Push factors

Push factors are factors that encourage people to move away from a place. Increasing agricultural productivity since the late 1970s has resulted in fewer labourers being needed on farms and thus a huge surplus of rural workers. These people have been forced to move to more urban areas in order to find employment. Agricultural production has meanwhile become less profitable, so workers have again been driven to cities to try to improve their economic situations.

Political factors are also influential. China's central planners have encouraged local leaders in poor regions to encourage people to move to the cities. Their slogan was 'the migration of one person frees the entire household from poverty'.

FIGURE 5 In 2022, Shanghai's population was estimated to be 29.21 million.



16.4.3 Consequences of rural–urban migration

There are several positive and negative consequences of the rural–urban migration in China. These include:

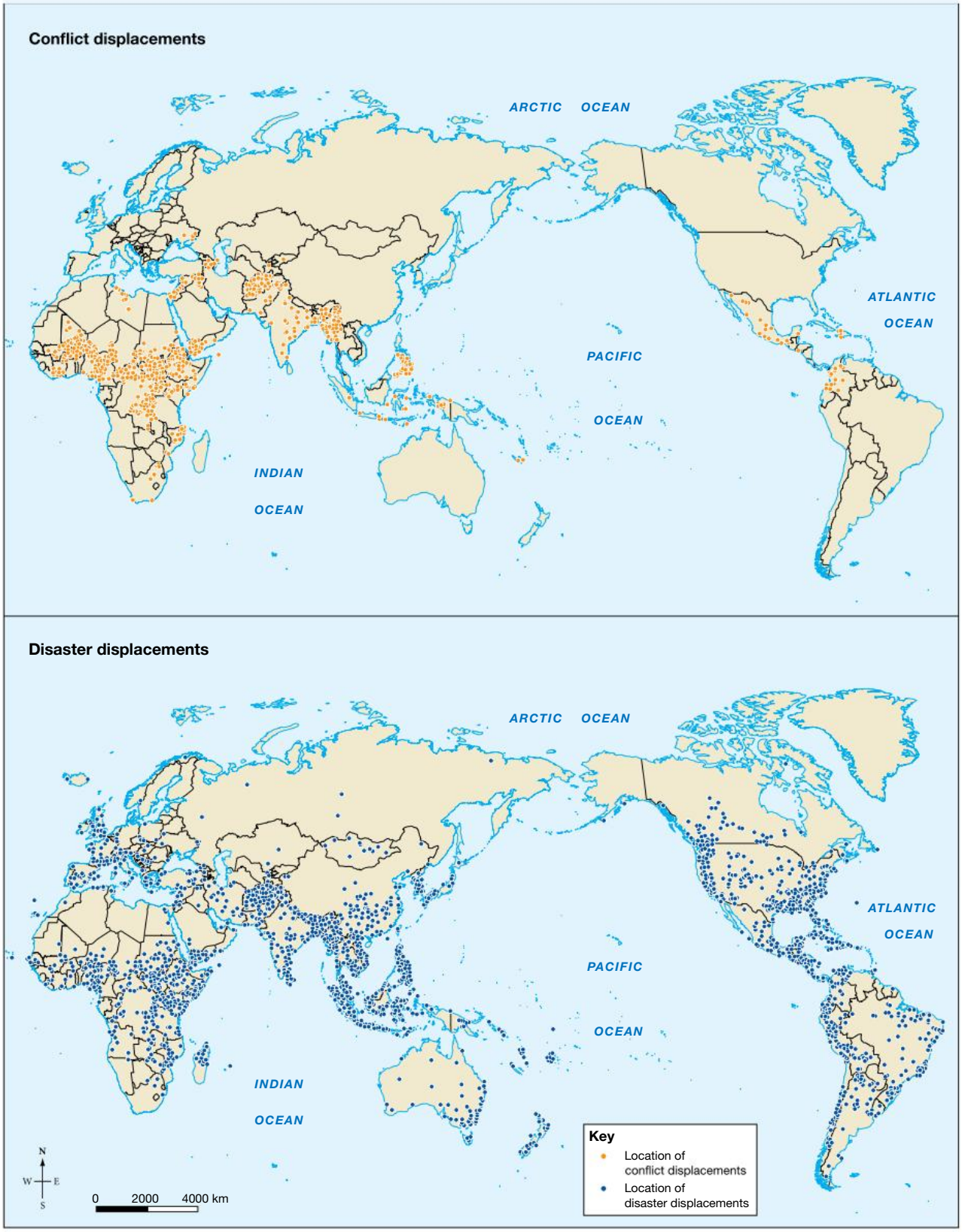
- China's urban population rose from around 170 million people in 1978 to 540 million in 2004, and then to nearly 839 million in 2018.
- In 1949, 89 per cent of people lived in rural areas; by 1979 this figure had dropped to 81 per cent. In 2018 it was 59.3 per cent.
- It is expected that by 2050, only 25 per cent of China's population will be living in rural areas, while the number of city-dwellers will reach 940 million people.
- Some people predict that by 2025, China will have 19 super-cities (extremely large cities that house millions of people) with an average population of 25 million people each.
- Labourers from rural regions working in cities have to leave their families for months at a time or more.
- Tens of millions of people are classified as rural dwellers, even though they spend most or all of their time working in the cities. These people are denied access to social services, including subsidised housing, income support and education for their children.
- A shift to an increased urban population results in reduced population pressures on the land.
- Up to 40 per cent of rural income comes from urban workers sending money to their families at home.

16.4.4 What is internal displacement?

The examples from Australia and China mostly concern residents who have chosen to move voluntarily. For some people, this is not always the case. **Internal displacement** is when people are forced to leave their home due to conflict or environmental disasters, but remain within their country's borders. A total of 40.5 million new internal displacements occurred by the end of 2020, with 76 per cent of these due to disasters and 24 per cent due to conflict and violence. During this period, the Democratic Republic of Congo and the Syrian Arab Republic had the highest number of new displacements due to conflict and violence at 2.2 and 1.8 million respectively.

internal displacement when people are forced to leave their homes due to conflict or environmental disasters, but remain within their country's borders

FIGURE 6 Conflict displacements (top) and disaster displacements (bottom) in 2020 by location



Source: *World Migration Report* 2022, *International Organization for Migration*.

16.4 SKILL ACTIVITY: Questioning and researching using geographical methods

1. In pairs, **conduct research** on the internet into the impact that COVID-19 (and extended lockdowns in particular) had on the number of tree changes and sea changes occurring in Australia during 2020–21. In conducting your research, try to find the following:
   - origins and destinations of migrants (where were people mostly moving from/to)
   - factors that made the migration possible (e.g. ability to work from home)
   - relevant statistics.

The ABS website may be a useful place to start. Search phrases such as 'migration within Australia COVID' or 'migration Australia COVID seachange' to explore other resources. Remember to keep the focus on migration WITHIN Australia rather than between Australia and other countries.

2. **Communicate** your findings by **creating** an infographic.

16.4 Exercise

learnon

16.4 Exercise

Learning pathways

■ LEVEL 1	■ LEVEL 2	■ LEVEL 3
1, 2, 4	3, 5, 6	7, 8, 9, 10

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Check your understanding

1. FIFO workers are those who permanently live in a remote work location. True or false?
2. **State** the difference between a tree changer and a sea changer.
3. **List** the positive and negative factors of making a tree change or sea change as a:
   a. family with young children
   b. retired couple.
4. The percentage of people living in China's rural areas has changed since 1949. In 1949, _____ per cent of people in China lived in rural areas. By 2018, this had decreased to _____ per cent. It is expected that within 20 years, _____ per cent will live in urban areas.
5. There are many consequences of the dramatic changes in China's population distribution. **Classify** the following consequences as either positive or negative.
   a. Urban population growth
   b. Labourers leave families for months at a time
   c. Smaller percentage of people living in rural areas
   d. Development of super cities
   e. Migrants classified as rural dwellers who live in the cities are denied access to social services subsidised housing, income support and education for their children
   f. Greater income flows to rural areas from urban workers

Apply your understanding

Communicating

6. **Describe** some of the push factors that led rural peasants to leave their homes for the cities.
7. A more recent population migration is towards high-rise apartment living in the centre of major cities. How might this trend impact on these new residents and the sustainability of the environment their migration is creating? Use examples to **justify** your stance.
8. **Discuss** why the Chinese government would encourage this mass movement of people from the country to the cities?
9. Internal displacement within a country occurs due to conflict or environmental disasters. In 2020, DRC and Syria had the highest number of new displacements. Drawing on your wider knowledge of current or recent world events, **predict** where you expect an increase in internal displacements to occur and **explain** why.
10. In Australia, **determine** what initially led to people leaving rural areas for life in the city.

LESSON
16.5 Why do people migrate from the country to the city?

LEARNING INTENTION

By the end of this lesson you should be able to explain the reasons why people move from rural areas to urban settings.

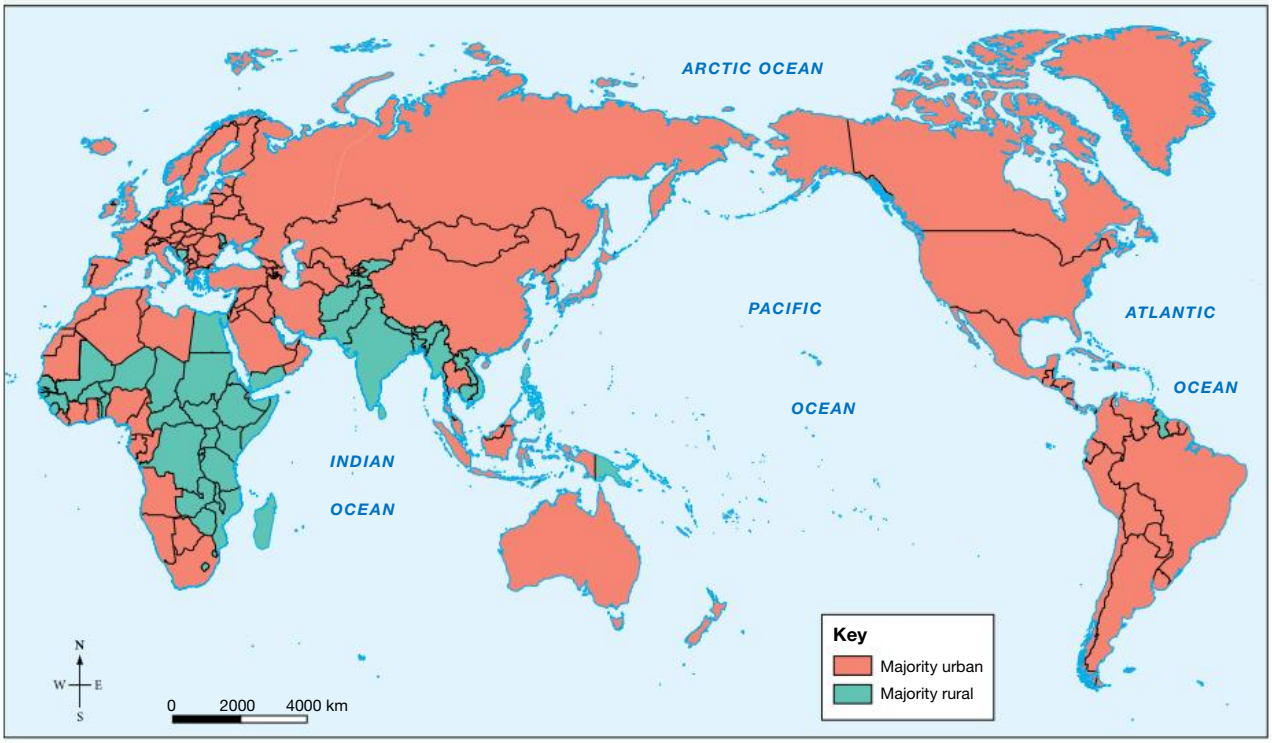
TUNE IN

Over the course of history, the global population has changed from being primarily rural to primarily urban. Whilst this increase is partially due to natural population increases, the decision of people to move from country to city areas has contributed to this growth.

Consider **FIGURE 1**:

1. Which continents have a majority of countries with a mostly urban population?
2. Which continents have a majority of countries with a mostly rural population?
3. Brainstorm reasons why some continents are more urbanised than others.

FIGURE 1 Do more people live in urban or rural areas in 2022?



Source: Based on data from Do more people live in urban or rural areas? 2022. Our World in Data. Licensed under CC BY 4.0. Map redrawn by Spatial Vision.

16.5.1 What is urbanisation?

As shown in lesson 16.4, many of the internal migration movements in Australia were from one urban (city or town) area to another or from an urban area to a rural (country) area. In China, the internal movement was more likely to be from rural areas to urban areas. In this lesson, you will explore this phenomenon in more detail.

Urbanisation refers to the growth of and expansion of urban areas and the increase in the proportion of people living in urban areas as compared to rural areas. In 1800, 98 per cent of the global population lived in rural areas. By 2018, this figure had risen to 56 per cent. Today there are more countries than ever where over 50 per cent of the population lives in an urban area (see **FIGURE 1**) People choosing to move from rural to urban areas has contributed to this growth.

16.5.2 What makes people move from rural to urban locations?

There are many and varied reasons for people migrating to urban locations. These reasons are usually a combination of push and pull factors. Some people are 'pushed' from rural to urban areas within their own country. Others will travel from other countries to urban areas, 'pulled' by better opportunities.

Push factors

Geographical inequality is mostly responsible for the migration of people from rural to urban areas. Push factors that drive people towards cities usually involve a decline in living conditions in the rural area in which the people live. There are various situations that can cause this, including a decrease in the quality of agricultural land (caused by factors such as prolonged drought, erosion or desertification); poverty; lack of medical services or educational opportunities; war; famine from lack of food and/or crop failure; and natural disasters.

Pull factors

Pull factors refer to the attractions of urban areas that make people want to move there. Urbanisation in any country generally begins when enough businesses are established in the cities to provide many new jobs. Pull factors include job opportunities; better housing and infrastructure; political or religious freedom; improved education and healthcare; activities and enjoyment of public facilities; and family links.

People can more easily access basic services in urban areas than in rural areas so, although poverty may be present in urban environments, cities also offer an escape from poverty. Cultural activities are often enhanced in cities that attract migrants from many different areas — food and music are obvious examples. There also tends to be a greater tolerance of different migrant and racial groups living close together.

FIGURE 2 Emergency healthcare is one service that may be more easily accessed in urban areas.



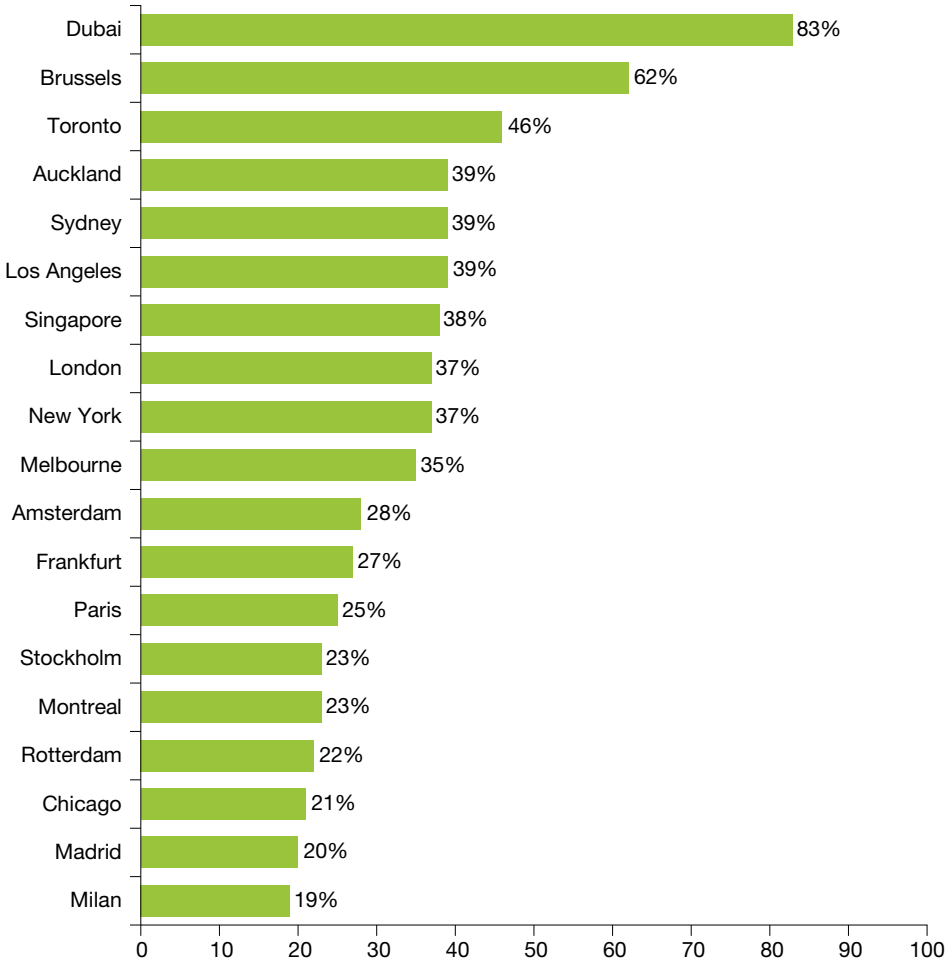
16.5.3 What role does employment play?

Taxi drivers, construction workers, teachers, nurses, house cleaners, accountants, nannies — there are many job opportunities for both skilled and unskilled workers that attract people to cities. These people may come from a different area within a country or across borders from different countries. 'Gateway cities' are cities in the world that are arrival points for many migrant workers. These cities are large enough to provide many different jobs and are therefore attractive to people moving from other regions. Some cities, such as Dubai, are reliant on their foreign workers. More than two-thirds of Dubai's population is migrant labour, with many working in building construction. These labourers — mostly from India, Pakistan and Bangladesh — are often poorly paid, and live in migrant camps that can be up to two hours away from the work site. **FIGURE 4** shows the cities with the highest foreign-born population that attract foreign workers.

FIGURE 3 These migrant labourers from Bangladesh, India, and Pakistan work at the construction site of Burj Khalifa in Dubai, United Arab Emirates.



FIGURE 4 Foreign-born populations in gateway cities



16.5.4 What roles does access to services play?

Access to basic services such as clean and safe drinking water and adequate sanitation are major factors that influence the migration of people from rural to urban areas.

Providing clean and safe water and sanitation in rural and urban areas is one of the Sustainable Development Goals (SDGs), Targets 6.1 and 6.2. Not all people have access to safe drinking water and to safely managed sanitation. In some countries, people still defecate in open areas. **FIGURES 5** and **6** show the differences in access to these facilities in rural and urban areas.

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FIGURE 5 Urban and rural population with access to safe drinking water, 2015

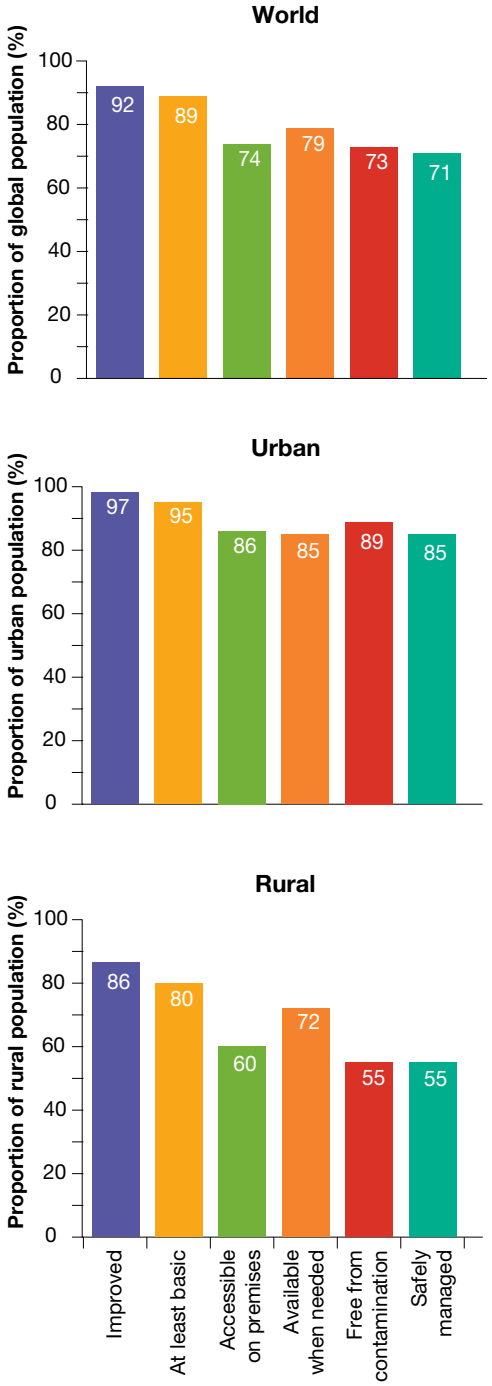
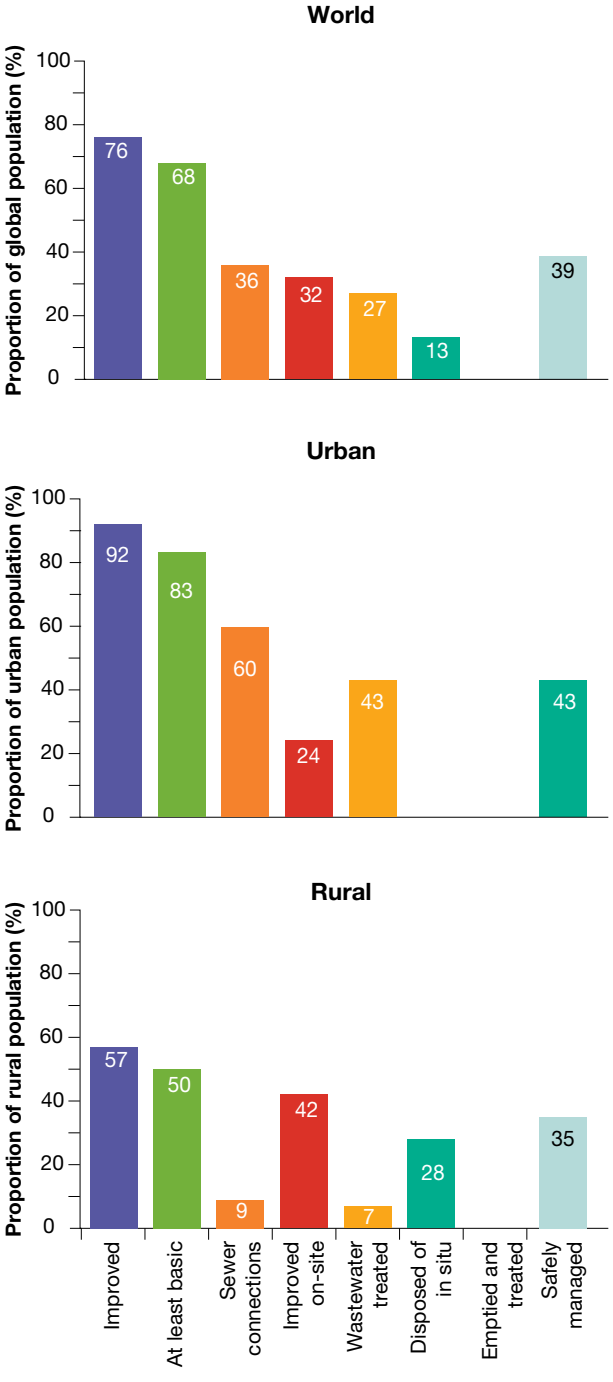


FIGURE 6 Urban and rural population with access to safe sanitation, 2015



16.5 SKILL ACTIVITY: Questioning and researching using geographical methods

Cultural activities are often enhanced in cities that attract migrants from many different areas.

1. **Conduct research** into an Australian city.
2. **Create** a mind-map of cultural activities. You may wish to consider adding illustrations to your mind-map.

16.5 Exercise

learnon

16.5 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 5, 8	6, 7

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Check your understanding

1. _____ factors are those that drive people towards cities and _____ factors are the attractions of urban areas, which make people want to move there.
2. Gateway cities are arrival points for many migrant workers. These cities are large enough to provide many different jobs and are therefore attractive to people moving from other regions. True or false?
3. Which of the following gateway cities from **FIGURE 4** do you think would provide the greatest chance for foreign people to get work? **Explain** your answer.
   - A. Sydney
   - B. Milan
   - C. London
   - D. Dubai
4. Imagine you live in a poor rural village in India with no education or work. **List** the possible attractions of moving to an urban area.

Apply your understanding

Communicating

5. **Determine** whether the following statements are true or false.

a. Providing safe access to drinking water to the world has been more successful than providing safe and adequate sanitation. _____	True	False
b. Most people in urban areas have access to safely managed drinking water. _____	True	False
c. Overall, a greater proportion of people in urban areas have access to improved drinking water. _____	True	False
d. Forty-three per cent of people in rural areas have unimproved or no access to sanitation. _____	True	False
e. Overall, people have better access to safe sanitation facilities than safe drinking water. _____	True	False

6. Access to basic services is a major factor that influences migration to the city. Aside from sanitation services and clean, safe drinking water, **describe** one other service that would attract migrants to urban areas.
7. **Summarise** push factors. In your answer, **clarify** why some push factors are vastly different from others.
8. **Create** a list of pull factors.

LESSON
16.6 How have urbanisation patterns changed over time?

LEARNING INTENTION

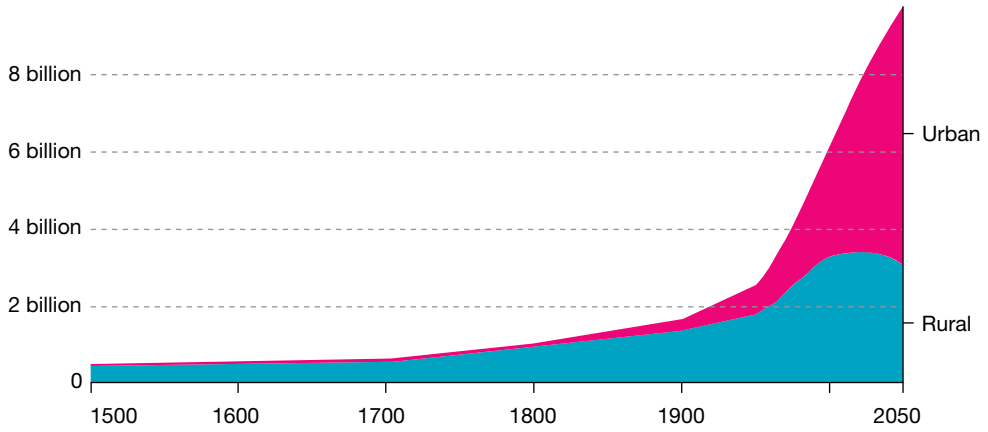
By the end of this lesson you should be able to describe the growth and changes in urban populations over time and in different places.

TUNE IN

Urbanisation rates have increased dramatically over the past 100 years and are predicted to continue.

1. When did urbanisation start to increase? What are some reasons for this?
2. Why do you think urbanisation is predicted to continue and rapidly increase?

FIGURE 1 Urban and rural population projected to 2050, World, 1500 to 2050



16.6.1 What is the history of urbanisation?

Urbanisation is the growth and expansion of urban areas and involves the movement of people to towns and cities. The earliest cities emerged about 5000 years ago in Mesopotamia (part of present-day Iran, Iraq and Syria). Originally these cities depended on agriculture. In 1800, 98 per cent of the global population lived in rural areas and most were still dependent upon farming and livestock production — only 2 per cent of people lived in urban areas.

During the nineteenth and early twentieth centuries, urbanisation occurred because of migration and the growth of industries. New job opportunities in the cities attracted people from rural areas and migrants provided a cheap workforce for factories. At that time, death rates in cities were high because they were unhealthy places (with crowded living conditions, diseases and a lack of sanitation) and urban growth was slow. Workers often found it hard to find somewhere to live — it was not unusual for an entire family to be living in a single room. In many European cities (such as London) the number of deaths was higher than the number of births, and migrants provided most of the population growth.

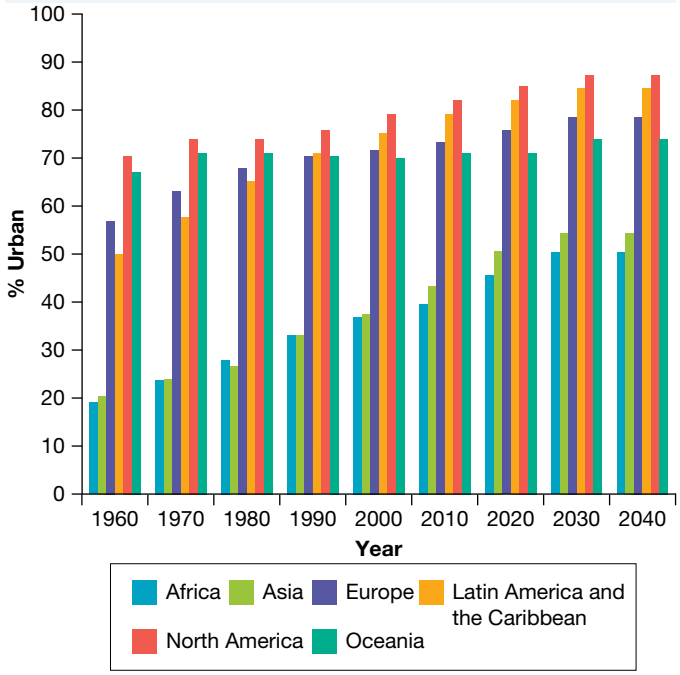
It is a very different experience in developing countries today. Most urban growth results from natural increase; that is, people being born in cities, rather than migrating to cities. With the additional population increase caused by migration from rural areas in search of better jobs, many cities in Asia and Africa have exploded in size. Urbanisation rates have increased dramatically over the past 100 years and are predicted to continue (see **FIGURE 1**).

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16.6.2 How does urbanisation differ across regions over time?

Urbanisation has not occurred evenly across the world. Some countries are predominantly rural, such as Cambodia and Papua New Guinea (populations 77 per cent and 87 per cent rural respectively), whereas others are almost completely urban, such as Belgium and Kuwait (98 per cent urban for both). In fact, some countries have 100 per cent urbanisation, including Bermuda, Cayman Islands, Hong Kong, Macau, Monaco, Vatican City and Singapore. South America is becoming one of the most urbanised regions in the world and currently has a population of around 385 million people. It is estimated that by 2050, 91.4 per cent of its population will be residing in urban areas.

FIGURE 2 The growth in urban populations over time

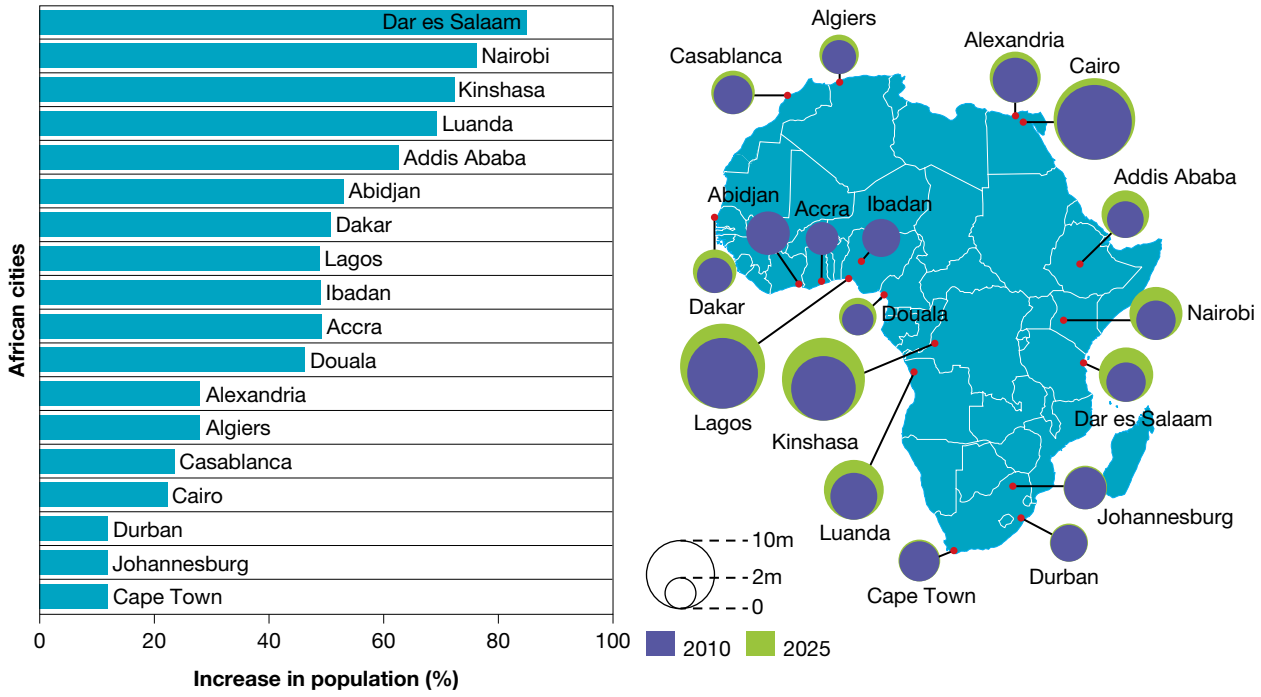


16.6.3 How has urbanisation increased in Africa?

Africa is fast moving from a mostly rural population to an increasingly urbanised population.

Africa now has a larger urban population than North America and has 25 of the world's fastest-growing large cities — the number of people living in cities in Africa is increasing by about one million every week. Some of Africa's cities are expected to grow by 85 per cent by 2025. By 2050, the urban population is expected to triple from 400 million people to 1.2 billion. Over half of the urban population in Angola, Chad, Madagascar, Malawi, Mozambique, Niger, Sierra Leone and Zambia is below the poverty line. In many other countries,

FIGURE 3 The projected growth of African cities from 2010 to 2025



including Burundi, Gambia, Kenya and Zimbabwe, 40–50 per cent of the population are living below the poverty line. In most African cities, between 40 and 70 per cent of the population live in **slums** or squatter settlements. In cities such as Nairobi, Lagos, Cairo and Rwanda, 60–70 per cent of the population live in slum conditions, which occupy about 5 per cent of the land in the city. Slums are described in more detail in lesson 16.7.

FIGURE 4 A slum in Nairobi



16.6.4 Consequences of urbanisation in Australia and the United States

Urban areas are those that are permanent settlements and feature a range of built structures such as houses, commercial buildings, roads, bridges, and railways etc. They can range in size based on the population. The Australian Bureau of Statistics defines urban centres as having a population of 1000 people or more.

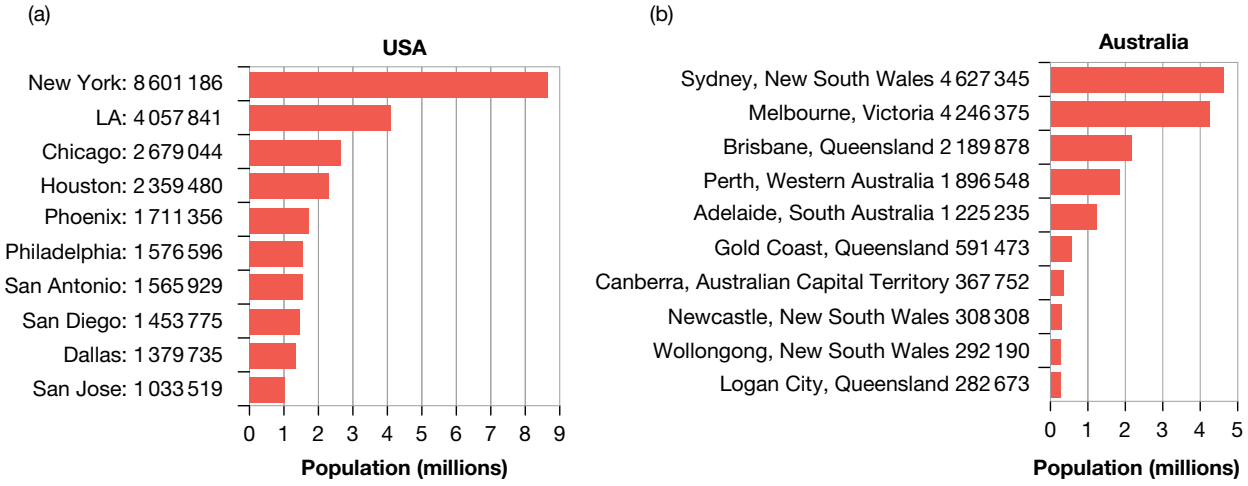
Conurbations

Sometimes there are so many cities in a particular region that they seem to merge almost into one city as they expand. A **conurbation** is made up of cities that have grown and merged to form one continuous urban area. Both the United States and, to a lesser extent, Australia have conurbations.

slum a run-down area of a city characterised by poor housing and poverty

conurbation area when cities merge to form one continuous urban area

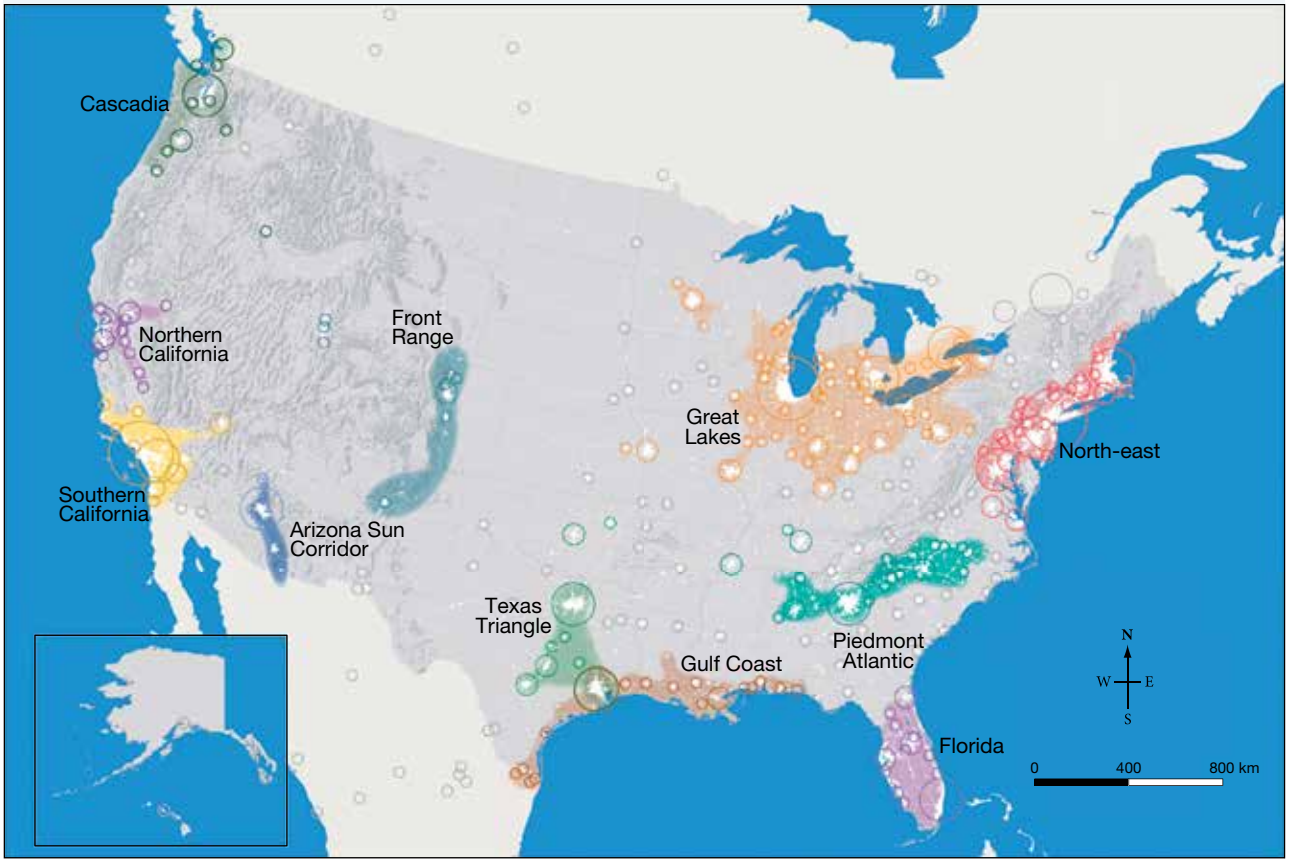
FIGURE 5 Population of the top ten urban settlements in (a) the United States (2018) and (b) Australia (2019)



United States

Eleven conurbations have been identified in the United States (see **FIGURE 6**). The major conurbation is in the north-east region. It is often called BosNYWash because it covers the area from Boston in the north, through New York to Washington D.C. in the south. This region is home to more than 50 million people (17 per cent of the US population) and accounts for 20 per cent of the gross domestic product (GDP) of the United States.

FIGURE 6 Conurbations in the United States



Source: Adapted with permission from Bernard Salt.

FIGURE 7 The sprawling city of Boston



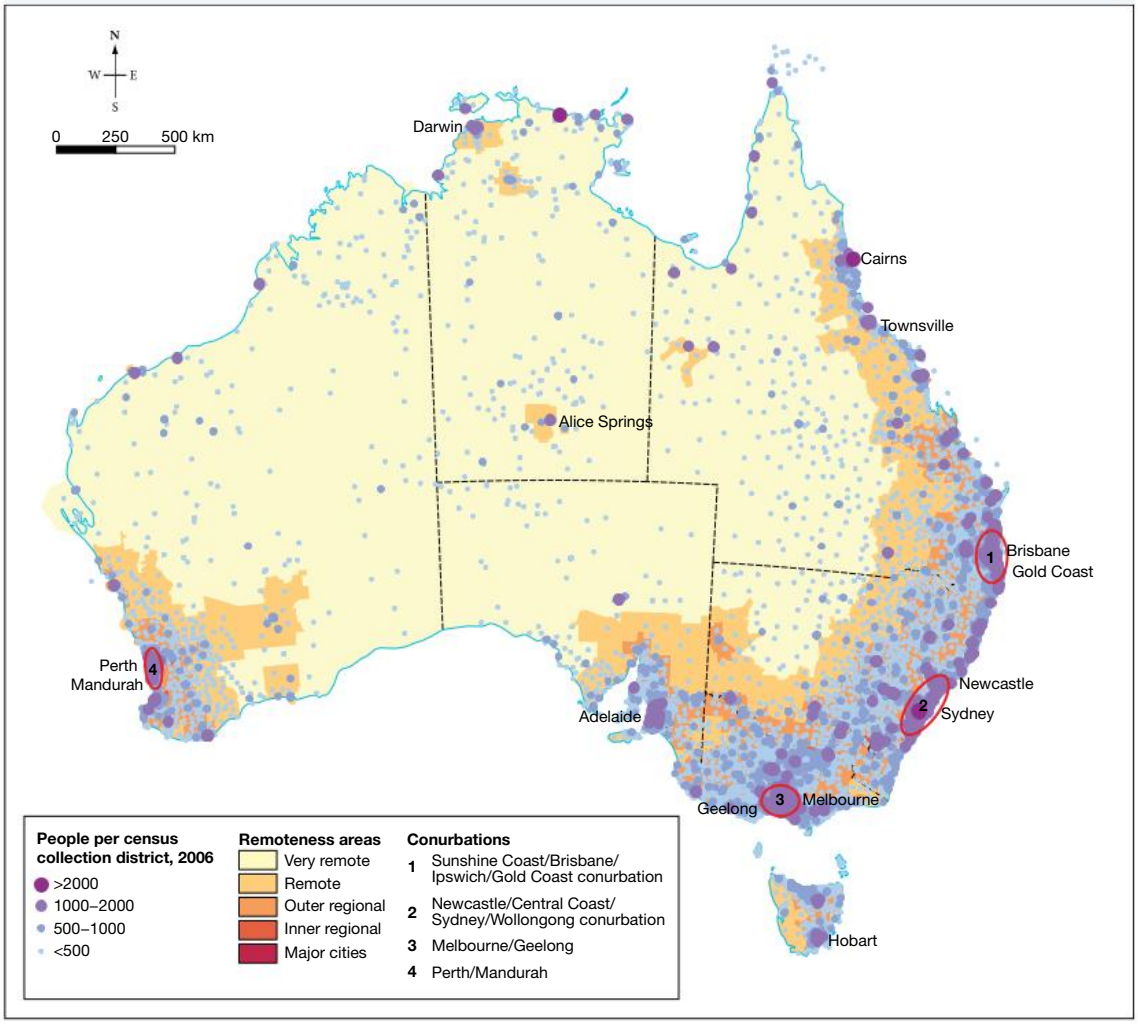
Australia

Australia, on the other hand, has four conurbations (see **FIGURE 8**). One is in south-east Queensland, one joins Melbourne and Geelong, one is from Perth to Mandurah. The Newcastle–Wollongong conurbation stretches for over 250 kilometres and is home to almost six million people.

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FIGURE 8 Australia's population centres and conurbations



Source: Australian Bureau of Statistics.

16.6 SKILL ACTIVITY: Interpreting and analysing geographical data and information

1. Choose one of the conurbations in the United States and another in Australia.
2. **Create** a table and choose five of the following headings to complete a comparison of the two cities:
   - Population
   - Health care (accessibility of medical care)
   - Minimum wage
   - Percentage of people with a tertiary education
   - Modes of public transport
   - Pollution levels
   - Unemployment levels
   - Quality of water supply
   - Population density
   - Traffic congestion
3. Use the information in your table to **compose** a report **summarising** your findings. You will need to look at both statistics and news reports in order to complete a comprehensive overview.

16.6 Exercise

learnon

16.6 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 4	3, 5	6, 7, 8, 9, 10

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- Receive immediate feedback
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Check your understanding

1. Urbanisation is the growth and expansion of rural areas into urban areas. True or false?
2. In developing countries today, most urban growth results from people
   - A. migrating to cities.
   - B. moving away from cities.
   - C. being born in cities.
   - D. working in cities.
3. **Examine FIGURE 2.**
   - a. **Explain** how this figure shows that urbanisation has varied in different regions of the world.
   - b. Which two regions have the greatest rural population?
4. What is expected to happen with urbanisation in the future?
   - A. It is expected to decrease
   - B. It is expected to increase
   - C. It is expected to stop
   - D. It is expected to plateau
5. Refer to **FIGURES 6** and **8**.
   - a. **Compare** the size of the ten largest cities in the United States and in Australia.
   - b. **Identify** what might explain the differences you noticed.

Apply your understanding

Interpreting and analysing geographical data and information

6. Study **FIGURE 3** and refer back to the reading in this lesson.
   - a. **Describe** the distribution of Africa's large cities. How many are inland? How many are on the coast? Which are located in the north, south-east and west of the continent?
   - b. What does it mean to live below the poverty line? **Identify** the cities in which more than half the population is living below the poverty line.
7. **Investigate FIGURE 2. Determine** which two continents tend to have the lowest growth in urban populations.
8. **Predict** the future of sustainability of the place shown in **FIGURE 4**, especially if the population of this city is going to increase.
9. Refer to **FIGURE 3. Name** the three largest African cities in 2010 and the three predicted to be largest in 2025. In which countries are they located?

Concluding and decision-making

10. Which of the consequences of urbanisation do you think may continue to have the biggest effects on the **environment** in the future?

LESSON
16.7 What are the advantages and disadvantages of urbanisation?

LEARNING INTENTION

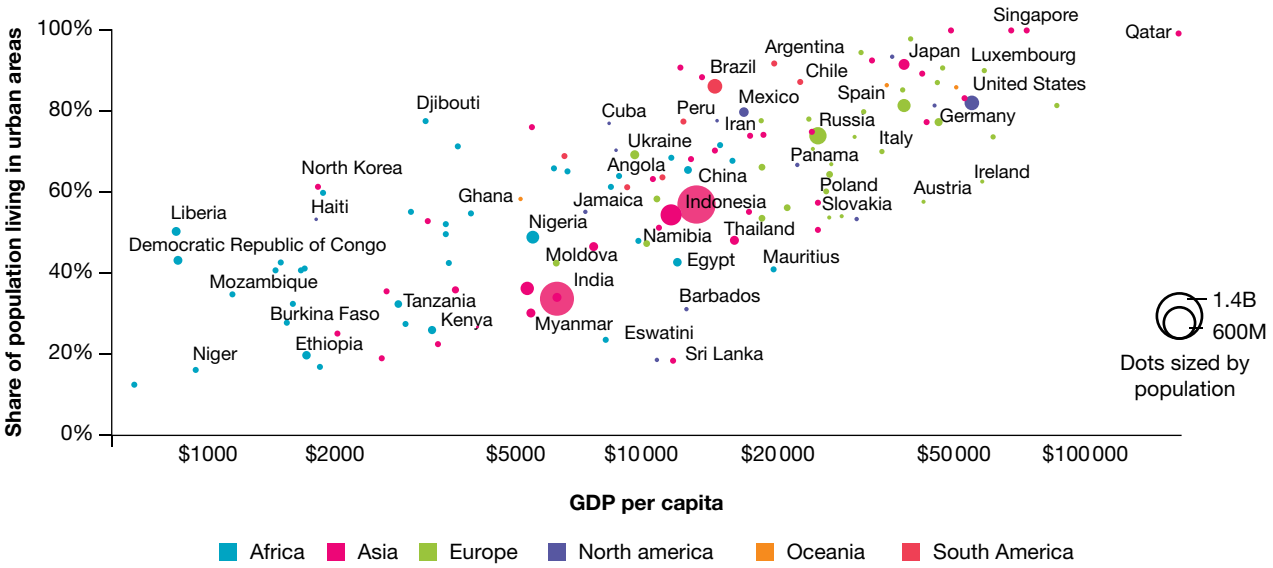
By the end of this lesson you should be able to distinguish between and describe advantages and disadvantages of urbanisation, and summarise conditions in urban slums.

TUNE IN

Geographers look for relationships between **variables**, such as the variables of urban population and GDP per capita shown in this scatterplot. Per capita means as it applies to each person. In the study of Geography, variables are defined as characteristics that can be measured and provide information about a place, beyond just the location of that place.

variables (in Geography)
characteristics that can be measured and provide information about a place, beyond just the location of that place

FIGURE 1 Urban population vs GDP per capita, 2016



Based on the data shown in the **FIGURE 1** scatterplot and drawing on your wider knowledge, what do you predict about the direction and strength of the relationship between urban populations and GDP?

16.7.1 What are the advantages of urbanisation?

Urbanisation has a number of advantages, not just for those living in the urban areas, but also for the country as a whole. Gross Domestic Product (GDP) is a frequently used measure of the economic strength of a country, that is, how wealthy the country is. According to the World Bank, 80 per cent of global GDP is generated in cities.

FIGURE 1 illustrates the relationship between urbanisation and GDP. The higher the urban population, the richer the country and its people are likely to be.

The reasons for this relationship are complex. It could be that the improved education and employment opportunities offered by urban areas, allow for citizens to develop and earn more, and therefore have more to spend. This contributes to a higher GDP. Similarly, it could be that bringing people together in a concentrated area allows for the sharing of new ideas and innovations, and the development of new technology. This can also contribute to a higher GDP as new products and services can generate wealth. Better access to services such as high-speed internet in cities helps to facilitate education, employment and enterprise.

FIGURE 2 Footscray restaurants



On a more individual level, living in urban areas provide citizens with access to a greater range of services and facilities than those that are available in rural areas. When a population is concentrated into a smaller area, it makes it easier to provide government and local council support, and provide facilities such as housing, roads, public transport, hospitals and schools (see **FIGURE 3**).

There are also cultural and social advantages of urbanisation. Urban areas frequently have more sporting facilities, museums, galleries, theatres, and playgrounds than rural locations do, as well as a greater variety of different cultures, their cuisines, and their practices living side-by-side (**FIGURE 2**).

FIGURE 3 (a) Public transport, (b) Hospital, (c) School in New York, (d) High rise housing in Brazil



16.7.2 What are the disadvantages of urbanisation?

Health issues

High population densities in urban areas make it easier for diseases to be transmitted, especially in poor neighbourhoods. The urban poor suffer health issues caused by reduced access to sanitation and hygiene facilities and healthcare.

Pollution

Air pollution from cars, industry and heating affects people who live in cities. A study in the United States showed that more than 3800 people die prematurely in the Los Angeles Basin and San Joaquin Valley region of southern California because of air pollution. Generally, Australia has a fairly high level of air quality. Cars and industry are the main factors influencing air quality in urban areas.

Crime

Crime rates tend to be higher in urban areas. The sheer number of people living side-by-side offers criminals more potential victims and therefore more opportunities to commit crime. Economic inequality is also greater in urban areas. Items of material wealth such as luxury cars and expensive watches may become targets for criminal gangs.

Higher cost of living

Rent and mortgage costs tend to be higher in cities as the value of the land is greater and there is more competition for available housing. The cost of food also tends to be higher as it needs to be transported from where it is produced.

Homelessness

According to the US National Alliance to End Homelessness, as of 2018 there were around 553 000 homeless people in the United States on a given night. This represents 17 people in every 10 000. Although the trend has been downwards from 2007–17, there was a slight rise in 2018. The five states with the highest homeless counts in 2018 were California (129 972), New York State (91 897), Florida (31 030), Texas (25 310) and Washington State (22 305).

In comparison, census data shows that the number of homeless people in Australia increased by more than 15 000 (14 per cent) over five years to 2016. According to the Australian Bureau of Statistics, 116 000 people were homeless on census night in 2016, representing 50 homeless people per 10 000. This was an increase of 13.7 per cent from the 2011 census.

16.7.3 What are slums and how do they develop?

When an urban area experiences an increase in people moving there, it may not have adequate infrastructure such as available housing and sanitation to accommodate their population.

In many developing countries, urban growth has resulted in unplanned settlements called slums (other terms used around the world include ghettos, favelas, shantytowns, bidonvilles and bustees). Almost 1 billion people live in slums worldwide. The United Nations defines a slum as follows:

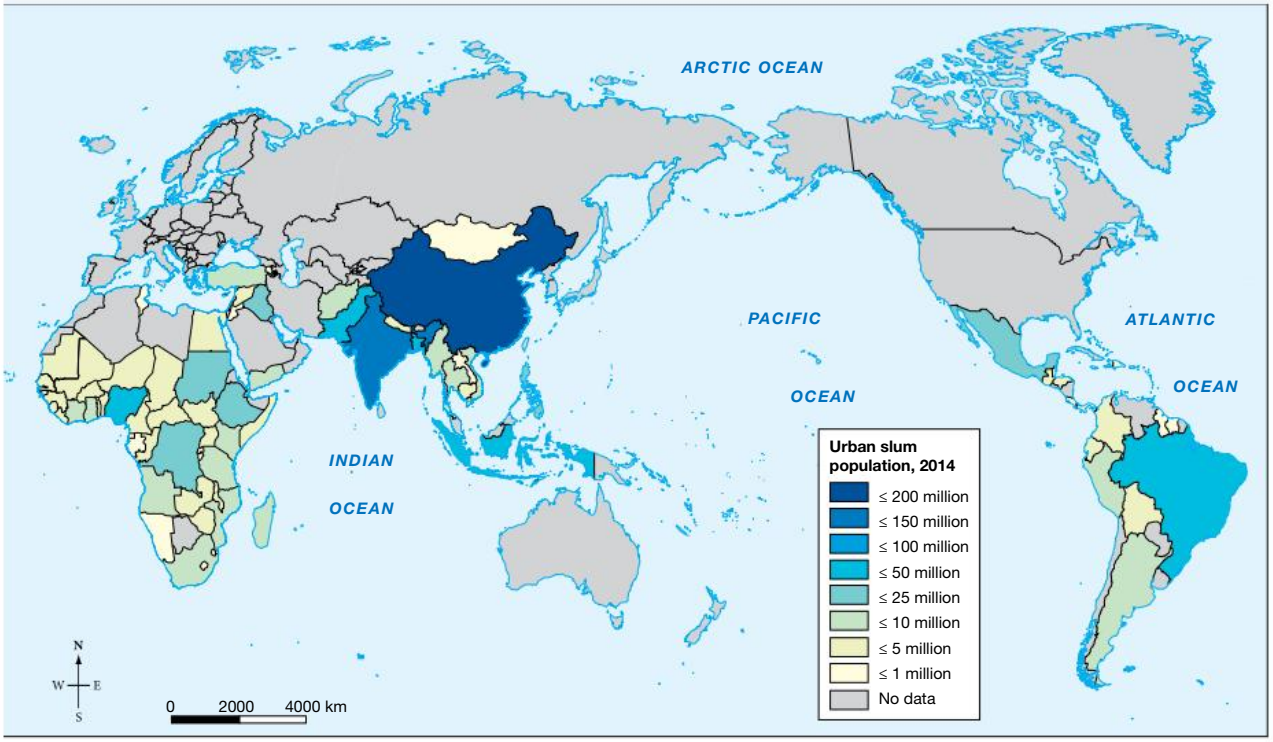
> . . . one or a group of individuals living under the same roof in an urban area, lacking one or more of the following five amenities: (1) durable housing (a permanent structure providing protection from extreme climatic conditions); (2) sufficient living area (no more than three people sharing a room); (3) access to improved water (water that is sufficient, affordable and can be obtained without extreme effort); (4) access to improved sanitation facilities (a private toilet, or a public one shared with a reasonable number of people); and (5) secure tenure and protection against forced eviction.

While urban slums are primarily a challenge for the developing world, areas of concentrated urban poverty also exist in the developed world in places such as Detroit, Michigan in the United States.

Some regions have more people living in urban slums as compared to other regions as illustrated by **FIGURE 4**.

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FIGURE 4 Urban population living in slums, 2018



Source: Based on data from Urban population living in slums, 2014. Our World in Data. Licensed under CC BY 4.0. Map redrawn by Spatial Vision.

The images shown in **FIGURE 5** are examples of such urban slums from around the world.

FIGURE 5 Urban slums around the world: (a) Brazilian favela, (b) South African shantytown, (c) Indian slum, (d) Slovakian ghetto



Resources

Weblink	Face of the slums
Digital document	Blackline world map (doc-36260)

16.7 SKILL ACTIVITY: Questioning and researching using geographical methods

1. **Research** to create a list of the ten biggest urban slums in the world.
2. Download and print the **Blackline world map** from the Digital documents section of the Resources panel.
3. Plot the slums on your map. It will be helpful to also have an atlas to refer to.
4. **Annotate** your map with facts and images about each slum.

16.7 Exercise

learnon

16.7 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 5	6, 7, 8

These questions are even better in jacPLUS!



- Receive immediate feedback
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Check your understanding

1. The higher the urban population, the richer the country and its people are likely to be. True or false?
2. In the study of Geography, variables are defined as _____ that can be measured and provide information about a _____, beyond just the _____ of that place.
3. According to the World Bank, how much of global GDP is generated in cities?
   - A. 50 per cent
   - B. 70 per cent
   - C. 80 per cent
   - D. 90 per cent
4. **Summarise** the main advantages of urbanisation for residents of cities.
5. **Consider FIGURE 1**.
   - a. **Identify** a country that has less than 40 per cent urban population and GDP per capita between $1000 and $2000.
   - b. **Identify** a country that has over 80 per cent urban population and GDP per capita between $50 000 and $100 000.

Apply your understanding

Concluding and decision-making

6. Consider the four major areas of disadvantages mentioned in the lesson; health issues, pollution, crime and higher costs of living. What do you think is the most significant disadvantage? **Justify** your reasoning.
7. Think about the last time you visited a city. You may even live in one. **Identify** some of the cultural or social activities or events that you had access to that you wouldn't have in a rural area.

Communicating

8. The more urban a country is, the wealthier it is likely to be. **Create** a concept map that illustrates the interconnections between reasons for this.

LESSON
16.8 How do we create sustainable cities?

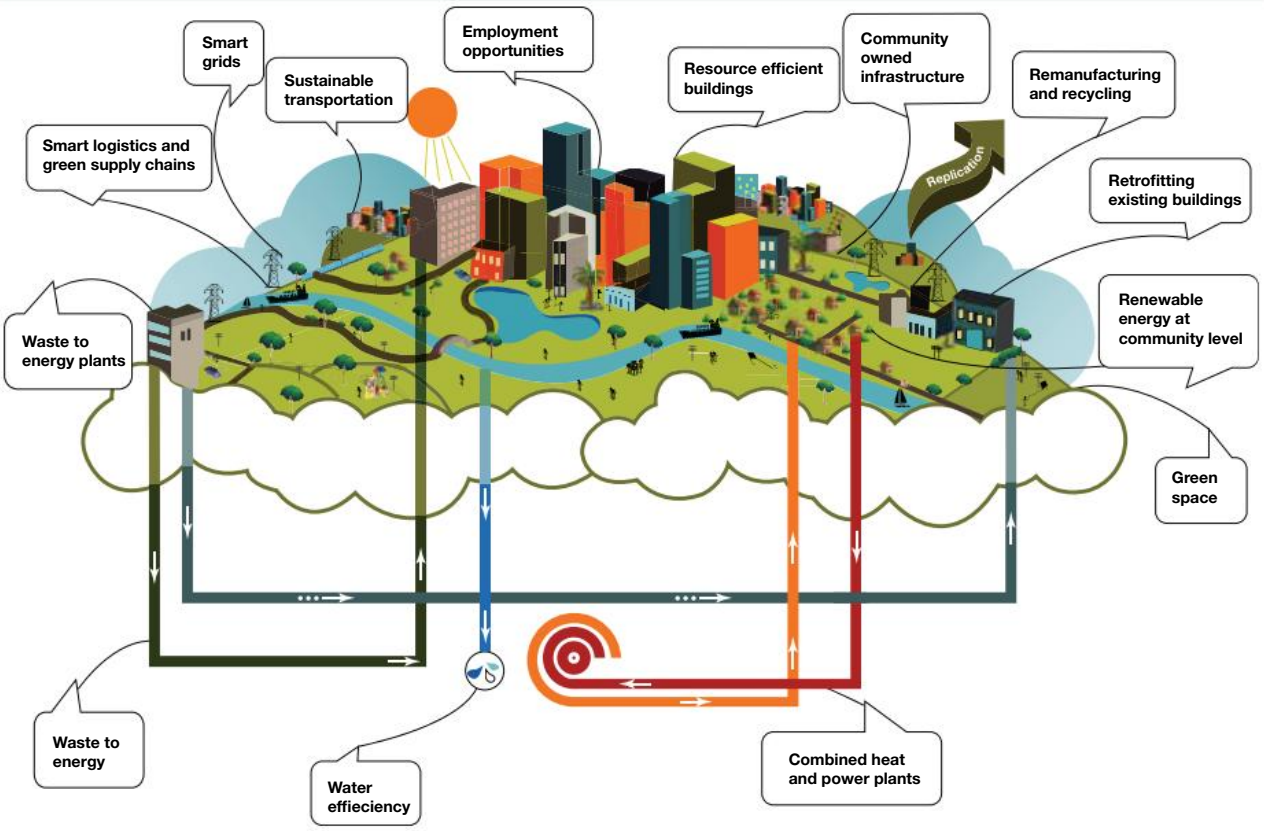
LEARNING INTENTION

By the end of this lesson you should be able to describe features and actions of sustainable cities.

TUNE IN

Urban areas need to be carefully planned and developed in order to meet the needs of their current and future populations in a sustainable way. **FIGURE 1** illustrates some of the key features of a sustainable city.

FIGURE 1 Mapping components for a sustainable city



1. What do you think is meant by the term 'sustainable' as it relates to an urban area?
2. What are some suggestions for sustainable transport options?
3. What are some of the waste products produced by cities that could be remanufactured or recycled, and into what?

16.8.1 What are sustainable cities and why are they needed?

With an ever increasing urban population, as well as the threats posed by climate change, cities need to become more sustainable in order to meet the present needs of their inhabitants and leave sufficient resources to meet the needs of future generations. A focus on cities forms part of UN Sustainable Development Goal 11 — Make cities and human settlements inclusive, safe, resilient and sustainable.

A sustainable city, or eco-city, is a city designed to reduce its environmental impact by minimising energy use, water use and waste production (including heat), and reducing air and water pollution.

Every city in the world experiences some type of problem that needs to be overcome — inadequate housing, urban sprawl, air and/or water pollution and waste disposal are just a few. Solutions to city problems have a better chance of succeeding if:

- responsibility is shared between governments, communities and citizens
- communities are involved in projects and decision making.

16.8.2 What makes a sustainable city?

In 2010, the Australian Conservation Foundation conducted a study to measure the sustainability of Australia's 20 largest cities. The indicators measured were a combination of:

- *environment* — air quality, **ecological footprint**, water, green building and biodiversity
- *quality of life* — health, transport, wellbeing, **population density** and employment
- *resilience* — (the ability of a city to cope with future change) climate change, public participation, education, household repayments and food production.

ecological footprint the amount of productive land needed on average by each person in a selected area for food, water, transport, housing and waste management

population density the number of people living within one square kilometre of land; it identifies the intensity of land use or how crowded a place is

FIGURE 1 highlights some of the key features of a sustainable city.

16.8.3 What actions are involved in developing sustainable cities?

Urban planners and governments can take a number of targeted actions in order to make their cities more sustainable. Some of these actions are outlined in **TABLE 1**.

TABLE 1 Targeted actions to make cities more sustainable

Key feature	Targeted actions
Conservation of water	• Capture and use of stormwater • Monitoring of infrastructure for leaks • Treatment and reuse of waste water • Incentives for saving water for businesses and individuals
Improved waste management	• Recycling programs • Composting programs • Repurposing of materials such as building waste • Generating heat from waste incineration (burning waste)
Use of green architecture	• Using sustainable and/or recycled building materials • Improving insulation and ventilation for natural heating and cooling • Incorporating renewable energy sources, e.g. solar panels
Urban farming	• Establishment of community gardens • Encouraging schools and restaurants to grow food • Creating vertical and rooftop gardens
Green public spaces	• Creation of parks, nature reserves, and recreational areas for public use • Urban greening programs to reduce heat island effect
Use of renewable energy	• Use of energy sources that don't rely on fossil fuels • Establishment of solar and wind farms • Providing rebates or incentives for private owners to install solar panels
Sustainable transport options	• Creating more bike paths and cycle superhighways • Improving public transport options • Reducing public transport emissions by lowering use of fossil fuels • Installing EV (electric vehicle) charging stations to encourage use of electric cars

16.8.4 What do some of these actions look like in the real world?

Urban greening program, Sri Lanka

Producing food in cities provides people with an income and improves local environments, as well as reducing the distance that food must travel to a consumer — 'food miles'. With support from the Department of Agriculture, the Department of Education and the Youth Services Council, three city councils in Sri Lanka developed a program of community environmental management that led to the creation of 300 home gardens and 100 home-composting programs. It also helped organise and empower community groups, and the idea has now spread to many other municipalities in the country.

FIGURE 2 The urban greening program in Sri Lanka has been a success in many communities.



Solar panels in Vatican City and Japan

Vatican City, Italy

Vatican City is the world's smallest independent state. In 2008 more than 2000 photovoltaic panels were fixed to the roof of one of the city-state's main buildings — the roof of the Paul VI Hall — enabling the Vatican to cut its carbon dioxide emissions by about 225 tonnes a year. The 2400 panels heat, light and cool the hall and several surrounding buildings, producing 300 kilowatt hours (MWh) of clean energy a year. (see **FIGURE 3**).

Ota, Japan

Ota is located 80 kilometres north-west of Tokyo and is one of Japan's sunniest locations. Through investment by the local government, Ota is one of Japan's first solar cities — three-quarters of the town's homes are covered by solar panels that have been distributed free of charge.

FIGURE 3 Solar panels cover the roof of the Paul VI hall, as seen from the dome of St Peter's Basilica.



FIGURE 4 A street in Ota, Japan — solar panels are visible on most of the houses.



Waste incineration in Vienna

A waste incineration and heat generation plant is part of a hard-waste management system in Vienna, Austria (see **FIGURE 5**). This plant became the first in the world to burn waste that cannot be recycled and use the energy generated by the plant in a heating network. The plant burns more cleanly and produces more heat and energy than many other waste generation plants, making it attractive to many urban communities. Each year, waste is turned into heat and electricity and supplies heating and hot water for 350 000 apartments — around a third of the city's total. The actual proportion of energy the waste supplies the city varies from season to season. Landfill waste has been reduced by 60 per cent in the city.

FIGURE 5 Spittelau waste treatment plant in Vienna, Austria. This power station burns waste, thus reducing landfill, to produce heat that is supplied to thousands of buildings.



Green architecture in Japan

The ACROS Fukuoka building located in Fukuoka, Japan is an example of plants and greening being used to enhance a building (**FIGURE 6**). The terraced green roof and green walls merge with a park and contain around 35 000 plants. The green roof keeps the temperature inside more constant and comfortable, thus reducing energy consumption. It is also able to capture rainwater run-off and attracts many insects and birds. In addition, it is visually appealing and attracts many people to the surrounding park.

FIGURE 6 The ACROS Fukuoka building located in Fukuoka, Japan



Sustainable housing in Adelaide, Australia

Christie Walk is located in Adelaide in South Australia. It is a small urban village of 27 dwellings located on a quarter of an acre of land. The site is within easy walking distance of Adelaide's markets, parklands and CBD, which means car use is reduced. Around 40 people live at Christie Walk, ranging in age from very young to over 80 years.

A number of principles were used in the design of Christie Walk.

- Low energy demand (passive heating and cooling; natural lighting and sealed double glazing in all windows and glass doors)
- Maximising the use of renewable/solar-based energy sources (photovoltaic cells on the roof) and minimising the use of non-renewable energy sources
- Capturing and using storm water (in large underground rainwater tanks) and recycling waste water
- Creating healthy gardens and maximising the biodiversity of indigenous flora and fauna. The gardens also produce herbs, vegetables and fruit.
- Avoiding the use of products that damage human health
- Minimising the use of non-recyclable materials

FIGURE 7 One of the sustainable buildings in Christie Walk

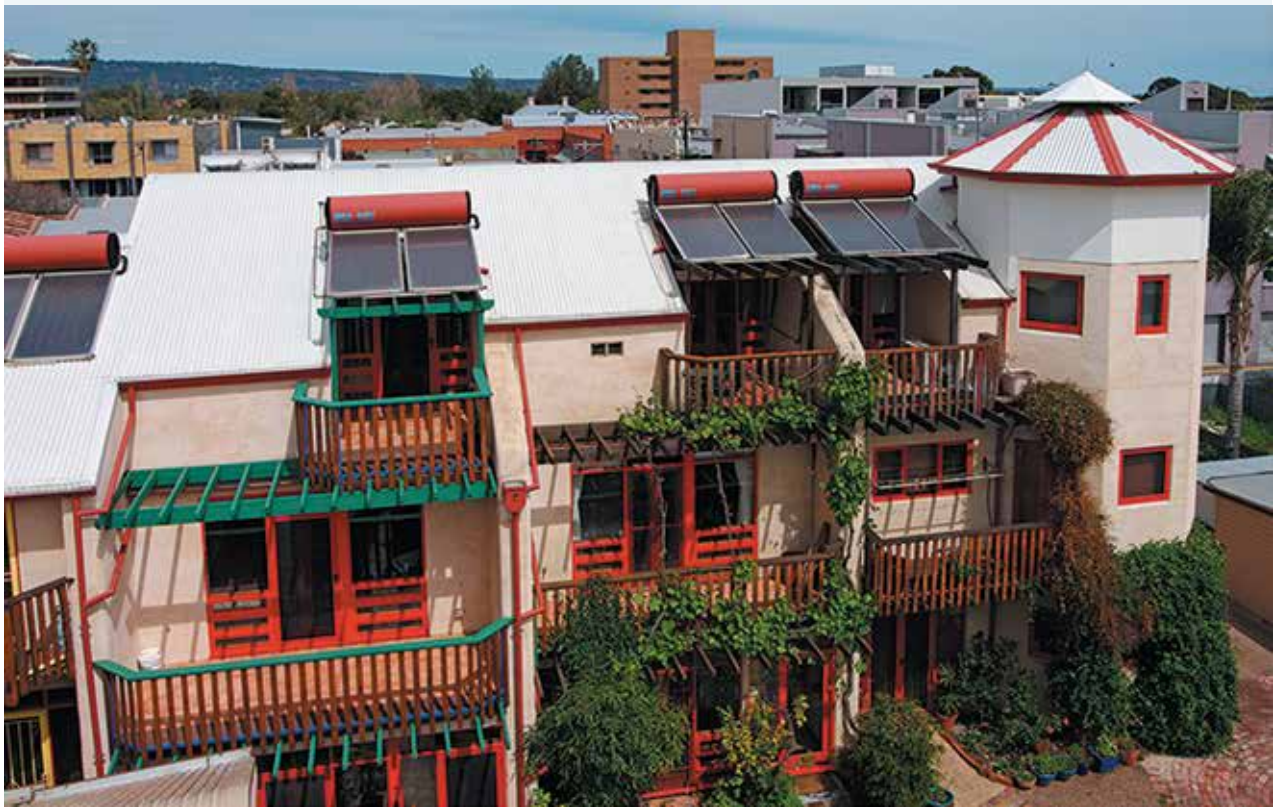


FIGURE 8 A plan of Christie Walk in Adelaide



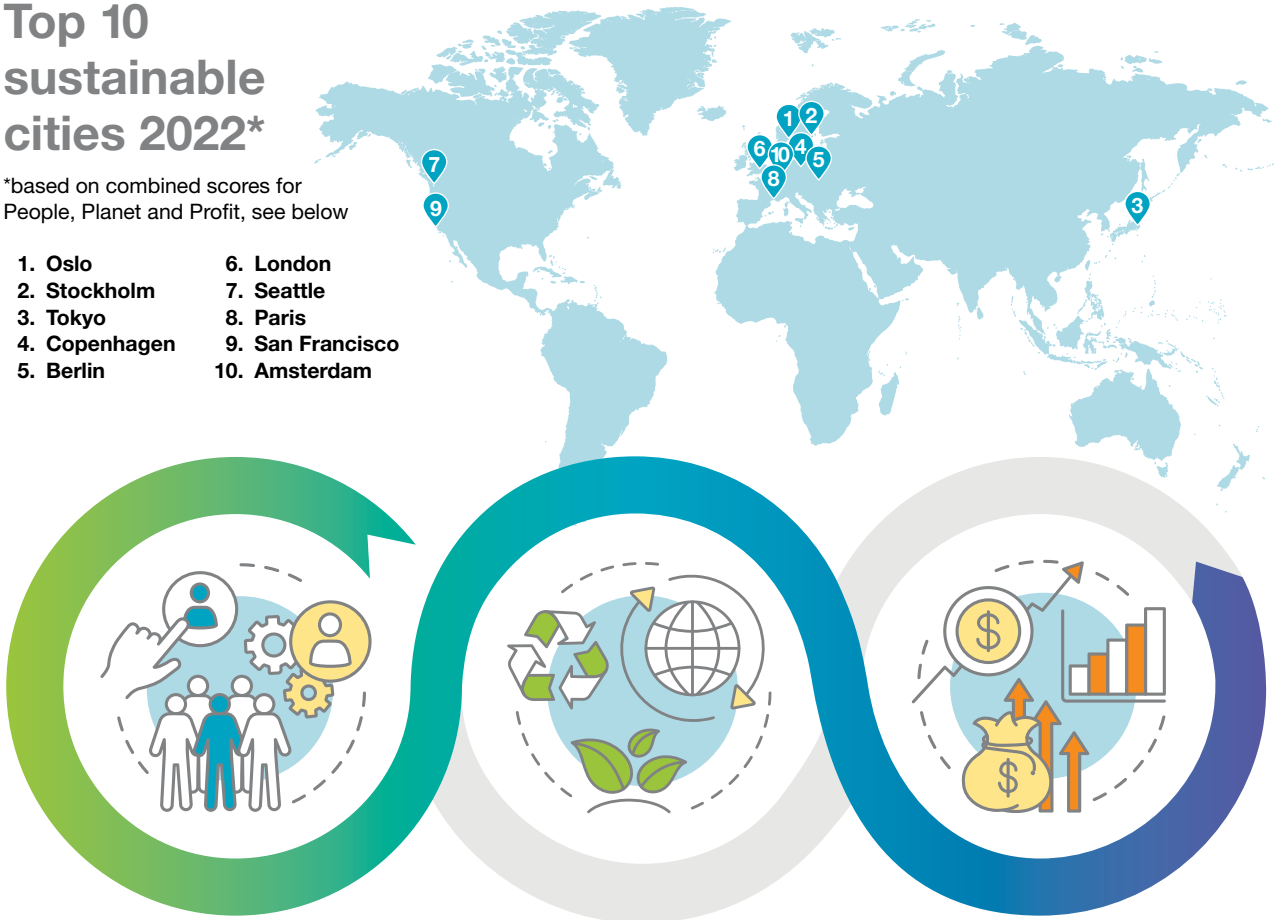
16.8.5 What are some of the most sustainable cities in the world?

Arcadis is a Netherlands-based design, engineering and consultancy company that focuses on sustainable solutions. Every few years they complete a Sustainable Cities Index where they rank they world's cities based on three pillars of sustainability: people, planet and profit.

FIGURE 9 shows their results for the top 10 cities in 2022 based on the combined scores for the three pillars.

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FIGURE 9 A map of the most sustainable cities in the world based on the Arcadis Sustainable Cities Index 2022



- Quality of public transport infrastructure
- Cost of broadband
- Crime rates
- Education
- Health
- Income inequality
- Wi-fi availability
- Work-life balance

- Air pollution
- Bicycle infrastructure
- Energy consumption and renewable energy share
- Environmental exposure
- Green spaces
- Greenhouse gas emissions
- Public policy
- Sustainable transport

- Access to reliable electricity
- Affordability
- Connectivity
- Ease of doing business
- Economic development
- Employment
- Green finance
- Job quality
- Commercial transport infrastructure

Top 10 cities based on People

1. Glasgow
2. Zurich
3. Copenhagen
4. Seoul
5. Singapore
6. Vienna
7. Tokyo
8. Rotterdam
9. Madrid
10. Amsterdam

Top 10 cities based on Planet

1. Oslo
2. Paris
3. Stockholm
4. Copenhagen
5. Berlin
6. London
7. Tokyo
8. Antwerp
9. Zurich
10. Rotterdam

Top 10 cities based on Profit

1. Seattle
2. Atlanta
3. Boston
4. San Francisco
5. Pittsburgh
6. Tampa
7. Dallas
8. Chicago
9. Baltimore
10. Miami

16.8 SKILL ACTIVITY: Concluding and decision-making

Use the **Sustainable cities index** weblink in the Resources panel to see how Australian cities performed in 2010 in measurements of sustainability. These measurements are broken up into three broad categories — environmental performance, quality of life, and resilience.

1. Form groups of 3–5 students.
2. Individually and silently examine the data presented and select one indicator from each category that you think is the most important (e.g. biodiversity for environmental performance).
3. Share your ideas with your group — did your peers select the same indicators or different ones? Share the reasons for your choices.
4. Now select a focus city to **discuss** in more detail. **List** five things that could improve sustainability in this city.
5. **Outline** two actions that you could personally take to make a difference.

16.8 Exercise

learnon

16.8 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 5, 6	7, 8, 9, 10

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Check your understanding

1. **State** the aims of a sustainable city.
2. Which of the following is an indicator of *sustainability*?
   - A. Quality of life
   - B. Public participation
   - C. Ecological footprint
   - D. Education
   - E. All of the above
3. Refer to FIGURE 9 to **determine** whether the following statements are true or false.
   - a. Paris was ranked number 9.
   - b. Three American cities feature on the list.
   - c. There are no countries from Australia that are considered sustainable.
   - d. The majority of sustainable cities on this list are in Europe.
4. Which type of projects have the best chance of succeeding to overcome city problems?
5. **Complete** the following passage. Architecture that uses sustainably produced or recycled materials is known as _____ architecture. This type of architecture also incorporates clever use of _____ to allow naturally occurring airflows to cool the house.

Apply your understanding

Concluding and decision-making

6. **Identify** any elements of the urban greening program in Sri Lanka that categorise it as sustainable.
7. **Determine** how the urban solar programs in Vatican City and Ota, Japan contributed to sustainable solutions.
8. **Summarise** how burning waste in Vienna has become a sustainable solution.
9. Imagine that you are an urban planner responsible for improving the sustainability of your city. Of the key features of a sustainable city outlined in **TABLE 1**, you can only afford to implement two. Which of these features would choose? **Justify** your reasoning.
10. Consider the Christie Walk case study. **Identify** any ways this case study aligns with the key features of sustainable cities (**FIGURE 1**).

LESSON
16.9 INQUIRY: Big City Life

LEARNING INTENTION

By the end of this lesson you should be able to conduct research on a specific city, source a wide range of geographical data and information related to key knowledge, and present your findings as an annotated visual display.

Task

In this inquiry, we will put our new knowledge of migration and urbanisation to work, by investigating and analysing a specific city.

Create an annotated visual display of a major world city that answers the overall inquiry question in this topic: Why do people move between and within countries, and what are the consequences of that movement? You must create sub-questions that guide your research and answer these sub-questions using visual sources that detail facts and statistics about your chosen city.

Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

Inquiry steps

Step 1: Questioning and researching using geographical methods

Select a major world city that you would like to focus your research on.

Write your selected inquiry question here based on the focus of this topic:

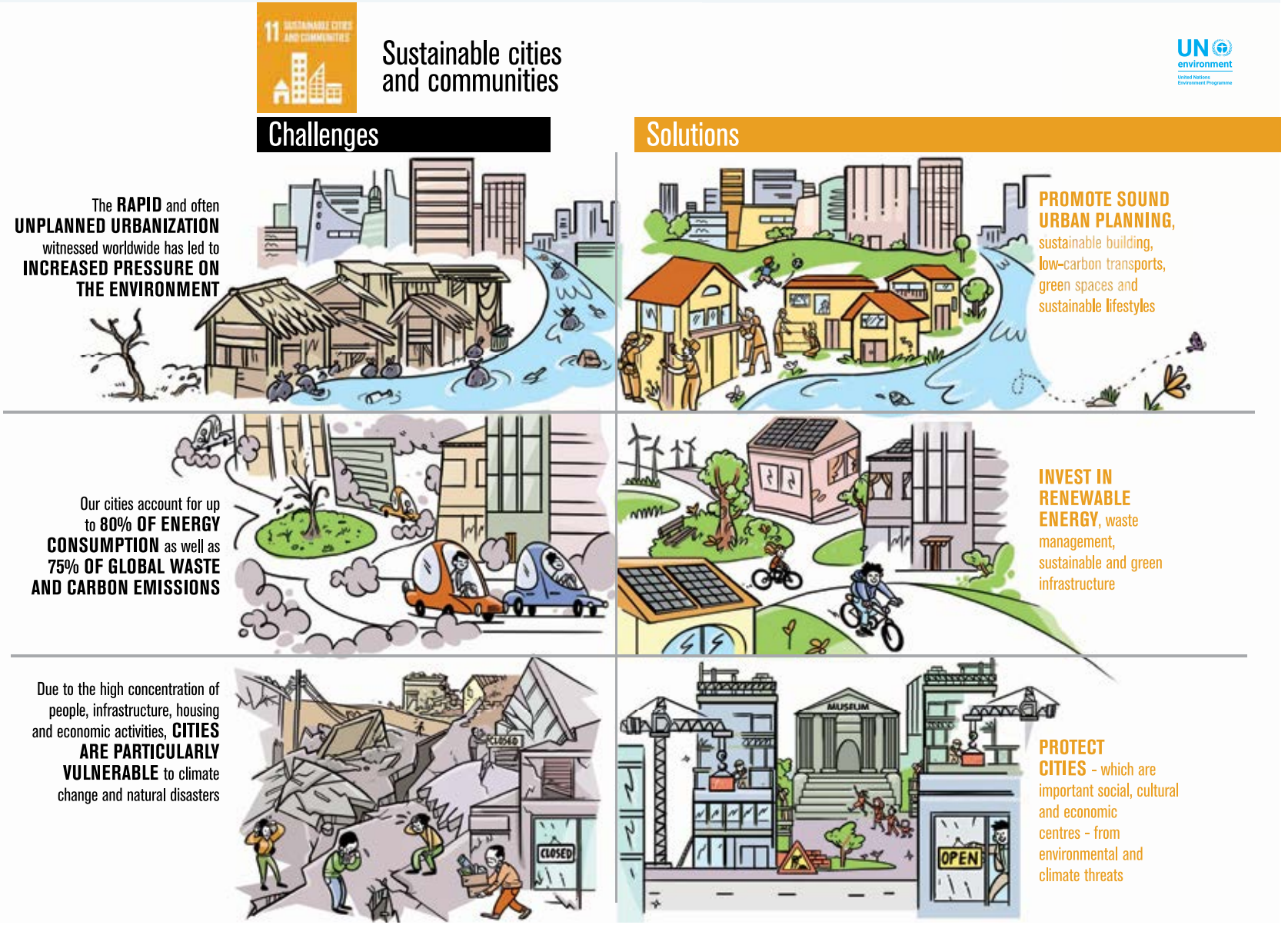
Why do people move between and within countries, and what are the consequences of that movement?

In order to answer this question with a focus on your chosen country, you will need to write a number of sub-questions to guide your research. The infographic from the United Nations Sustainability Goals (#11 Sustainable Cities and Communities) may provide you with some ideas about consequences and actions that could be turned into sub-questions.

For example, let's imagine that you have chosen the city of Jakarta. Some example sub-questions may include:

- How many people have migrated to Indonesia from another country?
- Where have they migrated from?
- Why have they migrated to Indonesia?
- How have people moved within Indonesia?
- How has this movement changed Jakarta's population?
- Why are people moving to Jakarta?
- What are the positive impacts of this people movement?
- What are the negative impacts of this people movement?
- What steps are being taken to ensure Jakarta's sustainability in the future?
- What further steps need to be taken?

FIGURE 1 An infographic relating to the 11th United Nations Sustainability Goal, Sustainable Cities and Communities





Step 2: Interpreting and analysing geographical data and information

Investigate your inquiry question: use your sub-questions as the focus for your research. Collect facts and statistics related to each sub-question.

Once you've completed your research, **decide** on the best visual sources to represent your information for each sub-question. These sources could be:

- maps
- graphs,
- sketches
- photos
- tables etc.

Step 3: Concluding and decision-making

Carefully arrange your visual sources on an A3 or A2 piece of poster paper.

Next to each source, write an **annotation** that tells the reader/viewer what information is being communicated and how it links to the overarching inquiry question. This is called an **annotated visual display.**

For example, to continue with our Jakarta scenario, your research may have uncovered seeking asylum as reason for migration to Indonesia. You may wish to include a photo of asylum seekers on your poster. Your annotation next to it would highlight seeking asylum as a push factor for migration, but also provide details regarding other factors influencing migration too.

Step 4: Communicating

Share your finished annotated visual display with your class, and answer any further questions they may have.

Complete your self-assessment using the **Inquiry rubric** or access the 16.9 exercise set to complete it online.

on Resources

Digital document Inquiry rubric (doc-39543)

LESSON
16.10 Investigating topographic maps — Jakarta

LEARNING INTENTION

By the end of this lesson you should be able to identify land heights and features across Jakarta on a map and predict how these features might influence the direction of urban sprawl and flooding.

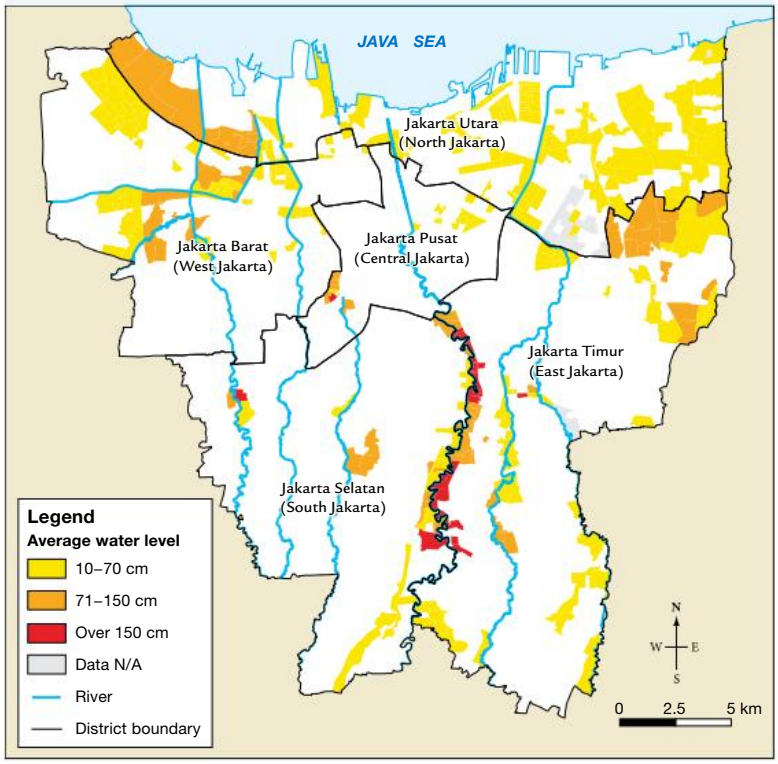
16.10.1 Urbanisation in Jakarta

Jakarta is situated on flat lowlands on the northern coast of Indonesia's West Java province. The city has expanded rapidly; in central areas, it has a population density of about 18 500 people per square kilometre.

Jakarta has regularly experienced flooding as a result of a combination of factors including:

- heavy wet-season rainfall
- low relief and land sitting below sea level
- shallow rivers that easily flood
- rubbish deposits in river beds.

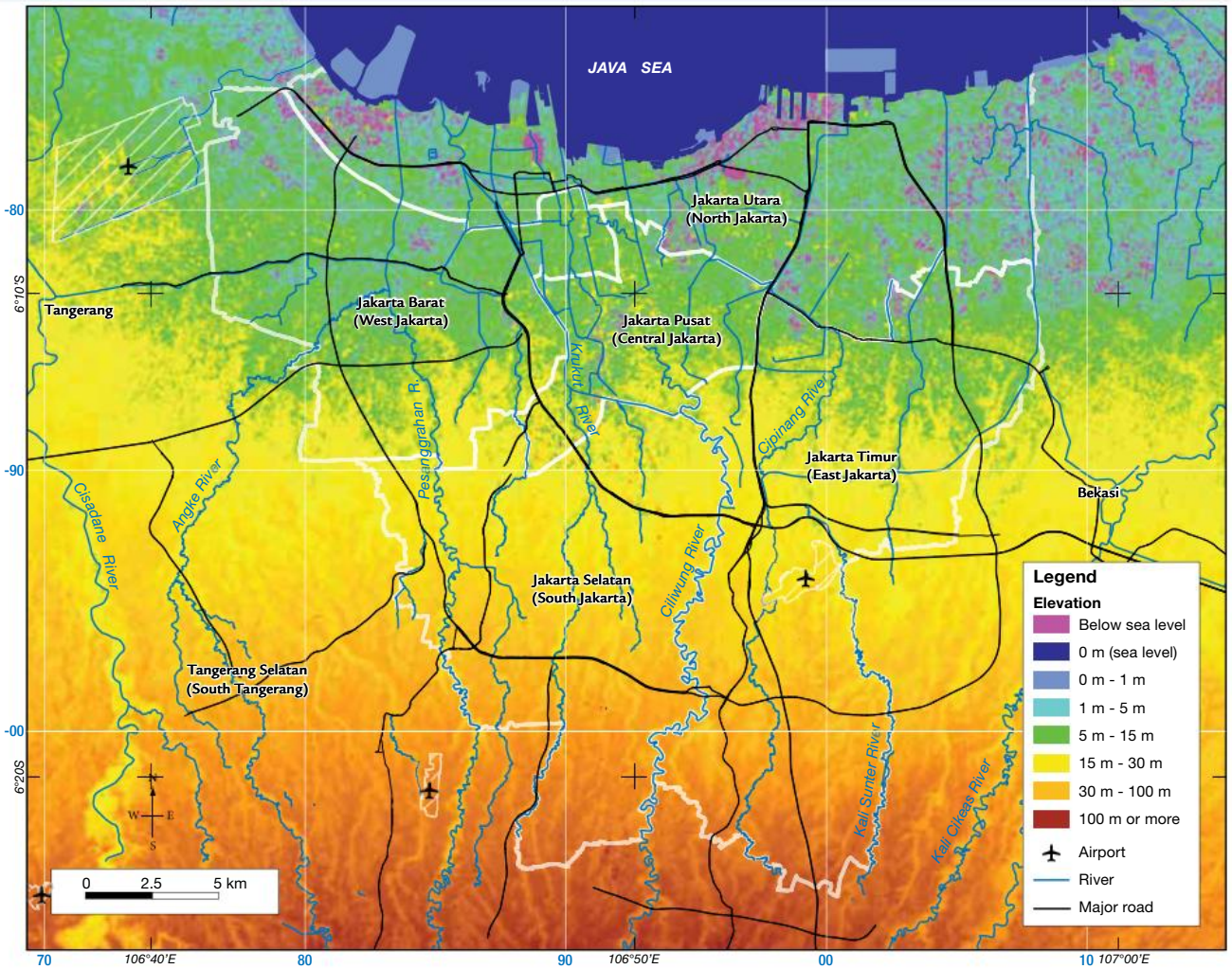
FIGURE 1 Areas of Jakarta that experienced severe flooding in January 2014



Source: Based on OCHA / ReliefWebSource: ReliefWeb / OCHA Indonesia Jakarta 2014 https://reliefweb.int/sites/reliefweb.int/files/resources/Update on Jakarta Flood as of 21Jan2014-R.pdf.

int-9065

FIGURE 2 Thematic map of land heights in Jakarta



Source: Map data © OpenStreetMap contributors, https://openstreetmap.org. Data is available under the Open Database Licence, https://opendatacommons.org/licenses/odbl/; elevation data sourced from USGS.

FIGURE 3 The extensive flooding in Jakarta



FIGURE 4 The flooding severely impacted homes.



on Resources

eWorkbook	Investigating topographic maps — Jakarta (ewbk-11481)
Digital document	Land heights in Jakarta (doc-39766)
Video eLesson	Investigating topographic maps — Jakarta — Key concepts (eles-6123)
Interactivity	Investigating topographic maps — Jakarta (int-9065)
Google Earth	Jakarta, Indonesia (gogl-0064)

16.10 Exercise

learnon

16.10 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2	3, 4	5, 6

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Check your understanding

1. **Describe** the location of Jakarta.
2. **List** four reasons why Jakarta regularly floods.
3. Give an area reference for one part of Jakarta that you think would be particularly prone to flooding. Give reasons to **justify** your choice.

Apply your understanding

4. If residents in Jakarta are banned from accessing groundwater, are there any other natural sources from which they could obtain drinking water?
5. If you were given the task of moving residents whose homes will be underwater in the next 20 years, which areas would be your first priority? Provide area or grid references and reasons for your choice.
6. Rubbish disposal is a significant issue in Jakarta. **Explain** where the best place for a new rubbish dump would be. Provide area or grid references and reasons for your choice.

LESSON
16.11 Review

Hey students! Now that it's time to revise this topic, go online to:

Review your results | **Watch teacher-led videos** | **Practise questions with immediate feedback**

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16.11.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

16.2 What is migration?

- Migration is when people move from one place to settle in another.
- Migration types can be categorised by time, location, and degree of choice.
- Push and pull factors influence decisions to migrate.
- Push factors are unfavourable qualities or conditions that make people want to leave a location.
- Pull factors are desirable qualities or conditions that attract people to a new location.

16.3 Why do people migrate between countries?

- Emigrants are leaving a country; immigrants are entering a country.
- Annual net migration takes into account the difference between the number of people who move into a country and the number who leave it over the course of a year.
- Push and pull factors influencing international migration can be broadly categorised as social, economic, political, or environmental.
- The majority of international migrants to Australia are from Europe or Asia due to cultural connection and/or geographic convenience.

16.4 Why do people migrate within countries?

- Within Australia, people move for employment reasons as FIFO or seasonal workers, or for a more relaxed lifestyle via a sea or tree change.
- Within China, employment reasons motivate labourers to move from rural areas, to coastal cities for work in factories and technological industries.
- Internal displacement is when people are forced to move, rather than the decision being voluntary.
- Conflict and natural disasters are the two main factors behind incidences of internal displacement.

16.5 Why do people migrate from the country to the city?

- Urbanisation refers to the growth of and expansion of urban areas as well as the increase in the proportion of people living in urban areas as compared to rural areas.
- A decline in living conditions in rural areas is one push factor motivating people to move to urban areas.
- Increased job opportunities and better access to services as key pull factors that attract people to cities.

16.6 How have urbanisation patterns changed over time?

- Cities first developed around 5000 years ago in Mesopotamia.
- Industrialisation during the nineteenth and early twentieth centuries saw the global urban population increase dramatically.
- Urban growth has not occurred evenly around the world; Africa and Asia remain less urbanised in comparison to Europe and North America, though this is changing rapidly.
- Australia and the United States both have a number of conurbations.

16.7 What are the advantages and disadvantages of urbanisation?

- The higher the urban population percentage, the wealthier a country tends to be in terms of GDP.
- Urbanisation brings more education, employment, and enterprise opportunities that benefit individuals and communities.
- It is easier to provide and access services such as healthcare, transport, housing, and education when people live in concentrated areas.
- Urban areas tend to have disadvantages such as more pollution, higher crime rates, easier transmission of disease, and a higher cost of living.
- Urban slums can develop when population growth results in unplanned settlements that existing infrastructure cannot support.

16.8 How do we create sustainable cities?

- To meet the needs of both existing and future populations, cities need be planned and developed to be more sustainable.
- To be sustainable, a city needs to reduce its environmental impact and support the quality of life of its inhabitants.
- Key features of sustainable cities include the use of renewable energy, the conservation of water, improved waste management, and a reduction in the use of cars as transport.

16.9 INQUIRY: Big City Life

- What are the migration patterns related to your focus city?
- What are the push and pull factors influencing these patterns?
- What are the effects of these patterns?
- How is sustainability being addressed?

16.10 Investigating topographic maps — Jakarta

- Jakarta regularly experiences flooding as a result of a combination of factors such as being situated on flat lowlands, having shallow rivers that can overflow, and having heavy wet-season rainfall.

16.11.2 Key terms

conurbation area when cities merge to form one continuous urban area

ecological footprint the amount of productive land needed on average by each person in a selected area for food, water, transport, housing and waste management

fly-in, fly-out (FIFO) a system in which workers fly to work, in places such as remote mines, and after a week or more fly back to their home elsewhere

internal displacement when people are forced to leave their homes due to conflict or environmental disasters, but remain within their country's borders

migrant a person who leaves their own country to go and live in another

population density the number of people living within one square kilometre of land; it identifies the intensity of land use or how crowded a place is

population distribution the pattern of where people live; population distribution is not even – cities that have high population densities and remote places such as deserts usually have low population densities

pull factor favourable quality or attribute that attracts people to a particular location

push factor unfavourable quality or attribute of a person's current location that drives them to move elsewhere

sanitation facilities provided to remove waste such as sewage and household or business rubbish

sea change movement of people from major cities to live near the coast to achieve a change of lifestyle

slum a run-down area of a city characterised by poor housing and poverty

tree change movement of people from major cities to live near the forest to achieve a change of lifestyle

urban relating to a city or town; the definition of an urban area varies from one country to another depending on population size and density

urbanisation the growth and expansion of urban areas and the increasing proportion of people living in urban areas as compared to rural areas

variables (in Geography) characteristics that can be measured and provide information about a place, beyond just the location of that place

16.11.3 Reflection

Reflect on your learning using the activities and resources provided.

Why do people move between and within countries, and what are the consequences of that movement?

1. Now that you have completed this topic, what is your view on the question? Discuss with a partner. Has your learning on this topic changed your view? If so, how?
2. Write a paragraph in response to the inquiry questions, outlining your views.

on Resources

eWorkbooks Customisable worksheets for this topic (ewbk-10764)
Reflection (ewbk-10766)
Crossword (ewbk-10767)

Interactivity Urbanisation and migration crossword (int-9022)

16.11 Review exercise

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Multiple choice

1. What does the term 'urbanisation' mean?
   - A. Movement of people from urban to rural areas
   - B. Growth and expansion of rural areas
   - C. Lower population densities in urban areas
   - D. Growth and expansion of urban areas
2. Why might people migrate to Australia?
   - A. Political stability
   - B. Employment/jobs
   - C. Family reunions
   - D. All of the above
3. Positive net migration means that
   - A. more people have moved to a country than have left it.
   - B. more people have left a country than have moved to it.
   - C. there has been no difference between the number of people moving to a country as compared to those who have left it.
   - D. the people who have migrated had a positive experience.
4. What places in Australia tend to have the greatest population densities?
   - A. Inland regional and remote areas
   - B. Capital cities
   - C. Along the coast
   - D. Eastern Australia
5. Which of the following statements is correct?
   - A. Per capita income is the only determinant of urbanisation.
   - B. Generally, countries with a high per capita income tend to be more urbanised.
   - C. Countries with a high per capita income are generally more rural.
   - D. Generally, countries with a low per capita income tend to be more urbanised.
6. Slums are a challenge of rapid urbanisation in developing countries. What is a slum?
   - A. A planned settlement in an urban area
   - B. An unplanned settlement in an urban area
   - C. An unplanned settlement in a rural area
   - D. An planned settlement in a rural area
7. Which of the following are problems that result from rapid population growth in urban areas? Select all possible answers from the options below.
   - A. Poverty
   - B. Employment
   - C. Non-crowded public transport
   - D. Air pollution
   - E. Poor sanitation

8. Where are the world's cities generally located? Select all possible answers from the options below.
   - **A.** Inland
   - **B.** Along the coastline
   - **C.** Close to transport routes
   - **D.** In mountainous areas
9. Which of the following is not a sustainable urban project?
   - **A.** Beekeeping
   - **B.** Planting community gardens
   - **C.** Increasing infrastructure and car manufacturing
   - **D.** Recycling building materials
   - **E.** Solar panels
10. Rapid growth of cities can lead to social and environmental problems. Often there is insufficient affordable housing, resulting in the build-up of slums.
    Which of the following would NOT be a characteristic of a slum?
    - **A.** High population density
    - **B.** A lack of water and sanitation
    - **C.** Efficient public transport network
    - **D.** Temporary housing structures

Short answer

Communicating

11. **Classify** each of the following as either push or pull factors that have resulted in urbanisation.
    - **a.** Job opportunities
    - **b.** Political or religious freedom
    - **c.** Natural disasters
    - **d.** Lack of medical services or educational opportunities
    - **e.** War
    - **f.** Family links
12. Drawing on your own knowledge and your understanding of sea changes, tree changes and other forms of migration, **explain** how the COVID-19 pandemic has affected migration patterns within Australia (i.e. between states or within states).
13. **Distinguish** between emigration and immigration and provide an example.
14. Imagine that you are the mayor of a rapidly growing urban area where there is high natural population growth and an increase in people migrating to the area. After examining how urban slums develop, **propose** some actions you could take to prevent this from happening.
15. Consider the capital city or regional city you live closest to. **Discuss** three actions that could be implemented to make this urban area more sustainable in the short term.

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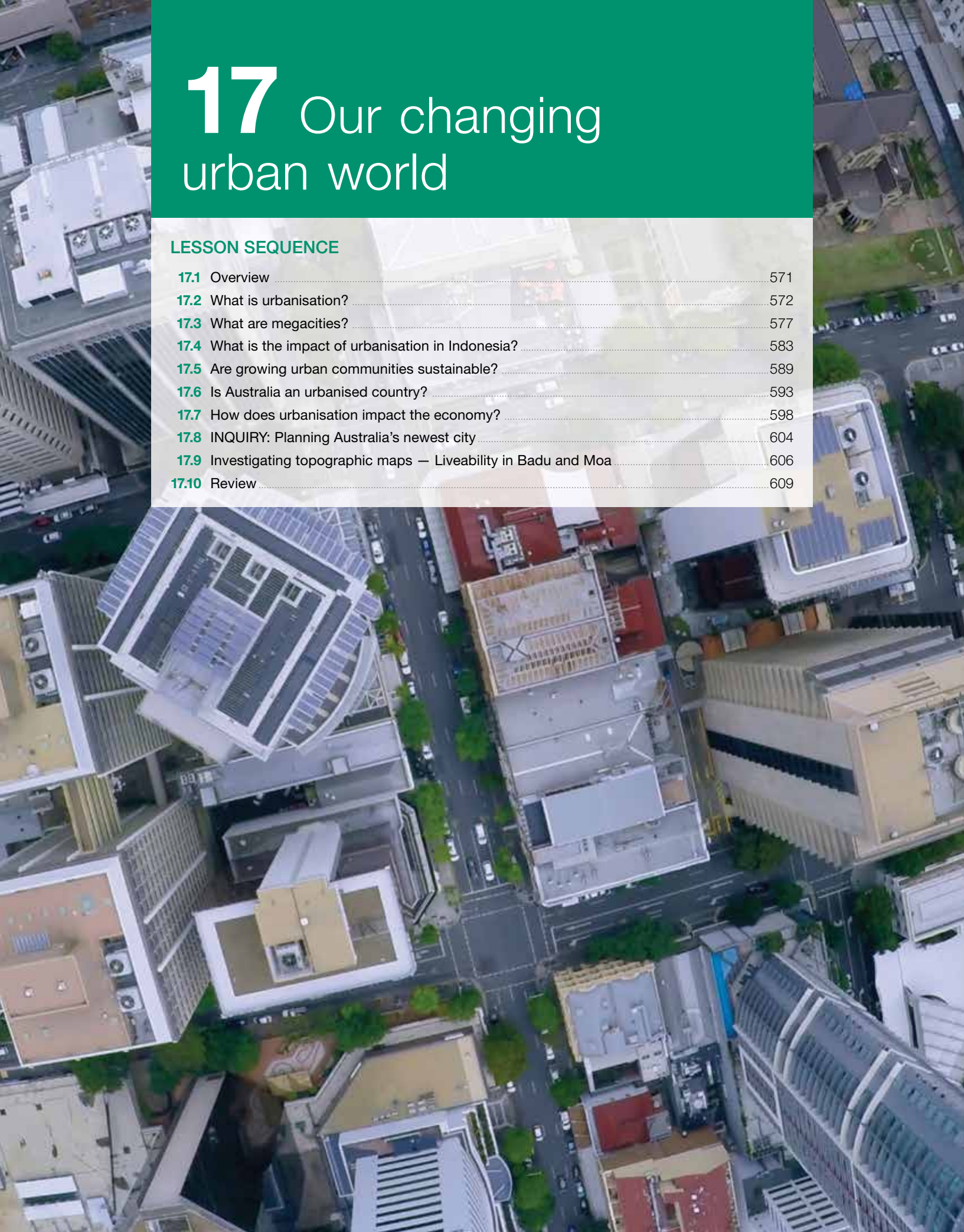
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17 Our changing urban world



LESSON SEQUENCE

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LESSON
17.1 Overview

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What are the effects of urbanisation on people and how has the distribution of the population changed in recent times?

17.1.1 Introduction

In 2008, for the first time in history, the majority of the world's population lived and worked in towns and cities. This urban population is projected to continue growing in the future. The fast pace and unplanned nature of this growth has seen the development of megacities. However, along with the opportunities provided by the megacities come many problems. It is a challenge to create sustainable urban environments that meet the needs of the people living in these places.

FIGURE 1 Australia's cities are spreading across great distances.



on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10768)

Video eLesson Our changing urban world (eles-6110)

LESSON
17.2 What is urbanisation?

LEARNING INTENTION

By the end of this lesson you should be able to discuss the difference between urbanisation and urban growth. You should also be able to explain the impacts and consequences of urbanisation and urban growth.

TUNE IN

FIGURE 1 shows the Favela Paraisópolis, a slum in São Paulo, Brazil.

1. Consider this image, what do you think would make someone want to move here?
2. Make a list of the positives and negatives for this place.
3. Why do you think there are different types of buildings here?

FIGURE 1 The Favela Paraisópolis slum is overlooked by luxury buildings.



17.2.1 Urbanisation

Urbanisation is the movement of people from the country to the city. It's part of a country's **internal migration**. As a result of people moving from the country and gathering and settling in a central area, cities were formed. The earliest cities emerged about 5000 years ago in Mesopotamia (part of present-day Iran, Iraq and Syria). Originally these cities depended on agriculture. In 1800, 98 per cent of the global population lived in rural areas and most were still dependent upon farming and livestock production — only 2 per cent of people lived in urban areas.

However, as cities grew, primarily as a result of the Industrial Revolution and trade developing, urban areas became centres for merchants, traders, government officials and craftspeople. By 2008, the proportion of people living in urban areas had increased to 50.1 per cent, and in 2018 the figure had risen again to approximately 56 per cent. The rate of growth has varied in different regions.

urbanisation the growth and expansion of urban areas and the increasing proportion of people living in urban areas as compared to rural areas

internal migration the movement of people from one defined area to another within a country

17.2.2 CASE STUDY: Migration due to climate change in India and Bangladesh

Climate change has resulted in higher temperatures, more extreme weather, rising sea levels, flooding and increased cyclonic activity in the Bay of Bengal and the Arabian Sea. These changes have affected the environment in many places in Bangladesh and India.

Bangladesh is a low-lying country with a dense population. The population in many regions rely on farming for their livelihood. Rising sea levels have introduced salt water into rice fields and reduced food production, income and job opportunities. Along with the attraction of jobs in construction in India, this has resulted in international **migration** from Bangladesh to India.

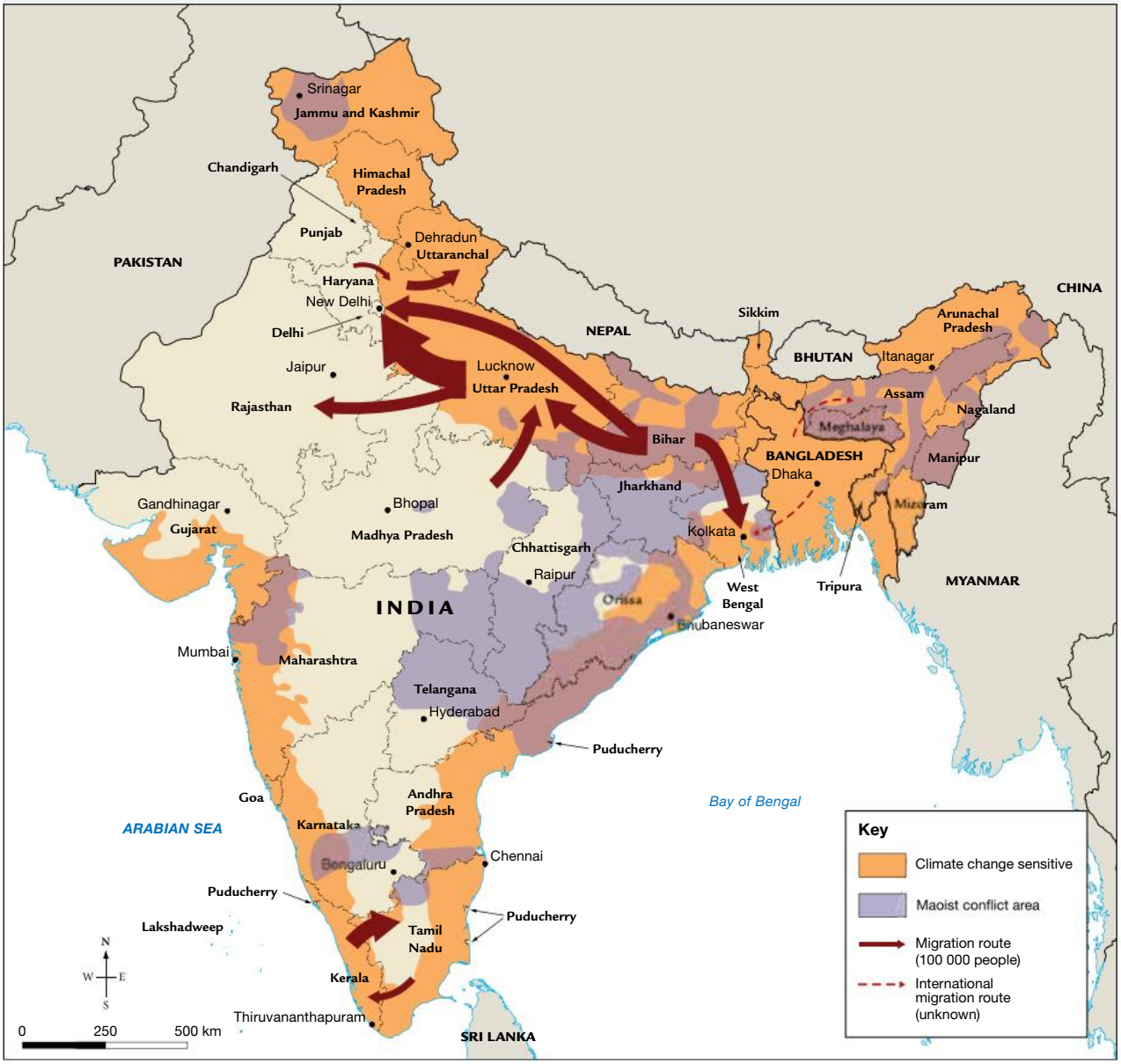
India also experiences climate change issues — flooding, erosion and landslides and areas of drought. The stresses caused by these issues have had an effect on millions of people in this region and has led to internal migration, particularly from rural to urban areas. The **population density** in 2018 in Mumbai was over 28 000 people per square kilometre; in Delhi it was 12 600 people per square kilometre. This movement of people has also increased tensions and conflict between ethnic groups, including over land rights.

migration the movement of people (or animals) from one location to another

population density the number of people living within one square kilometre of land; it identifies the intensity of land use or how crowded a place is

int-7863

FIGURE 2 Migration flows in India



Source: Bhattacharyya and Werz.

17.2.3 Urban growth

While urbanisation is the movement of people from rural areas to metropolitan areas, **urban growth** is the rate at which the population of an urban area increases. You might have heard your parents or caregivers say things like 'this suburb popped up overnight' or 'the city's getting bigger and bigger'. Both statements refer to the urban growth of the city.

Urban growth is one of the key indicators of a country's economic success. The more urban growth there is, the better the country's doing. Consider that urban growth is all about building new houses, people pay for these houses from the jobs they have, more houses being built indicates more jobs. And then there's the jobs that are created because people are building new houses. Builders, plumbers, carpenters, electricians. Put simply: more urban growth, more money.

So urban growth seems pretty good, but what are the downsides? As you can imagine, there's an environmental impact here. Mainly there's the increase in traffic and thus an increase in greenhouse gas emissions. Urban growth increases car, bus and truck traffic by creating longer and more frequent commutes. Urban growth is also a leading cause of water pollution as rainwater catches petrol fumes, household chemicals, paints, oils and travels to nearby water sources. There's also the increase in water consumption: more houses, more showers and baths, more water needed to drink.

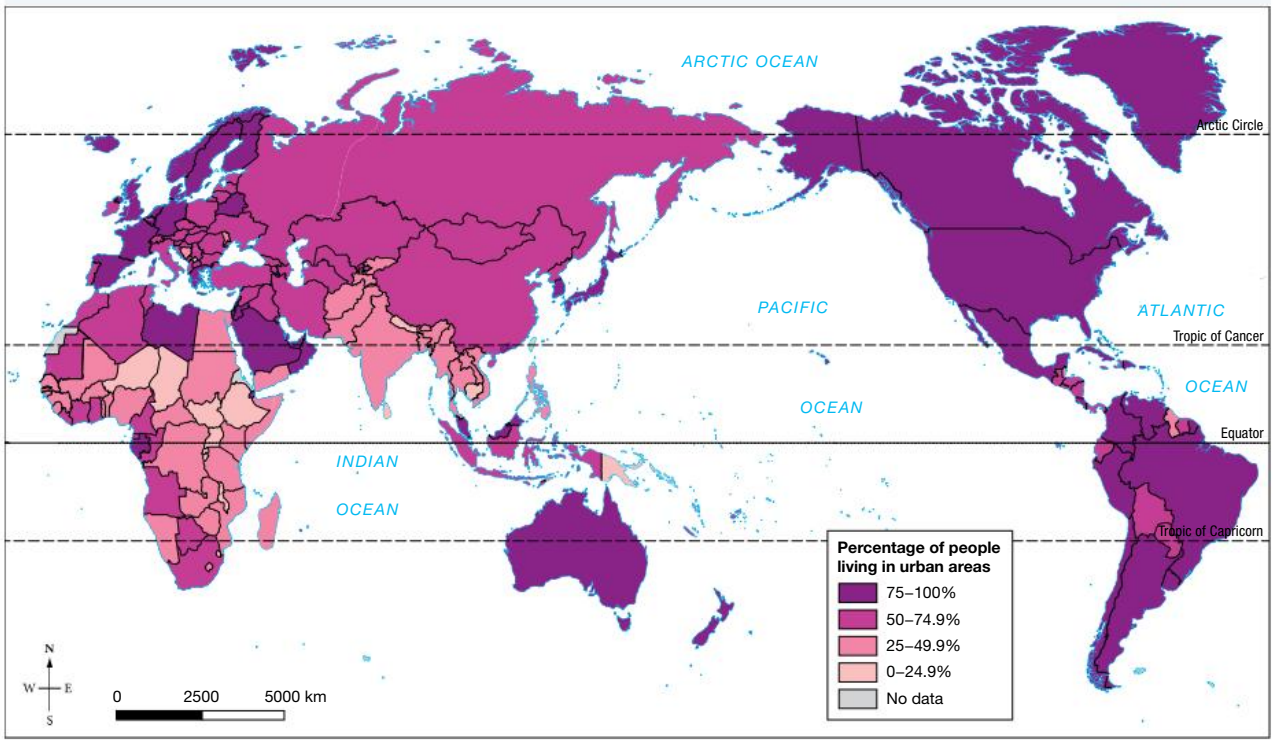
As the cities grow and suburbs spread out, they naturally need space to do so. Where does this space come from? Well, nature. A consequence of urban growth is the gradual loss of land and space which impacts wildlife habitats, potential farmland, and the loss of parks and open spaces.

urban growth the rate at which the population of an urban area increases

int-9023

tlvd-10634

FIGURE 3 Percentage of population living in urban centres, 2017



Source: World Bank Data.

FIGURE 4 Urban housing in Kuwait



FIGURE 5 Perth in Western Australia is an example of a coastal city.



17.2.4 Coastal urbanisation

People have lived on coastlines for thousands of years. Often at the mouth of rivers, coastal settlements became centres of trade and commerce and quickly grew into cities. Today, about half the world's population lives along or within 200 kilometres of a coastline. According to the European Commission, 95 per cent of the world's population lives on only 10 per cent of the Earth's land area.

Countries that have over 80 per cent of their population living within 100 kilometres of a coastline include the United Kingdom, Senegal, Portugal, Belgium, the Netherlands, Sweden, Norway, Tunisia, Greece, Oman, the United Arab Emirates, Kuwait, Qatar, Sri Lanka, Japan, Singapore, Indonesia, Malaysia, the Philippines, Australia and New Zealand.

17.2.5 Urban challenges

Rapid population growth in urban areas can result in problems such as poverty, unemployment, inadequate shelter, poor **sanitation**, dirty or depleted water supplies, air pollution, road congestion and overcrowded public transport.

FIGURE 6 Traffic congestion in Los Angeles, United States



Transport and pollution

In cities that can't keep up with rapid population growth, traffic congestion and overcrowded public transport mean that many people must travel for hours to get to and from work (see **FIGURE 6**).

Pollution is also a problem that affects the health of people living in cities. Many cities have high levels of air pollution and some — including Mexico City, Buenos Aires, Beijing and Los Angeles — are famous for being so polluted.

According to the World Health Organization in 2016, 12 of the world's 25 cities with the worst air pollution were in India. Most of the pollution comes from the growing industrial sector and vehicle emissions.

sanitation facilities provided to remove waste such as sewage and household or business rubbish

17.2 SKILL ACTIVITY: Interpreting and analysing geographical data and information

1. Find out the population density of the capital city in your state or territory. How does it compare to that of Mumbai and New Delhi in 2018? **List** all the ways in which living in one of these Indian cities might be different to life in your local city.
2. Why is it difficult in a country the size of Australia, with population concentrated on the coast, to provide services in outback areas? How would providing services be different in a country such as Luxembourg in Europe? Look at the size of Luxembourg in an atlas or by using Google Maps or Google Earth.

17.2 Exercise

learnon

17.2 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 4	3, 5, 6, 10	7, 8, 9

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Check your understanding

1. Transport and pollution are not problems in large urban areas because so many people live in the city that they don't have to use transport to get to and from work. True or false?
2. In 1800, what was the percentage of the global population that lived in rural areas?
   - **A.** 50 per cent
   - **B.** 75 per cent
   - **C.** 90 per cent
   - **D.** 98 per cent
3. _____ is the movement of people from the country to the city.
4. **Identify** three problems that can be caused by rapid population growth in urban areas.
5. Study **FIGURE 2** and the text in the 17.2.2 case study 'Migration due to climate change in India and Bangladesh'. **Identify** the push and pull factors that result in migration in India and Bangladesh.

Apply your understandings

Communicating

6. **Explain** what is expected to happen with urbanisation in the future.
7. Study **FIGURE 3**.
   - a. **Name** the three countries with the highest and three with the lowest percentage of people living in urban areas.
   - b. **Describe** the general pattern shown in the map. Include patterns within different continents in your description.
8. a. **Explain** the difference between urban population increase from migration and from natural increase.
   b. Which of these is more likely to occur in a city located in a developing country? Why?
9. a. **Describe** some features of urban and rural places.
   b. Give an example of a place with urban and rural features and **justify** your answer.
10. **Suggest** why transport and pollution are often problematic in large urban areas.

LESSON
17.3 What are megacities?

LEARNING INTENTION

By the end of this lesson you should be able to distinguish between a city and a megacity. You should also be able to locate where megacities are in the world and discuss how megacities are merging to create megaregions.

TUNE IN

New York City is often referred to as the 'city that never sleeps'.

1. What do you think this means? Why do you think people talk of New York this way?
2. List four major problems that are faced in cities like New York.

FIGURE 1 New York City



17.3.1 Where are cities located?

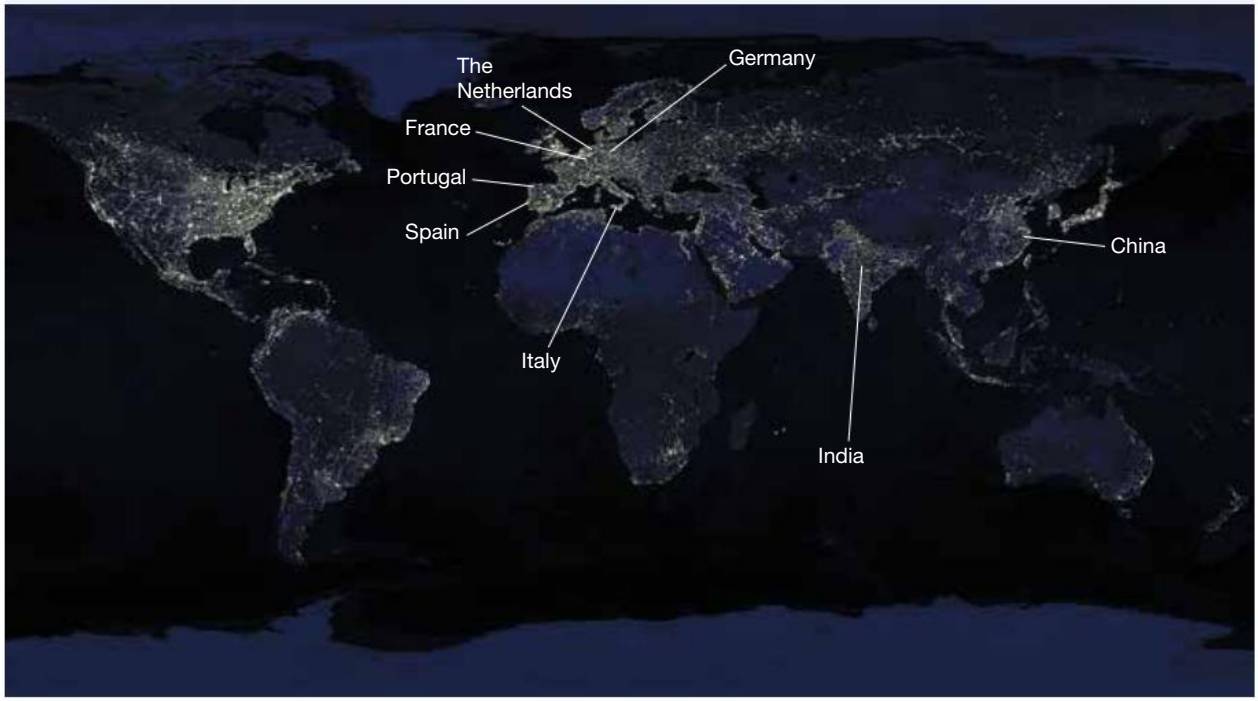
How is a city different from other urban areas such as towns and villages? A city is a large and permanent settlement, and is usually quite complex in terms of transport, land use and **utilities** such as water, power and sanitation.

The image of the Earth at night (**FIGURE 2**) shows where lights are shining. The brightest areas on the map are the most urbanised, but might not be the most populated. If you compare this image with **FIGURE 3**, you can make some comparisons. For example, there are very bright lights in western Europe (Belgium, The Netherlands, France, Spain and Portugal, Germany, Switzerland, Italy and Austria) and yet more people living in China and India. Refer to your atlas to locate these countries.

The world's cities are generally located along or close to coastlines and transport routes. Some regions remain thinly populated and unlit. Antarctica is entirely dark. The interior jungles of Africa and South America are mostly dark, but lights are beginning to appear there. Deserts in Africa, Arabia, Australia, Mongolia and the United States are poorly lit as well, although there are some lights along coastlines. Other dark areas include the forests of Canada and Russia, and the great mountains of the Himalayan region and Mongolia.

utilities services provided to a population, such as water, natural gas, electricity and communication facilities

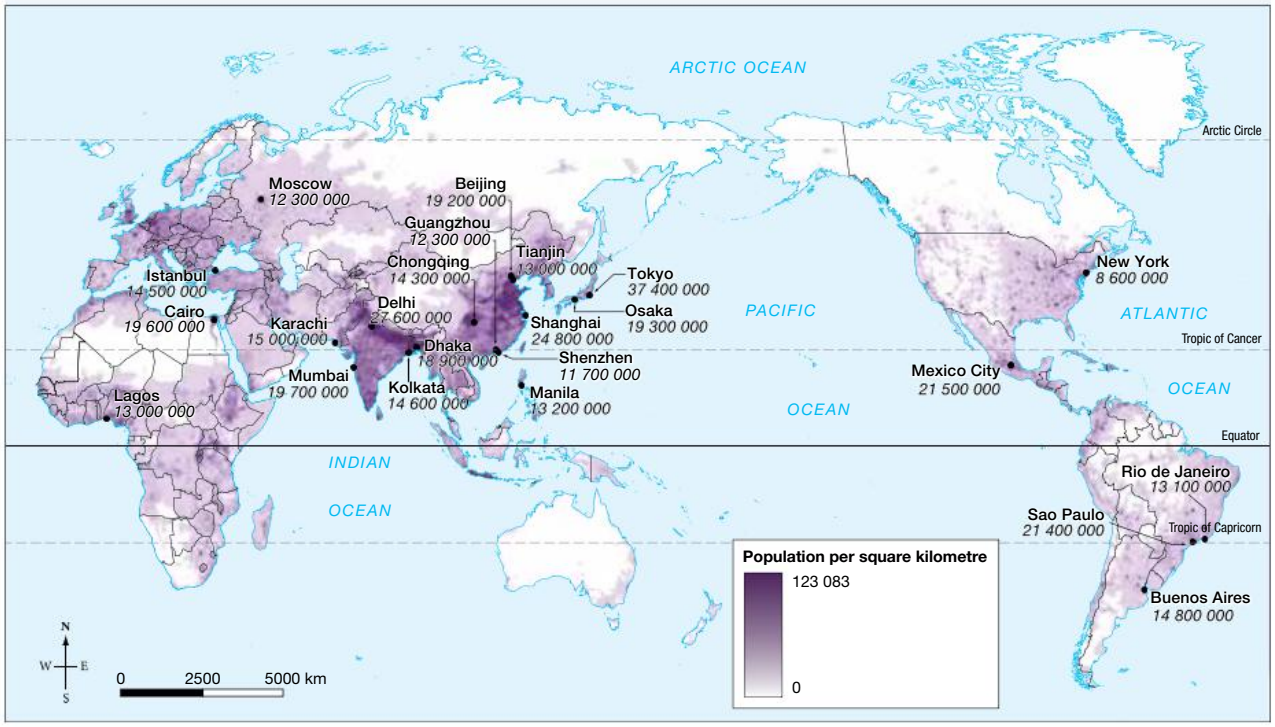
FIGURE 2 Satellite image of the Earth at night



DISCUSS

As the world's population continues to increase, cities will spread into the darker regions shown in **FIGURE 2**. State whether you agree or disagree with this statement, providing reasons for your decision.

FIGURE 3 Population density and distribution of major cities in 2018, with selected city populations



Source: United Nations, Department of Economic and Social Affairs, Population Division (2018). World Urbanization Prospects: The 2018 Revision.

17.3.2 What is a megacity?

Over the next century, urbanisation is predicted to increase at an even greater rate than it has in the past. Around the year 1900 only 15 per cent of the world's population lived in cities. At some time in 2007 this reached 50 per cent. In 2018, this figure was 55 per cent, with projections expecting that two-thirds of the population will live in cities by 2050. People are attracted to cities with huge populations, and increasingly these cities are becoming megacities.

A **megacity** is a city with more than 10 million inhabitants. When you consider that Australia's population was almost 25 million in 2018 — with over 5 million living in Sydney and 5 million in Melbourne — it is hard to imagine what it would be like to live in a megacity.

The number of megacities has grown over time. In 1950, only two cities in the world — Tokyo and New York — had a population above 10 million. By 1975 there were four; by 2000 there were 17, and in 2018 there were 33 megacities. By 2030, it is predicted that there will be 43 megacities in the world. Nineteen of these cities have a population greater than 15 million.

FIGURE 4 Medellin, the second-largest city in Colombia, South America



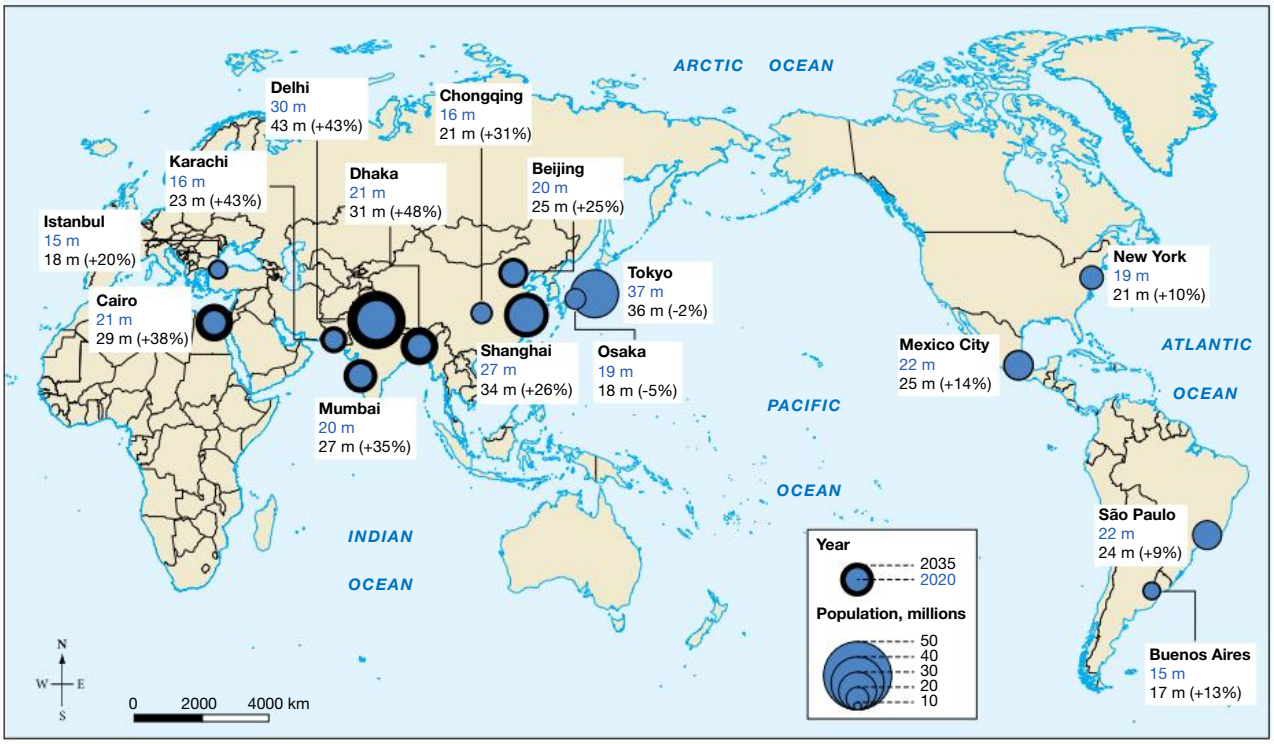
megacity city with more than 10 million inhabitants

The map below shows the growth of the world's top 15 megacities.

int-9024

tlvd-10635

FIGURE 5 The world's megacities have experienced major growth

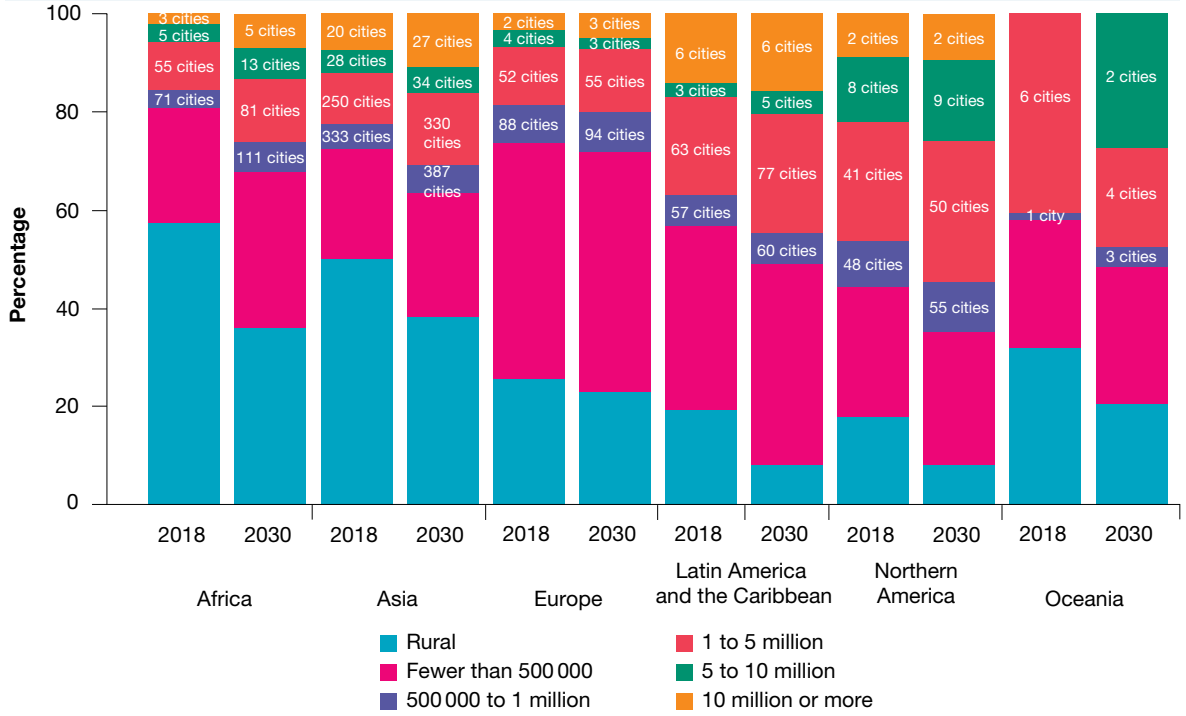


Source: Based on data from United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019, Online Edition. Rev. 1. Map drawn by Spatial Vision.

The distribution of megacities — that is, where they are located over space in the world — has also changed. In 1975, two megacities were located in the Americas and two in Asia. In 2014 more than half (15) of all megacities were located in Asia; and it is predicted that, in 2030, 23 of the 41 megacities will be located in Asia. There is also a change in terms of the wealth of countries that contain megacities, with the majority now located in developing countries. This is in contrast to the development of urbanisation, when North America and Europe were the focus of historic urban growth. By 2030, it is predicted that 23 megacities will exist in less developed countries.

int-9025

FIGURE 6 Regional population distribution in different city sizes in 2018 and projected to 2030



Source: United Nations.

17.3.3 The never-ending city

In some parts of the world, megacities are merging to create **megaregions**. These regions are home to huge populations. Examples of megaregions include:

- Hong Kong–Shenzhen–Guangzhou in China, already home to 65 million people
- Kyoto–Osaka–Kobe, with a population of over 20 million in 2015.

FIGURE 7 The city of Shenzhen, in the Pearl River Delta, in the twenty-first century



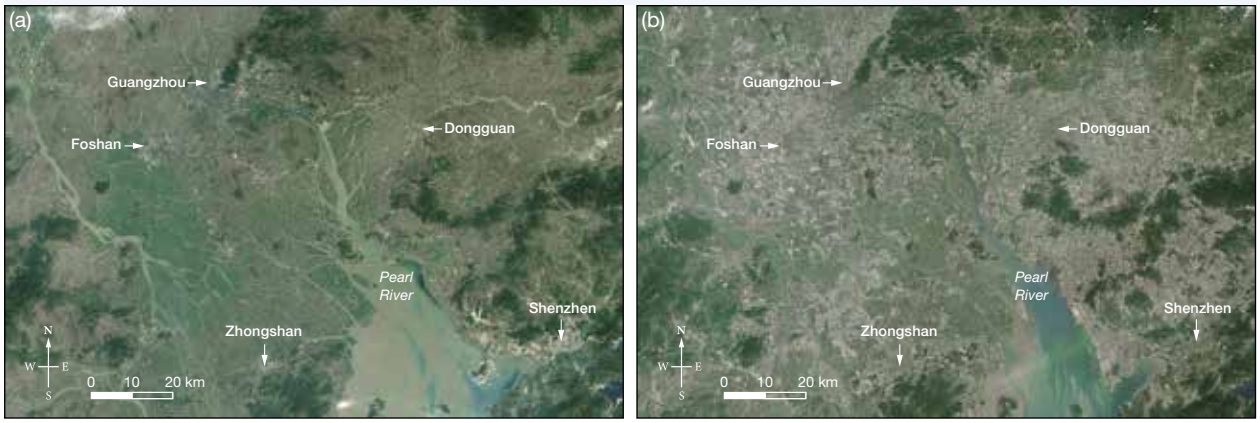
Pearl River Delta (PRD)

This region is located in southern China on the South China Sea. The PRD is one of the fastest-growing regions in the world. There are five major cities — Hong Kong, Shenzhen, Dongguan, Foshan and Guangzhou and six smaller cities made up of Macau, Zhaoqing, Zhuhai, Jiangmen, Huizhou and Zhongshan, which are linked by transport routes and provide great economic opportunities. Until 1979, Shenzhen was a fishing village. In 1980 the government

megaregion area where two or more megacities become connected as increasing numbers of towns and ghettos develop between them

declared the area to be a Special Economic Zone (SEZ), attracting businesses and investment from other countries. Since then, the area has undergone rapid urbanisation that has dramatically changed the landscape around the Pearl River Delta (see **FIGURE 8**).

FIGURE 8 Change in the Pearl River Delta between (a) 1988 and (b) 2014



Source: NASA.

Source: NASA.

In 1988, the rivers and streams flowed through a fertile region with rice paddies, wheat fields, orchards and fish ponds. The region was mostly rural, and the population of roughly 10 million distributed between rural areas and a few cities.

By 2014, these cities had grown quickly and merged into an interconnected megalopolis with a population of 42 million. When combining the population of Hong Kong, the total is around 65 million.

Megacity facts

- Over half the future growth in megacities will be within Asia.
- The 20 largest cities consume 80 per cent of the world's energy and produce 80 per cent of global greenhouse gas emissions.
- **Slums** in megacities are especially vulnerable to climate change, as they are often built on hazardous sites in high-risk locations.

slum a run-down area of a city characterised by poor housing and poverty

17.3 SKILL ACTIVITY: Questioning and researching using geographical methods

1. Go to the **World City Populations** weblink in the Resources panel. Work as a team of five and **investigate** the change in city population in different continents. **Discuss** which regions each member will **investigate** and record maps, data and graphs. Report your findings back to the group.
2. Use an atlas to locate the two megaregions mentioned in section 17.4.3. Why do these regions develop?
3. **Research** the 'dead zone' in the sea at the mouth of the Pearl River. What does this mean, and what is its cause?
4. **Describe** the changes that have occurred in the Pearl River Delta region. Find this place in an atlas and **describe** where it is in relation to the rest of China and to two other countries in Asia.
5. Work with another student to produce a Prezi or PowerPoint presentation or an animation showing the world's megacities in 2018 and 2030. Include images from the internet and data from **FIGURE 5**. You may like to choose appropriate music to accompany the presentation.
6. Complete the following questions about **FIGURE 4**.
   a. **Describe** the foreground and background shown in the photograph.
   b. **List** the natural and human characteristics shown in the photograph.
   c. What does this photograph show about urban environments? How has the urban environment changed the natural environment?

d. How might the changes described in part (b) lead to an increased risk of erosion? (See topic 14 for information on erosion processes.)
e. Imagine that the population of this city continues to increase. **Describe** what might happen to the land in the future.
f. Do you think that all land surrounding cities should be able to be taken up by buildings? Why or why not?
g. **Investigate** the place where you live. Are there land-use zones that cannot be built upon, such as 'green wedges'? Where are they and why are they there? Do you think they should be protected from development? **Justify** your answer.

on Resources

Weblink World City Populations

17.3 Exercise

learnon

17.3 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 4, 5	3, 6	7, 8, 9, 10

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Check your understanding

1. Compared to a town or village, a city is a large and permanent settlement. True or false?
2. A megacity is a city with a minimum of how many million inhabitants?
   A. 5
   B. 10
   C. 15
   D. 30
3. Which of these is considered a positive of living in a megacity?
   A. High levels of traffic.
   B. High levels of employment.
   C. High levels of diverse employment.
   D. High levels of poverty.
4. **Explain** what the bright lights in **FIGURE 2** show.
5. **Name** the first two megacities and the countries where they are located.

Apply your understanding

Communicating

6. **Explain** what a megacity is. How many megacities were there in 2018?
7. **Discuss** why megaregions develop.
8. **Examine** the environmental impacts of megacities and megaregions.
9. **Describe** the changes to the Pearl River Delta from 1988 to 2014.
10. The 20 largest cities in the world consume 80 per cent of the world's energy and produce 80 per cent of the world's greenhouse gas emissions. **Propose** some solutions to this problem.

LESSON
17.4 What is the impact of urbanisation in Indonesia?

LEARNING INTENTION

By the end of this lesson you should be able to explain the causes or urbanisation and urban growth in Indonesia. You should also be able to discuss the impact of urbanisation on the urban environment in Indonesia and discuss the economic, aesthetic and cultural value of urbanisation to people.

TUNE IN

Indonesia is one of Australia's closest neighbours — but what do we know about it?

Complete a concept map of what you already know about Indonesia and Jakarta. Consider where Indonesia is, who lives there, how many people live there, and any tourist attractions. Anything you think can think of.

FIGURE 1 Map of Indonesia



Source: Spatial Vision.

17.4.1 Indonesia's population

Many people do not realise that the fourth most populated country in the world is one of our nearest neighbours. Like many countries in Asia, Indonesia has experienced rapid urban growth, but this has occurred only relatively recently. Indonesia's population of nearly 270 million people (2019) lives on a chain or cluster (an archipelago) of more than 18 000 islands (see **FIGURE 1**). However, its population is not evenly distributed. Only about 11 000 of the islands are actually inhabited. Sixty per cent of Indonesia's population is concentrated on only seven per cent of the total land area — on the island of Java.

Indonesia has changed from a rural to an urban society quite recently. In 1950, only 15.5 per cent of its population lived in urban areas. In 2018, this had increased to 55.3 per cent.

Like many countries in Asia, Indonesia has a high concentration of its urban population in a few large cities. In 1950, there was only one city that was home to more than one million people in Indonesia: Jakarta. That had increased to 4 cities by 1980, 8 by 1990, 10 by 2000 and 14 by 2016. More than one-fifth of the Indonesian urban population now lives in the Jakarta metropolitan area (JMA).

17.4.2 Causes of urbanisation

More than one-third of Indonesia's urban population growth resulted from natural increase. It took until 1962 for Indonesia's population to reach 100 million people. However, it then took only until 1997 to reach 200 million. In the early 1970s, Indonesia's birth rate was very high — 5.6 children per woman. However, the growth rate has fallen dramatically from 2.3 per cent in 1970 to about 1.2 per cent in 2015. In 2018, there were nearly 5.5 million babies born in Indonesia — almost the equivalent of the population of Melbourne.

As few restrictions were placed on rural–urban migration, most of the migration movement consisted of the rural poor moving into cities and especially into slums, leaving their families behind in the villages. On top of this, in recent years about 20 000 foreigners per year have obtained work permits for Indonesia.

Investment from within Indonesia and from other countries has tended to occur mainly in the large urban areas, because these areas can supply the workers, transport (by sea and over land), water and electricity that are needed by industry.

The first president of Indonesia wanted Jakarta to be like the world's great cities, such as Paris and New York, as well as a focus for other Indonesian cities. President Sukarno therefore built broad avenues, highways and electric railway lines, luxurious housing estates, high-rise buildings, universities and industrial estates in Jakarta.

int-7866

FIGURE 2 Selected south-east Asian city populations, 1950–2030 projected



Source: United Nations, Department of Economic and Social Affairs, Population Division (2014). World Urbanization Prospects: The 2014 Revision, CD-ROM Edition.

FIGURE 3 The Jakarta metropolitan area had a population of over 10 million in 2018 and a population density of over 14 000 people per square kilometre. It is the second largest urban area in the world.

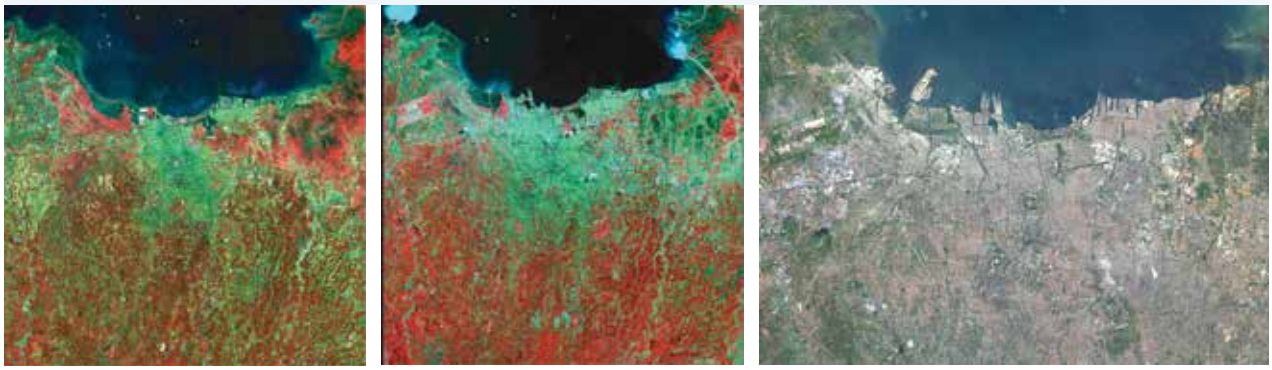


17.4.3 Consequences of urbanisation

Growth of Jakarta

One of the consequences of urbanisation in Indonesia has been the dramatic growth of Jakarta, Indonesia's capital and largest city, located on the north-west coast of Java. The central island of Java is the world's most populous island, having a population density of 1000 people per square kilometre. The Jakarta Metropolitan Area (JMA) is now one of the world's largest urban areas. In 1930, Jakarta's population was around half a million people. By 1961 it had grown almost six-fold to 2.97 million. By 2005, it was almost 9 million. In 2019, the Special Capital Region of Jakarta had a population of almost 10 million, while the greater metropolitan agglomeration had a population of over 31 million.

FIGURE 4 Jakarta's urban growth



1976 (population 6 million) 1989 (population 9 million) 2014 (population 10.3 million)

FIGURE 5 Smog over Jakarta



Loss of land

As Jakarta has become more urbanised, there has been a decrease in the amount of open green space — from nearly 30 per cent of the city's total area in 1984 to less than 10 per cent in 2015.

Prime agricultural areas have been lost and become residential and industrial areas. Urban land is worth more than agricultural land. This was estimated to have fallen to around 5% in 2018, although there have been more recent attempts to 're-green' the city.

Environment

Indonesia's level of sewerage and sanitation coverage is very low. Sewage from houses and from industry, as well as industrial effluents and agricultural run-off, are polluting surface and groundwater. Air pollution levels are high, with traffic and industrial fumes combining with smoke from fires set by farmers and plantation owners in rural areas clearing forest lands for agricultural use.

Food production

Because young people, especially young men, migrate to Indonesia's cities in search of better job opportunities, there are fewer people taking over their families' farms. This could lead to the possibility of a food crisis if food production levels are not increased.

Job opportunities

Labourers who lived in Java and did not own land used to have very few sources of income. Now, most landless rural families on Java have

FIGURE 6 Traffic congestion in Jakarta



at least one person working outside the village in a factory or service job. Today, less than 20 per cent of households depend on agriculture for their livelihood.

Subsidence

Land has been subsiding because more groundwater is being extracted, and also because of the additional load that the ground has to bear due to an increased volume of construction. Subsidence causes cracking of buildings and roads, changes in the flow of rivers, canals and drains, and increased inland and coastal flooding. In some parts of Jakarta, land has subsided by 1–15 centimetres per year — in other areas, this has been up to 28 centimetres per year.

New urban areas

New towns and large-scale residential areas have been developed in and around Jakarta. Plans to relocate Jakarta to the East Kalimantan province of Borneo are currently in progress. However, heavy flows of commuter traffic have led to increased levels of traffic congestion between the scattered new towns and the cities.

17.4 SKILL ACTIVITY: Interpreting and analysing geographical data and information

Use the **Gapminder** weblinks in the Resources panel to **compare** the lives of a family living in a rural environment with a family living in an urban environment.

- Rural — The Wayan family, income $132 p/month
- Urban — The Carolina family, income $2594 p/month

i. **Compare** the two families. Is there much difference between their quality of life? Complete the table below.

Examples	Rural family	Urban family
Food		
Transport		
Buildings		

ii. There is a huge difference in their incomes. **Explain** why you think this is. How does urbanisation play a role in this?

iii. Using this as a case study, do you think the consequences of urbanisation in Indonesia are positive or negative?

iv. Explore the **Gapminder** website further. **Compare** two more families, another from Indonesia and one from Australia. Complete another chart like the one above and report your findings to the class.

on Resources

Weblinks Gapminder — Rural
Gapminder — Urban

17.4 Exercise

learnon

17.4 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 4,	5, 7, 8	6, 9, 10

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Check your understanding

1. Which of the following statements is **not** a reason why Indonesia has become very urbanised?
   - A. The sharp rise in population and increasing unrestricted migration from rural areas to urban cities
   - B. The first president of Indonesia wanted Indonesian cities to be like the world's great cities and constructed infrastructure and facilities
   - C. The sharp drop in population and the increased migration to rural areas
   - D. Large investment mainly in the large urban areas
2. Study **FIGURE 2**. **Identify** the cities that have become megacities (greater than 10 million people). **Select** all that apply.
   - A. Jakarta
   - B. Denpasar
   - C. Davao City
   - D. Medan
   - E. Kuala Lumpur
   - F. Singapore
3. There is no interconnection between the increasing population in Indonesia and the subsidence of land. True or false?
4. **Explain** how and why Jakarta has become a major city within Indonesia and also on a world scale.
5. **Suggest** why you think people have moved from rural areas to urban areas within Indonesia.

Apply your understanding

Interpreting and analysing geographical data and information

6. a. What is Indonesia's current population? If the area of Indonesia is 1 904 569 square kilometres, **calculate** what its approximate population density is.
   - b. How does this **compare** to Australia's population density of 3.1 people per square kilometre?
   - c. **Describe**, using statistics, how Indonesia has become very urbanised in a relatively short time.

Communicating

7. What do you believe are the three main reasons that Indonesia has undergone such rapid urbanisation? Give reasons that **justify** your choices.
8. Urbanisation causes many harmful consequences to the environment. **Decide** which of the consequences of urbanisation may continue to have the biggest effects on the environment in the future.
9. **Identify** how the urbanisation of Indonesia is similar to and different from the urbanisation of another country you have studied, such as Australia, China or the United States.
10. **Study FIGURE 2**. In which time period did Jakarta experience its fastest growth? (Hint: Look at the width of the colour circle bands.)

LESSON
17.5 Are growing urban communities sustainable?

LEARNING INTENTION

By the end of this lesson you should be able to explain the predicted population increase in Australia and the rest of the world. You should also be able to discuss the challenges facing Australia's economy because of the predicted population increase and explain why some people choose to live in rural areas instead of urban areas.

TUNE IN

As **TABLE 1** shows, Australia is just one country that has seen a steady increase in people residing in urban areas.

1. Why do you think there's been an increase in urbanisation in Australia and not a ruralisation?
2. Complete a Venn diagram exploring the differences and similarities between urban living and rural living (consider access to services, transport, economy, education, free space).

TABLE 1 Percentage of population residing in urban areas by country, 1950–2050

	1950	1975	2000	2025	2050
Australia	77.0	85.9	87.2	90.9	92.9
Brazil	36.2	60.8	81.2	87.7	90.7
Cambodia	10.2	4.4	18.6	23.8	37.6
China	11.8	17.4	35.9	65.4	77.3
France	55.2	72.9	76.9	90.7	93.3
India	17.0	21.3	27.7	37.2	51.7
Indonesia	12.4	19.3	42.0	60.3	72.1
Japan	53.4	75.7	78.6	96.3	97.6
Papua New Guinea	1.7	11.9	13.2	15.1	26.3
United Kingdom	79.0	77.7	78.7	81.8	85.9

Source: UN Population Division, 2011.

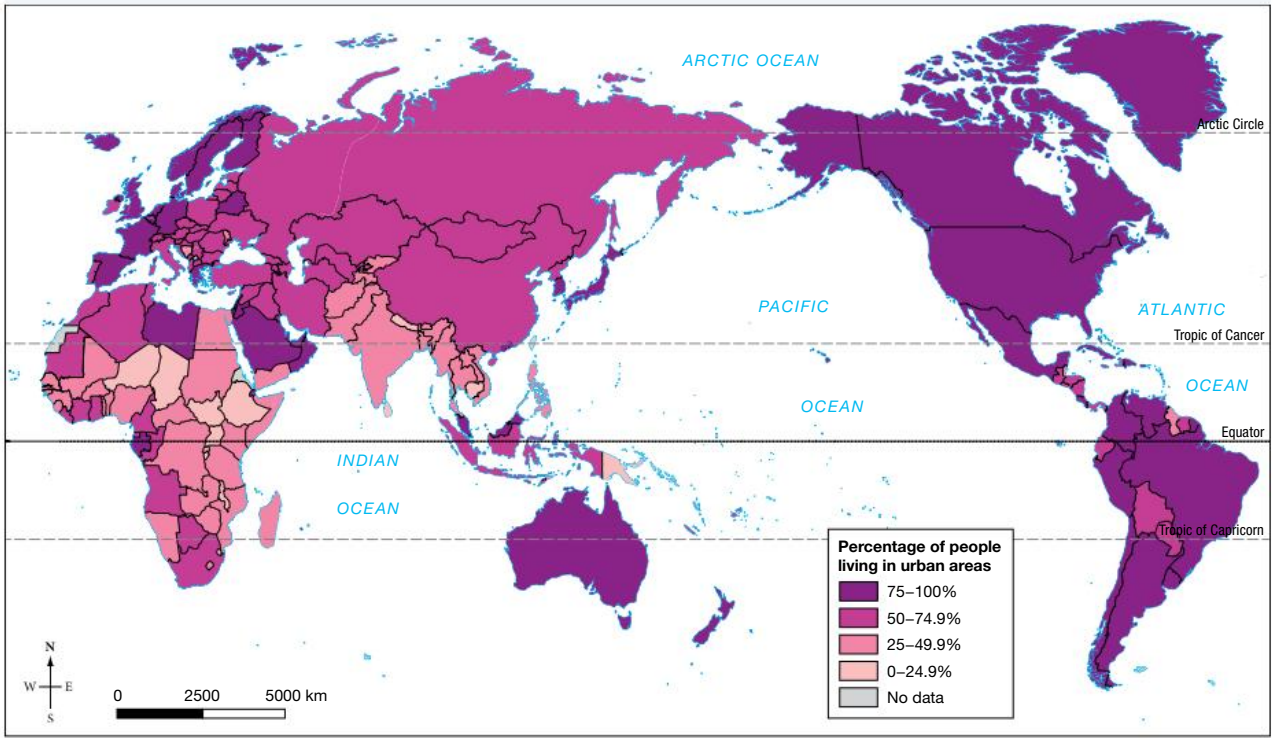
17.5.1 The urban explosion

In 2008, for the first time in history, the world's urban population outnumbered its rural population. In 2015, the world's population reached over 7.3 billion; it is expected to reach 9.2 billion by 2050. Where will all these people live? What challenges will cities and communities face in trying to ensure a decent standard of living for all of us?

One of the biggest challenges we face is ensuring that the sustainability of our economy, communities and environment is compatible with Australia's growing urban population (see **TABLE 1**).

int-7868

FIGURE 1 Percentage of population in urban areas, 2017



Source: World Bank Data.

Global population growth will be concentrated mainly in urban areas of developing countries. It is forecast that by 2030, 3.9 billion people will be living in cities of the developing world. The impact of expanding urban populations will vary from country to country and could prove a great challenge if a country is not able to produce or import sufficient food. Hunger and starvation may increase the risk of social unrest and conflict. On the other hand, farmers can help satisfy the food needs of expanding urban populations and provide an economic livelihood for people in the surrounding region.

17.5.2 The future for Australia

Australia's population will continue to grow and change. In particular, it will become more urban and its composition will age. Population increase threatens our fragile Australian environment. We continue to witness loss of biodiversity, limits on water supply, more greenhouse gas emissions and threats to food security. Our cities experience more traffic congestion and there are problems with housing availability and affordability. Access to services, infrastructure and green space are limited for some people in our communities. To handle these many challenges, we must plan effectively for an increased population by building communities that can accommodate future changes.

17.5.3 The rural lifestyle

Approximately 93 per cent of Australia's growing population will be living in urban areas by 2050 (see **TABLE 1**). However, some urban residents will make a '**tree change**' or a '**sea change**' and relocate to rural areas or the coast. The population in rural communities is generally stable or decreasing, as many young people leave in search of jobs and study opportunities. Some rural communities manage to keep their populations stable by shifting their employment focus from manufacturing to services; by utilising better internet connections, to allow people to work remotely from their office; or by improving public transport links.

tree change movement of people from major cities to live near the forest to achieve a change of lifestyle

sea change movement of people from major cities to live near the coast to achieve a change of lifestyle

FIGURE 2 Beautiful scenery is just one benefit of a rural life.



FIGURE 3 Change in Australian urban and rural populations over time

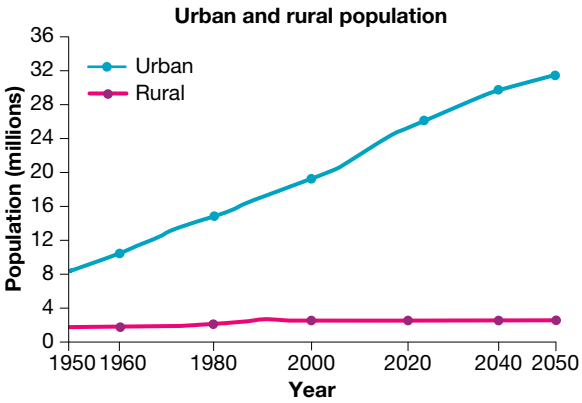
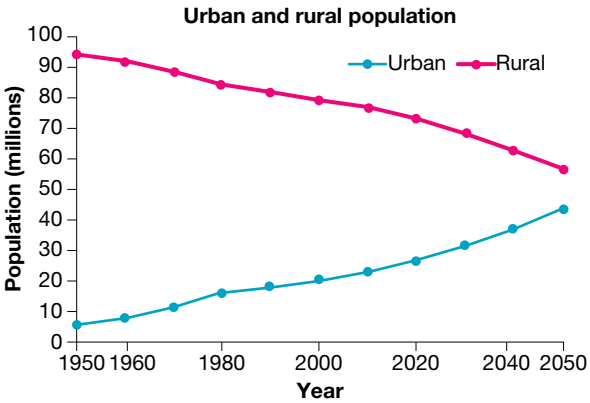


FIGURE 4 The narrowing gap between rural and urban populations, Afghanistan



17.5 SKILL ACTIVITY: Questioning and researching using geographical methods

1. Growing communities create growing problems. For example, social problems may include poverty, chronic unemployment, welfare dependence, drug and alcohol abuse, crime and homelessness. Working in pairs, **brainstorm** some of the impacts that growing communities may have on (a) the environment and (b) the economy.
2. **Research** a suburb that is growing and focus on its impact on (a) the environment and (b) the economy. How does your brainstormed list compare? Are the impacts the same or different?

17.5 Exercise

learnon

17.5 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 5	6, 7, 8, 9, 10

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Check your understanding

1. In the future most of the world's population will be concentrated in
   - A. rural areas.
   - B. remote areas.
   - C. urban areas.
   - D. central areas.
2. The pattern of population change seen around the world is not the same as that occurring in Australia. True or false?
3. Which of the following is a consequence of Australia's population growth?
   - A. Traffic congestion
   - B. Loss of biodiversity
   - C. More greenhouse gas emissions
   - D. Threats to food security
   - E. All of the above
4. **State** what percentage of Australia's growing population will be living in urban areas by 2050.
5. **Analyse FIGURES 3** and **4** and **identify** any trends and differences between the two graphs.

Apply your understanding.

Interpreting and analysing geographical data and information

6. Refer to **TABLE 1.**
   - a. **Identify** which country will be the most urbanised by 2050 and which will be the least urbanised.
   - b. **Identify** which three countries are predicted to experience the greatest percentage change in their urban population.
   - c. Are there any countries that have not seen a gradual increase in their percentage of urban population since 1950? **Suggest** why this might be the case. (You may need to conduct some additional research using the internet.)

Communicating

7. Growing communities create growing problems. For example, social problems may include poverty, chronic unemployment, welfare dependence, drug and alcohol abuse, crime and homelessness. **Brainstorm** and **list** some of the impacts that growing communities may have on the environment and the economy.
8. Young people leave rural areas in search of employment and education. **Propose** what factors could contribute to you leaving the area where you live in the future.
9. In cities, we must face the challenges and opportunities of productivity, sustainability and liveability. If we address one goal, we can have an impact, either positively or negatively, on others. This demonstrates interconnection. For example, efficient public transport can fix congestion and improve access to jobs and opportunity (productivity). It can also reduce greenhouse gas emissions (sustainability) and make access to education, health and recreational facilities more affordable (liveability). Using the example of the National Broadband Network, how might productivity, sustainability and liveability be affected? **Classify** the affects you have listed as positive or negative.
10. **Evaluate** the social, economic, and environmental benefits and drawbacks of living in an urban area in Australia.

LESSON
17.6 Is Australia an urbanised country?

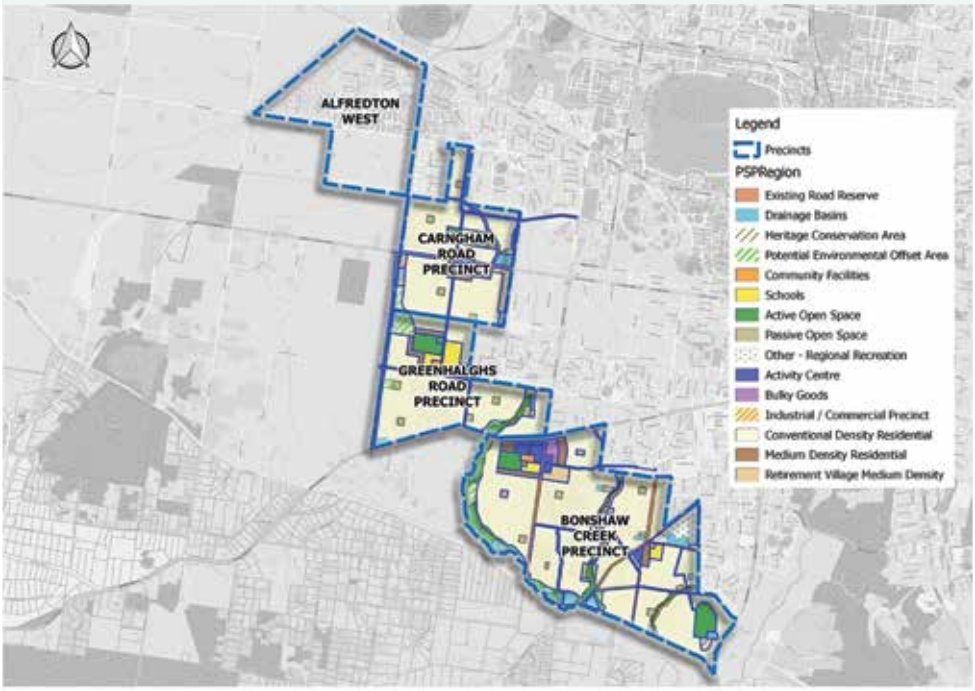
LEARNING INTENTION

By the end of this lesson you should be able to determine whether Australia is an urbanised country, identify consequences of urbanisation in Australia and define the term 'ecological footprint.'

TUNE IN

The Victorian city of Ballarat is currently undergoing an urban expansion. The city is looking to provide 18 000 new houses to accommodate a population of 40 000 people.

FIGURE 1 Proposed plans for the urban expansion of Ballarat



1. How many areas have been set aside for schools? Do you think this is enough?
2. Consider the space allotted to residential areas and the space allotted to the green and open spaces. Do you think this is enough to make this a sustainable community?
3. How do you think this urban growth will impact the environment? List any positives and any negatives.

17.6.1 Urbanisation in Australia

With a population of nearly 25 million people in 2019 and a very large landmass, Australia has an average population density of only 3.3 people per square kilometre. Yet 85 per cent of people live within 50 kilometres of the coast, and most of these people — in 2018, 90 per cent of Australians —live in urban areas.

Australia is one of the most urbanised and coastal dwelling populations in the world and the level of urbanisation is increasing. From Federation (1901) until 1976, the number of Australians living in capital cities increased gradually from a little over one-third (36 per cent) to almost two-thirds (65 per cent). Since 1977, the population in capital cities has grown to 66 per cent. It is estimated that by 2053 this will have grown to 72 per cent (with an estimated 89 per cent in the four largest capital cities).

All of Australia's capital cities have grown over time, as have many regional urban areas, such as the Gold Coast and Moreton Bay regions. This growth is expected to continue in the future (see **TABLE 1**).

TABLE 1 Australian capital city 2019 populations and projected 2036 and 2066

City	2019 population	Projected 2036	Projected 2066
Sydney	5 312 163	7 379 976	11 240 860
Melbourne	5 078 193	7 520 830	12 235 490
Brisbane	2 514 184	3 596 431	5 782 256
Perth	2 085 973	2 798 994	4 330 509
Adelaide	1 359 760	1 605 335	2 068 550
Hobart	236 136	297 085	466 752
Darwin	147 255	195 082	295 458
Total	16 140 773	23 393 733	36 419 875

Source: © Australian Bureau of Statistics.

17.6.2 What are the consequences of a highly urbanised Australia?

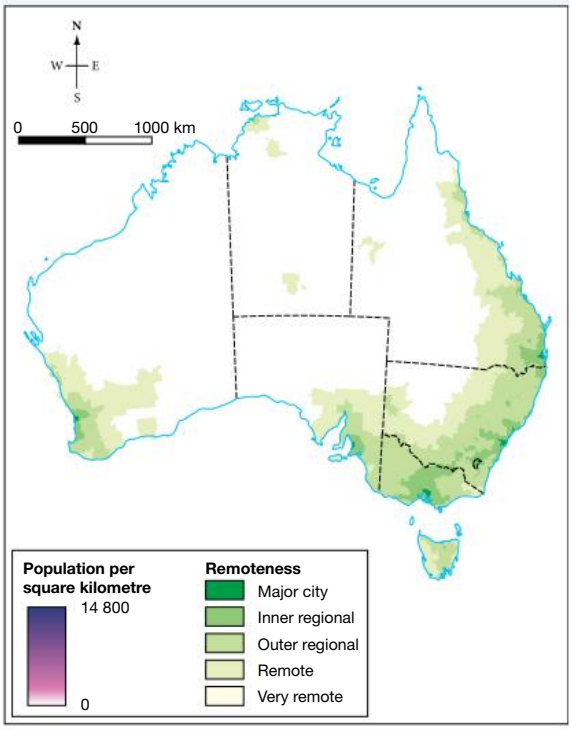
When cities expand, the urban landscape invades the surrounding land, changing or removing natural ecosystems and swallowing up farmland. This expansion is known as **urban sprawl**. Perth in Western Australia is a very good example of a sprawling city. The metropolitan area of Perth extends approximately 120 kilometres from Alkimos in the north to Mandurah in the south (see **FIGURE 3**).

As Perth has grown outwards, the coastal sand dune systems have been cleared of vegetation. Sand dunes are easy to shape for residential development, and this has led to rapid and extensive north–south expansion along the coast. Inland from the sand dunes, wetland areas — where intensive agriculture such as market gardening (vegetables) and viticulture (grapes) once dominated — have also been absorbed by urban growth. These wetlands have often been reshaped to capture water runoff from new housing developments. The fertile soil has been lost forever.

urban sprawl the rapid expansion of the geographic extent of cities and towns, often at the expense of green areas and farmland

int-9027

FIGURE 2 A map of Australia's population distribution shows that it is highly urbanised and coastal.



Source: © Australian Bureau of Statistics.

FIGURE 3 Perth's urban sprawl



Historically, urban areas were settled where the land was flat, the water and soil were good and the climate was temperate — in other words, where good farmland is located. When cities spread, the sprawl takes over arable land (land able to be farmed for crops). Urban sprawl has long-term effects, because it is very difficult to bring the soil back to its former state once the predominant land use has been for buildings.

Many of Australia's cities, including Perth, have been called 'car cities' due to the reliance on private motor vehicles and road networks for transport. Perth's north to south morphology (shape) is reflected in its freeway system, which can become very congested. This has an impact on distances and commuting times for people travelling to and from workplaces.

17.6.3 Ecological footprint

The amount of productive land needed on average by each person (in the world or in a country, city or suburb) for food, water, transport, housing and waste management is known as an ecological footprint. It is measured in hectares per person per year. In 2016, the World Wide Fund for Nature (WWF) reported that the average global ecological footprint was 2.8 hectares per person. In 2014, Australia had an ecological footprint of 6.9 hectares per person. The United States had an ecological footprint of 8.4 hectare per person in 2014.

TABLE 2 Ecological footprints of Australian capital cities

City	Ecological footprint value (hectares/person/year)
Perth	7.66
Canberra	7.09
Darwin	7.06
Brisbane	6.87
Sydney	6.82
Adelaide	6.72
Melbourne	6.33
Hobart	5.50

17.6.4 CASE STUDY: Beijing

As the capital of the People's Republic of China, Beijing is the centre of the nation's political, cultural, scientific and educational life. Geographically, Beijing is located on the North China Plain, but economically it is considered part of the coastal zone. Much like the Pearl River Delta (refer to 17.3.3 'The never-ending city'), Beijing is also located in one of the government's special economic zones, the Yangtze River Delta.

China's economic boom in recent times has been reflected in its rapid urbanisation. This is a pattern seen across the world: the better the economy is doing, the more building there is happening around the place. In 1950, 13 per cent of people in China lived in cities. In 2010, that had grown to 45 per cent; it's projected to reach 60 per cent by 2030. According to the Atlas of Urban Expansion, the urban extent of Beijing in 2013 was 455 684 hectares, increasing in size by 6.7 per cent every year. Use the **Atlas of Urban Expansion: Beijing** weblink in the Resources panel to learn more about the make-up of this megalopolis.

Resources

Weblink The Atlas of Urban Expansion: Beijing

In 2008, Beijing hosted the Olympic Games, and, in their preparations, they built a raft of new infrastructure that is still present today. The stadiums, roads, rail and water treatment facilities built for the 2008 Olympics have become a part of the everyday life of Beijing. In 2022, Beijing hosted the Winter Olympic Games and as part of that bid they were able to reuse a lot of the infrastructure they built for 2008.

FIGURE 4 The 'Bird's Nest' in Beijing, China, home of the 2008 Summer Olympic Games.



FIGURE 5 Big Air Shougang is a sporting venue built for the 2022 Winter Olympics in the Shijingshan District in Beijing.



17.6 SKILL ACTIVITY: Interpreting and analysing geographical data and information

1. Use your atlas or online research to find an urban growth map for the capital city in your state or territory. **Describe** the change that has taken place over time. Using this map and a physical map of your state or territory, **predict** where future growth might occur. **Justify** your responses.
2. Use internet sources (such as the **UAE ecological footprint** weblink in the Resources panel) to find out how the ecological footprint in the United Arab Emirates compares to that of Australian cities. What would happen if all cities had such a high footprint?

Resources

Weblink UAE ecological footprint

17.6 Exercise

learnon

17.6 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 5	6, 7, 8, 9, 10

These questions are even better in jacPLUS!



- Receive immediate feedback
- Access sample responses
- Track results and progress

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Check your understanding

1. What percentage of Australians live in urban areas?
   - A. 32 per cent
   - B. 50 per cent
   - C. 89 per cent
   - D. 95 per cent
2. What percentage of Australians live within 50 kilometres of the coast?
   - A. 38 per cent
   - B. 48 per cent
   - C. 84 per cent
   - D. 90 per cent
3. What percentage of China's population is expected to live in cities by 2050?
   - A. 10 per cent
   - B. 30 per cent
   - C. 50 per cent
   - D. 60 per cent
4. **Explain** what is meant by the term 'urban sprawl'.
5. Refer to **FIGURE 2** and **describe** the population distribution of Australia.

Apply your understanding

Interpreting and analysing geographical data and information

6. Refer to **TABLE 1**. **Draw** a bar graph to show the predicted change in the populations of Australia's capital cities. What does your graph reveal?

Communicating

7. In your own words, **explain** what an 'ecological footprint' is.
8. **Describe** why the expansion of Perth inland could pose a long-term problem.
9. **Suggest** how the expansion of Perth along a relatively narrow strip along the coast could pose a problem for transport in the future.

Interpreting and analysing geographical data and information

10. a. Refer to **TABLE 2**. **Compare** the ecological footprint data of Australian cities.
    b. **Contrast** these figures with the average global ecological footprint.

LESSON
17.7 How does urbanisation impact the economy?

LEARNING INTENTION

By the end of this lesson you should be able to explain the relationship between urbanisation and the economy. You should also be able to discuss the positives and negatives of urbanisation on the economy and explain how urban growth reflects population growth.

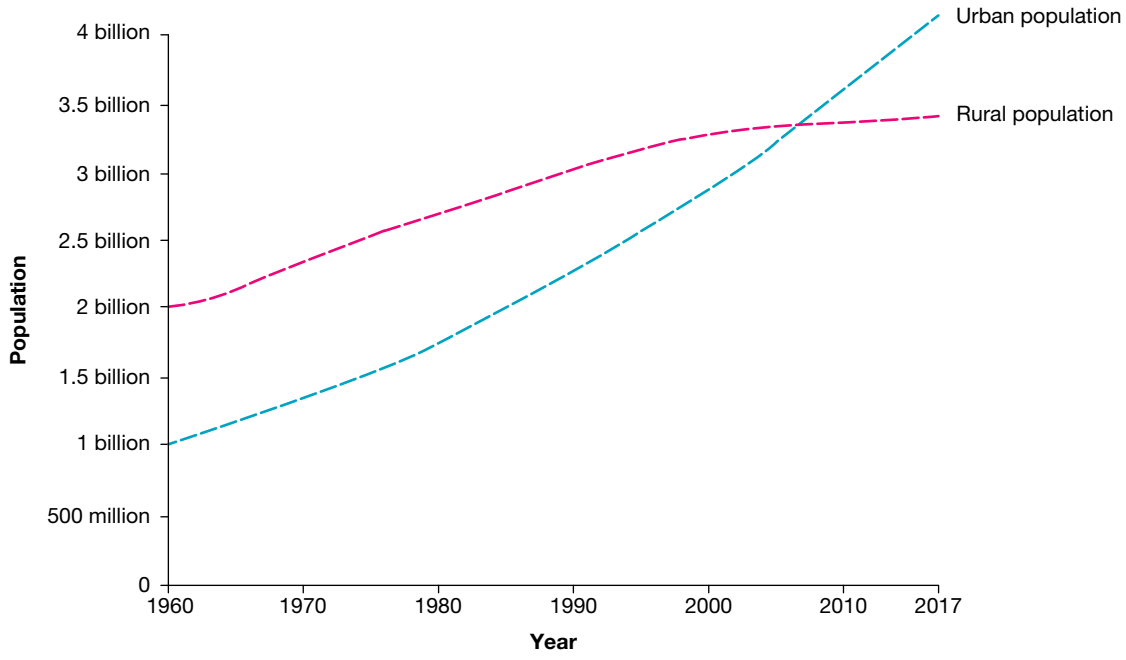
TUNE IN

FIGURE 1 shows how the increase of urban living has meant a decrease in rural living.

Consider the constant increase of people settling in urban areas. Have a group discussion about the following:

1. What would the planners and developers of the urban areas have needed to do to accommodate such great numbers?
2. What impacts could this increase have had on the urban areas (socially, economically, environmentally)?
3. What impacts could the decrease in population have on rural places?

FIGURE 1 World urban vs rural population



17.7.1 Urbanisation and the economy

Today, about 55 per cent of the world's population live in cities. This trend is expected to continue. Urbanisation and **economic growth** are linked. With more than 80 per cent of the world's **gross domestic product** generated in cities, urbanisation can contribute to a country's sustainable growth if well managed.

economic growth an increase in the size of a country's economy over a period of time

gross domestic product the total value of goods produced and services provided in a country during one year

Consider your capital city. What do you think of when you see it in your mind? People in business suits running from meeting to meeting; busy shops and retail; cranes and buildings. All of these are indicators of economic activity and economic growth. Cities and urban areas allow for innovation and the generation of new ideas. We already know that people are drawn there from the country to live and work. When planning for urban growth, governments need to take into account how the city will help to boost the economy, but also how they can make that economy accessible to everyone.

17.7.2 CASE STUDY: Byron Bay

Byron Bay is one of Australia's most visited local government areas, mainly because of the beautiful beaches, the picturesque hinterland, and the vibrant urban centres. The Byron Bay community is one that attracts local and international tourism, artists and agricultural interests. It is a city that is growing.

The New South Wales government's population projections estimate that the population of Byron will increase by approximately 4500 people between 2019 and 2041. The government predicts that this population increase will be driven by internal migration, particularly those seeking to retire.

FIGURE 2 Byron Bay projected population by age

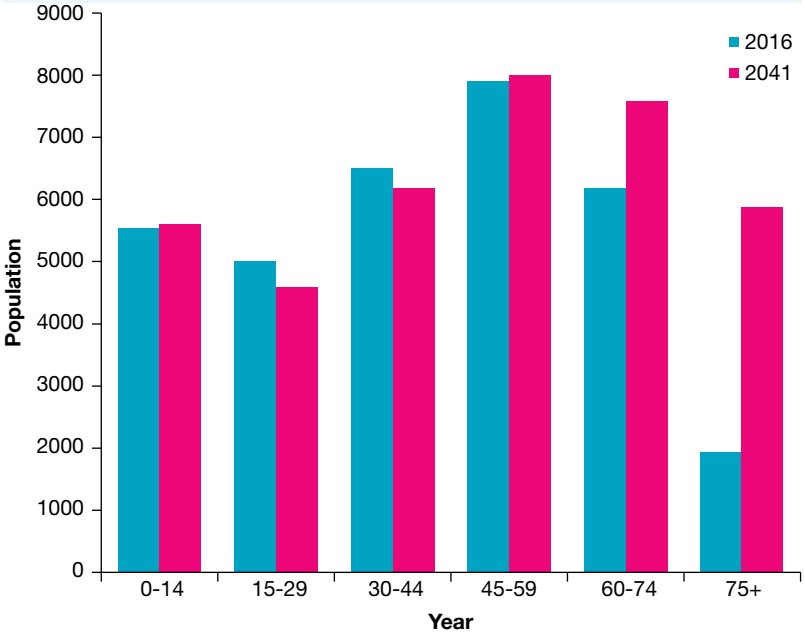
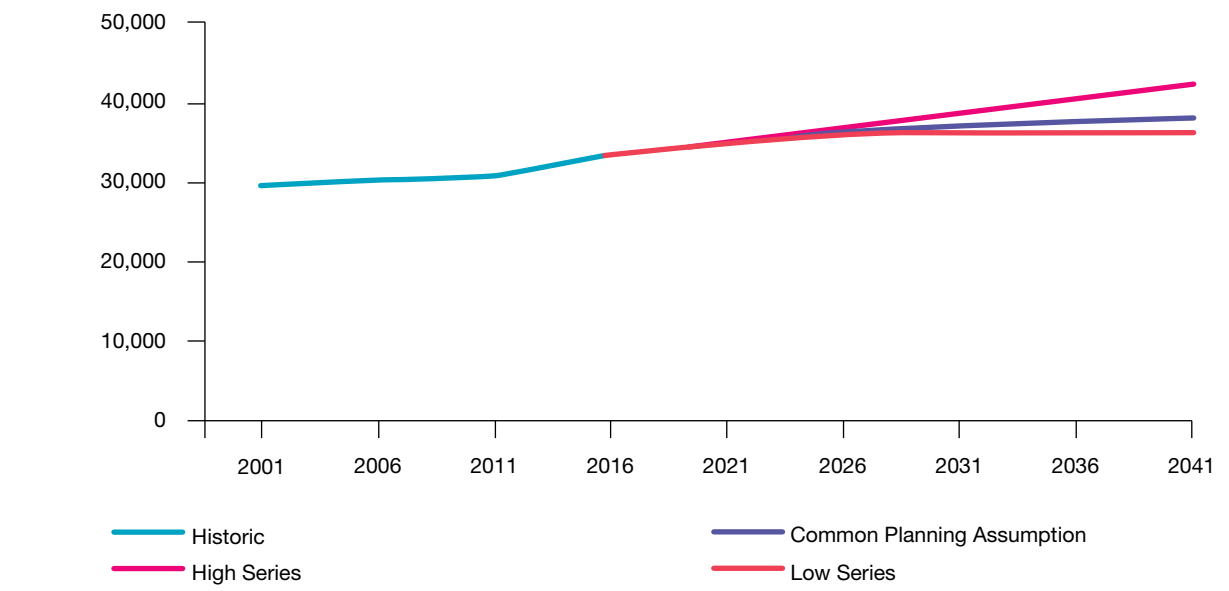


FIGURE 3 Byron Bay is a picturesque and popular destination.



FIGURE 4 Byron Bay projected population



As part of their planning for this projected population growth, the New South Wales government has identified some key priorities for the Byron Bay area, including:

FIGURE 5 Key priorities for the Byron Bay area

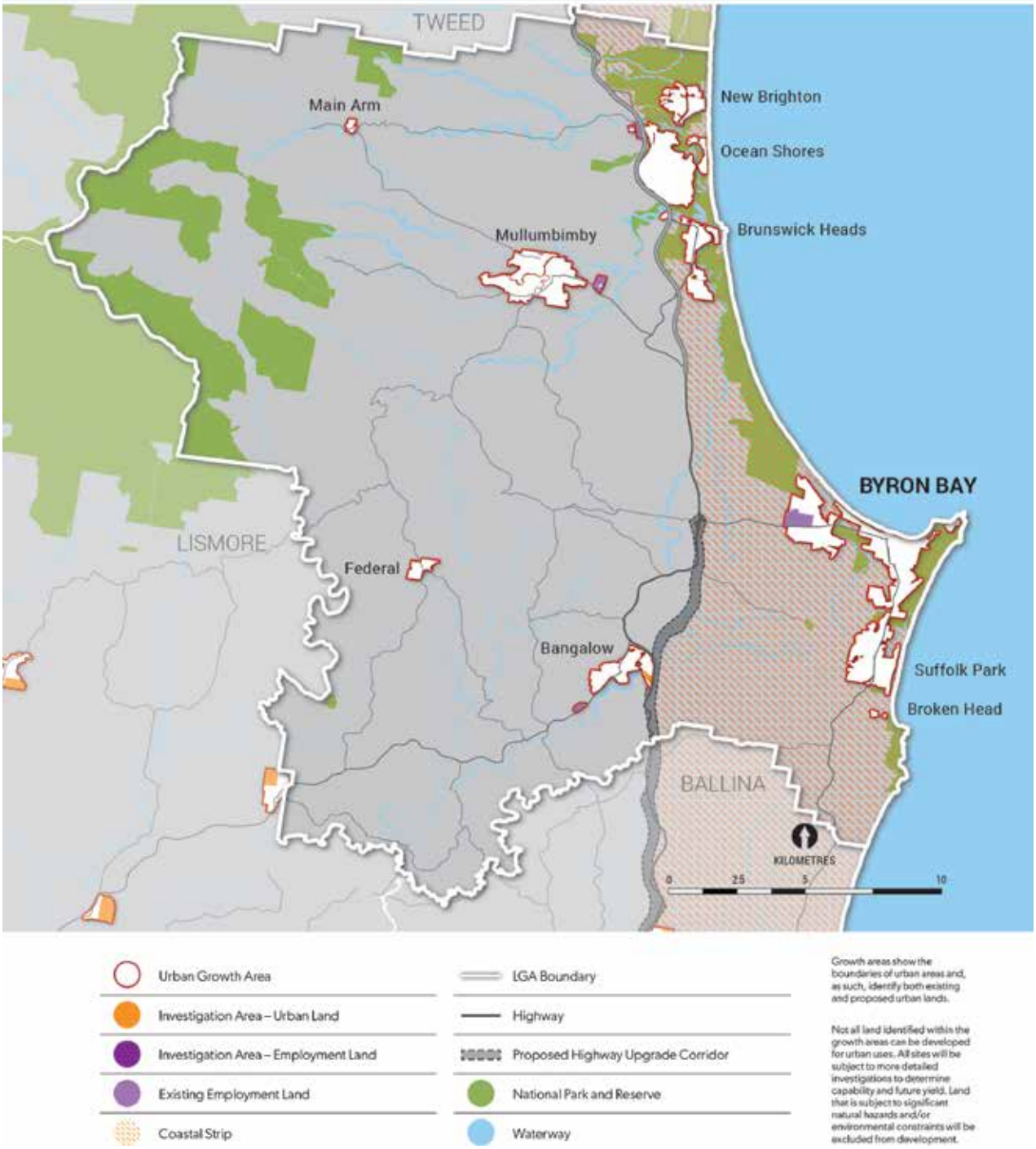
Regional priorities	Economy and employment	Housing
• Additional urban and employment areas • Secure future housing and employment land supply	• Maximise opportunities associated with the growth of South East Queensland • Protect important farmland	• Deliver housing at West Byron • Investigate additional housing diversity (multi-unit dwellings)

The Byron Bay plans mention a lot about new and affordable housing. With that housing there will also be a responsibility to transport, education and medical facilities. Not only that, Byron Bay is a key area for the arts in New South Wales, so the state and local governments will need to ensure that the cultural side of Byron Bay is developed alongside the economic side.

17.7.3 Sustainable urbanisation

As you can see from **FIGURE 6**, the map of Bryon Bay's development, there's areas carved out for future urban growth. The more cities grow, the more land they need. That leads to a loss of nature and habitat, not to mention the increase in roads and rail, which leads to more greenhouse gas emission. There are obvious sustainability consequences here. So how can the planners of Byron Bay tend to these concerns?

FIGURE 6 Urban growth area map for Byron Local Government Area



Cities play an increasingly important role in tackling climate change because of their exposure to climate-related disasters. Most of the urban centres on the planet are all on coastal locations. In the 136 biggest coastal cities, there are 100 million people and $4.7 trillion in assets. That's a lot of lives and a lot of stuff at risk. It makes sense that those cities should be leading the charge when it comes to combatting the climate crisis. But what kinds of things are cities doing to save themselves, and the planet?

The Organisation for Economic Cooperation and Development (OECD) works with nations and governments around the world to create sustainable urban environments, including:

FIGURE 7 Key priorities of the OECD



17.7.4 Inclusive urbanisation

One of the key factors of any country is economic inclusion. That is, ensuring everyone has the right and the ability to engage in the economy through work and education. Carefully organised urbanisation has the potential to create opportunities for a better life, provide a pathway out of poverty and act as an engine of economic growth. Cities are often focal points for activity that are critical to the development of entire countries such as trade, commerce, government and transport.

Despite urbanisation continuing to keep the global economy ticking along, there is also rising inequality and exclusion in cities. To combat this, the World Bank places the topic of inclusion at the front of its agenda with its Sustainable Development Goal 11, which calls for 'inclusive, safe, resilient and sustainable' cities.

To achieve its goals, the World Bank argues that the cities of tomorrow should consider spatial, social, economic factors:

FIGURE 8 Key priorities of the World Bank for the cities of tomorrow

Spatial inclusion	• Urban inclusion requires providing affordable necessities such as housing, water and sanitation.
Social inclusion	• An inclusive city needs to guarantee equal rights and the participation of all, including the most marginalised.
Economic inclusion	• Creating jobs and giving urban residents the opportunity to enjoy the benefits of economic growth is a critical component of overall urban inclusion.

Resources

Weblinks The World Bank open data
OECD Sustainable Urban Development Projects

17.7 SKILL ACTIVITY: Questioning and researching using geographical methods

Refer to **FIGURE 7** that lists the key priorities of the OECD.

1. In pairs, **conduct research** to find out the meaning of the terms *governance of land use* and *land value capture*.
2. **Discuss** your understanding of the terms. Extend the discussion to the whole class to gain a shared understanding.
3. **Identify** or **propose** ways these might be applied to the Byron Bay planning.

17.7 Exercise

learnon

17.7 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 5	6, 7, 8

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- Receive immediate feedback
- Access sample responses
- Track results and progress



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Check your understanding

1. What percentage of the world's population live in cities?
   - A. 32 per cent
   - B. 55 per cent
   - C. 67 per cent
   - D. 75 per cent
2. What percentage of gross domestic product is generated in cities?
   - A. 40 per cent
   - B. 50 per cent
   - C. 80 per cent
   - D. 90 per cent
3. Which of these is **not** an example of economic activity one might see in a city?
   - A. Business people going into office buildings
   - B. Kids playing on a playground
   - C. Retail stores
   - D. Cafes and restaurants
4. In your own words, **define** 'gross domestic product'.
5. The New South Wales government predicts that Byron Bay will increase in population by 2041. **Identify** what reason they attribute this increase to.

Apply your understanding

Interpreting and analysing geographical data and information

6. Refer to **FIGURE 2**. **Identify** which demographic is expected to have the largest increase. **Suggest** why you think this is.

Communicating

7. The Byron Bay plans seek to 'maximise opportunities associated with South East Queensland'. **Explain** why you think this is.
8. Refer to **FIGURE 4**. **Analyse** the graph and **describe** the trend of the projected population of Byron Bay.

LESSON
17.8 INQUIRY: Planning Australia's newest city

LEARNING INTENTION

By the end of this lesson you should have a comprehensive understanding of Canberra's design. You should also be able to use your geographical skills to design a new city.

Background

Canberra, Australia's capital, is a planned city. That is, the way it is structured and designed was not by chance. Unlike other cities in Australia, where they gradually grew and changed over time, Canberra's design was laid out by its initial designer Walter Burley Griffin.





Now, as Australia's population grows, the movers and shakers in the capital are wanting a new city to be built. And like Canberra, they've created a competition for people to submit their plans for a new city.

Working in pairs or small groups, your task is to design a new city for Australia.

Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

Inquiry steps

Step 1: Questioning and researching using geographical methods

Research the original designs for Canberra and the thinking behind Griffin's plans.

Research and print out a topographic map of Canberra.

a. Highlight the economic areas.
b. Highlight the residential areas.
c. Highlight the green and sustainable areas.

Research Canberra's population distribution and density.

Research the projected population growth of Australia.

Step 2: Interpreting and analysing geographical data and information

Using the projected population growth of Australia data, answer the following:

a. Which state is projected to have the biggest increase in population?
b. Where is the population coming from? Migration? Natural increase?

Step 3: Concluding and decision-making

Using the population data, **decide** which state your city will be located in.

a. **Consider:** Will it be in the state with the least growth, perhaps to draw people away from the larger states? Or will it be in the state with the largest growth, so they can stay where they are? **Justify** your response.
b. What is the name of your city?
    i. **Research** the First Nations Country your city will be located on and draw inspiration from there.

Step 4: Communicating

It's now time to prepare your submission. You'll be presenting your new city as a poster or presentation; on this poster you will need to include:

a. The name of your city.
b. The location of your city.
c. Maps of where your city is located.
d. The print outs of the population data to support you placing your city there.
e. A drawing of your city, highlighting where the economic, residential and green zones are.
f. Anything else that you think will make your city proposal the winning entry.

Complete your self-assessment using the **Inquiry rubric** or access the 17.8 exercise set to complete it online.

on Resources

Digital document Inquiry rubric (doc-39544)

Weblinks
Australian Bureau of Statistics, Population Data
Canberra City Plan
Topographic Maps of ACT and Canberra

LESSON
17.9 Investigating topographic maps — Liveability in Badu and Moa

LEARNING INTENTION

By the end of this lesson you should be able to describe what liveability is like in Badu and Moa.

17.9.1 Badu and Moa islands

Both of these islands are located 40–60 kilometres off the far north Queensland coast in the Torres Strait. Moa Island has a population of approximately 240 people. Badu Island has a slightly larger population of around 850 people.

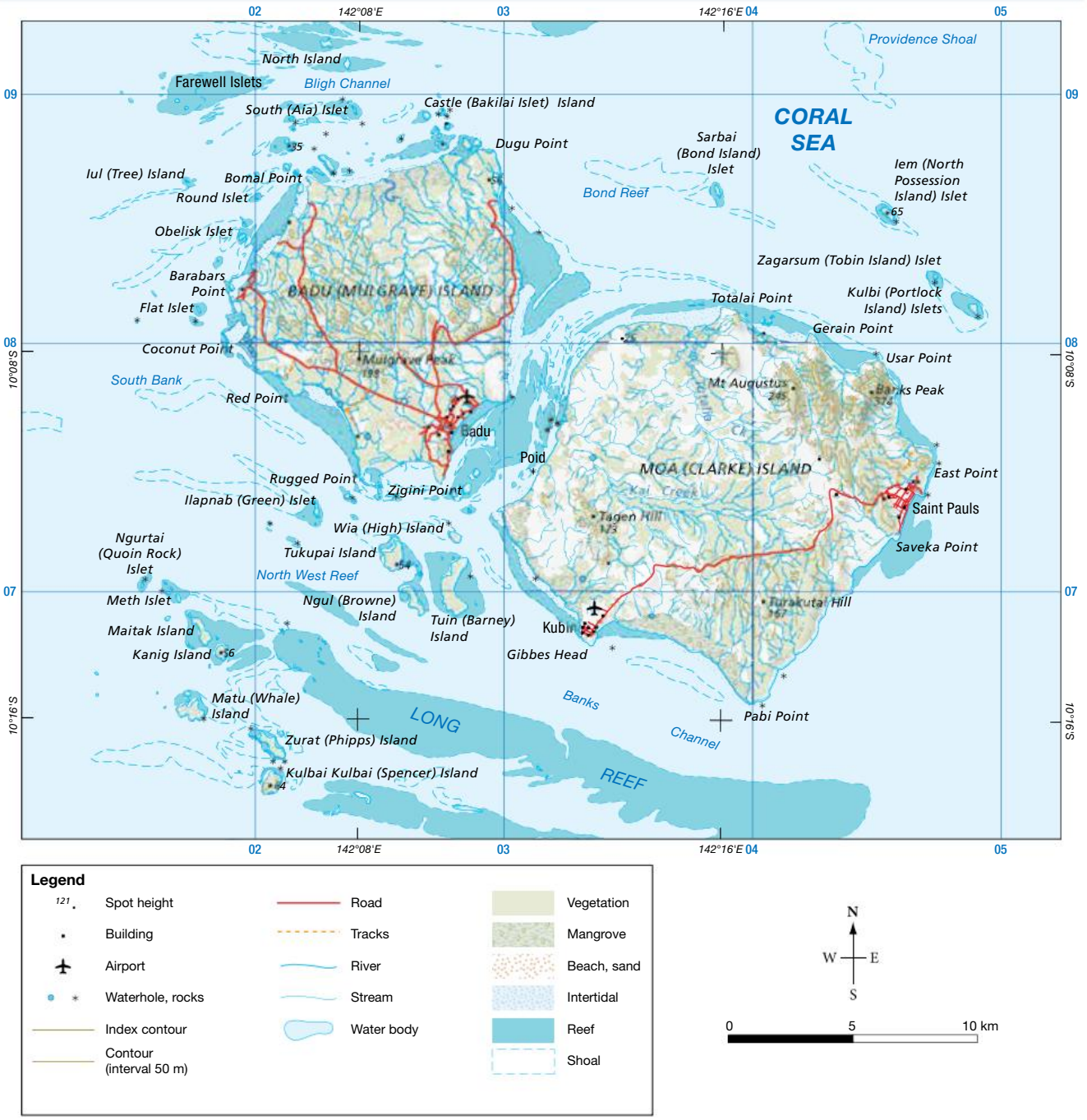
These small isolated communities rely on the ocean to provide food and as a pathway for trade. Their livelihood is threatened by climate change, particularly rising sea levels. Communities on the islands are heavily reliant on regular rainfall and have reservoirs to ensure a secure clean water supply. More recently, septic tanks and drainage facilities have been installed, improving the environmental health of the islands. With this water security and the development of infrastructure, an increasing number of tourists are travelling to Badu and Moa islands.

FIGURE 1 Moa Island is the second largest island in the Torres Strait.



int-8426

FIGURE 2 Topographic map extract of Badu Island and Moa Island in the Torres Strait



Source: Data based on QSpatial, State of Queensland (Department of Natural Resources, Mines and Energy, Department of Environment and Science), http://qldspatial.information.qld.gov.au/catalogue/; Geoscience Australia.

Resources

eWorkbook	Investigating topographic maps — Liveability in Badu and Moa (ewbk-10809)
Digital document	Topographic map of Badu and Moa islands (doc-39551)
Video eLesson	Investigating topographic maps — Liveability in Badu and Moa — Key concepts (eles-6111)
Interactivity	Investigating topographic maps — Liveability in Badu and Moa (int-8426)
Google Earth	Badu and Moa (gogl-0091)

17.9 Exercise

learnon

17.9 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2	3, 6	4, 5

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Check your understanding

1. **State** the direction of Saint Pauls from Badu.
2. a. **Identify** the height and area reference of Mt Augustus.
   b. Locate and give the area references for three different human features located on these islands.

Apply your understanding

3. Based on what you can see on the map, **describe** how liveable you think the islands are. Support your answer with evidence from the map.
4. What factors might affect how liveable Badu and Moa islands are for different people? **Select** one feature of the islands and **explain**:
   a. Why might someone born and raised on the islands think that feature increases liveability?
   b. Why might someone born and raised on the islands think that feature decreases liveability?
   c. Why might someone born and raised in a big city in Australia think that feature increases liveability?
   d. Why might someone born and raised in a big city in Australia think that feature decreases liveability?
5. **Identify** a combination of human and natural features that might have influenced people to:
   a. visit the islands as a tourist
   b. permanently move to the islands.
6. a. If you could make these islands more liveable, what would you do?
   b. **Create** a list of five changes you would make to make them more liveable.
   c. **Justify** why you would make these changes and **explain** how they would make it more liveable.

LESSON
17.10 Review

Hey students! Now that it's time to revise this topic, go online to:

Review your results

Watch teacher-led videos

Practise questions with immediate feedback

Find all this and MORE in jacPLUS



17.10.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

17.2 What is urbanisation?

- There are push and pull factors that determine people's movements to cities.
- Urbanisation is the internal migration of people from rural to metropolitan areas.
- Urban growth is the increase of population in urban areas.
- Both urbanisation and urban growth have positives and negatives.

17.3 What are megacities?

- Most of the world's cities are located on coastlines and major transport routes.
- Dense forests, deserts and polar regions have the fewest cities.
- Megacities are classified as cities with a population of 10 million or more people.
- Most megacities are in Asia.

17.4 What is the impact of urbanisation in Indonesia?

- Rural–urban migration and natural population increase have changed Indonesia's population over time.
- Jakarta has experienced rapid population growth over time.

17.5 Are growing urban communities sustainable?

- By 2050, the world's population is estimated to reach 9.2 billion people.
- Global population growth will be concentrated mainly in urban areas.
- Because of population growth, there will be a loss of biodiversity, limits on water supply, more greenhouse gas emissions and threats to food security.
- Approximately 93 per cent of Australia's population will be living in urban areas by 2050.

17.6 Is Australia an urbanised country?

- Australia is a highly urbanised country.
- Urban sprawl, especially in the larger cities of Sydney, Melbourne and Brisbane, is a characteristic of urbanisation in Australia.

17.7 How does urbanisation impact the economy?

- Urbanisation and the economy are linked. As the economy grows, so does urbanisation and vice versa.
- Cities, like Byron Bay, need to plan carefully to achieve sustainability goals and ensure inclusive access to the economic gains of urbanisation.
- The OECD works with governments and countries on planning sustainable cities.

17.8 INQUIRY: Planning Australia's newest city

- Canberra is a planned city.
- Many aspects need to be taken into account to plan a brand new city, including the projected population and their needs.

17.9 Investigating topographic maps — Liveability in Badu and Moa

- The livelihoods of Badu and Moa residents is threatened by climate change, particularly rising sea levels.
- Due to the reliance of rainfall, improvements have been made to water storage and waste removal.

17.10.2 Key terms

economic growth an increase in the size of a country's economy over a period of time
gross domestic product the total value of goods produced and services provided in a country during one year
high-density housing residential developments with more than 50 dwellings per hectare
internal migration the movement of people from one defined area to another within a country
megacity city with more than 10 million inhabitants
megaregion area where two or more megacities become connected as increasing numbers of towns and ghettos develop between them
migration the movement of people (or animals) from one location to another
population density the number of people living within one square kilometre of land; it identifies the intensity of land use or how crowded a place is
pull factor favourable quality or attribute that attracts people to a particular location
push factor unfavourable quality or attribute of a person's current location that drives them to move elsewhere
sanitation facilities provided to remove waste such as sewage and household or business rubbish
sea change movement of people from major cities to live near the coast to achieve a change of lifestyle
slum a run-down area of a city characterised by poor housing and poverty
tree change movement of people from major cities to live near the forest to achieve a change of lifestyle
urban growth the rate at which the population of an urban area increases
urban sprawl the rapid expansion of the geographic extent of cities and towns, often at the expense of green areas and farmland
urbanisation the growth and expansion of urban areas and the increasing proportion of people living in urban areas as compared to rural areas
utilities services provided to a population, such as water, natural gas, electricity and communication facilities

17.10.3 Reflection

Complete the following to reflect on your learning.

Revisit the inquiry question posed in the Overview:

What are the effects of urbanisation on people and how has the distribution of the population changed in recent times?

1. Now that you have completed this topic, what is your view on the question? **Discuss** with a partner. Has your learning in this topic changed your view? If so, how?
2. Write a paragraph in response to the inquiry question, outlining your views.

on Resources

eWorkbooks Customisable worksheets for this topic (ewbk-10768)
Reflection (ewbk-10770)
Crossword (ewbk-10771)

Interactivity Our changing urban world crossword (int-7601)

17.10 Review exercise

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Multiple choice

1. Classify each of the following as either push or pull factors that have resulted in urbanisation.
   - A. Job opportunities
   - B. Political or religious freedom
   - C. Natural disasters
   - D. Lack of medical services or educational opportunities
   - E. War
   - F. Family links
2. Cities have a large range of recreational activities.
   Which of the following recreational facilities would you expect to find only in a large city? Select all possible answers.
   - A. Football oval
   - B. Playground
   - C. Cinema complex
   - D. State funded art gallery
   - E. Bicycle paths
   - F. State netball centre
   - G. Skateboard ramp
3. Which of the following statements is correct?
   - A. Per capita income is the only determinant of urbanisation.
   - B. Generally, countries with a high per capita income tend to be more urbanised.
   - C. Countries with a high per capita income are generally more rural.
   - D. Generally, countries with a low per capita income tend to be more urbanised.
4. Slums are a challenge of rapid urbanisation in developing countries.
   What is a slum?
   - A. A planned settlement in an urban area
   - B. An unplanned settlement in an urban area
   - C. An unplanned settlement in a rural area
   - D. A planned settlement in a rural area
5. Which of following are problems that result from rapid population growth in urban areas? Select all possible answers from the options below.
   - A. Poverty
   - B. Employment
   - C. Non-crowded public transport
   - D. Air pollution
   - E. Poor sanitation

6. Large cities have many challenges.
Which of the following urban problems can you identify in the photo of Jakarta? Select all that apply.
   - **A.** Slums
   - **B.** Power supply
   - **C.** Crossing the road
   - **D.** Air pollution
   - **E.** Lack of schools
   - **F.** Traffic congestion



7. City rooftops can be used for a number of purposes.
Select all the possible ways rooftops in the city can be used to make the urban environment more sustainable.
   - **A.** Air-conditioning units
   - **B.** Keeping bees
   - **C.** Water storage
   - **D.** Childcare centres
   - **E.** Solar panels
   - **F.** Basketball courts
   - **G.** Growing vegetables

8. Where are the world's cities generally located? Select all possible answers from the options below.
   - **A.** Inland
   - **B.** Along the coastline
   - **C.** Close to transport routes
   - **D.** In mountainous areas

9. What does a city need to be considered sustainable?
   - **A.** Develop so that it meets present needs and leaves sufficient resources for future generations to meet their needs.
   - **B.** Develop so that that it meets the present needs of the population; it is up to future generations to deal with their needs.
   - **C.** Develop more sustainable energy resources; for example, replace coal-burning power with wind, nuclear and solar energy.
   - **D.** Restrict development so that resources can be shared more fairly and evenly across the population.
10. Which of the following is not a sustainable urban project?
   - **A.** Beekeeping
   - **B.** Urban greening program
   - **C.** Increasing infrastructure and car manufacturing
   - **D.** The Loading Dock
   - **E.** Solar panels

Short answer

Communicating

11. **Elaborate** on the reasons people move from one urban area to another urban area.
12. **Explain** What are two measures that might be used to assess the sustainability of a city?
13. **Summarise** the problems associated with living in very large, rapidly growing cities.
14. **Discuss** what is a megacity.
15. Urbanisation can bring about significant environmental change to a place.
    Reflect on two ways that growing cities can bring about change to:
    - i. landforms
    - ii. air quality.

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CIVICS AND CITIZENSHIP

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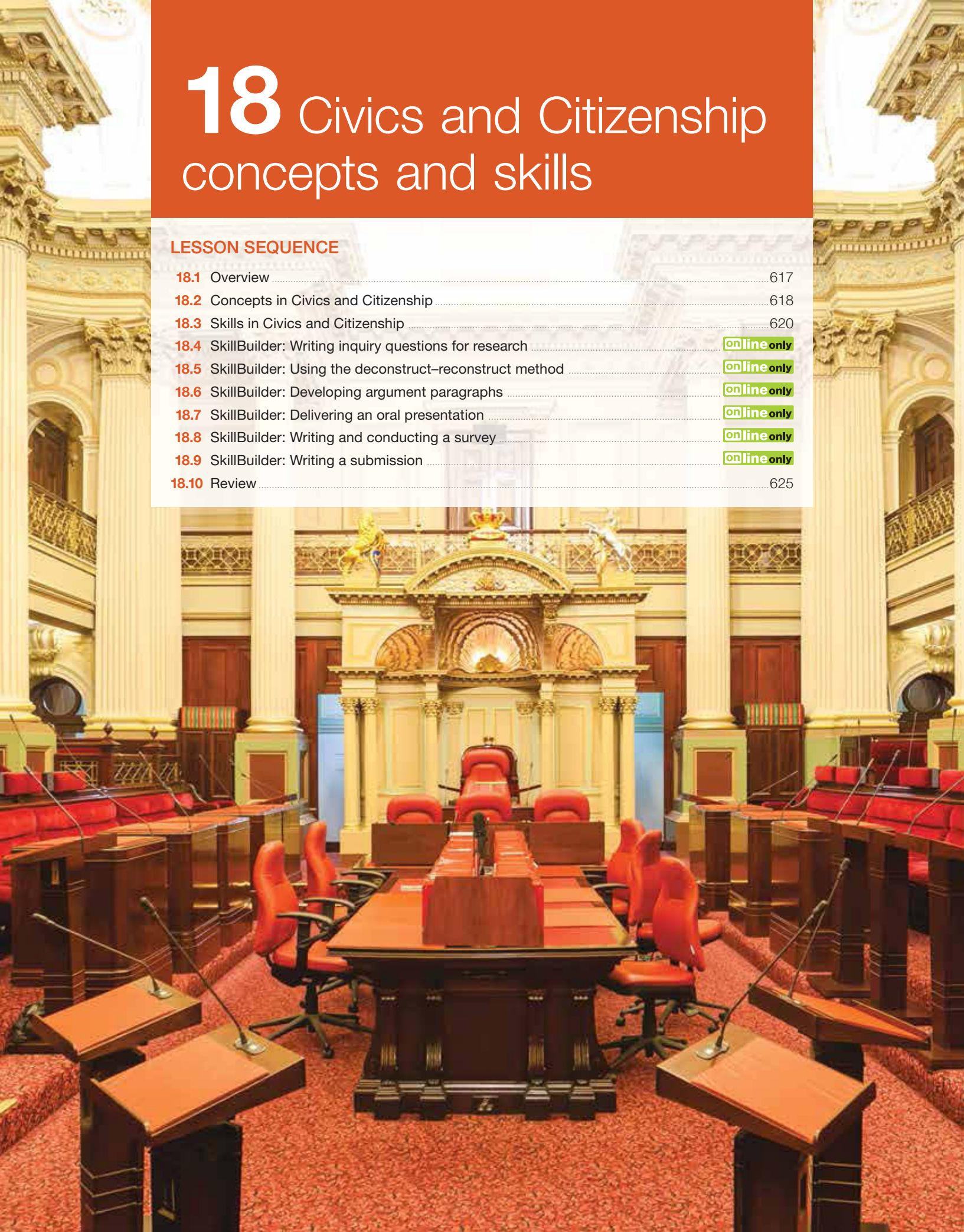
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18 Civics and Citizenship concepts and skills



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LESSON
18.1 Overview

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18.1.1 Introduction

As a student of Civics and Citizenship, you are developing the knowledge and skills that will be needed by you and society now and into the future. In your study of Civics and Citizenship, you will cover topics around Australia's democratic systems of government and the justice system.

Studying Civics and Citizenship may be necessary for your chosen career, or help indirectly by giving you broader knowledge and skills, especially in the understanding of government and legal systems. You will also learn about your rights and responsibilities, such as the right to publicly express your views and the responsibilities and expectations that come with that right.

FIGURE 1 Protesters marched through the streets of Perth, 26 January 2020, calling for Australia Day to be replaced as a sign of respect to First Nations of Australia Peoples.



on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10772)
Video eLesson Civics and Citizenship concepts and skills (eles-6035)

LESSON
18.2 Concepts in Civics and Citizenship

LEARNING INTENTION

By the end of this lesson you should be able to identify the five Civics and Citizenship concepts and explain why they are important.

18.2.1 Why study Civics and Citizenship?

Australia is generally a safe place in which to work and travel, in comparison to many other countries in the world, due to many factors. We have laws enforced by police that apply to the whole community. Public roads are built and maintained by local councils and state government. Many essential services are provided by the government, such as electricity, hospitals and the post. Australia also has comparatively low unemployment levels.

Most of these factors are dependent on having a stable and secure government, and parliamentary representatives, who are accountable to the people who elected them.

Government decisions and laws passed by parliament affect many areas of your life. The political ideologies or beliefs that influence government policies will continue to affect you, and the society in which you live, into the future. You have a responsibility to care about these various ideas and to engage with the society that your vote will help shape in the future.

18.2.2 What are the main concepts in Civics and Citizenship?

Active citizenship

People enjoy certain rights and freedoms from living in a democratic society. This includes the right to vote, joining political parties and standing as an independent candidate in an election. However, with rights come responsibilities, such as informed voting, undertaking jury duty, and advocating for our democratic values. Active citizens are informed and participate in civic and political processes at local, state, national, regional and global levels.

Democracy

Democracy is a political system where power rests with the people. Rules govern the electoral process that is used to choose our government and to the way our government operates. Regular elections that are free and fair, enable us to remove and replace our political leaders if we believe they are no longer meeting our needs. Democracy respects individual freedoms such as the fight of individuals to hold and express their own views, beliefs and values.

FIGURE 1 Abraham Lincoln was President of the United States from 1861–1865.

'...that this nation, under God, shall have a new birth of freedom – and that government of the people, by the people, for the people, shall not perish from the earth.'

–Abraham Lincoln, 19 November 1863



DISCUSS

Abraham Lincoln was President of the United States of America during the American Civil War, when a number of southern states formed the Confederacy and sought to break away from the Union. Lincoln's short speech at the dedication of the Soldiers' National Cemetery in Gettysburg, Pennsylvania has become historic for many reasons. One of these reasons was the way he succinctly described democracy, without even using the word.

Democratic systems of government are appealing for a number of reasons, including the fact that they aim to be representative. In your study of Civics and Citizenship, you will learn more about the liberal democratic system of government that Australia chose to adopt in 1901.

As a class, discuss what government 'by the people' might mean.

Global citizenship

Australia is a part of a global community; our civic participation is not confined to within our national borders. On the world stage, we have an obligation to ensure that we advocate for the rights and freedoms of individuals regardless of where they live. Australia enters into agreements to ensure that our own citizens enjoy those same rights and freedoms.

Legal systems

Our legal system is based on rules and laws, and regardless of our personal beliefs citizens are expected to follow them. Good laws share several characteristics, but they do not all come from the same source. Some laws are made by parliament and others are made by courts. Laws fall into different categories. Our legal system must balance the needs of a diverse society, including the customary law of First Nations Australians.

FIGURE 2 How do you define justice? Is the idea of justice the same in all cultures and groups? Can you think of any situations or examples that you have felt were not just?



Identity and diversity

Australia is a culturally diverse society and our sense of belonging is a blend of our differences and shared experiences. Distinct communities are evident amongst First Nations Peoples, and those who have migrated to Australia in search of a new life. People are free to express their differences and culture. Shared experiences such as the ANZACS, Reconciliation Week and Mabo Day unite us and help to define our sense of community and belonging.

18.2.3 Your focus in Year 8

This year in Civics and Citizenship, you will be learning about the design of our political and legal system and how our laws are made. You will also learn how active citizens can play a role and influence our law-makers. In particular, you will learn about:

- The freedoms that enable active participation in Australia's **democracy** within the limits of law, including freedom of speech, association (which groups you can join), assembly (who you can meet or assemble with), religion and movement
- How citizens can participate in Australia's democracy, including use of the electoral system, contact with their elected representatives, use of lobby groups and **direct action**
- How laws are made in Australia through parliaments (statutory law)
- How laws are made in Australia through the courts (common law)
- The types of law in Australia, including **criminal law**, **civil law** and the place of First Nations **customary law**
- Different perspectives about Australia's **national identity**, including First Nations Peoples' perspectives and what it means to be Australian.

democracy a form of government in which the people determine how they will be governed

direct action showing your disapproval or disagreement with the government and their policies by directly trying to influence their decisions and the views of the public, for example through protesting

criminal law the branch of law that judges whether someone has committed a crime, and punishes them if they are found guilty

civil law the branch of law that protects people's rights and property

customary law rules for behaviour developed by and for First Nations Peoples

national identity the parts of a society that make people feel like they belong, such as shared values or sense of identity

LESSON
18.3 Skills in Civics and Citizenship

LEARNING INTENTION

By the end of this lesson you should be able to name the key Civics and Citizenship skills and explain why they are important.

18.3.1 What skills will you build this year?

The skills you will develop fall into four main groups. You will use these skills in specific ways in Civics and Citizenship in Year 8.

Questioning and researching

You will investigate the operation of Australian democracy, political and legal systems through asking questions. These questions will form the basis of your research into contemporary Australian society and its capacity to foster fairness, diversity and inclusiveness for different groups such as First Nations Peoples of Australia and refugees.

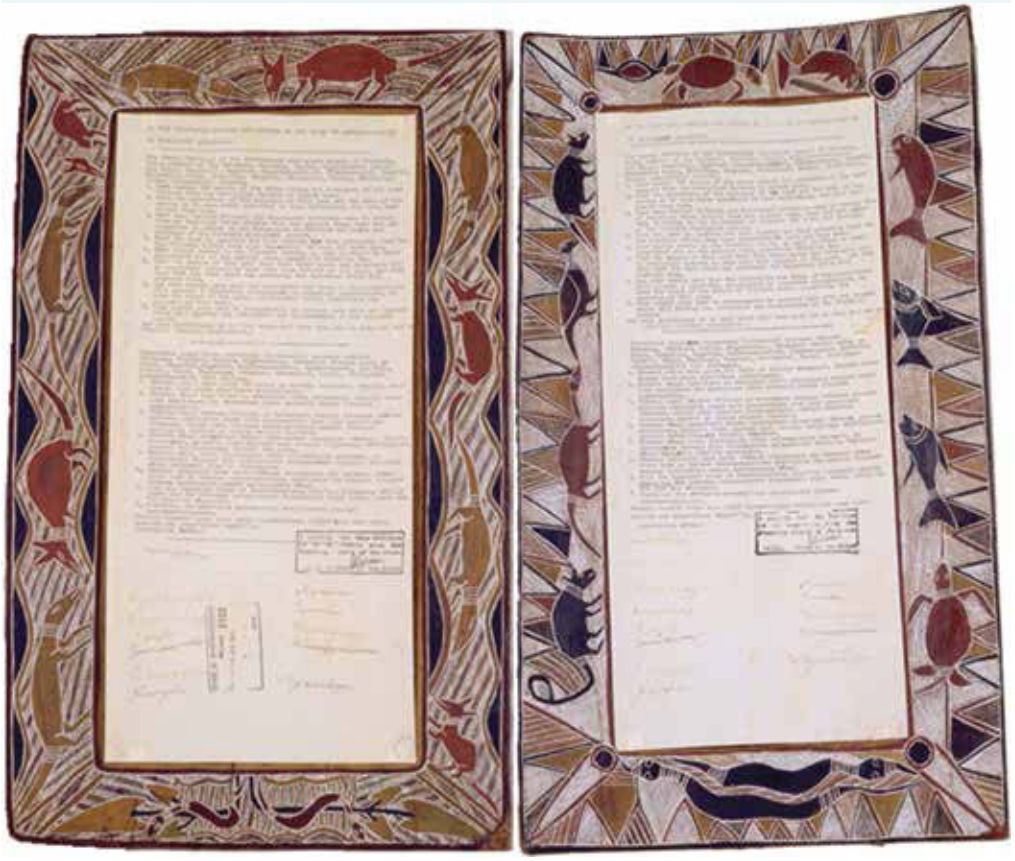
Data will be gathered from multiple sources such as tables, media reports (print and visual) and different perspectives will be considered and evident in your research. Reliability of sources and the reasons for different perspectives and bias will be considered.

Analysis, evaluation and interpretation

Analysis involves interpreting information to identify the main features or ideas from a range of sources and perspectives. Bias and different perspectives will be considered in selecting information used to form opinions. Alternative viewpoints will be acknowledged in your evaluations.

You will draw evidence-based conclusions about the capacity of Australia's political and legal institutions to enhance and foster democratic values and civic participation. You will evaluate the effectiveness of Australian citizens in using the political and legal systems to contribute at a range of scales.

FIGURE 1 These petitions were presented to parliament in 1963 by the Yolngu Peoples of Yirrkala, in the Northern Territory, and raised issues relating to their dispossession from their traditional lands. If you were researching this issue, what extra information would examining this source give you that an online text-only transcript of the documents would not?



Civic participation and decision-making

Participating in the civic process involves identifying the ways in which active and informed citizens can participate within society. You will be able to explain how our democratic political and legal systems uphold our values and where they might live up to expectations. Working within democratic processes enables us to make decisions in relation to contemporary issues and design an action plan for change in a responsible way.

Communicating

You will present and communicate ideas, perspectives and arguments based on evidence and research on contemporary civics and citizenship issues. Explanations will be clearly expressed and consider not just the issue but also the outcome of civic action, participation, and engagement.

FIGURE 2 What factors might affect an Australian's point of view of this Australian stamp from 1988?



18.3.2 SkillBuilders in the topic

In addition to these broad skills, there is a range of essential practical skills that you will learn, practise and master as you study Civics and Citizenship. The SkillBuilders in this topic will tell you about the skill, show you the skill and let you apply the skill to the topics covered.

The SkillBuilders you will use in Year 8 are:

- Writing inquiry questions for research
- Using the deconstruct–reconstruct method
- Developing argument paragraphs
- Delivering an oral presentation
- Writing and conducting a survey
- Writing a submission.

LESSON 18.4 SkillBuilder: Writing inquiry questions for research

online only

Why are inquiry questions important when researching?

When you are asked to 'do research' you need to investigate a particular topic or event. To do this investigation well, it is important to have questions to guide your investigation (inquiry). The purpose of this skill is to help you understand and create helpful inquiry questions.

Select your learnON format to access:

- an overview of the skill and its application (Tell me)
- a step-by-step process to explain the skill (Show me)
- an activity for you to practise the skill (Let me do it).

LESSON 18.5 SkillBuilder: Using the deconstruct–reconstruct method

online only

What is the deconstruct–reconstruct method?

Copying another person's work without acknowledging the author is plagiarism, whether it is copied from the student sitting next to you in class or from an article you found on the internet. For many students, plagiarism occurs simply because they do not know how to read information and then use it appropriately in their own work. The deconstruct–reconstruct method teaches you how to use another person's work appropriately.

Select your learnON format to access:

- an overview of the skill and its application (Tell me)
- a step-by-step process to explain the skill (Show me)
- an activity for you to practise the skill (Let me do it).

LESSON
18.6 SkillBuilder: Developing argument paragraphs

online only

What are argument paragraphs?

Argument paragraphs help you to present an explanation or argument, in a straightforward way, and to communicate this in a written form, such as an essay. An argument paragraph discusses either a positive or a negative aspect of an issue — it presents an argument in a 'scholarly' or academic way.

Select your learnON format to access:

- an overview of the skill and its application (Tell me)
- a step-by-step process to explain the skill (Show me)
- an activity for you to practise the skill (Let me do it).

LESSON
18.7 SkillBuilder: Delivering an oral presentation

online only

What makes a successful oral presentation?

An oral presentation involves presenting a short, structured speech or presentation to a specific audience for a specific purpose. Preparation is key to presenting your ideas well to an audience and the effectiveness of your speech often relates to the connection you make with your audience.

Select your learnON format to access:

- an overview of the skill and its application (Tell me)
- a step-by-step process to explain the skill (Show me)
- an activity for you to practise the skill (Let me do it).

LESSON
18.8 SkillBuilder: Writing and conducting a survey

online only

What is a survey?

A survey is the process of collecting data for the purpose of analysing an issue. It consists of putting a set of questions to a sample group of people. Surveys are an efficient way of collecting information from a large number of people. The questions can range widely to reveal people's attitudes, values, opinions and beliefs on political or legal issues.

Select your learnON format to access:

- an overview of the skill and its application (Tell me)
- a step-by-step process to explain the skill (Show me)
- an activity for you to practise the skill (Let me do it).

LESSON
18.9 SkillBuilder: Writing a submission

online only

What is a submission?

Being able to communicate ideas through a variety of methods, including structured writing, such as essays, is an important skill. A formal submission is a letter or email to an organisation or government body asking for a specific action to take place, or expressing an opinion on an issue.

Select your learnON format to access:

- an overview of the skill and its application (Tell me)
- a step-by-step process to explain the skill (Show me)
- an activity for you to practise the skill (Let me do it).

LESSON
18.10 Review

18.10.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

18.2 Concepts in Civics and Citizenship

- Active citizenship means that people participate in the political and legal systems to influence a change in their society.
- Democracy is a political system in which citizens choose the way in which they are governed.
- Global citizenship involves an understanding in Australia's place and obligations on an international level and our preparedness to take action to influence change.
- Legal systems in Australia are underpinned by the rule of law. Justice should be fair and equitable.
- Identity and diversity in our multicultural society allow for freedom of expression and help shape our shared beliefs and sense of belonging.

18.3 Skills in Civics and Citizenship

- The skills you will develop by studying Civics and Citizenship fall into four main groups:
  - Asking questions about civics and citizenship provides an insight our contemporary society and drives us to ask different questions to learn more.
  - Researching contemporary civics and citizenship issues involves locating relevant information and data from different sources to develop an understanding of political and legal issues. Different perspectives are found through analysis of our research.
  - Participating in civic processes by identifying ways to participate actively and responsibly in our democratic society.
  - Communicating by selecting appropriate methods to share your ideas, perspective and arguments on contemporary civics and citizenship issues.

18.10.2 Key terms

civil law the branch of law that protects people's rights and property
criminal law the branch of law that judges whether someone has committed a crime, and punishes them if they are found guilty
customary law rules for behaviour developed by and for First Nations Peoples
democracy a form of government in which the people determine how they will be governed
direct action showing your disapproval or disagreement with the government and their policies by directly trying to influence their decisions and the views of the public, for example through protesting
national identity the parts of a society that make people feel like they belong, such as shared values or sense of identity

on Resources

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LESSON
18.4 SkillBuilder: Writing inquiry questions for research

LEARNING INTENTION

By the end of this lesson you will be able to write focussed inquiry questions for your research in Civics and Citizenship.

18.4.1 Tell me

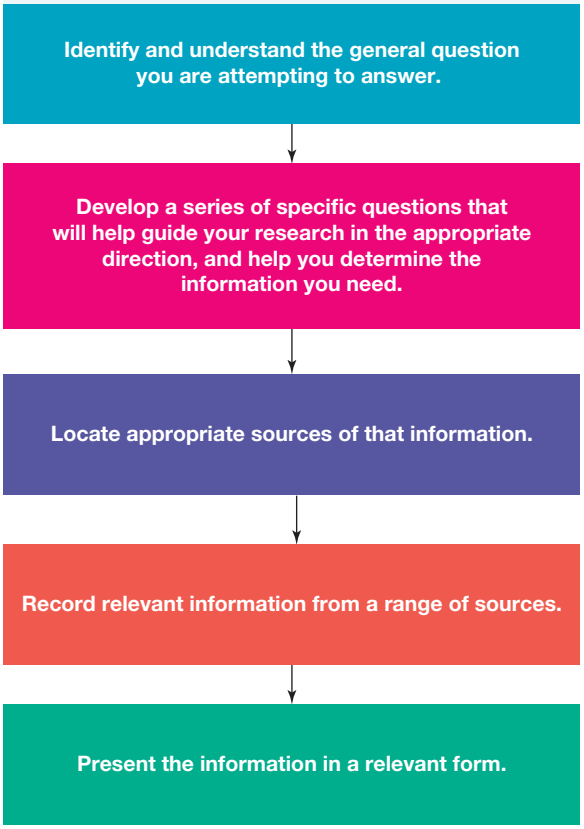
Writing inquiry questions is part of the questioning and researching skill in HASS. In Year 7, you began writing inquiry questions to help you focus your research. At a Year 8 level, you will build this ability to locate relevant and detailed information and/or data from a range of appropriate sources.

When you are asked to 'do research' you need to investigate a particular topic or event. To do this investigation well, it is important to have questions to guide your investigation (inquiry). The purpose of this skill is to help you understand and create helpful inquiry questions.

In Civics and Citizenship this year, you will use this skill to start investigating topics from sources such as this textbook and websites. You may also conduct your own research with surveys.

When carrying out your own research, the steps in **FIGURE 1** can provide a useful guide. You might remember this process from Year 7. This SkillBuilder will show you how to use these steps for the slightly more complicated questions and tasks you will complete in Year 8.

FIGURE 1 How to carry out your own research



18.4.2 Show me

Many countries throughout the world have a 'bill of rights' or 'charter of rights' to protect the rights and freedoms of their citizens. Imagine you have been asked to find out what a bill or charter of rights is, and how it protects people's rights and freedoms. You will need to plan your investigation and break it into some clear steps.

Step 1

Your first step is to clearly identify the essential *key questions*. These could be expressed as follows: 'What is a bill or charter of rights? What is a good example of a bill or charter of rights? What rights does it actually protect? How does it protect these rights?'

Step 2

It is now necessary to break these key questions down into a series of more specific *inquiry questions*. These could include:

1. What is a bill of rights?
2. What is a charter of rights?

3. Is there any difference between a bill of rights and a charter of rights?
4. What is one major country that has a bill or charter of rights?
5. How did that country get a bill or charter of rights?
6. What rights or freedoms does that bill or charter protect (for example, freedom of speech; freedom of association)?
7. Can those rights be easily taken away by a government repealing them? Or are they like the rights protected by the Australian Constitution, which need a referendum to be changed?
8. What can people do if they think their rights under that bill or charter have been affected by the actions of the government or someone else?
9. How well does the bill or charter work? Are there any examples of occasions when someone has successfully taken legal action to protect his or her rights?

Step 3

The next step is to locate appropriate sources to test your inquiry questions. Ask yourself: will my questions find all the information I need? Try searching online with your questions — is your search finding relevant, accurate sites?

There is a wide variety of sources that can be used for research, including textbooks, websites and books written by experts in the subject. You need to ensure that the sources of information you use are relevant to your topic and reliable. To do this, start with sources from trusted educational institutions or official organisations, such as this textbook or the Museum of Australian Democracy.

Internet searches can bring up a huge list of information sources, but not all of them are reliable. You need to carefully select a small number of sources that are reliable.

REMEMBER: BE CAREFUL WITH SITES THAT CAN BE EDITED BY THE PUBLIC

Wikipedia is often one of the first sources suggested in a web search, and yes, Wikipedia often has reliable information. It is a good starting point to understand a topic. However, because Wikipedia articles can be edited, it is recommended to go to the sources listed at the bottom of the Wikipedia article page. If there are no sources listed, then that specific article may be unreliable. If there are sources listed, it may be a good idea to use these directly. To help ensure that your information is correct, it is a good idea to use at least two sources to answer each question. Keep your inquiry questions beside you as you read each source and note the location of the source material for your answers.

Step 4

Once you have done some basic research, refine your questions based on the results of your test searches.

- Can you be more specific?
- Do you need to ask broader questions in some areas?

18.4.3 Let me do it

18.4 ACTIVITY

Practice the skill of writing inquiry questions with the worksheet in the Resources panel to respond to the following topic.

1. In Australia, the state of Victoria has brought in a Charter of Human Rights and Responsibilities and the Australian Capital Territory has a bill of rights known as the Human Rights Act. Select one of these and prepare a report explaining:
   a. what rights are protected by the bill or charter you have selected
   b. what actions can be taken by a person to protect his or her rights under that bill or charter.

LESSON
18.5 SkillBuilder: Using the deconstruct-reconstruct method

LEARNING INTENTION

By the end of this lesson you will be able to write a paragraph in your own words using information from your research in an ethical way.

18.5.1 Tell me

The deconstruct-reconstruct method is part of the questioning and researching skill in HASS. At Year 8 level, you will learn how to avoid plagiarising another person's work by making careful notes from sources of information.

Copying another person's work without acknowledging the author is plagiarism, whether it is copied from the student sitting next to you in class or from an article you found on the internet. For many students, plagiarism occurs simply because they do not know how to read information and then use it appropriately in their own work. The deconstruct-reconstruct method teaches you how to use another person's work appropriately.

FIGURE 1 Copying someone else's work without acknowledging the author is plagiarism.



18.5.2 Show me

The deconstruct-reconstruct method is a way to use existing information to create original work. This academic technique helps you better understand information and allows you to organise your thoughts more clearly. By implementing this strategy, you will create unique pieces of writing that still have the same meaning as the articles and books you have read in your research.

Step 1

You should first read the entire source from beginning to end. It might be tempting, but for this first readthrough do not highlight or take notes You want to simply read and take in the meaning of the author's work.

Step 2

When you have read the information once, the second step is to re-read it. The more times you watch a movie, the better you can see the elements that the director wants you to see. Similarly, the more times you read a source, the better you can see the elements that the author wants you to see. When re-reading a source, you should use a table like the one shown below to help you collect information and organise your own thoughts.

You should divide your table into two columns: 'quotes/facts' and 'notes'. In the 'quotes/facts' column, write only factual or statistical information. The 'notes' column is for any ideas and questions that you might have after reading the quote or fact. You can write this section in dot points or full sentences — whatever makes sense to you. You do not necessarily need to comment on each quote or fact you record; similarly, you may write notes that do not relate to a specific quote. Completing this section is crucial because these notes will form the basis of your writing.

Quotes/facts	Notes
• Factual information • Direct quotes from authors or other people • Statistics	• Ideas and questions you might think of while reading the source • Dot points and/or whole sentences

Let us use one of the paragraphs about Hinduism from your textbook to practise the deconstruct-reconstruct method.

FIGURE 2 *Humanities and Social Sciences for Western Australia* 8, 2nd Edn, Darlington et al., John Wiley & Sons, Milton 2020. (Image: Sri Venkateswara Temple, Helensburgh, NSW.)

Hinduism

Hinduism is the oldest major religion in the world and has been practised for more than 5000 years. Hinduism in Australia, however, only began in the mid-nineteenth century. Although there is evidence of Hindu crews trading with the First Fleet, the first major period of Hindu immigration occurred well after the establishment of the Australian colonies. Hindu immigrants undertook several roles in early Australian society — as labourers, camel drivers, domestic staff and merchants. By 1911, there were over 1000 people in Australia who were affiliated with the Hindu faith. However, as with Islam, the growth of Hinduism in Australia was negatively affected by the White Australia policy. Today, Hinduism is a popular religion especially among Indian, Sri Lanka, Fijian and South African immigrants. According to the 2016 Australian census, Hindu practitioners accounted for 1.9 per cent of the population.



This is what your notes might look like:

Quotes/facts	Notes
• Hinduism is more than 5000 years old. • It began in Australia in the middle of the nineteenth century.	• Hinduism was the world's first religion. • Where did Hinduism begin? • How old are the other religions mentioned in this section?
• By 1911, there were more than 1000 Hindus in Australia.	• Australia had only a small Hindu population at the start of the twentieth century. • Which state had the biggest population? • Did they feel isolated in this small community?
• Hindu immigrants undertook several roles in early Australian society.	• Hindu immigrants had a number of different jobs in colonial Australia, many based on the environmental conditions of their home countries.
• In 2016, 1.9 per cent of all Australians practised Hinduism.	• How many people is this in total numbers? • What factors have helped Hinduism grow so much in recent years? • How does this growth rate compare to other religions?

Step 3

When you have a table of notes from the information, put away the book, close the website page and rewrite what you have just read. The best way to do this is by using only the table that you created in **step 2**. The notes column should contain your own interpretation of what the author has said, and the quotes/facts column will provide the evidence you need to support your arguments and assumptions.

The paragraph below has been written using the information summarised in the practice table. Extra research has also been completed to answer some of the questions written in the notes column.

> Some of the world's religions have been around for 5000 years. One of these long-standing religions is Hinduism. Although Hinduism is such an old religion, it began in Australia only during the mid-nineteenth century. Historically, Hindu communities have been small in size, with only about 1000 Australians identifying themselves as Hindu in 1911. Hindu immigrants had a number of different jobs in colonial Australia, many based on the environmental conditions of their home countries. At the most recent Australian census (2016), the total of Hindu practitioners was 440 300. This figure shows how much the religion has developed in Australia.

As you can see, the *meaning* of the paragraph created by the deconstruct-reconstruct method and the one upon which it is based is exactly the same. Both paragraphs discuss the early history of Hinduism in Australia, and both paragraphs use similar statistical information to support this discussion. However, because the deconstruct-reconstruct method has been used, the written text itself is completely different. The author has synthesised information and created an original piece of writing.

18.5.3 Let me do it

18.5 ACTIVITY

Practise using the deconstruct-reconstruct method by choosing any paragraph from this resource and applying the three steps of the process.

To do this, complete the step-by-step worksheet from the Resources panel.



LESSON
18.6 SkillBuilder: Developing argument paragraphs

LEARNING INTENTION

By the end of this lesson you will be able to present a clear point of view about a topic using two well-constructed argument paragraphs.

18.6.1 Tell me

Writing argument paragraphs is part of the communicating and reflecting skill in HASS. In Year 7, you practised using the TEEL structure in your argument paragraphs. In Year 8, you will build your skills in presenting your argument in a straightforward way, and using your arguments together in a longer piece of writing, such as an essay.

Many times in your academic career at school and beyond, you will be asked to write responses to questions that need several paragraphs. An effective essay or extended response has several characteristics.

- It clearly explains the background of an issue.
- It contains strong evidence and multiple examples.
- It discusses the positives and negatives of an issue.

This final characteristic is best demonstrated through argument paragraphs. An argument paragraph is a section of an essay that presents a point of view.

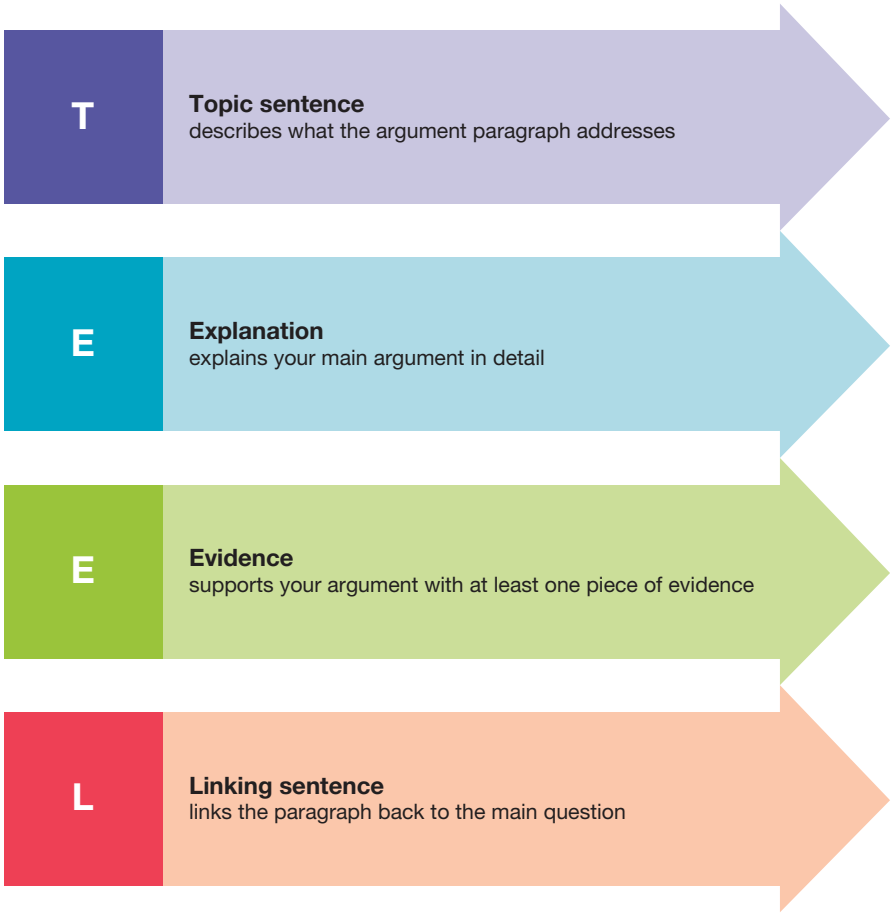
18.6.2 Show me

Imagine your teacher asks you to write two paragraphs in response to the following statement: 'The Aboriginal flag should be the only national flag of Australia'.



Step 1

As you learnt in Year 7, an argument paragraph has the following structure:



The first step in writing your paragraph is to collect your information: your key arguments, the reasons why you believe each argument is true or important, and the evidence that supports each argument. One way to make sure you have all the information you need to to set it out in a table to help you plan.

For this topic, 'The Aboriginal flag should be the only national flag of Australia', you might include these two key arguments:

T	What is the argument I am making in this paragraph?	National flags are powerful symbols.
E	Why do I believe this argument is true or important?	Flags are used as a representation of a country and its people internationally, so they should be a symbol of the people and the country.
E	What evidence can I use to back up my argument?	The symbolism of the Aboriginal flag and why it represents all of Australia
L	How does this link to the main topic?	Because the symbol is powerful, we should have a flag that really reflects Australia

T	What is the argument I am making in this paragraph?	We are no longer ruled by Britain.
E	Why do I believe this argument is true or important?	The current flag was designed a long time ago, when the influences of Britain were much greater and does not represent Australia today.
E	What evidence can I use to back up my argument?	It includes the symbols of place country – the Union Jack.
L	How does this link to the main topic?	Australia's flag should represent modern Australia, not the past.

Step 2

Draft both of your paragraphs using the TEEL planning structure, paying close attention to how each part of the paragraph works together. Your paragraph should not read like a list of your four TEEL sections, but should flow smoothly. One way to do this is to think about the transitions between your sentences.

Transition phrases (groups of words that show you are moving from one thing to the next) and conjunctions (connecting words between parts of a sentence that show their relationship) will help you with the smooth movement from one part of your paragraph to the next.

Simple transition phrases you could use include:

- This is supported by ...
- This is demonstrated by ... — For this reason ...
- The most significant reason this should be the case is …
- The evidence supporting this includes ...

The more experience you have writing, the more subtle (or more fluent to read) your transitions will become.

Step 3

Because you have been asked to write two paragraphs, the final step is to make sure you have a smooth shift from the first to the second paragraph. This helps to make your writing easier to read and makes your argument clearer.

To decide the best way to do this, look at the question you have been asked for clues.

In this example, you have been asked to write two paragraphs explaining your reasons for why the Aboriginal flag should be the national flag of Australia. In this case, start both paragraphs with a phrase that shows you are introducing a new idea related to that topic. For example:

- One reason why we should use the Aboriginal flag as our national flag is…
- The most important reason we should change our flag is…
- Changing the flag would also be an important way to show…

Try not to repeat the same phrase or structure to start each of your paragraphs; variety is what will make your writing easier and more interesting to read.

Your final response might be:

One significant reason why we should use the Aboriginal flag as our national flag is that flags are the simplest and most powerful representations of a country and its people. They commonly contain symbols of culture, values and history. Because Aboriginal and Torres Strait Islander peoples are the true owners of this land, it should be their culture, their values and their history that are represented in Australia's national flag. The background of the Aboriginal flag is divided horizontally into a black half and a red half. The black section represents the Aboriginal and Torres Strait Islander peoples of Australia and the red section represents the connection Aboriginal and Torres Strait Islander peoples have to the land. The middle of the flag is a yellow disc that represents the provider of life: the sun. The Aboriginal flag reflects much about the Aboriginal people, and thus Australia itself. For this reason, the Aboriginal flag should be the only national flag used in Australia.

To show respect for the traditional owners of this land, we should not be using a national flag that includes symbols of Britain. The current flag was designed a long time ago when the influences of Britain were much greater and does not represent Australia today. The British symbols also represent the taking of land, culture and language from traditional peoples of Australia, and this should not represent Australia today. The Union Jack on the flag is a reminder of these awful events in our past. Australia's flag should represent modern Australia, not the past. Changing it will show greater respect for Aboriginal and Torres Strait Islander cultures.

18.6.2 Let me do it

18.6 ACTIVITY

Below are some essay topics that you can use to form the basis of your argument topics. To do this complete a step-by-step worksheet from the Resources panel.

Use the information and tips in this SkillBuilder to practise writing your own argument paragraphs. Be sure to use the TEEL structure — it will help you logically organise your thoughts and arguments.

You will need to do some research before writing your practice paragraphs.

1. Australian identity: no such thing exists.
2. It is not important for a country to have a national identity.
3. The Aboriginal flag should be the only official flag of Australia.
4. Religion and government should remain separated.
5. It is impossible for people from different backgrounds to share common values.
6. New migrants should abandon their traditions and customs and adopt an Australian way of life.
7. New migrants should not be allowed to speak their native language after they arrive in Australia.



LESSON
18.7 SkillBuilder: Delivering an oral presentation

LEARNING INTENTION

By the end of this lesson you will be able to present a short, structured speech or presentation to a specific audience for a specific purpose.

18.7.2 Tell me

A successful oral presentation starts before a single word has been spoken, with these three stages.

- *Preparation* — You must research and plan your speech properly. Being organised and prepared will give you confidence in yourself and in your subject material.
- *Proper use of visual aids* — Are you going to use PowerPoint, Keynote or any other visual aids? If so, you need to consider how to use these tools properly. Avoid overloading your audience with a cluttered combination of visual and audio information.
- *Delivery* — The final key to a successful presentation is the delivery. Sustained eye contact and a confident, well-projected voice will help you deliver your intended message.

FIGURE 1 Preparation and delivery are key elements of a successful presentation.



18.7.3 Show me

Step 1

The first step in preparing your oral presentation is planning what you will say. Preparation is key to presenting your ideas well to an audience. This is especially true if you are nervous about public speaking.

Use the following table to help you plan the elements of your presentation.

TABLE 1 Preparing for your presentation

Purpose of presentation	To explain how to deliver successful oral presentations
Key message	That through proper practice and planning, you can overcome your potential fear of public speaking
Secondary message	Explain the elements of successful oral presentations: • preparation — research and planning • proper use of visual aids • delivery — sustained eye contact and confident delivery of the speech.

Step 2

Think about the strategies you could use to make sure your audience remembers and understands you message. Visual information can add to your presentation, but if used incorrectly, it can decrease the effectiveness and clarity of your message.

Make sure that any visual aids serve a clear purpose. Do not commit any of the mistakes shown in the **How not to use PowerPoint** weblink in the Resources panel.

FIGURE 2 Speaking in public can be daunting, but try to connect with your audience even if you are feeling nervous.



Step 3

The effectiveness of your speech often relates to the connection you make with your audience, so the third step is to practice.

Confident eye contact requires more than simply looking up from your notes every now and then. You need to make and hold eye contact with members of your audience. This will only be possible if you have practised your speech often and know the content extremely well. Sustained eye contact will also improve your delivery of the speech itself. Remember not to rush your speech, and be sure to explain your points clearly and carefully.

18.7.3 Let me do it

Complete the following activity to practise this skill.

18.7 ACTIVITY

Investigate the national identity of a nearby Asian country. Working either individually or in pairs, you will need to deliver a five-minute oral presentation in which you discuss your chosen country and how its national identity is displayed. You could present either in person to your class, or by video.

Draw up a table (similar to **TABLE 1**) to help you prepare and plan your speech. Then use the procedure discussed in this SkillBuilder to ensure that your presentation is successful. You can also complete a step-by-step worksheet from the Resources panel to help you with this task.

on Resources

Weblink How not to use PowerPoint

LESSON
18.8 SkillBuilder: Writing and conducting a survey

LEARNING INTENTION

By the end of this lesson you will be able to construct a simple survey to collect information about a specific issue or research question.

Collecting information through a survey is part of the questioning and researching skill in HASS. In Year 8, you will extend the ways you research by collecting data and information yourself, as well as using information that has already been published.

18.8.1 Tell me

A survey is the process of collecting data for the purpose of analysing an issue. It consists of putting a set of questions to a sample group of people. For example, a political party might conduct a survey to find out whether citizens are satisfied with the party's policies.

Surveys are an efficient way of collecting information from a large number of people. The questions can range widely to reveal people's attitudes, values, opinions and beliefs on political or legal issues.

A good survey:

- has a clear written introduction
- has simple questions early on
- places more sensitive personal questions towards the end
- leaves enough room for all the questions to be answered
- is of reasonable length
- is well presented
- is clearly analysed once responses are collected.

FIGURE 1 outlines more tips on creating a good survey.

FIGURE 1 Survey tips

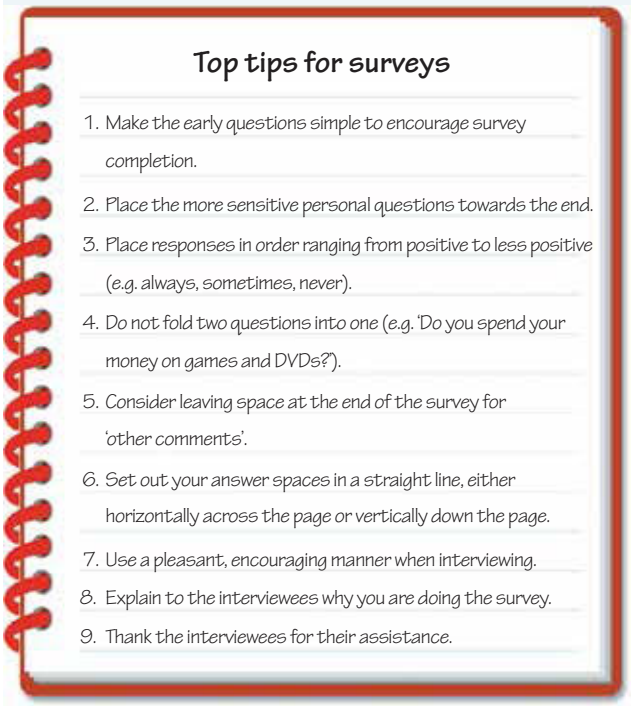


FIGURE 2 Personal interviews may be conducted in a variety of places, such as at shopping centres or outside theatres. Personal interviews usually cost more to conduct than other survey methods.



18.8.2 Show me

Step 1

Decide what you want to learn from your survey. You need to clearly decide the goals of your survey beforehand, otherwise your survey results will be unclear.

Step 2

Decide whom you want to survey. Will your target group include both young people and adults, or just young people? How many people will you survey? Generally, the more people you survey, the more reliable your results will be.

Step 3

Decide what method you will use to collect the data. Consider factors such as cost, speed and whether sensitive information is involved. Survey methods include:

- personal interviews
- telephone survey
- mail survey
- email survey
- internet/intranet webpage survey.

Online formats such as Survey Monkey and Google Forms are a useful method of conducting surveys online.

Step 4

Design your survey. Start with a friendly introduction to encourage people to complete the survey. Work out your questions. There are two main types of survey questions.

- Open questions allow the respondent to record their thoughts about an issue. Look at the examples provided in the **FIGURE 3** sample survey for ideas.
- Closed questions ask the respondent to select an answer from a range of options; for example, yes or no.

Try to keep your survey short and your questions simple. Make sure the layout is uncomplicated and easy to follow.

FIGURE 3 Examples of different types of questions

<table>
<tr><th>Question type</th><th>Example</th></tr>
<tr><td>RATING SCALE</td><td>How would you rate the performance of our courts? Please circle one response.

Excellent Good Fair Poor</td></tr>
<tr><td>AGREEMENT SCALE</td><td>How much do you agree with the following statements? Please tick one response.

<table>
<tr><th></th><th>Strongly agree</th><th>Agree</th><th>Disagree</th><th>Strongly disagree</th></tr>
<tr><td>The courts treat everyone fairly.</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Australia's judges are independent.</td><td></td><td></td><td></td><td></td></tr>
</table>
</td></tr>
<tr><td>MULTIPLE CHOICE</td><td>What is your age? Please circle one response.

Age: 12–14 15–16 17–18 Over 18</td></tr>
<tr><td>OPEN–ENDED</td><td>Why do we allow people to appeal court decisions?

. . . . . .
. . . . . .
. . . . . .
. . . . . .
. . . . . .</td></tr>
</table>

TIPS FOR CREATING CLOSED QUESTIONS

Closed questions that ask respondents to rate something against a scale should have an even number of options for such a scale. This is because people often go for the easy option and pick the middle number. An even number of possible ratings (e.g. 1–6, instead of 1–5) means than respondents can't just pick the middle 'neutral' number.

Step 5

Conduct a small trial of your survey to make sure the questions are clear and will achieve your goals. Make any necessary changes based on feedback from the trial.

Step 6

Conduct your survey and collate the results. These can then be analysed for patterns or anything unusual. When you analyse the results, consider working out percentages. For example, the females aged 12–16 surveyed spend 10 per cent of their money on computer games, while the males aged 12–16 spend 25 per cent.

18.8.3 Let me do it

Complete the following activity to practise your skills.

18.8 ACTIVITY

In a small group, design and conduct a survey. It is to be a paper-based survey carried out by personal interview. Note that paper surveys should allow enough room for interviewees to write their answers. (If it is difficult to meet in person, you can plan the survey via video chat and create a simple online survey.)

In your group, select one of the following topics for your survey:

- Australian cultural identity
- An Australian republic
- Recognition of Aboriginal Australians in the Constitution
- Freedom of speech

You can also complete a step-by-step worksheet from the Resources panel to help you with this task.



LESSON
18.9 SkillBuilder: Writing a submission

LEARNING INTENTION

By the end of this lesson you will be able to write a structured submission to an organisation or government body that clearly identifies a problem and suggests what action should be taken to resolve the problem.

18.9.1 Tell me

A formal submission is a written communication (letter or email) to an organisation or government body that requests that a specific action takes place, or that expresses an opinion on an issue. Submissions from the public are often called for by parliamentary committees investigating community issues, or current bills going through parliament. Any Australian citizen or resident may write a formal submission to government. Formal submissions are also used to request permission from government agencies, for example, permission to hold a community event. You practiced this skill in Year 7, when you practised writing argument paragraphs; in Year 8 you will refine your process.

FIGURE 1 There can be hundreds or thousands of communications sent to government departments, so it's important to know how to ensure yours is seriously considered.



A submission is similar to an essay in that it should have a clear structure and developed ideas, but it is different because it often asks for the recipient to take action, and may be more personal (often written in the first person).

The purpose of learning how to write a submission is to apply written communication skills in 'real-world' scenarios, and to enable you to be an active participant within our democratic society.

18.9.2 Show me

Your submission may be one of hundreds of letters sent to that government department or parliamentary committee, therefore it is important that is it clear and concise (short).

Step 1

Identify the specific issue/s you wish to have addressed and why they are a problem. An example of an issue that someone might want addressed is:

Hyun's mother slipped down some steps at a council-run swimming pool and bruised her hip. Hyun has also seen several other people trip or slip on the same step.

Specific issue: poor safety at the local pool means people are being injured

Step 2

Research or investigate the issue to clearly identify specific problems that need addressing, and possible solutions that may solve those problems.

Hyun investigated:

- Are the steps broken? No.
- Is the floor slippery and wet? Yes.
  - Maybe the floor needs more matting at the top of the stairs to soak up water?
- Do the steps have clear anti-slip flooring or grip strips? Yes, but it has come off in some places.
  - Needs replacing/fixing
- Are there any safety measures such as warning signs? No.
  - Needs a warning sign that stairs may be slippery
- Specific problems and potential solutions:
  - The stairs are often wet from people who have just been swimming.
  - The anti-slip flooring strips are not effective and need fixing.
  - There are no warning signs and there should be.

Step 3

Research and identify the people or organisations that have responsibility for the issue (or may have influence in addressing the issue). Monitor public information channels to find out if there are opportunities for public submissions, such as Parliamentary Committees and Inquiries or complaints to council.

DISCUSS

Review the information provided by the City of Perth regarding how to submit a petition or submission (see the weblinks in the Resources panel). Discuss the requirements for making a petition. Do they give everyone in the community an equal opportunity to request action? Investigate the council rules where you live. Do they have similar requirements? As someone who is under 18 in the City of Perth, you are not eligible to vote, which means you may not be eligible to petition or make a submission to your council. What is your view of this? How else could you make yourself heard by your local representatives?

Hyun wasn't sure which level of government was responsible for the pool, so he searched online to find out that it was maintained by his local government (council). He rang the council and discovered the right person to address his submission to was the Ms Tan, the Council's properties manager.

Step 4

Once you have identified your issue and specific points, and researched who your submission should be addressed to, you need to write your submission. Remember that you might have to write several drafts and edit your final version to create the best submission you can.

The following tips are a useful guide for writing your submission:

- clearly address the issue (or terms of reference for a parliamentary committee)
- stay relevant and highlight your own perspective
- begin with a short introduction about yourself or the organisation you represent
- emphasise the key points so that they are clear
- outline how problems can be addressed
- only include documents that directly relate to your key points
- only include information you would be happy to see published on the internet (if writing to a parliamentary committee).

Hyun could write the following submission:

Dear Ms Tan,

I write to express concern with the safety of the exit stairs by the north gate of Low-Water Public Swimming Pool.

I live a few blocks from the pool and swim there regularly with my family. Recently my mother fell down the north gate stairs and injured her hip. I have also seen other adults and small children slip at a similar point of the stairs. While I understand that any staircase near a swimming pool will be likely to get wet, and that it is our responsibility to move around the pool safely, the stairs do require some maintenance and better safety warnings. Primarily, there are three problems that make the stairs unsafe:

1. The anti-slip strips that had been applied to the stairs have come loose in some places or have worn away.
2. There is no matting at the top of the stairs, so water runs from people's legs and feet down the stairs making them wet.
3. There is no warning sign that the stairs might be slippery.

The stairs could be made much safer if each of these problems were fixed. I have included photographs of the stairs so you can see the issues I have raised. I look forward to hearing from you with regards to this matter.

Kind regards,

Hyun-Jin Park

FIGURE 2 The stairs outside near the pool get especially wet when the pool is busy.



FIGURE 3 Loose and worn-out grips and warning tapes



Step 5

When your submission has been written and edited, you need to send it.

Members of parliament and local councils generally have websites and social media accounts that provide contact details. These details usually include email and postal addresses.

18.9.3 Let me do it

Practice writing a formal submission by selecting one of the following issues, or choosing an issue that is important to you, and working through the steps. If it is an issue that genuinely concerns you, you may choose to send the submission to the relevant organisation.

Complete the following activity to practice your skills.

18.9 ACTIVITY

Write a submission to ask a local or state government body about one of the following issues. You can also complete a step-by-step worksheet from the Resources panel to help you with this task.

Examples of different levels of issue:

That your local government:
- fixes a specific intersection or section of road that is dangerous
- changes or fixes something in a local park
- changes their policy about an issue that affects you or your family, such as waste removal or pet registration.

That the state government:
- relaxes the laws about wearing bike helmets on public roads and paths
- makes public transport to regional areas more affordable.

on Resources

Weblinks
Making a submission (Parliament of NSW)
Making a submission to a Committee (WA parliament)
Making a submission to a Senate Committee (Australian Parliament House)
Petition to Council or a Committee submission

19 Australia's government and democracy

LESSON SEQUENCE

19.1 Overview 627
19.2 How do Australians participate in our democracy? 628
19.3 How do we form a government? 632
19.4 How is opinion shaped? 638
19.5 INQUIRY: What is the role of digital media in Australian politics? 643
19.6 Review 646



LESSON
19.1 Overview

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Answer questions and check results

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How can active and informed citizenship be achieved in Australia, and what role do the media, social media, political parties and interest groups play in shaping our decisions?

In Australia, our citizens participate in a democracy. This includes being able to vote in elections, contact local representatives from the government, join political parties and stand as an independent politician.

We expect our elected representatives in Parliament to reflect our values and represent us honestly. Through our voting systems and democratic processes, we also have the right to challenge, question, and take direct action against issues we do not agree with.

Active and informed citizenship means knowing why and how the media, social media, political parties and other interest groups can shape and influence our decisions, and how to make informed choices.



on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10776)

Video eLesson Australia's government and democracy (eles-6036)

LESSON
19.2 How do Australians participate in our democracy?

LEARNING INTENTION

By the end of this lesson you should be able to explain how young people can raise, and take action against, issues of concern in Australia.

TUNE IN

The right to assemble peacefully includes protests and demonstrations and applies to people meeting privately or publicly.

1. Have you ever attended or witnessed a protest, march, or other kind of demonstration? What was the issue?
2. Look at **FIGURE 1**. What do you think is the purpose of this demonstration? In your answer, consider both what the people are protesting *against* and *for*.
3. Brainstorm or list any current issues in society you think that young people should be challenging.

FIGURE 1 Students protesting in Sydney



19.2.1 The right to disagree

Not everyone will agree with actions taken by our governments. In a **democracy** — where we all have freedom of conscience, freedom of speech, freedom of association and freedom of assembly — we have the **right** to express that disagreement. When a person (or group of people) expresses that disagreement publicly, it is known as dissent. In a democratic country like Australia, the right to dissent is one of our basic rights.

democracy a form of government in which the people determine how they will be governed

right an entitlement to be treated in a particular way. A legal right is a right that can be enforced by law.

19.2.2 Expressing dissent

Expressing dissent is one of the ways in which we can participate in a democratic society. While we are required to obey the law, we are not required to blindly follow whatever a government tells us. Every individual is free to undertake a range of activities in an attempt to have a particular law changed — for example, to organise and participate in a demonstration or public rally, or to sign a **petition** supporting a change in the law. (Details of such activities are discussed in section 19.3.3.) Participation in a rally or protest march allows many people who disagree with particular government policies to express their point of view. Such protests are also aimed at changing those policies and convincing other undecided citizens to support their cause.

petition a formal request for change signed by many people

19.2.3 Identifying issues of concern

Because the right to dissent is a basic democratic right, all young people in Australia are entitled to challenge issues of concern. But how do you identify an issue of concern? Raising political issues may involve challenging a law which you believe is unfair or forces people to act against core values, human rights, or basic dignity. It may also involve challenging policies and practices which seem to be embedded in society, reflecting how society's values shift over time. To identify a genuine issue of concern, you should reflect on the policies, practices, laws and norms of society to see if there are any ideas which make you feel uncomfortable, silenced, or even oppressed.

19.2.4 CASE STUDY: Student climate strikes

School Strike 4 Climate is a global movement of students who demonstrate and protest against policies which promote fossil fuels and industries which damage the environment. The movement gained traction across the world in 2018, when Greta Thunberg — then a pupil in a Swedish school — staged a protest outside the Swedish parliament building.

A global strike followed on 15 March 2019, which included over a million strikers across 125 countries, including Australia. SS4C Australia now operates as a student-led network which is demanding:

- Net Zero by 2030 which means no new coal, oil or gas projects including the Adani mine
- 100 per cent renewable energy generations and exports by 2030
- Fund a transition and job creation for all fossil-fuel workers and their communities.

Is it legal?

In media coverage of the climate strikes, a number of politicians claimed that the students were acting illegally. New South Wales education minister Rob Stokes informed a news reporter that, 'You simply can't strike if you don't have a job … the law is very clear, this is a notified school day, kids should be at school.'

However, statements like this were countered by Greta Thunberg and organisations like the Australian Youth Climate Coalition. The right to strike is broadly considered in democratic countries to be protected, protecting the social, health and economic interests of workers. Australian Lawyers for Human Rights supported the strikes, recognising the young people's rights to peaceful assembly and freedom of speech.

Is it effective?

SS4C Australia continues to operate with planned strikes, sit-ins and social media events. According to a study from the University of Sydney, 'Students learn through their participation in striking, in contrast to the often insufficient climate change education taught in schools.'

On 15 March 2022, Federal Minister Sussan Ley successfully appealed against a 2021 Federal Court decision that the minister has a duty of care to young people when assessing fossil fuel developments. As bushfires and floods continue to impact young people's lives in Australia, many young people see it as their responsibility to keep the issue of the climate crisis on the agenda.

19.2.5 Direct action

Most of the time, people are prepared to participate in Australia's democracy by exercising their right to vote at state, federal and local government elections. Circumstances arise at other times when many feel that an issue requires immediate action, or they believe that the government is making the wrong decisions. In these circumstances, people will often take direct action to influence government actions. Direct action usually consists of some form of public demonstration, and can sometimes involve citizens deliberately breaking the law to bring their views to public attention.

19.2 SKILL ACTIVITY: Questioning and researching

An important part of being an active citizen is the ability to ask the right kinds of questions. Sometimes, questioning can be used to gather information or clarify your understanding. At other times, questioning is an important tool for probing issues, critical thinking, and challenging people's assumptions.

For each of the tiers below, **write** your own question about government and democracy.

Question type	Useful verbs	Example question
Knowledge and comprehension	Tell List Describe Find State Name Explain	Can you explain the term 'freedom to assemble peacefully'?
Application	Show Illustrate Examine Solve	Illustrate your understanding of the democratic process by examining a real or fictional protest.
Analysis	Analyse Compare Contrast Investigate Explore	What is the relationship between democracy and active citizenship?
Synthesising and evaluating	Create Invent Construct Design Imagine Justify Argue Discuss	Justify the position of a youth advocacy group of your choice on a current Australian issue.

19.2 Exercise

learnon

19.2 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 3, 4	2, 5, 8	6, 7, 9, 10

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Check your understanding

1. Complete the following passage by **selecting** the correct words from the options provided.
   As showing **attitude** / **dissent** / **rebellion** / **obedience** is an essential part of democratic society, it is **reasonable** / **unreasonable** that some groups and individuals would feel the need to voice their opposition to government policies and decisions.
2. a. **Identify** some of the limits or bounds of law.
   b. **Explain** how they could reasonably be placed on dissent in Australian society.
3. What do we mean by 'direct action' as a form of political activity?
   A. When the government makes a change based on protests
   B. Taking violent action during a protest
   C. Some form of public protest or demonstration of disapproval regarding an issue or government policy
   D. All of the above
4. Some young men opposed to conscription broke the law during the Vietnam War. True or false?
5. **Identify** how the Franklin River protesters defied the law during that campaign.

Apply your understanding

Civic participation and decision-making

6. **Examine** how dissent directed towards government policies or actions can have a positive influence on Australian democracy.
7. In both the anti-conscription campaign during the Vietnam War and the Franklin blockade, people broke the law to achieve their aims. Their campaigns were ultimately successful. Is it appropriate for people to break the law to achieve the changes they want? **Explain** your answer.
8. **Discuss** occasions when it would definitely not be appropriate to break the law.
9. School students in many parts of the world have taken time off school to protest against government inaction on climate change. Should such action take place in school hours or at weekends or after school? **Justify** your answer.
10. The Western Australia Liberal government of Colin Barnett lost the 2017 state election amid protests against the construction of stage 8 of the Roe Highway. As the government was replaced through a democratic election, were violent protests justified? **Explain** your answer.

LESSON
19.3 How do we form a government?

LEARNING INTENTION

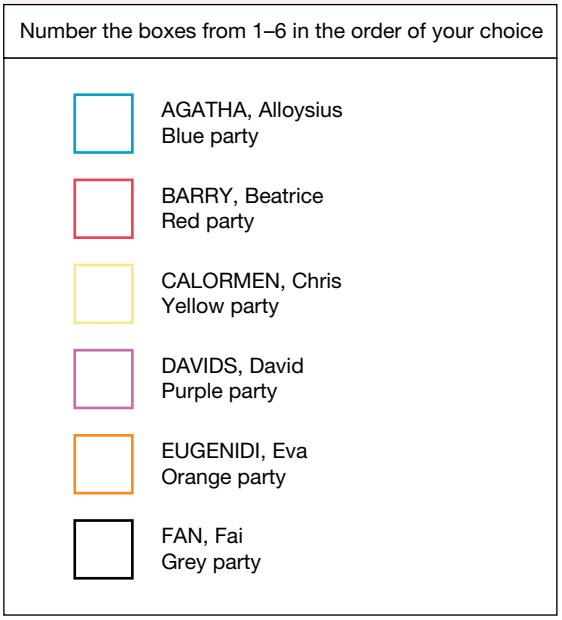
By the end of this lesson you should be able to examine the structure of the Australian government and evaluate different voting systems.

TUNE IN

Australian federal elections use a preferential voting system. This means that voters enter their choices in order of preference, with one being the highest. To make every vote count, voters should use each number only once.

1. Have you ever attended a vote (for example with a parent or carer)? What did you see there?
2. There are many ways to vote incorrectly. Brainstorm ways which you think the voting slip in **FIGURE 1** could be made invalid.
3. Complete the voting slip in a correct manner.

FIGURE 1 An incomplete voting slip



19.3.1 How to have your say

What makes Australia a democracy? Most people would probably say that the right to vote for our government is the answer to that question. While voting in elections is important, it is certainly not the only way of participating in the **democratic** process. There are many other ways in which we can have our voices heard and influence the future of our country.

One of our key rights as Australian citizens is the right to actively take part in democratic processes. We can do this in a number of ways. First, there is our right to vote — a right that can be exercised by all Australian citizens over the age of 18. Then there is our right to freedom of speech, which allows us to express our opinions through a variety of methods. We can write letters to the newspapers, we can phone in to talkback radio, and we can publicise our views on social media using Facebook or Twitter, or even create our own website or blog. In addition, there are opinion polling companies that conduct surveys of ordinary people on all sorts of issues. They then publish the results of these surveys.

democratic supporting democracy, or the system of government where supreme power is vested in the people and exercised directly by them or by their elected representatives under a free electoral system

laws the system of rules that Australia recognises as regulating the actions of its citizens, which it may enforce by the imposition of penalties and sanctions

19.3.2 The electoral system

Our system of government is a democracy. This means it is based on the idea that we elect representatives to make **laws** for us. Because we vote for them, these representatives are expected to make laws that we agree with. If they do not do

that, then we can vote for different representatives at the next election. Those with the right to vote have the opportunity to elect representatives to:

- the Commonwealth Parliament in Canberra
- the state or territory parliament sitting in each capital city
- local councils in the city, town or shire in which the electors live.

Voting is compulsory in Australia, and all Australian citizens aged 18 years or over are legally required to enrol to vote. You can enrol any time after your sixteenth birthday, either online or by filling in a paper form. Go to the **Voting enrolment form** weblink in the Resources panel to view the paperwork you need to complete to register to vote.

Preferential voting and proportional representation

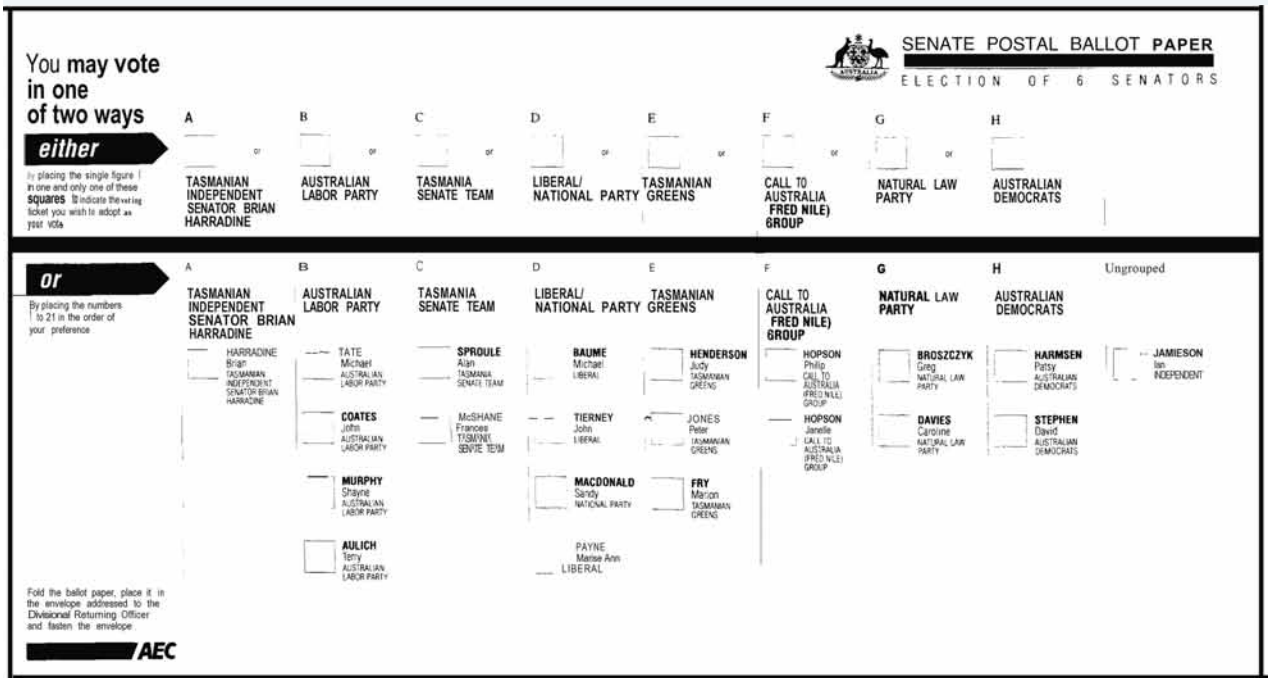
Preferential voting

In preferential voting — like Australian federal elections — voters must nominate candidates in their order of preference from highest to lowest. In full preferential voting, this means numbering every candidate on the voting slip from high to low. In optional preferential voting, voters can just nominate their main preferences without numbering every candidate.

Proportional representation

Senate elections use Proportional Representation. Voters may vote 'above the line' or 'below the line'. Voting above the line requires completing at least six boxes in preferential order. Voting below the line requires at least 12 boxes to be numbered. The order of the boxes on the paper is random.

FIGURE 2 An example of a senate ballot



on Resources

Weblink Voting enrolment form

Practise voting

19.3.3 The structure of government

Members of parliament in the local community

Members of parliament sit in the parliamentary chamber, debating legislation and voting to pass or reject it. However, this is only a small part of their work. As representatives of a particular **electorate**, they have an important role in the local community that is represented by that electorate. In this community role, they can often be approached by ordinary citizens requesting them to take some action and work to make improvements in that community.

Federal parliament sits for only about 18 to 20 weeks per year, so many members of parliament can often spend as much as 30 weeks of each year in their local electorates. It is during this time that a member will be engaged in a variety of electorate activities.

FIGURE 3 Members of parliament often perform official opening ceremonies in their electorates.



electorate an area of Australia that elects one member to parliament

Helping the community

Because each electorate has a similar number of voters, the electorates can vary in geographical size depending on how densely populated they are. This means that an inner-city electorate will be smaller in area than a rural electorate because the population in the country is more thinly spread. For example, the smallest Australian electorate in terms of geographical size is Grayndler, which is in the south-eastern suburbs of Sydney. It has a total area of 32 square kilometres.

The largest in area is Durack, which takes up most of country Western Australia. It covers more than 1.6 million square kilometres. This is approximately 60 per cent of the total area of Western Australia, equivalent to more than 20 per cent of the total landmass of Australia. Its voters are spread out on cattle stations, mining towns and remote First Nations Australian communities. As you can imagine, it is much harder for the member for Durack to maintain contact with the voters than it is for the member for Grayndler. Nevertheless, both members will attempt to perform similar duties in relation to their respective communities.

Every member of parliament maintains an office in his or her electorate. Members representing very large electorates such as Durack will probably have electorate offices in more than one town. Those in large electorates also spend a great deal of time travelling around the electorate. Members are regularly called on to visit schools, sporting clubs and various other community groups. They often have the task of making presentations to individuals and groups, and performing opening ceremonies for new community facilities.

Members also take up issues on behalf of their electorates as a whole. An example would be a local project, such as the construction of a major road or the provision of some other community facility. The local member will often take up the case with the relevant government minister. Local members also campaign to improve community facilities within their electorates, such as hospitals, community health centres, aged care services and childcare services. They also often provide support to local sporting clubs and other community recreational organisations. Most voters would wish to see their local member active supporting their community.

Ultimately, it is the voters in each electorate who judge the performance of their local members of parliament at every election. Members need to maintain strong links with their local communities and to publicly support

the interests of their electorates if they want to be re-elected.

Helping individual voters

When they are in their electorates, members of parliament spend much of their time helping individual voters. They have a small staff in their electorate offices to help them do this. Voters may have problems dealing with Centrelink or some other government department. Or they may be seeking assistance with immigration or taxation issues, or dealing with problems concerning health or education matters.

The member can intervene personally in the issue and may write to the relevant minister or telephone a contact within the government department concerned. Members of parliament are influential people and usually have lots of contacts, including those in community groups as well as in government departments. If a member personally intervenes on behalf of someone in his or her electorate, this will usually get high priority attention from the government department.

FIGURE 4 The divisions of (a) Durack in Western Australia and (b) Grayndler in New South Wales

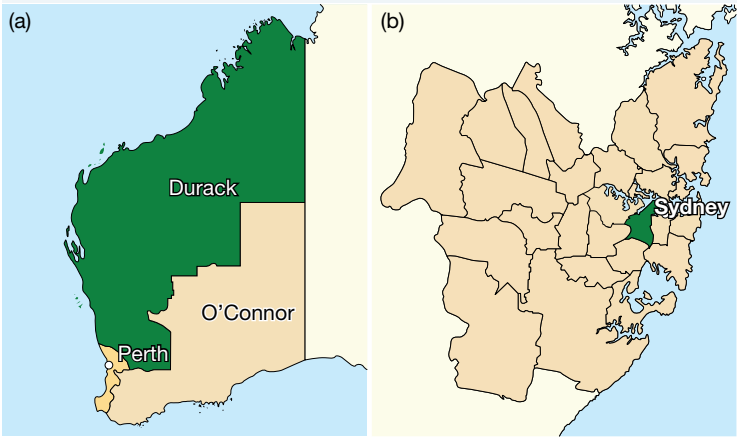


FIGURE 5 A member of parliament can often help individual voters with the help of staff in their electorate office.



Providing a direct link to parliament

Voters can sometimes raise issues that have significance beyond the electorate. When several members are approached on a similar issue, this may become a matter for the government to investigate further. In many country areas, farmers have expressed concern about the possible impact of coal seam gas mining on their farms. They are concerned that the extraction of coal seam gas may pollute water supplies and have other serious effects on agricultural land. As a result of citizens raising this issue with their local members, inquiries have been initiated by the Commonwealth Parliament as well as state parliaments in New South Wales, Victoria and Queensland. Some state parliaments have introduced or updated laws to regulate the coal seam gas industry, including Western Australia.

Members of parliament often make themselves available to meet people from their electorate who are visiting Parliament House in Canberra. This often happens when groups of people contact the member's office before travelling to Canberra. Members also regularly meet school groups from their electorates and will take the time to show them around the parliament. There is an education centre in Parliament House where visiting school groups can meet their federal members and learn all about the operation of parliament.

Helping with petitions to the House of Representatives

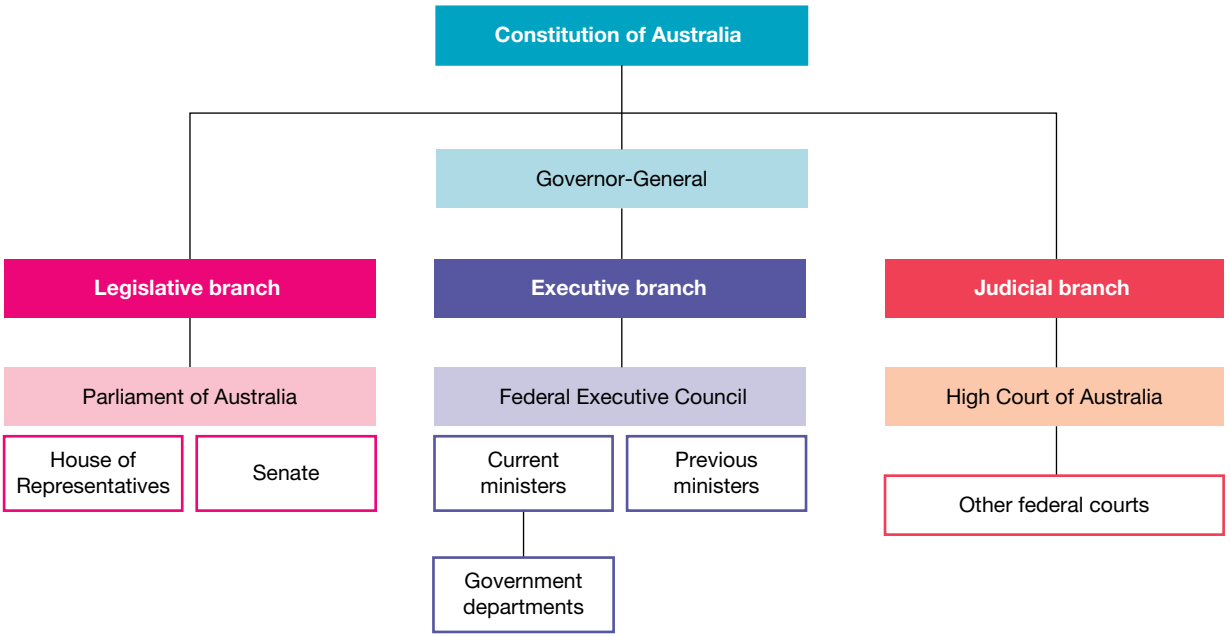
An important way in which voters can bring an issue to the attention of the parliament is to organise a petition. Members of parliament can provide advice on the preparation of petitions to be presented to the House of

Representatives. Members will also make sure the petition goes through the formal processes that are necessary for the petition to be dealt with. The House of Representatives has a Petitions Committee to deal with all petitions to be presented to the lower house. The local member will ensure that the petition is passed on to the Petitions Committee.

int-9030

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FIGURE 6 The structure of Australia's government



19.3.4 How governments are formed and lost

In democratic countries like Australia, governments can be formed and lost in many ways according to the needs, wants and actions of the citizens. There are various factors which impact upon whether a party or coalition of parties have the right to form government.

Parliamentary majority

Parliamentary majority requires a party or coalition (group of parties) to have the support of over 50 per cent of the members in the House of Representatives. If a government has a majority, it can pass bills and carry out policies (see topic 20). Because there are 151 seats in the House of Representatives, a parliamentary majority requires 76 seats (half of the total plus one).

The role of the Opposition

The official opposition is the party or coalition which has the next highest number of seats. If the government loses the confidence of the House of Representatives or the citizens, the Opposition would step into the role of government with its leader as the new Prime Minister. The Shadow Ministry, led by the Leader of the Opposition, is a mirror image of the government Ministry. The purpose of the Opposition is to carefully examine, criticise and challenge the government in power.

Hung parliament

A hung parliament occurs when no party or group has over 50 per cent of the seats in the House of Representatives. This means that no party can pass laws without getting support from independents. During a hung parliament, the two main parties or coalitions will attempt to convince independents to support them so that they can get the 76 seats needed for a majority.

Minority governments and the balance of power

The term **balance of power** refers to the position held by a minor party or coalition if their vote is needed for bills or motions to be passed. This means that the minor party may be needed by the major party to pass bills.

Minority governments rely on the support of other parties in the lower house. If a government can maintain the **confidence** of the lower house, it can stay in power. This means that the minority parties and independents hold the balance of power.

balance of power when no political party holds a clear majority in parliament, smaller parties or independent members can hold the power to influence or block legislation

confidence the level of support that the government has from the parliament, which is necessary for the government to remain in power

19.3 SKILL ACTVITY: Civic participation and decision-making

In this activity you will develop a plan of action to raise an issue and make sure that your voice is heard. You will also need to provide a consultation and feedback process to make sure that everyone involved has an opportunity to respond. This activity can be conducted 'for real' or just as planning up to question 5.

Have your say

Working in a group of up to three people, complete the following activities.

1. **Brainstorm** a variety of issues in the following areas:
   - a. This class
   - b. Your school
   - c. Your local community
   - d. Your national community
   - e. Globally.
2. Choose **one** issue from your brainstorm to focus on. It does not matter at which level; choose the issue you are most passionate about.
3. **Identify the stakeholders:** Who are the people involved in the issue? Consider both those directly impacted by the issue and those who have some power to resolve or change the issue.
4. **Plan** a way to gather information to ensure a range of voices are heard (i.e., not just your opinion). For example you could **create** a survey, petition, or website to collect information.
5. **Decide** who you should communicate your information with: who from your list of stakeholders could use this information to act? Who would benefit from receiving the information?

19.3 Exercise

learnon

19.3 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
2, 3, 4	1, 6	5, 7, 8

These questions are even better in jacPLUS!



- Receive immediate feedback
- Access sample responses
- Track results and progress

Find all this and MORE in jacPLUS

Check your understanding

1. **Define** an electorate.
2. What is the estimated percentage of people aged between 18 and 24 who have not registered to vote?
   - A. 10 per cent
   - B. 20 per cent
   - C. 25 per cent
   - D. 30 per cent

3. How do most opinion polling companies carry out surveys of people's opinions?
   A. Door knocking and asking a series of questions
   B. Online surveys
   C. Phoning people and asking a series of questions
   D. They don't carry out surveys of people's opinions
4. Why do polling companies ask about age and level of income?
   A. To obtain responses from a diverse range of people
   B. To obtain responses from a limited range of people
   C. To obtain responses from a specific range of people
   D. There is no reason why polling companies ask about age and level of income
5. **Explain** why the major newspapers have close relationships with particular polling companies.

Apply your understanding

Communicating

6. **Identify** the particular right that Australians have that makes this country a democracy.
7. **Explain** why the Senate is elected in a different way from the House of Representatives.
8. Members of the Commonwealth Parliament are paid over $200 000 per year. Some people argue that, as they spend less than half the year in Canberra, and only four days a week in Parliament when they are there, they are overpaid.
   Is this a fair assessment of a member's work? Give two reasons to **justify** your opinion.

LESSON
19.4 How is opinion shaped?

LEARNING INTENTION

By the end of this lesson you should be able to examine the different strategies used to influence citizens' choices and the extent to which these influences enhance or undermine democracy

TUNE IN

During political debates like the 2022 Great Debate (**FIGURE 1**) discussions should be centred on national policy, finance and other important national issues. However, because party leaders are also real people, these debates can sometimes become very heated. It is the role of the chairperson to maintain order in a debate.

1. If you were chairing a debate between two party leaders, what rules would you put in place?
2. What are the advantages to a live, televised political debate?
3. What are the disadvantages?

FIGURE 1 Anthony Albanese and Scott Morrison during the 2022 Great Debate



19.4.1 Political debates

The word 'parliament' actually comes from the French *parler*, meaning to speak. Debate and discussion is a vital part of the democratic process.

Political debates are held between the members of opposing political parties: sometimes the leaders. Debates like the 2022 Leader's Debate between Scott Morrison and Anthony Albanese are televised and broadcast nationally, where they try to convince the public to listen to their party's message. Other kinds of political debate include the debates in the House of Representatives when a new bill is proposed.

To 'move a motion' or make a decision in the House of Representatives, the following structure is followed in the debate:

- a Member gives notice (if necessary)
- the Member moves the motion
- another Member seconds the motion (if necessary)
- the Chair proposes the question
- Members debate the question
- (Members may move amendments, which are debated and voted on)
- the Chair puts the question (as amended)
- the House makes its decision.

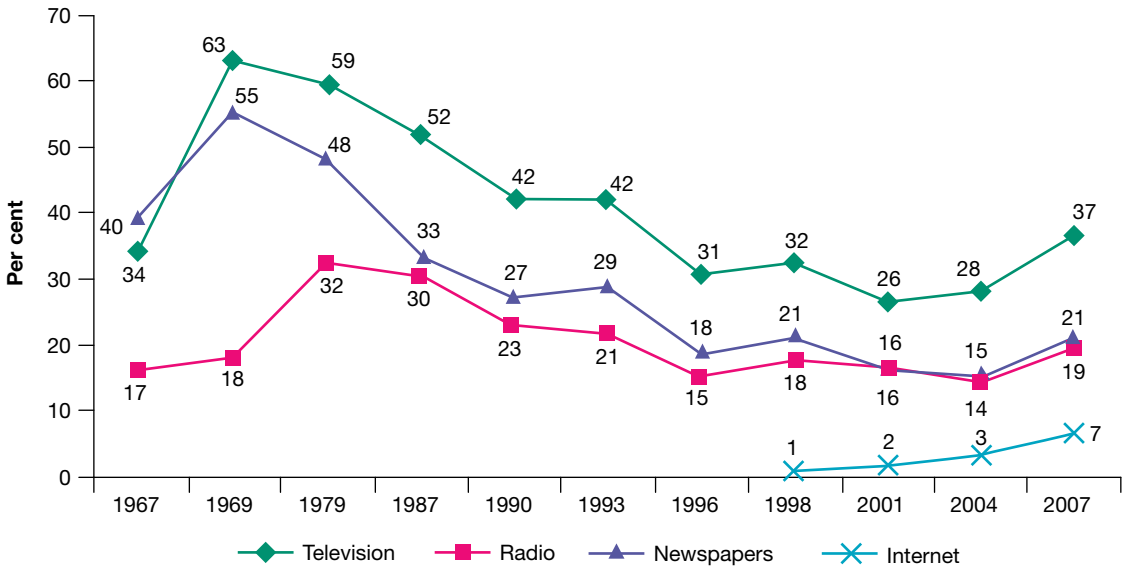
There are also many rules governing what can be said during the debate. These rules include remaining on topic, not using derogatory or insulting language, and not being 'tedious' or repetitive. It is the job of the Chair to enforce order in a debate.

19.4.2 Politics in the media

Traditional media outlets such as radio, television and newspapers offer lots of coverage of important political moments like elections. Because an important part of the democratic process is giving citizens access to politics, it is a good thing that politics get media coverage. However, it is important to note that the media is often *biased*, meaning that the opinions are not neutral.

Public attention towards media coverage of politics changes over time (see **FIGURE 2**). In recent years, the level of engagement in politics has started to increase, but the focus is shifting from traditional media to 'new' media outlets such as blogs and social media on the internet. Consider what the **FIGURE 2** graph might look like if it continued to today.

FIGURE 2 Over time, attention has shifted away from traditional media outlets and towards 'new media' like the internet, blogs and social media.



19.4.3 Politics and social media

The rise of social media has had two main impacts on citizens' electoral decisions. Firstly, the speed of communication has increased. This means that political 'gossip', damaging reports about politicians, interviews and other news stories can be published and spread very quickly.

The second change is the rise of 'fake news'. Because of the rapid nature of social media and internet it is difficult to stop stories from spreading even if they are false.

FIGURE 3 below, shows a recent survey of voter trust in various outlets. As you can see, scientific bodies like CSIRO are very well trusted, but digital news platforms are not trusted by the public.

tlvd-10638

FIGURE 3 A survey of voter trust in various outlets

How much trust do you have in the information you receive from the following institutions?

	Government	Digital platforms (e.g. Facebook)	Traditional news and media	Scientific bodies (e.g. CSRIO)	Business groups and peak bodies
Have a lot of trust	12%	3%	7%	30%	5%
Have some trust	31%	16%	32%	37%	27%
Have little trust	33%	33%	36%	20%	42%
Have no trust at all	18%	42%	18%	6%	16%
Unsure	6%	6%	6%	7%	10%
Have a lot of trust + Have some trust	43%	19%	40%	67%	32%
Have a little + Have no trust	51%	75%	54%	26%	26%

19.4.4 Paying for your vote

There are many ways which governments and political parties can attempt to influence voters' decisions. These include:

- paid advertising on billboards, in traditional media and online
- using political consulting firms and public relations experts to tell members the 'right' things to say to their audience
- paying for focus and interest groups who may have a biased opinion
- launching political campaigns which may include all of the above and target audiences for a set period of time, usually on the run up to an election.

19.4 SKILL ACTIVITY: Analysis, evaluation and interpretation

1. Look at the images below. Based on what you see, what do you believe is the issue being discussed?





2. The top image was taken from an article referring to the dissemination of 'fake news' in the Taiwanese media. The fake news was designed to disrupt the election of a pro same-sex marriage politician. Do you believe you have encountered fake news online? Where, and what, made you believe it was fake?
3. Social media has an important role to play in modern politics. What steps can you take to evaluate a source of information and ensure its credibility?

19.4 Exercise

learnon

19.4 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 5, 6, 7	8, 9, 10

These questions are even better in jacPLUS!



- Receive immediate feedback
- Access sample responses
- Track results and progress

Find all this and MORE in jacPLUS

Check your understanding

1. Which of the following steps is **not** part of the debate process when passing a motion in the House of Representatives?
   - A. The Member moves the motion
   - B. The Chair proposes the question
   - C. Members debate the question
   - D. The party leaders hold a televised debate
2. The public trusts the government more than social media as a source of information. True or false?
3. Which of the following are methods of 'paying for votes' that political parties may use during an election?
   - A. Paid advertising on billboards, in traditional media and online
   - B. Using political consulting firms and public relations experts to tell members the 'right' things to say to their audience
   - C. Paying for focus and interest groups who may have a biased opinion
   - D. All of the above.
4. In your own words, **detail** one reason for the Leaders (Great) Debate.
5. **Compare** the different trust levels in the chart in **FIGURE 3**. Who is the most trusted source, and why do you think that is?

Apply your understanding

Analysis, evaluation and interpretation

6. **Consider** the kinds of advertising you see on social media. What are some of the products or services, and why do you believe you have been targeted with these adverts?
7. **Identify** some of the risks of advertising on social media.
8. Study the data in the **FIGURE 2** graph. Over time, attention has shifted away from traditional media outlets and towards 'new media' like the internet, blogs and social media. What trends can you **identify** in the graph? Write a short paragraph **explaining** your answer and refer to the graph.
9. Imagine you wanted to present a petition to parliament. **Identify** and **explain** three things that you might need to do if you wanted to increase the chances of that petition being successful.
10. Technological developments mean that the opinions of ordinary people can be expressed through online methods such as social media. Does this make the parliamentary system of one member representing everyone in an electorate obsolete in today's world? Could it be replaced with a system where everyone can go online to vote in favour or against proposed legislation?
    Identify two possible strengths and two possible weaknesses of such a system, when compared to our present system.

LESSON
19.5 INQUIRY: What is the role of digital media in Australian politics?

LEARNING INTENTION

By the end of this lesson you should be able to analyse the role of digital media in Australian politics.

In this inquiry you will investigate the role of digital media, including websites and social media, in Australian politics. Refer to **FIGURES 1** and **2** or find two of your own.

Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

FIGURE 1 The main page of the Australian Liberal Party website

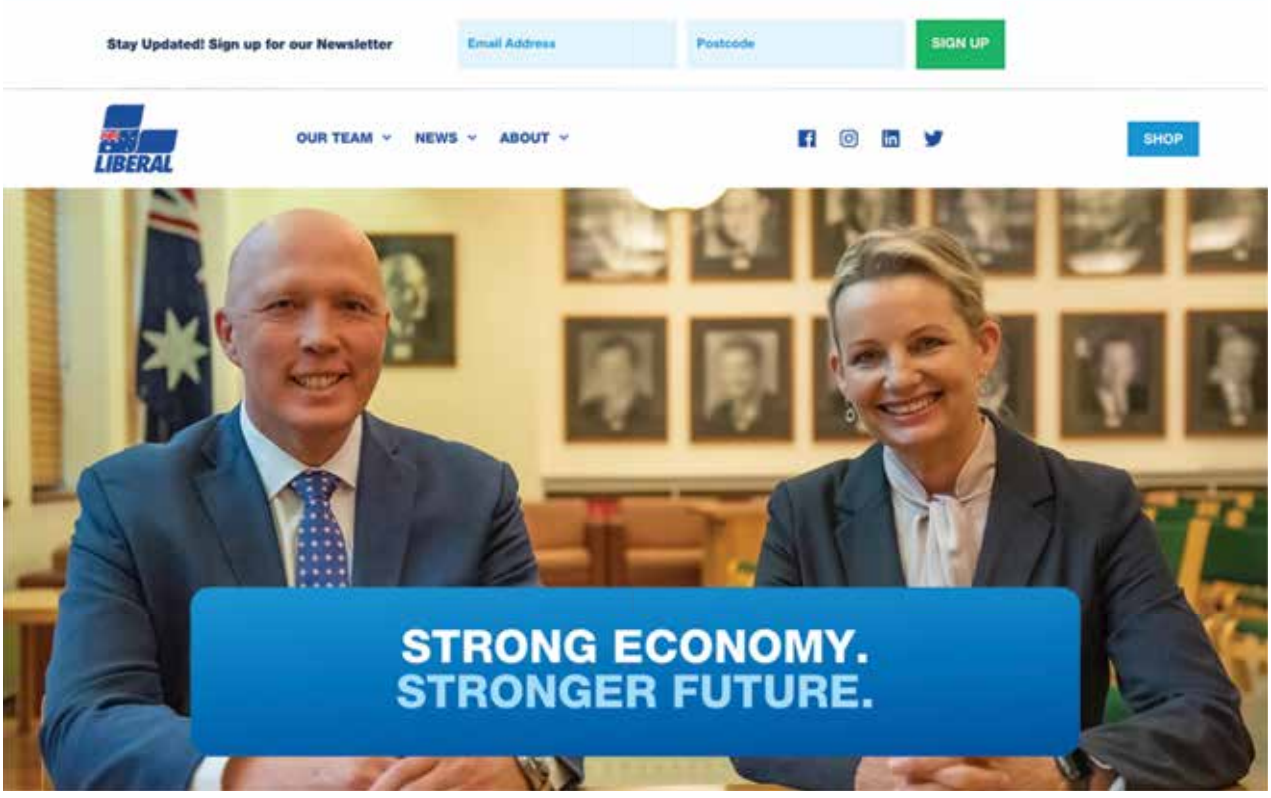


FIGURE 2 The main page of the Australian Labor Party website



Inquiry steps

Discuss the following:

a. What information about the two parties can you gain from **analysing** the main pages of their websites?
b. What would you change about the websites?

Step 1: Questioning and researching

Write your **inquiry question**. What do you know already know about Australian politics and the media? What would you like to know about the role of digital media in politics?

Research your question. Use the **Liberal Party** and **ALP** weblinks in the Resources panel to support your research.

Step 2: Analysis, evaluation and interpretation

Analyse the messages and emotional appeal of these two political parties by interpreting the construction of their media materials, including advertising, websites and other materials. Use the provided model of a poster analysis to guide you.

Step 3: Civic participation and decision-making

Compare the similarities and differences between the two websites using a dot point comparison table, or a Venn diagram. What is the same? What is different? Most importantly: *Why are there differences?*

Step 4: Communicating

Communicate: *What is the answer to your inquiry question?* Present your findings in a format of your choosing. Support your answer with examples from your research, analysis and evaluation. You could also design your own social media page or website for a fictional party of your design to demonstrate your understanding.

Complete your self-assessment using the **Inquiry rubric** or access the 19.5 exercise set to complete it online.



On Resources

Weblinks	Liberal Party ALP
Digital document	Inquiry rubric (doc-39545)

LESSON
19.6 Review

Hey students! Now that it's time to revise this topic, go online to:

Review your results

Watch teacher-led videos

Practise questions with immediate feedback

Find all this and MORE in jacPLUS



19.6.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

19.2 How do Australians participate in our democracy?

- In a democracy, citizens have the right to disagree with those in power.
- There are many lawful ways to express dissent, including protests.
- Protests and petitions can have an impact, such as leading to laws being changed.

19.3 How do we form a government?

- All citizens over the age of 18 have the right to vote in Australian elections, although they need to register to take full advantage of this right.
- Preferential voting means that voters nominate candidates in the order they prefer from highest to lowest.
- Local members are voted in to help their constituents.
- A parliamentary majority requires that a party or group holds over 50 per cent of the seats in the House of Representatives.

19.4 How is opinion shaped?

- The Leaders Debate is a televised event, often around election time.
- Debates are held in the House of Representatives when moving a motion.
- Media use has changed over time, and many people get their political news online even though trust in social media is low.
- There are many ways for parties to try to 'buy' votes.

19.5 INQUIRY: What is the role of digital media in Australian politics?

- Digital media plays a role in influencing how people vote.
- Political parties use their websites and social media to present a certain message.

19.6.2 Key terms

balance of power when no political party holds a clear majority in parliament, smaller parties or independent members can hold the power to influence or block legislation

confidence the level of support that the government has from the parliament, which is necessary for the government to remain in power

democracy a form of government in which the people determine how they will be governed

democratic supporting democracy, or the system of government where supreme power is vested in the people and exercised directly by them or by their elected representatives under a free electoral system

electorate an area of Australia that elects one member to parliament

laws the system of rules that Australia recognises as regulating the actions of its citizens, which it may enforce by the imposition of penalties and sanctions

petition a formal request for change signed by many people

right an entitlement to be treated in a particular way. A legal right is a right that can be enforced by law.

19.6.3 Reflection

Complete the following to reflect on your learning.

Revisit the inquiry question posed in the Overview:

How can active and informed citizenship be achieved in Australia, and what role do the media, social media, political parties and interest groups play in shaping our decisions?

1. Now that you have completed this topic, what is your view on the question? **Discuss** with a partner. Has your learning in this topic changed your view? If so, how?
2. Write a paragraph in response to the inquiry question, outlining your views.

Resources

eWorkbooks Customisable worksheets for this topic (ewbk-10776)
Reflection (ewbk-10778)
Crossword (ewbk-10779)

Interactivity Australia's government and democracy crossword (int-9031)

19.6 Review exercise

Students, these questions are even better in jacPLUS

Receive immediate feedback and access sample responses

Access additional questions

Track your results and progress

Find all this and MORE in jacPLUS



Multiple choice

1. What is democracy?
   - A. Any form of government where laws protect the freedom of speech
   - B. Any form of government with rights protected by a constitution
   - C. Any form of government in which the people determine how they will be governed
   - D. Any form of government with two houses of parliament
2. Which of the following is a lawful form of dissent?
   - A. Protest
   - B. Writing a threatening letter
   - C. Overthrowing a government by force
   - D. A verbal threat or accusation
3. What might a protest achieve?
   - A. A change in laws
   - B. A new law being passed
   - C. Raising public awareness
   - D. All of the above
4. How old must you be to vote in Australia?
   - A. 20
   - B. 17
   - C. 18
   - D. 21
5. What does preferential voting mean?
   - A. Voters vote in preference from lowest to highest
   - B. Voters number their votes from 1–10
   - C. Voters vote in order of preference from highest to lowest
   - D. Voters do not need to number their votes
6. How many votes must be numbered ‘above the line’ on a senate voting slip?
   - A. 6
   - B. 4
   - C. 10
   - D. 12
7. How many votes must be numbered ‘below the line’ on a senate voting slip?
   - A. Fewer than 12
   - B. 12
   - C. More than 12
   - D. At least 12

8. What is the role of the opposition?
   - **A.** To create diversity
   - **B.** To argue with the Government
   - **C.** To carefully examine, criticise and challenge the government in power.
   - **D.** To generate conflict
9. How many seats must a majority government hold?
   - **A.** Over 50 per cent
   - **B.** Fewer than 50 per cent
   - **C.** 80 per cent
   - **D.** 25 per cent
10. Who participates in the Leaders Debate?
   - **A.** The opposition leader
   - **B.** The leader of the government
   - **C.** The leaders of the government and the opposition
   - **D.** All of the leaders from the House of Representatives

Short answer

Communicating

11. **Identify** when might a protest gathering be reasonably restricted by government.
12. Briefly **explain** how each state is represented in the Senate.
13. **Explain** how local members of parliament can assist individuals and community groups.
14. **Suggest** what the purpose is of holding a Leaders (Great) Debate.
15. **Explain** the term 'parliamentary majority'

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20 Where do our laws come from?

LESSON SEQUENCE

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LESSON
20.1 Overview

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Where do our laws come from and why should they be obeyed?

20.1.1 Introduction

What would happen if there were no laws? People would probably do as they pleased. There might be riots, crime and chaos, and it might not be safe to travel anywhere.

Laws are the legal rules that act as guidelines for behaviour. We have laws to protect us and to settle disputes. Laws are also used to give consequences to people who break them. But who actually makes these laws? How are our laws made?

FIGURE 1 Laws are created to discourage wrongful behaviour such as rioting.



on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10780)
Video eLesson What if we had no laws? (eles-2264)

LESSON
20.2 Why do we need laws?

LEARNING INTENTION

By the end of this lesson you should be able to explain the difference between legal and non-legal rules and identify and explain the five characteristics of an effective law.

TUNE IN

It seems that in cartoons, ignorance of the law is an excuse. In the real world however, this is not the case — you can be held accountable, even if you were not aware a law exists.

FIGURE 1 Do you think Plankton's scheme will break any laws in 'Bikini Bottom'?



1. Make a list of five laws of which you are aware.
2. How do you know they are laws?
3. Identify one way that the law has had an influence on your life today.

20.2.1 Legal and non-legal rules

Our lives are governed by a wide range of rules and laws, which provide us with guidelines of how we should behave. However, not all rules are laws.

Non-legal rules

Non-legal rules are made by different groups within society, for example you parents, your school, or a sporting group. These rules are made and enforced by the group that made them and do not apply to the whole community. For example, your school may have rules related to wearing uniform and the process to follow if you are out of uniform. The uniform rules and the consequences for not following the rules will be different in different schools.

Legal rules

Legal rules apply to everyone in the community. They are made by law-making bodies and enforced through the courts. For example, people who drive cars are expected to obey the posted sign-limits and stop at a red light. Under the **rule of law**, any person

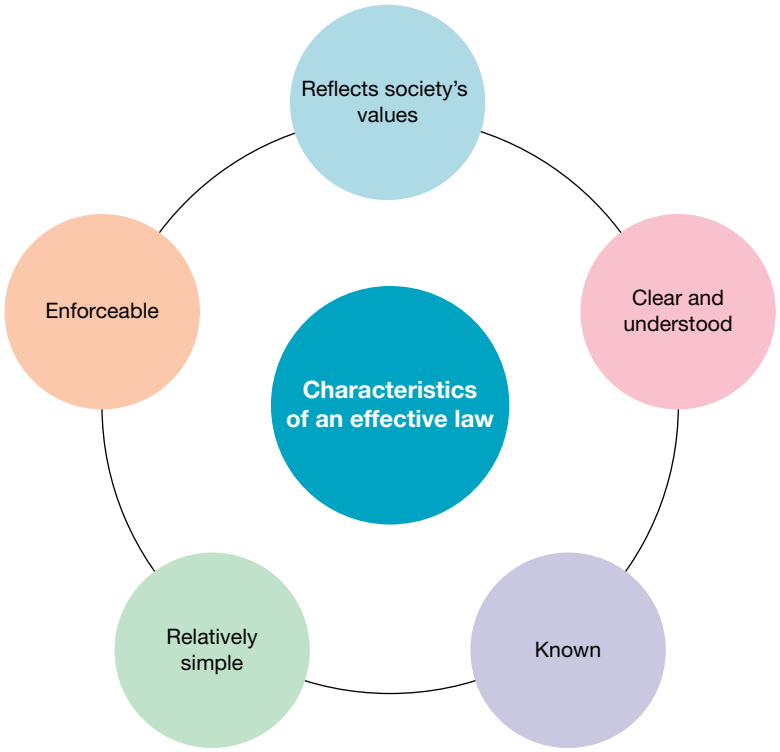
rule of law a legal principal that all citizens are subject to the law and equal before the law. The law applies equally to all citizens regardless of status or wealth

who is caught not obeying the law will be punished. People who break the road laws, for instance, might receive a fine. In 2021, Deputy Prime Minister Barnaby Joyce was fined $200 for not wearing a face mask indoors, a breach of New South Wales COVID-19 regulations. Similarly, Victorian Premier Daniel Andrews was issued two $200 fines for failure to wear a mask.

20.2.2 What are the characteristics of effective laws?

Laws are not the same everywhere. Regardless of where you are, laws help regulate the behaviour of people within a society. For a society to function and flourish its laws need to be effective. Effective laws share five characteristics (see **FIGURE 2**).

FIGURE 2 To be effective laws should have the following characteristics.



Reflects society's values

When the law is in line with the current values of the society in which they apply, people will be more inclined to follow them. For example, designated smoking areas and smoking bans reflect changes in attitudes to smoking and the harmful health effects linked to smoking.



Clear and understood

The law must be written in a way that makes it easy for people to understand. If the language is not clear or can be interpreted in different ways people will have difficulty obeying the law and it will become ineffective.

For example, in Victoria, it is illegal to fly a kite in a public place to the annoyance of another person. The word 'annoyance' will mean different things to different people. What if a child is flying the kite?



Known

The public must know about the law for it to be effective People cannot obey the law if they do not know about it. However, 'Ignorance of the law' cannot be used as an excuse; this means that it is up to individuals to find out the laws that are relevant to them.



To make it easier for the public to be informed about any new laws or changes the government will use the media to make laws known. For example, the public were informed about the need to wear masks and vaccination requirements through the media. Similar campaigns ran when 40kph school zones were introduced, give way rules changed, and mobile phone use in cars were banned.

Relatively stable



Effective laws must be stable. If the law were constantly changing, it would be difficult for people to obey the law. Individuals would either not know the law or would not understand the law. Our laws typically do not change often, and changes are advertised well in advance.

Enforceable



Effective laws can be enforced. This does not mean that every person who breaks the law will be caught and punished. It means that it is possible to catch people who have broken the law. For example, modern technology has made it easier for the police to detect people using mobile phones while driving. The presence of fixed and mobile speed cameras means more people will follow the speed limits or risk getting a fine. Conversely, until very recently, it was difficult to enforce laws involving the use of social media as a result of the social media companies like Facebook and Twitter\'s refusal to hand over information about their clients to governments.

on Resources

Weblink Weird Australian laws

20.2 SKILL ACTIVITY: Questioning and researching, Communicating

Use the **Weird Australian laws** weblink in the Resources tab to locate some lesser-known laws.

1. Working with a partner, **select** one weird law that appeals to you both.
2. **Investigate** your chosen law and make notes on the following:
   a. What is this law about?
   b. Why do you think it was made?
   c. In your opinion, do we need this law? **Justify** your point of view.
3. **Apply** the characteristics of an effective law.
   a. Which characteristics are met?
   b. Which characteristics are not met?
4. **Create** an infomercial to make people aware of this law.
5. Play your infomercial to the class.

20.2 Exercise

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20.2 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 4	3, 5, 6, 9	7, 8, 10

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Check your understanding

1. You have just joined a local basketball team and will play competition matches on a Saturday afternoon. The coach has said that you need to attend training or your court time during matches will be restricted.
   This is an example of a **legal** / **non-legal** rule.
2. After a car accident the drivers must exchange registration details.
   This is an example of a **legal** / **non-legal** rule.
3. **Identify** which of the following is a characteristic of an effective law.
   A. Stable
   B. Rule of law
   C. Changeable
   D. Legal rules
4. A new law has been passed that makes it illegal to wear clothing with raised studs. Bill is not sure whether the decorative collar he bought for his dog is permitted.
   Which one of the characteristics of an effective law does this fail to meet?
   A. The law is stable
   B. The law is enforceable
   C. The law is clear and understood
   D. The law applies to everyone
5. Imagine that a new law came into effect that required all renewable energy sources to be banned. **Identify** which of the characteristics of an effective law this law seems to disregard.
   A. Able to be enforced
   B. Reflects community values
   C. Rule of law
   D. Clear and understood

Apply your understanding

Communicating

6. Using examples, **explain** the difference between a legal and a non-legal rule.
7. To be effective, laws must be enforceable. Does this mean that every person who breaks the law will be caught and punished? **Justify** your answer.
8. **Explain** what is meant by the phrase 'ignorance of the law is no excuse.'
9. **Explain** what is meant by the 'rule of law.'
10. Recent television advertising has informed the public that a new law banning people from smoking in their own home will come into effect in three weeks.
    With reference to at least one of the characteristics of an effective law, **explain** why this new law might not be effective.

LESSON
20.3 How do parliaments make laws?

LEARNING INTENTION

By the end of this lesson you should be able to explain how parliament makes laws and distinguish between a bill and an Act of Parliament. You should also be able to explain the term Royal Assent.

TUNE IN

There are laws related to the protection of Australia's environment. They can be found in the *Environmental Protection and Biodiversity and Conservation Act 1999*.

1. Working with a partner propose three reasons why we might need laws related to the protection of the environment.
2. Brainstorm reasons why laws might need to change.
3. Hypothesise: What might parliament do to change this law?

FIGURE 1 Australia's wildlife is protected under specific laws.



20.3.1 The law-making process

A parliament consists of the law makers at the state and federal levels of government. Most laws in Australia are made by our federal and state parliaments. These laws are called **statute laws**. Most Australian parliaments have a lower house and an upper house. Parliaments make laws by passing a **Bill** through both houses.

Sometimes the ideas for new laws, comes from the people within parliament or from government departments. Parliament also engages formal law reform bodies to investigate an area of law and make suggestions on how a law can be improved.

Parliament can become aware of the need for new laws or change in the law because of groups within society (**FIGURE 1**), or because of the actions of people within society.

A law made by Parliament is called **legislation**, a statute or an **Act**. Before any proposed laws can become Acts of Parliament, they have to be debated and passed by both houses of Parliament and then approved by the **Crown**. During the debate in parliament, the government explains why the law is needed and why it will be good for Australia. The **Opposition** may try to argue why this is not the case. Let us see, step by step, how all of this might happen in federal parliament (**FIGURE 2**).

statute law law made by Parliament

Bill a proposed law that has not yet been agreed to by Parliament or received royal assent

legislation a law made by Parliament

Act a law passed by Parliament

Crown the King's authority in the Australian parliament, represented by the Governor-General at the federal level and a Governor at the state level

Opposition the main political party in the lower house of parliament not in power

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FIGURE 2 How laws are made in Federal Parliament



STEP 1
A proposed new law, or changed law, is discussed in Cabinet. Often, people in Australia put pressure on the government to change something. A decision is then made on what to do.

STEP 2
If the government decides to proceed, government lawyers are as to draft a Bill. A Bill is basically a 'first draft' of an Act of Parliament.





STEP 3
Copies of the Bill are given to all members of the lower house (House of Representatives). The members read the material in their own time. This is known as the 'First Reading'.

STEP 4
The Bill goes through a 'Second Reading'. During this stage, the responsible minister (for example the Minister for Immigration if the Bill is to do with migrants) describes the main purpose and likely benefits of the Bill. Speakers from the government and opposition say what they think about it. Debates may take weeks. Then there is a vote. If the majority vote in favour, the Bill moves to the next stage in the process.





STEP 5
The Bill is debated again, this time bit by bit. This stage is known as Consideration in Detail as each part of the bill is discussed in detail. Changes to the Bill may be made.

STEP 6
The Bill, including any changes made during Step 5. goes through a 'Third Reading' in the house. A vote is taken. If the majority vote for it, the Bill is passed through to the Senate.





STEP 7
The upper house (the Senate) goes through similar processes to those outlined in steps 3 to 6. If the Senate decides to change something, the Bill is referred back to the House of Representatives for another debate and vote. Sometimes the Senate may refuse to approve a Bill. If the Senate votes to approve the Bill, it is sent to the Governor-General for royal assent.

STEP 8
If the Governor-General approves and signs the Bill, on behalf of the Crown it becomes an Act of Parliament. This is referred to as Royal Assent. It is proclaimed and legally binding for all Australians.



20.3.2 Executive law

When Parliament passes legislation, many of the clauses in the new law can be very general, and details of how the law is to be applied are not always included. The legislation will delegate power to the relevant government minister to make detailed rules and regulations, particularly to deal with new situations as they might arise. These rules and regulations make up what is known as executive law, or delegated law, because the power is delegated to the minister, who is a member of the executive, the **Cabinet**, to develop these regulations. Executive law also applies to the power the minister has to make appointments to particular positions in the government, such as ambassadors to overseas countries.

Because such regulations and orders have to be made with the approval of the Governor-General at the federal level, or the state Governor, they are known as Governor-General in Council Regulations, or Governor in Council Regulations. These regulations also have to be **tabled in Parliament**, and can be removed or overruled by a majority vote in the Parliament. This is because under our principles of responsible government, ministers are accountable to the parliament and the parliament and parliament is answerable to the people who voted them into office.

Cabinet the main group of parliamentary members from the governing party

tabled in Parliament the document has been presented to the Parliament and laid on the Table in either or both houses of Parliament. This means it is available to members for review.

20.3.3 Secondary legislation

Parliament is our main law-making body; however, it does not have the time or resources to make all the laws needed in society. As a result, state and Commonwealth parliaments delegate their law-making power to other bodies known as subordinate authorities. Parliament will pass a parent or enabling act that enables these bodies to make laws within their area of expertise. For example:

- Local councils make local laws in relation to pet ownership, parking, and rubbish removal.
- VicRoads is a statutory body that makes laws about roads and traffic, such as road safety initiatives, road networks and licencing. Similar bodies exist in other states.
- Government departments, such as the Education Department, oversees the provision of education services within each state and territory.

Any regulation or by-law made as a result of the delegation of law-making power is checked by a Parliamentary Committee to ensure that it is within the scope of the *Enabling Act* and consistent with other legislation. Any person who believes that any law is unjust can challenge the law in the courts.

on Resources

Weblink Commonwealth Parliament

20.3 SKILL ACTIVITY: Analysis, evaluation and interpretation

Working in pairs, use the **Commonwealth Parliament** weblink in the Resources tab to **investigate** a new law that is going through parliament now.

a. Briefly **describe** the law you have found and explain what stage it has reached.
b. **Describe** what will happen next in the stage of the process of your bill passing through parliament.
c. In your opinion, will this proposed law be changed much on its way through parliament. **Justify** your opinion.
d. Share your findings with another pair of students.

20.3 Exercise

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20.3 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 5,	3, 4, 6	7, 8, 9, 10

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Check your understanding

1. **Identify** the correct definition of statute law.
   - A. Laws that are made by local government.
   - B. Laws that are made by the judiciary.
   - C. Laws that are made by state and federal parliaments.
   - D. Rules that made at school.
2. **Select** from the following words to complete the sentence below.

petition	bill	slip
Act of Parliament	Act of Law	Act of Government

   A _____ is a proposed law and an _____ is the final version of the law.
3. **Royal Approval** / **Governor-General Assent** / **Royal Assent** / **Double majority** is approval by the ruling monarch of Australia or his/her representative to a proposed bill.
4. **Explain** what is meant by the term 'executive law'.
5. **Identify** the person who is normally responsible for the development of executive laws.
   - A. Parliament
   - B. The relevant government minister
   - C. The Prime Minister
   - D. The Governor-General

Apply your understanding

Communicating

6. Use a flowchart to **explain** how a law is made in parliament. Draw your flowchart using eight boxes joined by arrows. Number each box from step 1 to 8. In each box **describe** what happens to the proposed law in that step, using no more than ten words. For example: Step 1 — government (in Cabinet) discusses the idea of a new law.
7. a. **Explain** how a piece of executive law could be overruled.
   b. **Describe** what this suggests about the power of parliament compared to the powers of the executive?
8. In your view, is the process of law-making in Australia fair? In your answer **consider** whether the people have enough opportunity to have their say when new laws are being made. **Justify** your answer.
9. Since 1981, no party has had a majority in the Senate except for three years from 2005 to 2008. This means that a government may have to negotiate with non-government Senators to pass legislation. **Identify** one advantage and one disadvantage of this process.
10. Queensland, the Northern Territory, and the Australian Capital Territory only have one house of parliament, rather than an upper and a lower house. This means there is no upper house review of legislation. In your opinion, is this a good or bad thing? **Justify** your point of view.

LESSON
20.4 How do courts make laws?

LEARNING INTENTION

By the end of this lesson you should be able to identify the courts and their position in the court hierarchy. You should also be able to define the term 'precedent' and explain how courts create laws using 'precedent'.

TUNE IN

Did you know that courts often must decide the meaning of words in statutes when deciding cases?

The control of Weapons Act makes it an offence to carry a regulated weapon without a lawful excuse. Studded belts were listed in the regulations that were made as executive law (see lesson 21.3).

The police charged a man wearing a leather belt with silver studs for having a regulated weapon.

FIGURE 1 Is a belt with raised studs really a weapon?



You be the judge:

1. Brainstorm a list of items that you think could be classed as weapons.
2. Do you think the man should be convicted of the offence 'carrying a regulated weapon without a lawful excuse? Justify your answer.
3. Suggest one reason a person might need to have a weapon.

20.4.1 Common law

The main role of courts is to settle disputes, but courts also make laws. They do this as they interpret existing laws and make decisions to resolve the case they are hearing. This type of law is known as case law, judge-made law or **common law**.

Common law originated in England as judges travelled from village to village making decisions based on tradition, custom and **precedent**. The judges began to apply a law that was common to all people across the country, rather than using the customary law of each region. Common law is applied today when cases come to court where there is no legislation regulating that case. The judge needs to make a decision about the law on this type of matter. This process is illustrated in the following case study, 'Finders keepers'.

20.4.2 CASE STUDY: Finders keepers

The law relating to who has the right to own things that are found has changed over the years as judges have made new decisions. The judges in the following cases made decisions that became part of the common law because there was no existing law about possession that specifically applied to the cases.

common law law developed by judges through the decisions of courts

precedent a legal principle developed by a court in the process of resolving a dispute

Money found buried on private property

In 1964, a woman sold her New South Wales house to a couple. The couple hired a building company to work on the house. While digging, one of the owners of the building business found a tin with £8500 inside.

- The original owner claimed that she had buried the tin and therefore the money belonged to her.
- The couple who had bought the house claimed that the money was theirs because it was found on their land.
- The owner of the building business claimed the money belonged to him because he had found it.

No laws covered this dispute, so the judge hearing the case was required to make a decision that would create a new law. The judge decided that the couple who now owned the house were allowed to keep the money because they owned the land.

Gold found by the side of the road

In 1965, a Queensland police officer was walking to the place where he was going to direct traffic leaving a drive-in theatre. On the side of the road, on land belonging to the theatre, he found a gold ingot. The owner of the gold could not be found.

- The owner of the land claimed ownership.
- The police officer claimed ownership because he had found the ingot.
- The police officer's employer (the state) claimed ownership because the policeman worked for the state.

The judge hearing the case decided that the land was regularly accessed by the public and that the police officer could keep the gold ingot because his job was to direct traffic, not to find lost things. Any other member of the public might have found the ingot, and the fact that the officer was on duty was just a coincidence.

FIGURE 2 Does a gold ingot found on someone's property belong to the property owner or to the person finding it?



Bracelet found at the airport

In 1982 a traveller waiting in an airline lounge found a valuable gold bracelet. He handed it in to the manager of the lounge, and was told that the airline would attempt to locate the owner. If this attempt was unsuccessful, it would be handed over to the finder of the bracelet, who could then keep it. The finder left his contact details with the airline. After a period of time, when the bracelet had not been claimed, the airline sold it for a considerable sum of money, which it kept. The finder of the bracelet sued the airline, and the judge ruled that the proceeds of the sale of the bracelet should be handed over to the original finder, with an additional amount paid as interest on the money. The judge found the plaintiff in the case had 'finder's rights' that could not be removed by the fact that the bracelet was found on the airline's premises.

20.4.3 Precedent

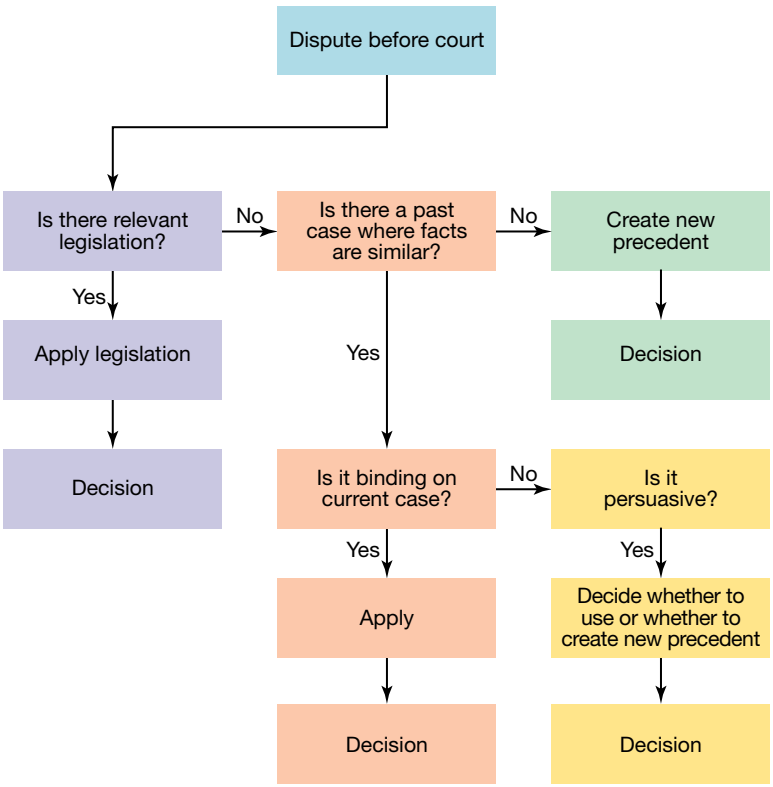
Common law is developed through the legal principle of precedent. If your sister was given a car for her eighteenth birthday, you might expect your parents to do the same for you because your parents have set a precedent. Courts use the same idea. When a judge makes a decision in a court case, this decision will be recorded in a law report. Other judges hearing cases with similar facts will refer to these decisions. Just as you would expect your parents to follow their precedent, the people involved in legal cases expect the judge to follow the precedent of similar cases and therefore come to the same decision. This process is used by courts to interpret statues is shown in **FIGURE 3**.

Precedent works because of our court hierarchy.

int-5753

tlvd-10640

FIGURE 3 The decision-making process for settling disputes in court



20.4.4 Australia's court hierarchy

Australia's court system is made up of many different courts, which are arranged in levels in order of importance (a hierarchy). The higher courts, which hear the most serious matters, are at the top of the hierarchy. The lower courts, which hear less serious matters, are at the bottom of the hierarchy.

At the bottom of the court hierarchy is the Magistrates Court (called the Local Court in New South Wales, the Magistrates' Court in Victoria and the Magistrates Court elsewhere). These courts hear more than 90 per cent of the cases that go to court, and they have a large number of courthouses. There is probably one in your local area. The District Court (called the County Court in Victoria) exists in most states and sits only in the main cities. There is only one Supreme Court in the capital city of each state, and only one High Court in Australia (in Canberra).

When superior courts (such as the High Court and each state's Supreme Court) settle disputes, they can create new legal principles that must be followed by the lower courts in their own hierarchy. This is referred to as a **binding precedent**. Judges in each state have to follow only those decisions made in the higher courts in their state, and those made in the High Court. For example, a decision made by a judge in the Supreme Court of Western Australia does not have to be followed by judges in the District Court of New South Wales. However, the New South Wales judges could use the decision as a **persuasive precedent**.

binding precedent a decision made in a higher court in the same court hierarchy that must be followed by a lower court where the facts of the cases are similar

persuasive precedent a decision made in a lower court or a court in a different hierarchy that does not have to be followed but may be used as a guide

FIGURE 4 The Australian court system

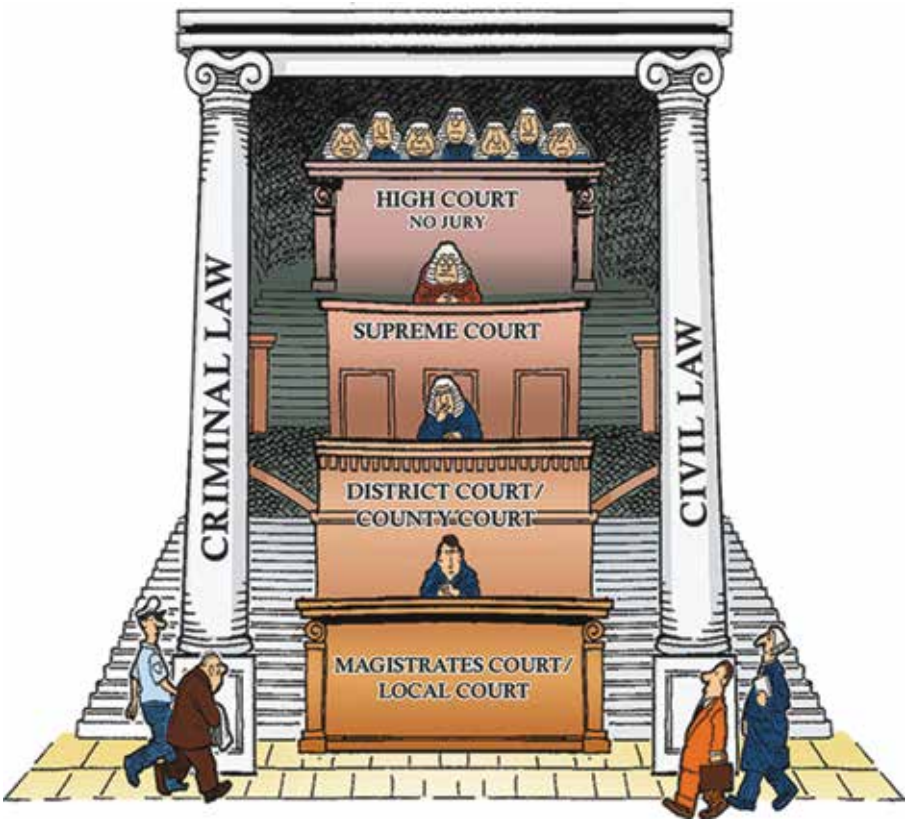


FIGURE 5 If there is no existing relevant law, judges can create a new rule to settle a dispute.



Resources

Interactivities The courtroom (int-1206)

20.4 SKILL ACTIVITY: Questioning and researching, Communicating

1. Using the internet or newspapers, find an article that reports on a new principle of law that has been made through a landmark court case.
2. **Investigate** how this case proceeded through the courts.
3. Write a brief report on how this case established a new legal principle.
   If you are having difficulty finding a case, try one of these:
   - *Commonwealth v. Tasmania* (Tasmanian Dams Case)
   - *Eddie Mabo & Ors v. The State of Queensland* (Mabo Case)
   - *Dietrich v. the Queen* (Dietrich's case)
   - *Plaintiff M701/2011 v. Minister for Immigrations and Citizenship* (Malaysian Solution Case)
   - *Love v. the Commonwealth of Australia*; *Thoms v. the Commonwealth of Australia.*

20.4 Exercise

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20.4 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 4	4, 5, 7	6, 8, 9, 10

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Check your understanding

1. **Identify** the statement that best explains common law.
   - **A.** Laws that are made by state and federal parliaments
   - **B.** Laws that are made by the courts
   - **C.** Laws that are made by local government
   - **D.** Rules that are made at school
2. **Identify** the statement that best describes precedent.
   - **A.** Laws that are made by local government
   - **B.** A previous court decision that has a high degree of similarity to a case that is currently before the court
   - **C.** Any decision that is heard in the Supreme Court
   - **D.** Any decision that is made in the Magistrates' Court
3. Identify three statements that are relevant to the case studies under the heading of 'Finders Keepers'.
   - **A.** All cases concern lost items (of significant value)
   - **B.** All cases have items that were never claimed
   - **C.** All cases involve common law
   - **D.** All cases involve ownership disputes
4. **List** the courts in your state's court hierarchy, from highest to lowest.
5. **Recall** where common law originated.

Apply your understanding

Civic participation and decision-making

6. **Summarise** how the judges in the case study 'Finders Keepers' made changes to the law.
7. **Identify** two things that could happen if a judge decided to ignore a precedent and make a completely new decision.
   - A. The judge could be fined.
   - B. A new precedent could be set.
   - C. The decision would be overruled.
   - D. An appeal to a higher court may be made.
   - E. an appeal to a lower court may be made.
8. **Consider** the following cases:

   Case 1 — a former barmaid sues the hotel where she used to work. Sher contracted throat cancer caused by breathing environmental tobacco smoke during the course of her employment. The court awards her compensation of more than $400 000.

   Case 2 — a former pie-seller sues the sports stadium where he used to work. He contracted throat cancer caused by breathing environmental tobacco smoke during the course of employment. The court uses Case 1 as a precedent.

   Case 3 — a waitress sues the restaurant where she works. She contracted throat cancer caused by smoking cigarettes for 30 years.

   Case 4 — a former miner sues the mining company he use to work for. He was injured in a fall.

   a. In Case 2, should the former pie-seller receive compensation? **Justify** your decision.
      - A. Yes
      - B. No
      - C. It is not clear

   b. In Case 3, should the court use the first two cases as precedents and provide compensation? **Justify** your decision.
      - A. Yes
      - B. No
      - C. It is not clear

   c. In Case 4, are any of the first three cases a precedent for this situation? **Justify** your decision.
      - A. Yes, Case 1
      - B. Yes, Case 2
      - C. Yes, Case 3
      - D. Yes, Cases 1 and 2
      - E. No

Communicating

9. Many people argue that judges should not make law because they are not democratically elected as members of parliament are. **Identify** and **explain** one positive and one negative effect of judges making law through precedent.
10. The doctrine of precedent states that judges must apply a precedent established in a higher court in the same court hierarchy, but occasionally judges apply a precedent from a court in a different state or different country. **Explain** when and why this might occur.

LESSON
20.5 What is the relationship between parliament and courts in law-making?

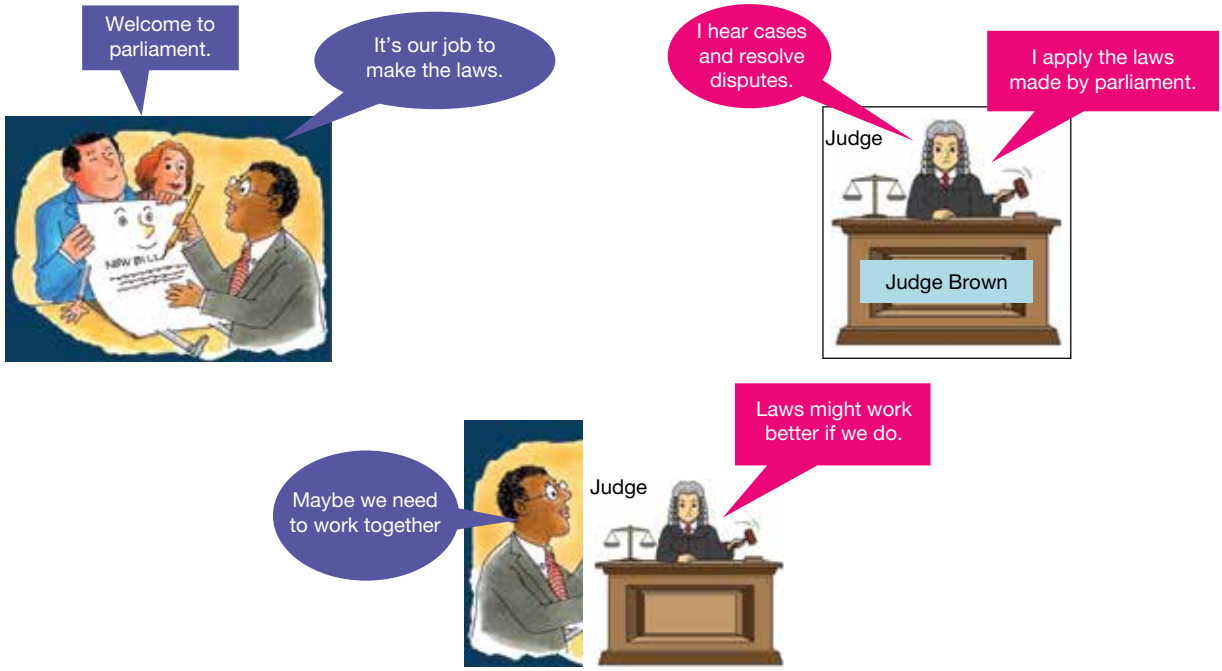
LEARNING INTENTION

By the end of this lesson you should be able to explain the relationship between parliament and the courts in law-making.

TUNE IN

Brainstorm a list of ways in which parliament and courts might work together.

FIGURE 1 Neither the parliament nor the courts could operate effectively without the other.



20.5.1 How do parliament and the courts work together?

There are three sources of law in Australia:

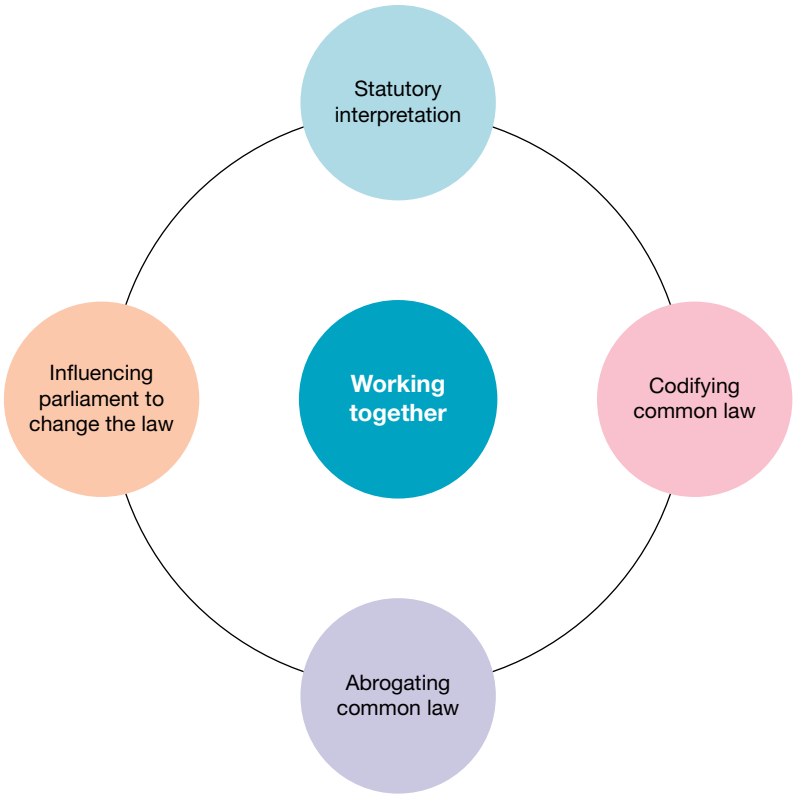
- statute law, made by parliament
- secondary legislation, made by bodies to whom parliament has delegated law-making power
  - statutory authorities
  - government departments
  - local councils
- common law, made by the courts.

Some of our laws are made by the federal government and others by state governments. It is important that all our law-making bodies work cooperatively.

The relationship (**FIGURE 2**) between parliament and the courts is sometimes complex and the two bodies need to work together to ensure that the legal system operates effectively. Parliament makes the laws, creates the courts, and sets their jurisdiction. The courts, on other hand, need to apply these laws to the cases that come before them and make sure the laws are enforceable and just.

As parliament was elected to make laws, they are the supreme law-making body. This means they have more power in law-making than courts.

FIGURE 2 There are four parts to the relationship between parliament and the courts.



20.5.2 Statutory interpretation

As laws made by parliament (see lesson 20.3) are often written in general terms, so that they can apply to a variety of different situations. This means that the intention of parliament is not clear when the courts are trying to apply the statute to a particular case that has come before them. This process, where the judge must decide the meaning of the words in an Act of Parliament is referred to as **statutory interpretation**.

Refer to **FIGURE 1** in lesson 20.4 where you had the opportunity to be the judge. When this case went before the Magistrates' Court the man was found guilty and he decided to appeal the decision.

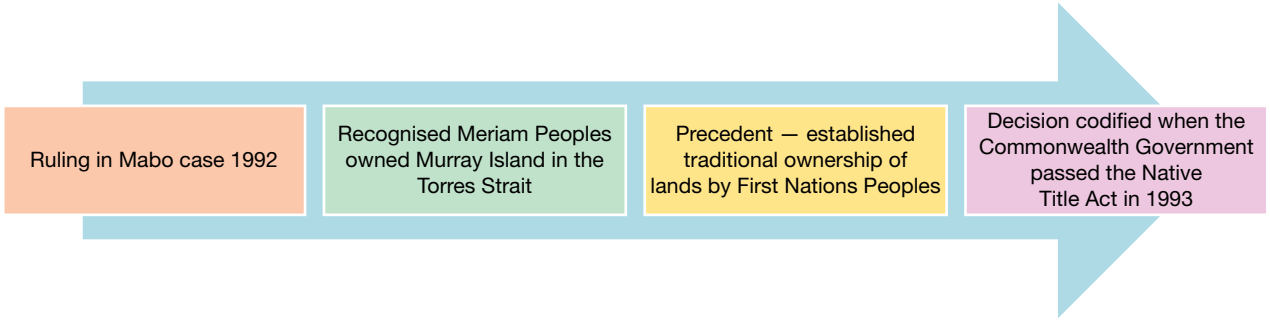
The judge hearing the appeal in the Supreme Court had to decide whether a belt used to hold up trousers was a regulated weapon. He decided that the belt was not a weapon, because it was used for a different purpose — to hold up the man's trousers — and not as a weapon. The man therefore had a lawful excuse for having the belt and was not guilty of possessing a regulated weapon.

statutory interpretation the process used by judges to decide the meaning of words or phrases in a statute (Act of Parliament)

20.5.3 Codification of common law

The law can become fragmented when courts are creating precedents. Parliament can bring together all the laws on a single topic into one Act of Parliament. This sometimes occurs when the courts have created a precedent and parliament wants to combine this law with laws found in statutes (see **FIGURE 3**).

FIGURE 3 The decision in the Mabo case was '**codified,**' when the government passed the *Native Title Act*.

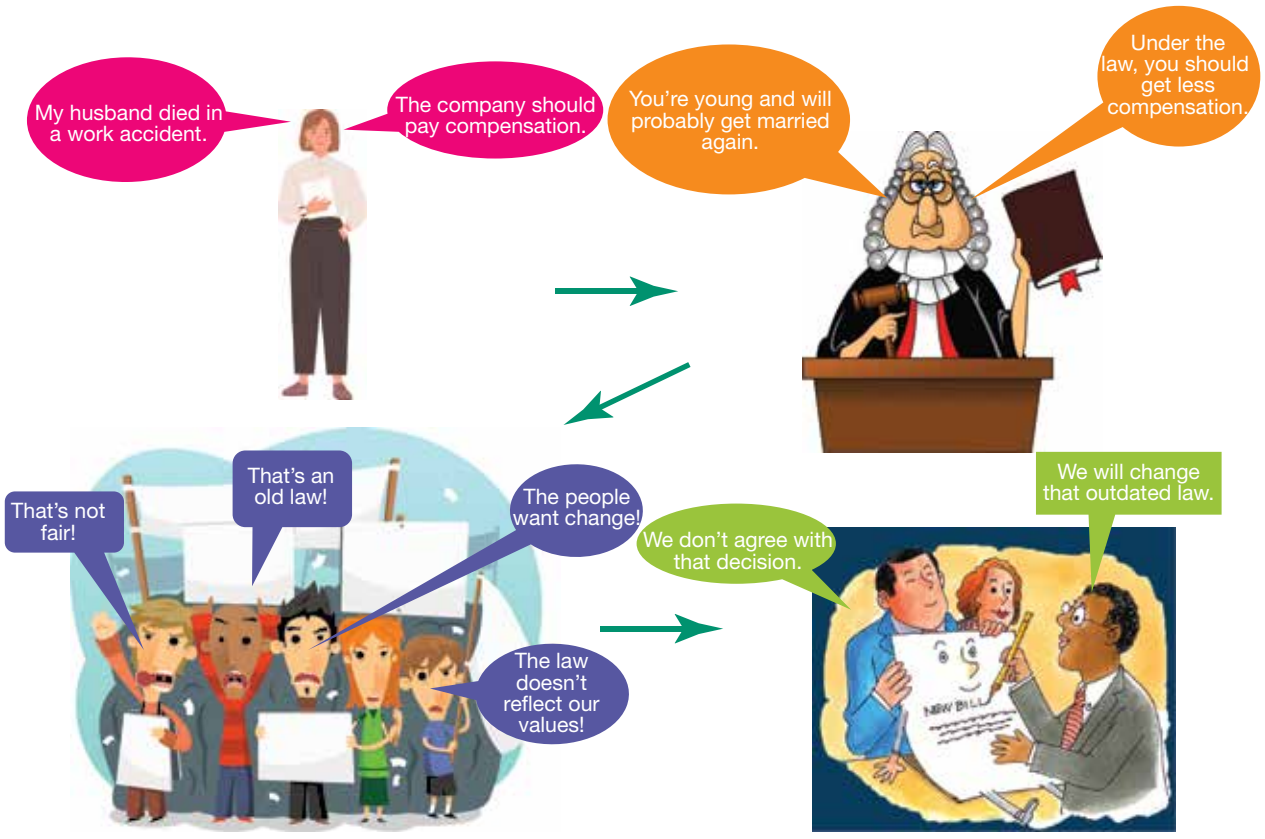


20.5.4 Abrogation of common law

Courts cannot ask parliament for advice when they are interpreting statutes and on occasions may make decisions that do not reflect the way parliament intended the law to operate or does not agree with. Nor can courts seek input from the community when deciding cases and may make decisions that do not reflect the values of society. As parliament is the supreme law-making body, they can **abrogate,** and change laws made by the courts (**FIGURE 4**).

abrogate passing an Act of Parliament to cancel or abolish a law (precedent) made by the courts

FIGURE 4 Parliament can change decisions made in court so they do not apply in future cases.



20.5.5 Courts influencing parliament to change the law

The court's role in law-making is secondary to their role in hearing cases and settling disputes. This means that judges are sometimes reluctant to change the law and think that the law should be changed by parliament. In Trigwell's case (**FIGURE 5**) the court followed an old legal principle; however, as part of the decision, the judge stated that they thought parliament needed to change the law.

FIGURE 5 When making his ruling in Trigwell's case, the judge alerted parliament of the need for a change in the law.

Trigwell's case

- Sheep had escaped from a property adjacent to the highway.
- The court ruled that the owner of the sheep was not responsible for the damage that resulted from an accident with the sheep.
- The decision was based on a very old common law principle.
- In his ruling the judge stated that parliament should change this law.
- Parliament passed legislation to make landowners responsible for the damage caused by their livestock.



20.5 SKILL ACTIVITY: Civic participation and decision-making

In the last three lessons you have looked at parliament and the courts as law-makers.

1. **Create** a table that **illustrates** why the courts are involved in law-making.

Reasons for courts being involved in law-making	Reasons courts should not be involved in law-making

2. **Create** a table that **evaluates** the ability of parliament to be the sole law-maker

Reasons for parliament being the sole law-maker	Reasons why courts cannot be the sole law-maker

3. Use the information in your tables to present your point of view on the following question.
Members of parliament are elected by the people to make laws, judges are not. Do you think judges should be allowed to make laws? **Justify** your opinion.

20.5 Exercise

learnon

20.5 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
2, 3, 4	1, 5, 6, 7	8, 9, 10

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Check your understanding

1. **Identify** the word or phrase **defined** by the following statement.
   The process where judges decide the meaning of words or phrases in an Act of Parliament.
   A. Abrogation
   B. Statutory Interpretation
   C. Codification
   D. Precedent
2. **Identify** which of the following is not an aspect of the relationship between parliament and the courts in law-making.
   A. Abrogation
   B. Statutory interpretation
   C. Precedent
   D. Codification
3. **Identify** the word or phrase defined by the following statement:
   Parliament collects all the laws on a single topic, including those made in the courts and brings them together in a single statute.
   A. Precedent
   B. Abrogation
   C. Statutory interpretation
   D. Codification
4. **Determine** whether the following statements are true or false.
   a. Parliament was created by the courts.
   b. The federal government is solely responsible for making laws in Australia.
   c. Courts can seek input from the community when deciding cases in Australia.
5. **Define** abrogation.

Apply your understanding

Analysis, evaluation and interpretation

6. Following an inquest into drownings in backyard swimming pools, the coroner's court recommended that laws be introduced to make pool fences compulsory. Parliament has since passed laws setting minimum standards for fences around pools.
   Explain why this is an example of the courts alerting parliament of the need for a change in the law.

Communicating

7. **Explain** why judges become involved in law making.
8. When the people do not agree with the decision of a court, they may pressure the government to change the law. Parliament may respond to this pressure by changing the law.
   Identify the aspect of the relationship between parliament and the courts that this represents. **Justify** your answer.
9. **Summarise** why the Mabo case is an example of codification.
10. Using an example, **elaborate** on how the courts can alert courts to the need for a change in the law.

LESSON
20.6 What is the difference between civil and criminal law?

LEARNING INTENTION

By the end of this lesson you should be able to explain the difference between criminal and civil law and the difference between a summary and indictable offence.

TUNE IN

1. Draw a table such as the one below.
   a. In the first column brainstorm a list of everything you know about criminal law.
   b. In the second column brainstorm a list of everything you know about civil law.
   c. Which list is longer?

Criminal law	Civil law

2. How do you think criminal and civil law might be involved in the car accident shown in **FIGURE 1**?

FIGURE 1 Did you know that a car accident can involve both criminal and civil law?



20.6.1 Criminal v. civil

There are two main types of law in Australia:

- criminal law, which protects us and punishes offenders
- civil law, which protects our rights and property.

We have no choice over the use of criminal law because the state controls it, but individual citizens and groups decide how they will use civil law. The 'state' means society or the whole community, which is represented by Parliament, the judiciary and the police.

20.6.2 Criminal law

Criminal law protects innocent individuals from wrongdoers. It outlines the way people should act — what they can and cannot do. Some of the most common crimes are robbery, **homicide** (**manslaughter** and murder), rape, assault, theft and drug offences.

If a person commits a crime, this is treated very differently from other legal issues. For example, if you rob a bank, it does not remain a **dispute** between the bank and yourself. The bank does not have to try to catch you. Instead, your action is regarded as an offence against the state. It is the state that organises its police to catch offenders. In criminal law, the bank does not take you to court — the police or representatives of the government do. They will also be the ones who **prosecute** you. It is up to the prosecution to take legal action against an accused person in order to establish the guilt of the accused because the prosecution has the **burden of proof**. This means that the prosecution must prove that the accused is guilty of the crime. It is not up to the accused person to prove his or her innocence.

During the court case, you as the accused will have the opportunity to tell your side of the story. If you are found guilty, you will be punished with a fine, imprisonment, some form of community service order or a combination of these punishments (see **FIGURE 2**).

homicide the killing of one person by another person
manslaughter the accidental or unintentional killing of one person by another person
dispute an argument
prosecute to take legal action against another person for a criminal offence
burden of proof the legal principle describing who has to prove a case in court. In a criminal trial, this burden is on the prosecution
accused the party in a criminal trial against whom an action has been brought
jury in a criminal trial, a randomly selected group of people who decide the guilt or innocence of an accused person
standard of proof the level of proof required to establish a case. In criminal law, the prosecution must prove that the accused is guilty beyond reasonable doubt

Indictable offences

Serious crimes, such as homicide, child abuse and rape, are called indictable offences. These offences are usually heard in a higher court, such as the District or County Court, or the Supreme Court. For these offences, the guilt of the **accused** is determined by a **jury**.

In a criminal case, the jury must be satisfied of the guilt of the accused 'beyond reasonable doubt'. This means that the jury cannot have any reasonable doubt that the person accused of the crime is guilty. The level of certainty that must be established before a legal case can be won is known as the **standard of proof**. It is up to the prosecution in criminal cases to prove that the accused is guilty beyond reasonable doubt. If a magistrate or jury is not convinced beyond reasonable doubt of the accused's guilt, the accused should be given the benefit of the doubt and found not guilty.

FIGURE 2 A criminal act is treated as an offence against the state, which deploys the police and courts to apprehend, prosecute and imprison the wrongdoer.



Summary offences

Less serious crimes, such as minor assaults, petty theft and traffic infringements, are called summary offences. These are dealt with relatively quickly and cheaply by a **magistrate** in a magistrates court.

In the car accident shown in **FIGURE 1**, the state would take action if the driver who caused the accident had broken the road laws, such as speeding, failing to give way or had a blood alcohol level over 0.05.

20.6.3 Civil law

Civil law deals with non-criminal matters. It allows a person to bring actions against other people for a civil wrong done to him or her. Civil law involves such matters as disputes between friends, business partners, consumers and retailers, neighbours, or an individual and a government department. Examples of civil wrongs include **negligence**, **trespass**, **defamation**, **nuisance** and **breach of contract**. Where a civil wrong is successfully proven in court, the wronged party will usually seek damages (money) as compensation. In such a case, the **defendant** will be found to have been **liable**.

For example, imagine you discover half a decomposed snail at the bottom of a soft-drink bottle from which you have just drunk. You are then violently sick and suffer a serious stomach illness. You decide to sue the manufacturer for negligence, meaning that the manufacturer did not take enough care to prevent an injury. You, the **plaintiff**, go to court to prove your case (see **FIGURE 3**). You ask a judge to order the soft-drink manufacturer, the defendant, to pay you compensation. The plaintiff does not always win such cases. Sometimes the judge decides that the plaintiff's rights were not breached and can order him or her to pay the defendant's legal costs. As the following case study 'Civil v. criminal law' illustrates, sometimes civil law is required to deal with a wide range of unusual circumstances.

There is a lower standard of proof in civil cases. The plaintiff has to show that the defendant was 'more likely than not' to have committed the breach. This is known as the '**balance of probabilities**'.

In the car accident shown in **FIGURE 1**, the driver who caused the accident can be sued for medical expenses related to injuries suffered by others and the damage caused to property.

magistrate a court official who hears cases in the lowest court in the legal system

negligence a situation where a person breaches a duty to exercise reasonable care to avoid a foreseeable risk, resulting in another person being injured or suffering a risk of injury

trespass a tort (civil wrong) involving direct and intentional interference with a person, or a person's land or goods

defamation unlawful damage to a person's good reputation through written or verbal statements

nuisance interference with someone's enjoyment of public or private property

breach of contract a situation where a legally binding agreement is not honoured by one or more of the parties to the contract

defendant the party in a civil trial against whom an action has been brought

liable legally responsible for a civil wrong

plaintiff the person who commences a legal action in civil law

balance of probabilities requires reasonable satisfaction that the facts as presented are probably correct and occurred as stated

FIGURE 3 A civil wrongdoing is treated as a private matter between the disputing parties, and the losing side is ordered by the judge to pay compensation or rectify the wrong done.



20.6.4 CASE STUDY: Civil v. criminal law

Case 1



A grape grower was awarded $7 million in damages by the Supreme Court of Victoria in August 2017, after his neighbour's spraying of chemicals destroyed his vineyard. The grape grower had spent 4 years fighting for compensation after he had noticed damage to the leaves of his vines in 2013. At first he thought the vines had been affected by frost, but later discovered that his neighbour had been attempting to rid his own property of pests by spraying the chemicals 2,4-D, glyphosate and metsulfuron-methyl. The Supreme Court heard that these chemicals are all deadly to grapevines and should never be used anywhere near vineyards. The court found the neighbour negligent in his use of the chemicals and awarded damages of over $7 million. This included the cost of rehabilitating the land, the grower's loss of grape sales, costs involved in re-establishing the vineyard, and future loss of sales during the time the vines take to re-grow.

Case 2

In November 2018, a man was found guilty of manslaughter after killing a heart surgeon in a one-punch attack at Box Hill Hospital in Melbourne's eastern suburbs. Joseph Esmaili had punched the surgeon, Patrick Pritzwald-Stegmann, in the head after the doctor had asked him and his friends to stop smoking in a non-smoking area outside the hospital doors. The surgeon fell backwards and hit his head on the floor, knocking him unconscious. He spent the next month in a coma and died after his family agreed to have his life-support system switched off.

During the trial, Esmaili's defence barrister argued that Esmaili had believed that the surgeon was about to hit him and acted in self-defence when he punched the surgeon. The defence also argued that Mr Pritzwald-Stegmann's death was actually caused by the family's decision to turn off the life support system, not by the punch. The jury did not appear to accept either of these lines of defence and found Esmaili guilty of manslaughter.

on Resources

Interactivity Time out — civil and criminal law (int-1402)

20.6 SKILL ACTIVITY: Questioning and researching

You may use digital or print media for this task — read all the instructions before you begin.

1. In pairs, find three newspaper articles describing civil law cases and three describing criminal law cases. Make sure your articles relate to Australian law and are not more than 12 months old.
2. Cut out (or print) the heading for each article and paste them on a large sheet of paper (leave room for annotations). Record the newspaper the article is from and the date of the article. **Classify** each article as relating to criminal or civil law and provide evidence from each article to support your decision.
3. Write a paragraph that **summarises** (presents the main points) each article under each heading.
4. **Identify** the laws that apply to each article.

20.6 Exercise

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20.6 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
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Check your understanding

1. Fill in the gaps in the following sentence to **define** criminal and civil law.
   _____ protects our rights and property while _____ protects people and punishes offenders.
2. **Classify** the following as either criminal crimes or civil wrongs.
   A. Negligence
   B. Robbery
   C. Drug offences
   D. Trespass
   E. Arson
   F. Breach of contract
   G. Homicide
   H. Trespass
   I. Defamation
3. Summary offences can only be dealt with by the Supreme Court. True or false?
4. **State** the difference between:
   a. the plaintiff and the defendant (or accused)?
   b. indictable offences and summary offences?
   c. burden of proof and standard of proof
5. **Explain** the differences between civil law and criminal law.

Apply your understanding

6. **Evaluate** Case 1 in the 20.6.4 case study 'Civil v. criminal law' to outline the differences between criminal law and civil law.
   a. Why is this case a civil matter?
   b. **Identify** the plaintiff and what they are seeking in the action.
   c. **Identify** the standard of proof required in this case.
   d. **Explain** the outcome of this case.
7. **Identify** whether the following cases involve criminal law, civil law, or both.
   a. You are held up at knifepoint and your purse or wallet is stolen.
   b. A woman slips on a wet supermarket floor and breaks an ankle.
   c. A man is convicted of driving with a blood alcohol content of 0.08.
   d. You find maggots in a tuna sandwich you just bought from a café.
   e. A neighbour's loud music at 3 am is disturbing you.
8. **Demonstrate** your understanding of how a case can include both criminal and civil elements.
   Create your own scenario for a case that might involve both criminal and civil law. **Identify** the part of your scenario that is civil and the part of your scenario that is criminal.
9. In a civil case the victim can sue for compensation, but in criminal cases the wrongdoer is punished and the victim is frequently not compensated for harm done to them. Limited victim compensation is available in some cases but not in every case.
   It has been suggested that the law should be changed to provide compensation in every criminal case.
   Explain one advantage of this change and **predict** a possible disadvantage of this change.

10. Criminal cases are dealt with by the courts because the state prosecutes the wrongdoer. Only around 20 per cent of civil cases come before the courts because they are resolved out of court by negotiation between the parties, or because one party does not have the money to fight the case. This can mean that the wealthiest or most powerful party wins.
Propose a reform to the law that could help resolve this situation.

LESSON
20.7 What is the role of the law in protecting our rights?

LEARNING INTENTION

By the end of this lesson you should be able to identify key rights in Australian society and explain how these rights are protected in Australia. You should also be able to explain why rights are important and why they are sometimes limited.

TUNE IN

In Australia we are governed by the 'rule of law.' This means that no one is above the law, no matter how rich or powerful they might be. Our rights and freedoms are protected by some provisions in the Australian Constitution as well as by legislation and common law that governs our behaviour.

Infringing these rights falls under criminal law and others fall under civil law.

1. Write your own definition of rights.
2. Compare your definition with other members of the class and develop a shared understanding.
3. Brainstorm a list of rights that you have and where you think these rights are found.

FIGURE 1 Our rights and freedoms unite us as Australians.



20.7.1 Protecting rights through the Constitution

Rights contained in the Constitution

The Australian Constitution contains a number of sections that ensure that Australia must be ruled as a **democracy**. It also includes five specific rights. Because these five rights are written in the Constitution, they cannot be changed or taken away without a **referendum.**

democracy a form of government in which the people determine how they will be governed

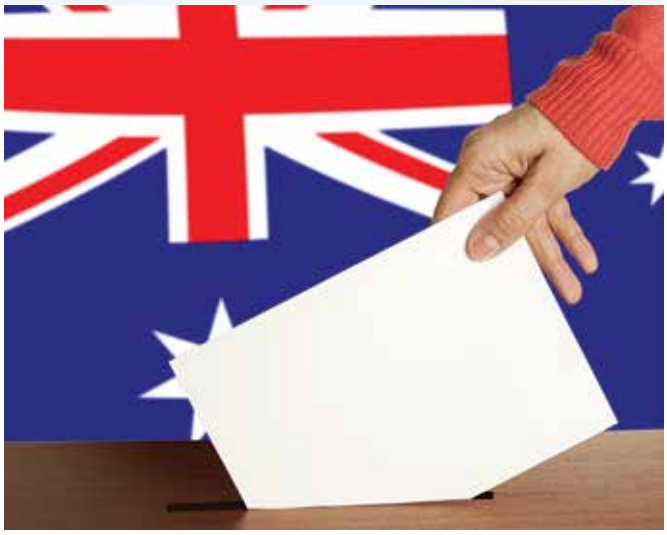
referendum the process of allowing the people to vote on an important issue that will result in a change to the Australian Constitution.

Protecting democracy

The Constitution ensures that Australia must be governed as a democracy in the following ways:

- Representatives to both houses of parliament are elected by a direct vote of the people.
- Each person has only one vote for each house of parliament, so all voters are equal.
- The lower house of Federal Parliament is limited to a three-year term, so all members have to face the voters on a regular basis to be judged on their performance. Members of the upper house have a six-year term of office.
- All laws passed by the parliament have to be agreed to by a majority of members in both houses of parliament, so they represent the wishes of the majority of voters.
- There is a division of powers between the federal and state governments, so power is spread between these two levels of government.
- The courts are independent of government, so they can enforce the law fairly and equally to all.

FIGURE 2 A direct vote of the people is required to elect members of parliament.



Five express rights

Our Constitution contains a small number of rights. Because they are clearly expressed in the wording of the Constitution, they are known as 'express rights'. The five express rights are as follows:

1. *Freedom of religion*. Under section 116 of the Constitution, the federal government cannot force anyone to follow any one religion, nor can it prevent anyone from freely practising his or her own religion.

FIGURE 3 Freedom of religion is guaranteed by our Constitution. Out of 22 major world religions, 18 are practiced in Australia.



2. *Trial by jury*. Under section 80 of the Constitution, anyone accused of a serious crime under Commonwealth law must be tried in court by a jury. This right only applies to Commonwealth law, so it is a very limited right. Most criminal law is decided by state governments, and criminal trials take place in state courts. Trial by jury in these state courts is not protected by the Constitution, but it is covered by state laws.

FIGURE 4 Trial by jury is guaranteed by our Constitution for anyone charged with a serious offence under Commonwealth law.



3. *Compensation for acquired property*. Sometimes the Commonwealth Government may need to take over property from individuals or organisations. They may do this, for example, when they are building new freeways or railways. Under section 51(xxxi) of the Constitution, if the government foes this, it must be on 'just terms'. This means that the person who owns the property must get a fair price for that property.

FIGURE 5 If the government need to take over property, the owner is entitled to a fair price under our Constitution.



4. *Residential non-discrimination*. Under section 117 of the Constitution, no state government can treat someone differently, or discriminate against a person, just because he or she is a resident of a different state.
5. *Interstate trade and commerce*. Under section 92 of the Constitution, all trade between the states must be completely free. This means that no government, or any other person or business, can do anything that interferes with the free operation of commerce across state borders.

FIGURE 6 Under our Constitution, all trade across state borders must be free from interference.



20.7.2 Protecting rights through legislation

Federal, state and territory parliaments have all passed legislation designed to protect the rights and freedoms of all members of the community. For example, they have all passed laws designed to make it illegal to discriminate against any person based on certain personal characteristics. This means that you cannot treat someone differently or unfairly because they happen to be different from yourself or from the majority of society. Under these laws, it is illegal to discriminate against anyone on the basis of:

- gender or gender identity
- sexual orientation
- pregnancy
- breastfeeding
- marital status
- status as a carer
- age
- race
- skin colour
- nationality
- ethnicity
- parental status (including childlessness)
- physical features (Victoria only)
- religious belief or activity
- physical impairment
- mental illness or disability
- a personal association with anyone having any of the above characteristics.

FIGURE 7 Employers interviewing job applicants must treat them all equally.



This means that an employer cannot refuse to employ someone because of any of the above characteristics. It also means that a business owner cannot use any of the above as a reason to refuse to do business with a person. For example, the owner of a restaurant cannot refuse entry to a person based on any of the above characteristics. These laws are designed to ensure that all members of Australian society are treated fairly and equally.

20.7.3 Protecting rights through common law

Judges have established common law rights through creating precedents in the cases they have heard. Some of these rights have been codified (see lesson 20.5) by parliament incorporating them into legislation.

Examples of rights established through the courts include:

- The right to silence which ensures an accused person cannot be forced to answer police questions or give evidence in court during a trial (**FIGURE 8**)
- The right to a fair trial implies that the accused should have access to legal representation in court.
- People have the right to express opinions about the government and be informed about what the government is doing.

FIGURE 8 Both the right to freedom of speech and the right to silence were established under common law. Freedom of speech allows the public to be informed and have a voice in political matters, while the right to silence protects an accused from self-incrimination.



20.7.4 The importance of freedom of speech

One of our key freedoms in Australia is the freedom of speech, which allows us to express our opinions publicly. However, this right needs to be balanced against the rights of others who might be harmed by what we say.

Freedom of speech plays a significant role in Australian democracy as it allows you to be fully informed about the policies of all candidates when we vote to elect representatives to parliament.

In many countries around the world, and throughout history, this right has not always existed. In medieval societies, anyone who publicly criticised the king or church could be executed. Some countries, still limit freedom of speech today (see **FIGURE 9**).

In Middle Eastern countries such as Iran citizens are expected to observe the strict religious practices prescribed by the government. Failure to do so can result in imprisonment or even death. In Dubai, a foreign couple was sentenced to one month in prison after being found hugging and kissing in a public restroom.

FIGURE 9 Kim Jong-Un is revered as the leader of North Korea, and any criticism of him or his government within that country is punishable by a long prison sentence or even death. It was reported that a man wiped up a spilt drink with a newspaper. Someone noticed that the newspaper featured a photo of Kim Jong-Un and reported the man, who was imprisoned for insulting the leader.



20.7.5 Limits on our freedom of speech

Our right to freedom of speech in Australia is limited by the 'bounds of law.' This means that the law imposes some boundaries to prevent specific types of behaviour, such as hate speech, bullying, defamation and obscenity.

Hate speech

It is illegal in Australia to publicly use language that is likely to offend, insult, humiliate of intimidate anyone because of their race, colour, or national or ethnic origin. Football clubs have taken a stand against this type of abuse, the AFL for example, have banned people from their matches and clubs have revoked club memberships (see **FIGURE 10**).

FIGURE 10 AFL footballer Eddie Betts was subjected to anonymous racial abuse on social media in early 2019. His club, the Adelaide Crows, vowed to track down the person who posted the abuse and 'name and shame' them.



Bullying and harassment

State governments have acted to protect people from bullying, especially in the workplace. In 2010, four men and the company they worked for were fined a total of $335 000 for bullying a young waitress who later committed suicide. The bullying involved name-calling and offensive language (see **FIGURE 11**) and led to the introduction of Brodie's law. A survey by the Australian Human Rights Commission reported that in the 12 months prior to the survey 23 per cent of women and 16 per cent of men had experienced sexual harassment at work.

Defamation

Defamation occurs when one person writes or says something about another that causes damage to their reputation. A person who believes they have been defamed must prove the following.

- The defamatory material was published or communicated to a third party. Publication includes on a Facebook page.
- It must be clear that the person claiming to be defamed is referred to if they are not specifically named.
- There must be some clear damage to reputation, such as limiting your employment prospects. If no one believes the material, defamation has not occurred.
- The material must be untrue.

Defamation laws place a limit on free speech, by protecting innocent people from malicious harm and gossip.

FIGURE 11 The suicide of 19-year-old Brodie Panlock led to a change in the law. Ms Panlock endured months of bullying at the café where she worked. Following her suicide the Victorian state government brought in new laws, with a penalty of up to 10 years for anyone found bullying in the workplace.



Obscenity

Laws related to obscenity are designed to protect community standards of public decency and include the following:

- *Offensive language* — if you are caught swearing loudly in public, you can be charged with using offensive language in a public place.
- *Sexually explicit or violent material* — there are several laws that govern this type of material
  - Film and television classifications place restrictions on violent or sexually explicit materials by giving it a 'R 18+' classification.
  - Some materials, such as child pornography are banned completely, and people can be prosecuted and imprisoned for possessing it.
  - Sexting by teenagers has become an increasing problem and is classified as child pornography. Serious consequences apply to anyone caught participating in this practice.

20.7 SKILL ACTIVITY: Questioning and researching

Work with a partner to complete the following activity.

1. Use the internet to **identify** three laws passed by either a state parliament or the federal parliament designed to make it illegal to discriminate against any person based on their personal characteristics.
   a. For each law **explain** what characteristics (type of behaviour) the legislation is seeking to change.
   b. Suggest a reason for the introduction of this law.
   c. Find an example or **create** your own scenario to **illustrate** this new law in action.
2. Several states are considering changing the laws dealing with sexting. Using internet resources, **investigate** the following:
   a. **Identify** the states that have changed the law or are considering changes.
   b. **Explain** the changes that are being considered.
   c. **Propose** a reason for the changes being proposed.
3. Collect the findings of each class member and **create** a class publication that can be used as a resource by other students.

20.7 Exercise

learnon

20.7 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 5, 6, 10	7, 8, 9,

These questions are even better in jacPLUS!



- Receive immediate feedback
- Access sample responses
- Track results and progress

Find all this and MORE in jacPLUS

Check your understanding

1. The 'bounds of law' are boundaries on free speech which prohibit certain behaviours. **Identify** those behaviours in following list. **Select** all that apply.
   A. Criticism
   B. Hate speech
   C. Debating
   D. Bullying
   E. Arguing
   F. Defamation
   G. Obscenity
   H. Complaints

2. **Identify** the circumstances under which the Australian Constitution guarantees a jury trial to an accused person.
   - **A.** When someone is accused of any crime under Commonwealth law
   - **B.** When someone is accused of a serious crime under Commonwealth law
   - **C.** When someone goes to court for a civil dispute that is claiming more than $100 000
   - **D.** When someone goes to court for a civil dispute claiming any amount
3. **Identify** the right that best completes each sentence.

Interstate trade and commerce
freedom of religion
trial by jury
compensation for acquired property
residential non-discrimination

   - **A.** _____ is an express right that requires the government to take over property from individuals on just terms.
   - **B.** _____ is an express right that ensures that no state government can treat someone differently based on which state they reside in.
4. **Explain** what laws against obscenity are designed to do.
5. **Identify** the four elements that you would have to prove to successfully take legal action against someone for defamation.

Apply your understanding

Communicating

6. **Identify** the safeguards the Constitution provides for anyone who has their property taken over by the Commonwealth Government.
7. **Explain** why freedom of speech is important in supporting democracy in Australia.
8. A woman qualified as a doctor in Perth and moved to Queensland to live. The Queensland medical authorities attempted to prevent her from practicing as a doctor, because she did not gain her qualifications there. **Summarise** why such an action would be unlawful.

Analysis, evaluation and interpretation

9. **Recognise** the likely consequences of each of the following actions.
   - **a.** A group of employees in a factory engages in name-calling and using insulting language towards a workmate, who becomes afraid to go to work as a result.
   - **b.** A young man lies about his ex-girlfriend on his Facebook page, saying that she lost her job because she stole money from her employer. When the girlfriend applies for another job, she is unsuccessful because the prospective employer believes she is a thief.
   - **c.** A passenger on a bus begins harassing a family of African migrants, using racist language and telling them to 'go back where they came from'.
   - **d.** A 14-year old girl sends a topless photograph of herself to her boyfriend's phone. The boy keeps the photograph on his phone and, when they break-up, he resends it to all his friends with nasty comments about the girl.
10. **Examine** each of the following cases and determine whether or not there has been a case of discrimination.
    - **a.** A woman was unsuccessful in gaining a job because she was pregnant.
    - **b.** A real estate agent refused to rent an apartment to a family because they are First Nations Australians.
    - **c.** A man failed to get a job as a bus driver because he had no driver license.
    - **d.** A taxi driver with a sign on his cab saying 'No dogs' refused to pick up a blind person with a guide dog.
    - **e.** A carpenter advertises for an apprentice to work with him, and specifies that only males should apply.
    - **f.** A menswear store advertises for a model for its advertising catalogue, and specifies that only males should apply.

LESSON
20.8 What is customary law in First Nations of Australia communities?

First Nations readers are advised that this topic may contain photos of, or references to, people who have died.

LEARNING INTENTION

By the end of this lesson you should be able to describe some of the ways in which customary laws are significant to First Nations cultures, and outline examples of how customary law is practiced within the legal system today.

TUNE IN

First Nations Peoples recognise 'payback' as an element of customary law. Traditional punishments include spearing and 'singing' a person.

Though the man in **FIGURE 1** is just giving a demonstration, imagine that he is about to deliver 'payback'.

1. As a class, discuss what you think happens during a spearing.
2. Brainstorm ideas about what is meant by 'spearing' and 'singing' a person.
4. Discuss whether you think this sounds like a suitable way to deliver justice.

FIGURE 1 Spearing is a possible punishment within customary law.



20.8.1 What is customary law?

Customary law refers to the guidelines for behaviour that have been developed by First Nations Peoples. These laws are passed on by word of mouth and have not been written down. In what way is customary law significant to First Nations Peoples? We will explore the answer to this question throughout the rest of this lesson.

The Dreaming

First Nations laws originated in the Dreaming. The Dreaming is an English term that refers to the origins and practice of First Nations Peoples' of Australia beliefs and cultural systems. They have a very strong relationship with the Australian land. They believe that they do not own the land — that the land is a spiritual part of them and you cannot separate one from the other. so it is their responsibility to take care of it. The stories, songs and dances told about the Dreaming reveal the many ways in which First Nations Australians are connected to the land.

Dreaming stories

Elders passed on customary laws by telling Dreaming stories to other members of their community or language group. The stories provide guidance or instructions about how to behave and the right way to live. First Nations Peoples of Australia expect that the younger ones will listen to the older people, be obedient, and not be greedy or steal. Other customary laws concern what foods can be eaten, what rules apply to families, requirements for marriage, and spiritual responsibilities. Songs and dances are also used to pass down customary law.

customary law rules for behaviour developed by and for First Nations Peoples

FIGURE 2 Fern Pool, Karijini National Park. On the traditional lands of the Banyjima, Kurrama and Innawonga people. First Nations Australians believe that the Australian landscape and all its features were created by their ancestors.



Dispute resolution

First Nations Australians did not have governments, police or courts in the same way that the modern Australia does. Disputes were resolved by the elders, who would meet to discuss the incident or dispute and then agree on an appropriate solution or consequence. Punishments might include shaming or public ridicule for less serious offences, or exile or spearing for more serious cases. Within the Warlpiri nation of central Australia, spearing involved stabbing a spear into the thigh of a person who had committed an offence. The scar left behind would always remind the offender of the wrong act they had carried out.

20.8.2 Recording customary law

Customary law has not been **codified**. It is not easy to record. This is because it is not always the same throughout Australia. Different language groups and communities have their own customary laws, languages, beliefs and traditions. The laws that apply to one group do not necessarily apply to another group.

20.8.3 Customary laws and Australian law

Some state and territory laws have been amended to specifically refer to customary law — the Northern Territory's *Sentencing Act* recognises customary law. Many courts have also taken customary law into account when considering sentences. Refer to the case study 'Court imposes customary punishment' in section 21.8.4 for an example.

codified refers to laws that have been collected and organised, usually in written form

DISCUSS

Look at **FIGURE 3** and discuss the ways that perspectives have changed over time. Why do you think maps such as this one are highly contestable? Which aspects of this map would now be considered inappropriate or incorrect?

FIGURE 3 Map showing the distribution of the First Nations of Australia Tribes. Norman B. Tindale, 1940. Users of this map should be and may be considered inappropriate today, but may have reflected the creator's attitude or the period in which they were written. Bor



Map Showing the Distribution of the Aboriginal Tribes of Australia, Norman B Tindale, 1940
Mitchell Library M3 804eca/1788/1 A

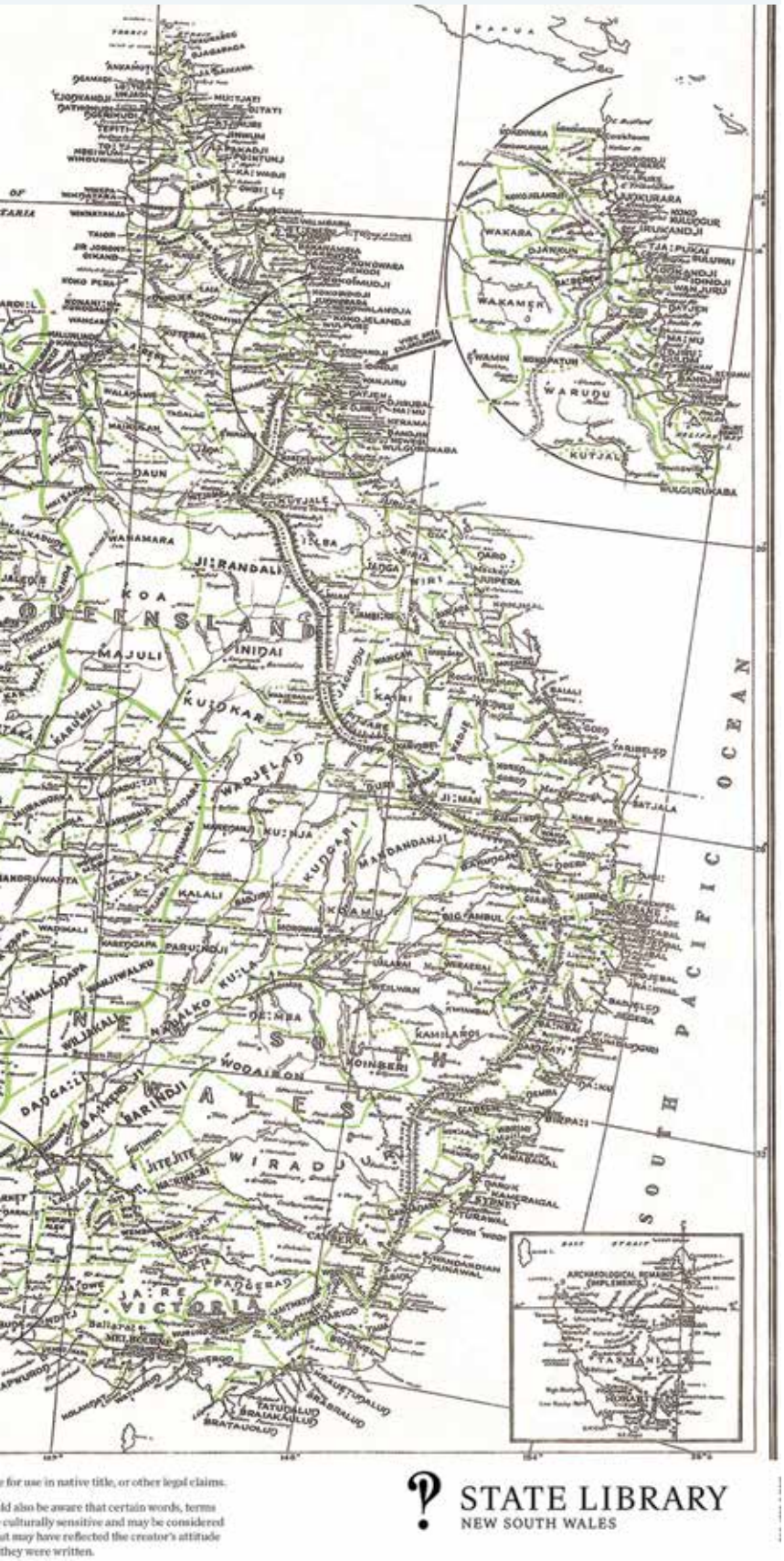
The Tindale Map is a historical map illustrating the diversity of Aboriginal languages groups across Australia.

Please note that this map is being made available for general reading and use. The map illustrates language groups according to anthropologist Norman Tindale in 1940. It is not the only Aboriginal language map available, and borders and terminology used may be contested in contemporary contexts.

The map is not suitabl

Users of this map shou or descriptions may be inappropriate today, b or the period in which

e aware that certain words, terms or descriptions may be culturally sensitive
rders and terminology used may be contested in contemporary contexts.



for use in native title, or other legal claims.
ld also be aware that certain words, terms
culturally sensitive and may be considered
ut may have reflected the creator's attitude
they were written.

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20.8.4 CASE STUDY: Court imposes customary punishment

The 1993 case of Wilson Jagamara Walker was the first in Australia to include a customary punishment as part of a sentence. Walker was a 23-year-old First Nations Australian man from central Australia who pleaded guilty to manslaughter.

He had been walking home when he heard a cry for help from a person being attacked by a group. Walker went to assist and ended up killing one of the attackers by stabbing him near the neck. The judge, Chief Justice Martin, initially sentenced Walker to 3 years' imprisonment. The sentence was then suspended and Walker was released on a 2-year good behaviour bond with conditions, including that he was to be speared in the thigh by relatives of the victim.

FIGURE 4 Wilson Jagamara Walker's case was the first in Australia to include a customary punishment as part of a sentence.



In describing the customary punishment, Chief Justice Martin said that:

> When you return to Yuendumu, you will be called upon to face tribal punishment . . . by getting speared in each of your legs a couple of times in such a way that you will be pained for at least a couple of weeks . . . A hunting spear would be used. The punishment would be administered by the brother of the dead man.

Martin ordered police officers to witness the spearing so that they could verify that the sentence had been carried out. Walker was told to return to the court to have the sentence reviewed if this did not occur.

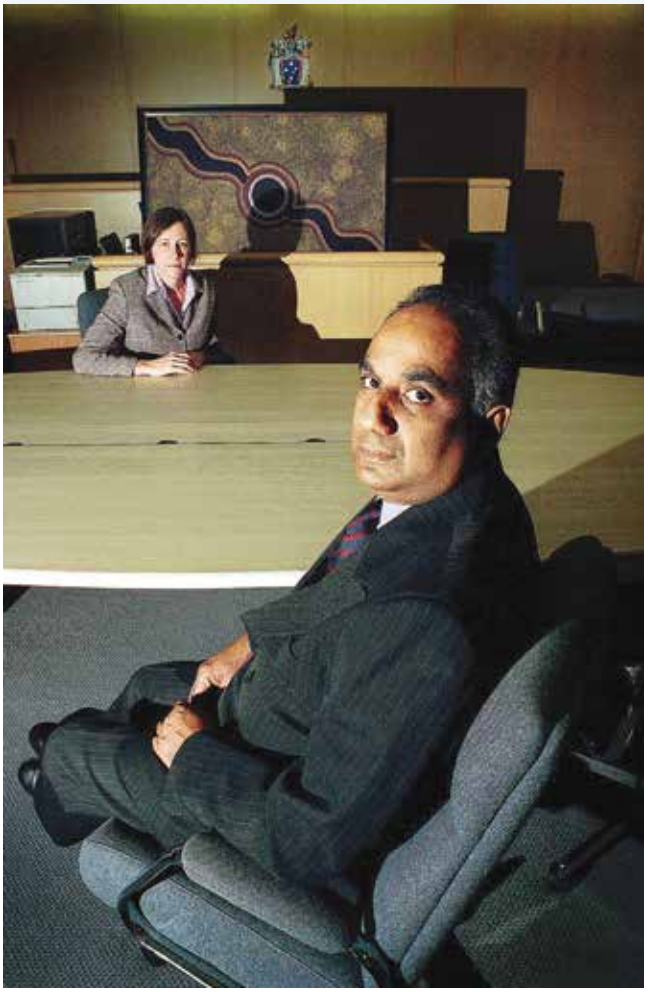
20.8.5 Alternative sentencing for First Nations offenders

First Nations offenders who plead guilty early in the proceedings may be offered alternatives to having a sentence imposed by the court. These options differ from state to state. One initiative is circle sentencing, a scheme operating in New South Wales that tries to avoid imprisonment for First Nations offenders. This is where a circle of people — including the offender's Elders, the victim, the offender, the offender's lawyer, the prosecutor or police and a Magistrate – will sit together to attempt to decide an appropriate sentence. The offender must have pleaded guilty and this is seen as an indication of the offender taking full responsibility for the offence. Circle sentencing is not appropriate for people who have been charged with murder or a sexual assault.

The offence is considered first, and then the offender and his or her background is discussed as well as the effect of the wrongdoing on the victim and the community. The elders decide the sentence, which must be approved by the Magistrate. The circle will often hand down a good behaviour bond with conditions attached, such as counselling or community service that includes culturally appropriate supervision that is designed to establish the cause of criminal behaviour and break the cycle of offending.

Other states have different names for similar programs. Western Australia has Aboriginal Community Courts, Victoria has Koori Courts, and South Australia has Nunga Courts. The territories also have circle or community courts. All of these courts involve First Nations community members in the sentencing process and the proceedings are less formal than in a traditional courtroom.

FIGURE 5 The Koori Court in Victoria provides a more informal environment for First Nations offenders, who must plead guilty if they wish to be sentenced here.



Positive outcomes for First Nations offenders

The census in 2021 found that First Nations Peoples of Australia make up 3.3 per cent of the Australian population and account for 28 per cent of prison population. The major reason for the over-representation of First Nations Australians in the criminal justice system is related to their unequal position in the wider community and cultural differences.

Circle sentencing has proven to be effective to some extent. A study by the Bureau of Crime Statistics and Research has found that reoffending and imprisonment rates were lower where First Nations Peoples were sentenced using circle sentencing rather than through the traditional courts. An important aspect of sentencing was addressing the cause of the offending, such as alcohol and drug addiction.

One criticism of this approach to sentencing is the fact that the accused is required to plead guilty. This is seen as undermining the presumption of innocence, where the prosecution is required to establish the guilt of an offender.

In 2018, the Victorian Supreme Court found that First Nations Australians cultural rights should be considered when sentencing offenders and that a request to be sentenced by the Koori Court was appropriate and cannot be refused.

20.8.6 Native Title Law and First Nations Australians

Mabo Day occurs during Reconciliation Week and is celebrated as an official holiday by Torres Strait Islanders. It commemorates the High Court decision handed down on June 3 1992, that overturned the notion of **terra nullius** and recognised the rights of First Nations Peoples of Australia to their land and waters and led to the passing of the *Native Title Act*. The decision marked the end of a 10-year struggle by Eddie Mabo and the Meriam people in the Torres Strait to their land.

FIGURE 6 Eddie Mabo successfully challenged the concept of *Terra nullius* in the High Court and paved the way for subsequent claims under the *Native Title Act*.



Following the decision in the Mabo case the Commonwealth Parliament passed the *Native Title Act in 1993*, codifying (see section 20.5.3) the decision and creating the process settling and protecting native title claims. A native title claim can be made where First Nations Australians can demonstrate a continuing connection to the land.

This connection is much easier to establish before European colonisation, however, issues arise where they dispossessed and forced off their lands. Native title cannot be claimed where other valid rights exist, such as home ownership or free access is required, such as marine access. It has been found to exist on vacant Crown land such as parks, public reserves or where the Commonwealth has granted pastoral or mining leases.

Approximately 40 per cent is covered by native title; of this First Nations communities have exclusive possession of around 17 per cent, with the rest shared, such as land subject to pastoral or mining leases.

Use the **Creative Spirits** weblink to learn more about native title and land rights.

terra nullius ('land belonging to no-one') in Australia, the legal idea that since no-one was 'using' the land when the first Europeans arrived, it could be claimed by the British Crown

20.8 SKILL ACTIVITY: Civic participation and decision-making

Work with a partner to **investigate** one of the circle sentencing courts.

1. **Explain** why the court was established.
2. **Explain** how the court works and the types of cases it sentences.
3. **Identify** one case that has been resolved by a circle sentencing court, make a **summary** of the facts of the case and the judgement made by the court.

Resources

Weblink Creative Spirits

20.8 Exercise

learnon

20.8 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 7, 9	5, 6, 8, 10

These questions are even better in jacPLUS!



- Receive immediate feedback
- Access sample responses
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Check your understanding

1. Customary law refers to the guidelines for behaviour that were developed by **British courts** / **First Nations Peoples** / **Australian courts**.
2. **Identify** how elders are involved in the administration of justice in cases involving young First Nations offenders in Victoria.
   - A. They are never involved.
   - B. They act as lawyers for the offender.
   - C. They keep the offender in their custody until sentencing.
   - D. They participate in determining the punishment handed down to the offender.
3. **Identify** an example of legislation that recognises customary law in Australia.
   - A. *The Northern Territory Sentencing Act*
   - B. *The Constitution of Australia Act*
   - C. *The Racial Discrimination Act*
   - D. *Sex Discrimination Act*
4. **Explain** why it is difficult to codify customary law.
5. **Summarise** why many politicians and law makers in the early years of colonisation and federation did not understand that First Nations Peoples had incredibly detailed customary laws that governed their societies.

Apply your understanding

Communicating

6. Read the case study 'Court imposes customary punishment'. **Outline** the way in which the judge incorporated customary law into the sentence imposed on Mr. Walker.
7. **Identify** two reasons for recognising customary law as part of Australia's legal system.
8. **Consider** whether new courts should be established to reflect the traditional laws of other ethnic or religious groups in Australia. For example, should an Islamic court be established so that Muslim offenders could be sentenced according to Sharia law?
   State one argument for or against this idea.
9. **Recall** as many reasons as you can to **explain** why First Nations People of Australia find customary laws significant.
10. If there is a conflict between First Nations law and laws legislated by parliament, which should apply? **Justify** your point of view.

LESSON
20.9 INQUIRY: Does Australia need a bill of rights?

LEARNING INTENTION

By the end of this lesson you should be able to summarise the arguments for and against Australia's need for a bill of rights. You should also be able to compare Australia to another Western democracy.

Background

In this inquiry you will **investigate** whether Australia needs a bill of rights.

Did you know that many countries throughout the world have a bill of rights or charter of rights to protect the human rights and freedoms of their citizens? Australia is one of the few western democracies that does not have a bill of rights.

A bill of rights can be part of a country's constitution, in which case it can be difficult to change; or it can be legislation passed by parliament, which can be changed by that parliament at any time, if most members of parliament support that change.

Many people say that a constitutional bill of rights would better protect the rights of citizens, because it cannot be easily changed. Victoria, Queensland, and the Australian Capital Territory have all introduced legislated charters of rights.

FIGURE 1 The United States, Britain, Canada, and New Zealand are all countries with similar democratic systems to us that have a bill of rights or a charter of rights.



Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

Inquiry steps

Step 1: Questioning and researching

- What is a bill of rights or charter of rights?
- How does a bill or charter of rights protect rights and freedoms?
- How does a bill of rights operate in another country?
- Why doesn't Australia have a bill of rights?
- How are rights and freedoms protected in Australia (for example, freedom of speech, right to silence)?
- What can people do in Australia and overseas if they think their rights have been affected by the actions of government or someone else?
- Now choose one of your questions as your inquiry question.

Step 2: Analysis, evaluation and interpretation

Begin by **investigating** the bill or charter of rights in one of these countries:

- Britain
- Canada
- New Zealand
- United State of America

Use the **Charter of rights** weblinks in the Resources panel to get you started.

Make notes under your inquiry questions.

Step 3: Civic participation and decision-making

- **Propose** possible reasons for Australia having a bill of rights.
- What options does Australia have for obtaining a bill of rights?
- **Explain** how a bill of rights supports a democratic society.

Evaluating political and legal institutions

- **Create** a table that shows the advantages and disadvantages of having a bill of rights.
- How are rights protected in Australia?
- Are these protections enough, or does more need to be done?

Step 4: Communicating

Select a format to **present** your point of view. This could be a short video, a mock TV interview or a PowerPoint presentation for example.

Complete your self-assessment using the **Inquiry rubric** or access the 20.9 exercise set to complete it online.

on Resources

Weblinks
Charter of rights - various countries
Victorian Charter of Rights and Responsibilities
Human Rights Act Queensland

Digital document
Inquiry rubric (doc-39546)

LESSON
20.10 Review

Hey students! Now that it's time to revise this topic, go online to:

Review your results | **Watch teacher-led videos** | **Practise questions with immediate feedback**

Find all this and MORE in jacPLUS



20.10.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

20.2 Why do we need laws?

- Society has both legal and non-legal rule.
- Non-legal rules apply to specific groups and may differ between groups, such as school rules.
- Legal rules apply to everyone in the community, such as road laws.
- There are five characteristics of effective laws.

20.3 How do parliaments make laws?

- Statute law (or an Act or legislation) must be passed through both houses of parliament in the form of a Bill, which must then be approved by the Crown.

20.4 How do courts make laws?

- Courts make laws because they interpret laws and make decisions to resolve the cases they are hearing, and in doing so create precedents that will be followed by other courts.

20.5 What is the relationship between parliament and courts in law making?

- Parliament and courts perform different roles in the legal system.
- Parliament and courts work together to make the legal system work effectively,
- Courts interpret statutes and can alert parliament to the need for a change in the law.
- Parliament creates courts and can change the laws they make.

20.6 What is the difference between civil and criminal law?

- Criminal law protects the community as a whole. It incorporates crimes including robbery, manslaughter and murder. The police or a representative of the government (the prosecution) takes the accused (the defendant) to court. There, a consequence, such as a fine or imprisonment, may be imposed.
- Civil law protects the private rights of individuals. It incorporates civil wrongs including negligence, defamation and breach of contract. A person who feels that a civil wrong has been done to him or herself (the plaintiff) will sue the other party (the defendant) in court to repair

20.7 What is the role of the law in protecting our rights?

- Rights are an important part of the rule of law and living in a democracy.
- Rights are protected by the Australian Constitution, statute law and common law,
- Rights are not absolute, the law sets boundaries on rights.

20.8 What is customary law in First Nations of Australia communities?

- First Nations customary law provides guidance for how to behave and live. Disputes or incidents are resolved by the Elders, who agree on an appropriate solution or consequence.
- Sentencing Courts that incorporate customary law have had positive outcomes.
- Native Title law has recognised land rights of First Nations Peoples

20.9 INQUIRY: Does Australia need a bill of rights?

- Australia is one of the few Western democracies that does not have a Bill of Rights
- In this Inquiry students investigate the Bill or Rights in another country and whether one is needed in Australia.

20.10.2 Key terms

abrogate passing an Act of Parliament to cancel or abolish a law (precedent) made by the courts

accused the party in a criminal trial against whom an action has been brought

Act a law passed by Parliament

Bill a proposed law that has not yet been agreed to by Parliament or received royal assent

balance of probabilities requires reasonable satisfaction that the facts as presented are probably correct and occurred as stated

binding precedent a decision made in a higher court in the same court hierarchy that must be followed by a lower court where the facts of the cases are similar

breach of contract a situation where a legally binding agreement is not honoured by one or more of the parties to the contract

burden of proof the legal principle describing who has to prove a case in court. In a criminal trial, this burden is on the prosecution

Cabinet the main group of parliamentary members from the governing party

codified refers to laws that have been collected and organised, usually in written form

common law law developed by judges through the decisions of courts

Crown the King's authority in the Australian parliament, represented by the Governor-General at the federal level and a Governor at the state level

customary law rules for behaviour developed by and for First Nations Peoples

defamation unlawful damage to a person's good reputation through written or verbal statements

defendant the party in a civil trial against whom an action has been brought

democracy a form of government in which the people determine how they will be governed

dispute an argument

homicide the killing of one person by another person

jury in a criminal trial, a randomly selected group of people who decide the guilt or innocence of an accused person

legislation a law made by Parliament

liable legally responsible for a civil wrong

magistrate a court official who hears cases in the lowest court in the legal system

manslaughter the accidental or unintentional killing of one person by another person

negligence a situation where a person breaches a duty to exercise reasonable care to avoid a foreseeable risk, resulting in another person being injured or suffering a risk of injury

nuisance interference with someone's enjoyment of public or private property

Opposition the main political party in the lower house of parliament not in power

persuasive precedent a decision made in a lower court or a court in a different hierarchy that does not have to be followed but may be used as a guide

plaintiff the person who commences a legal action in civil law

precedent a legal principle developed by a court in the process of resolving a dispute

prosecute to take legal action against another person for a criminal offence

referendum the process of allowing the people to vote on an important issue that will result in a change to the Australian Constitution.

republic the process of allowing the people to vote on an important issue that will result in a change to the Australian Constitution

rule of law a legal principal that all citizens are subject to the law and equal before the law. The law applies equally to all citizens regardless of status or wealth

standard of proof the level of proof required to establish a case. In criminal law, the prosecution must prove that the accused is guilty beyond reasonable doubt

statute law law made by Parliament

statutory interpretation the process used by judges to decide the meaning of words or phrases in a statute (Act of Parliament)

tabled in Parliament the document has been presented to the Parliament and laid on the Table in either or both houses of Parliament. This means it is available to members for review.

terra nullius ('land belonging to no-one') in Australia, the legal idea that since no-one was 'using' the land when the first Europeans arrived, it could be claimed by the British Crown

trespass a tort (civil wrong) involving direct and intentional interference with a person, or a person's land or goods

20.10.3 Reflection

Complete the following to reflect on your learning.

Revisit the inquiry question posed in the Overview:

Where do our laws come from and why should they be obeyed?

1. Now that you have completed this topic, what is your view on the question? **Discuss** with a partner. Has your learning in this topic changed your view? If so, how?
2. Write a paragraph in response to the inquiry question, outlining your views.

on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10780)
Reflection (ewbk-10782)
Crossword (ewbk-10783)

Interactivity Where do our laws come from? crossword (int-8236)

20.10 Review exercise

Students, these questions are even better in jacPLUS

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- Access additional questions
- Track your results and progress

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Multiple choice

1. Parliament makes laws by passing bills. Identify what must happen for a bill to become a law.
   - A. Pass the lower house, pass the upper house and receive royal assent
   - B. Be passed by the Labor Party, be passed by the Liberal Party and be approved by the Governor-General
   - C. Be passed by a lower court, be passed by a higher court and receive the approval of the High Court
   - D. Be agreed to by all of the parties
2. Following the decision of the Mabo case, the Commonwealth Parliament passed the *Native Title Act*, which included the court ruling. Identify the aspect of the relationship between parliament and the courts that this reflects.
   - A. Abrogation
   - B. Statutory interpretation
   - C. Codification
   - D. Consideration
3. Identify the name given to a law made by the courts.
   - A. Legislation
   - B. A Bill
   - C. An Act
   - D. Common law
4. Review the following statements and identify which involves a precedent.
   - A. Parliament passing new laws banning smoking.
   - B. A court finding that a contract existed due to a ruling made in a similar case in a higher court.
   - C. A court imposing a penalty for non-payment of speeding fines.
   - D. Parliament blocking a new law around immigration.
5. Rights are protected in several ways in Australia. Identify which of the following is not one of these ways.
   - A. Common law
   - B. The Australian Constitution
   - C. A bill of rights
   - D. Legislation
6. Criminal laws are the laws made to
   - A. be passed by both houses of parliament and approved by the Crown.
   - B. protect the community from harm.
   - C. develop legal principles in the process of courts resolving disputes.
   - D. protect the private rights of individuals.
7. Suing another person for negligence is an example of which law?
   - A. Criminal law
   - B. Statute law
   - C. Contract law
   - D. Civil law

8. Identify the standard of proof in a criminal case.
   - **A.** on the balance of probabilities.
   - **B.** with room for some doubt.
   - **C.** beyond reasonable doubt.
   - **D.** when the jury does not like the person.
9. Under First Australians customary law, how are disputes or incidents resolved?
   - **A.** Police wo will charge you and take you to court
   - **B.** Courts that examine all the evidence before them
   - **C.** Elders agree on an appropriate solution or consequence
   - **D.** Parliament that passes laws through both houses
10. Identify the statement that best describes First Nations customary law.
   - **A.** Laws passed through parliament that only apply to First Nations of Australia Peoples.
   - **B.** Civil law that only applies to First Nations of Australia Peoples.
   - **C.** The rules and guidelines in First Nations of Australia Peoples for how to behave.
   - **D.** One set of rules for behaviour that applied in First Nations of Australia cultures before colonisation.

Short answers

Communicating

11. **List** the steps involved when laws are made.
12. **Explain** the difference between criminal and civil law.
13. **Explain** what is meant by customary law and explain how it originated.
14. **Describe** the characteristics of effective laws.
15. The 'bounds of law' place limitations on free speech. Using an example, **explain** what is meant by this phrase.

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21 Citizenship, diversity and identity

LESSON SEQUENCE

21.1 Overview 699
21.2 What does national identity mean in a globalised world? 700
21.3 How has Australia's identity been shaped? 706
21.4 What are the different perspectives on national identity in Australia? 711
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LESSON
21.1 Overview

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What are the influences on Australian identity and how is this identity represented by individuals and communities?

21.1.1 Introduction

For tens of thousands of years, Australian society existed without significant influence from the outside world. Living in relative geographical isolation, the First Nations Peoples of Australian society developed a distinct, yet varied culture free from external influences. This changed abruptly with the arrival of European settlers who brought with them their own culture and traditions.

For over 200 years, successive waves of immigration have continued to bring new cultures, traditions and customs to Australia, creating a complex tapestry of national identity. The impact of external influences on Australian culture and identity has continued to grow, fuelled in many ways by the influence of popular culture and media. In this topic, you will investigate the development of Australian identity in the context of the global community. You will discuss how Australian identity has evolved and examine the drivers behind this evolution.

FIGURE 1 Australia's identity is constantly evolving.



on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10784)
Video eLesson Citizenship, diversity and identity (eles-6037)

LESSON
21.2 What does national identity mean in a globalised world?

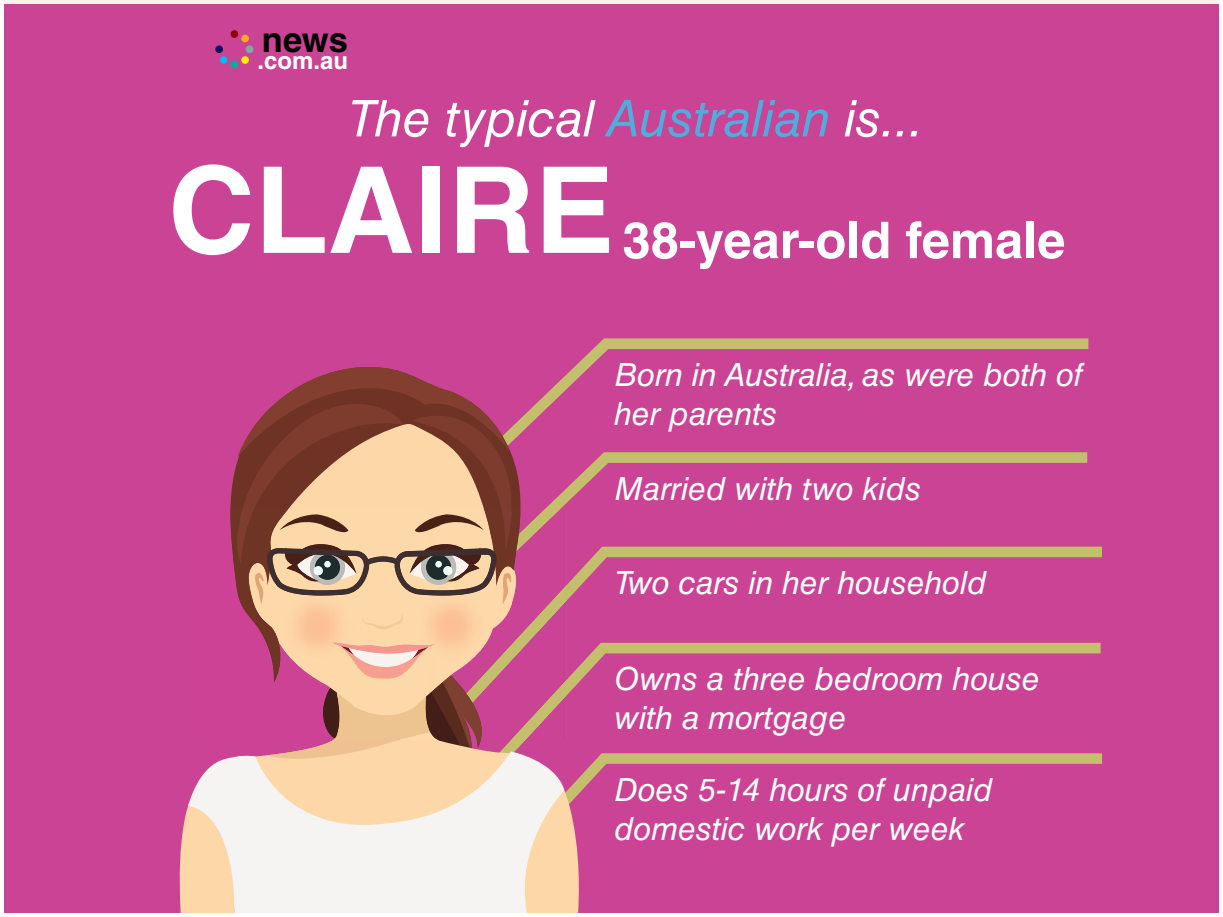
LEARNING INTENTION

By the end of this lesson you should be able to describe the impacts of globalisation on Australian national identity.

TUNE IN

The image in **FIGURE 1** represents the 'typical' Australian according to the most recent Australian Census data.

FIGURE 1 The typical Australian



1. Were you surprised by any of the characteristics shown in this image?
2. Discuss your own ideas of who you consider to be the 'typical' Australian.

21.2.1 *'We are one, but we are many…'*

You may have heard or perhaps sung the song 'I am Australian' many times, but have you ever stopped to think about the lyrics? Australia is a unique country in that the vast majority of its citizens were, at some stage during their history, immigrants. The only true Australians are First Nations Peoples whose ancestors have walked these lands for tens of thousands of years. So while we are 'one', we are indeed also 'many'. This lyric also directly relates to the discussion of Australia's national identity. It is an impossible task to assign one singular identity to the people of Australia. Instead, it is often said that Australia's identity is defined by our diversity. In an increasingly globalised world, it becomes more difficult to determine unique national identities and the search for Australia's national identity is no different.

21.2.2 The globalised world

In 1922, it would have taken you between 30 to 40 days to travel from Melbourne to London. In 1972, it would have taken you over forty-eight hours to fly between the two cities including several stopovers! In 2022, you can fly the route directly in only twenty-three and a half hours! This significant reduction in time is evidence of the technological developments which have changed the world dramatically. Rapid improvements in transport and information communication technology have combined to effectively make the world a smaller place. It has never been easier for people to move around the world as it is right now and it has never been easier for people to communicate with one another. These improvements have resulted in increased global connectedness, trade and cultural exchange — a process known as **globalisation**.

Examples of globalisation are all around you. Your phone, your clothes, the ideas you hold and even some of the friends that you have are all outcomes of an increasingly globalised world. Globalisation has many positive and negative aspects. While it is easier for us to travel, to trade and to share ideas, globalisation comes at a huge environmental cost, especially as most of the world still relies on fossil fuels for energy. Globalisation can, and is also having a significant impact on cultural identity.

globalisation the process of interacting with markets in other countries around the world, as part of an integrated global economic system

FIGURE 2 The Qantas Airways Airbus A380 allows large numbers of people to travel great distances, such as from Melbourne to London.



21.2.3 Globalisation and national identity

The relationship between globalisation and national identity is fascinating. If we go back in time before the era of globalisation, it is far easier to isolate unique national identities. Individual countries had distinct national cuisine, music, fashion and other cultural characteristics. Globalisation has blurred the lines between these cultural distinctions. The increased movement of people and ideas has increased the transmission of cultural characteristics between countries. Although many distinctions still exist, they are far less obvious than they were one hundred years ago.

The spread of the English language is one example of this trend. In 1900, English was the third most spoken language in the world, behind Spanish and Chinese/Mandarin. English overtook Spanish in 1912 and over one hundred years later, English eclipsed Chinese/Mandarin as the most spoken language in the world. English is now the official language of 67 countries and is seen as the preeminent language of business, diplomacy and international communication.

Halloween and homogenisation

Critics of globalisation argue that it has resulted in **cultural homogenisation**; that because people all over the world have access to the same products and the same information, that the diversity of unique national identities are being replaced by a uniform identity for all. Halloween has never traditionally been recognised in Australia. However, the increasing degree to which it is now being celebrated here demonstrates how globalisation can result in cultural homogenisation.

FIGURE 3 Halloween products being sold in an Australian supermarket



The popularity of Halloween has increased in recent times, largely due to the presence of American popular culture in Australia. American TV shows are streamed onto the televisions and phones of young Australians around the country, exposing more people to Halloween celebrations. Such is the growth in Halloween celebrations in Australia that supermarket Woolworths recorded a 20 per cent increase in pumkin sales during October 2021. If left unchecked, cultural homogenisation is a serious threat to national identity in the globalised world.

Ceremonies or spectacle

Another threat posed by globalisation occurs when demonstrations of national identity lose meaning, becoming token gestures or novelties. **Cultural tokenism** occurs when aspects of a particular culture are used incorrectly or without the proper context. Imagine if your teacher brought in a boomerang into a class on First Nations culture only to discover that this boomerang was cheaply produced overseas and was not even the same style as boomerangs used by the First Nations Peoples of your local area. The presence of the boomerang thus becomes a token gesture and one not based on historical accuracy or cultural understanding and respect. This kind of cultural tokenism is disrespectful and can cause harm and offence to people who follow the customs or beliefs being demonstrated. Inviting local First Nations representatives from the country on which your school stands to discuss the tools used throughout their history would be a much more genuine and respectful way to understand First Nations culture.

cultural homogenisation the diversity of unique national identities are being replaced by a uniform identity for all

cultural tokenism when demonstrations of national identity lose meaning, becoming token gestures or novelties

Conclusions on identity

As you have just learned, the impacts of the globalised world on national identity can be both positive and negative. Increased globalisation can make it more challenging to identify unique cultural characteristics and may even lead to cultural homogenisation. However, globalisation has also facilitated more cultural exchange and increased our understanding of other nations and their respective identities. As long as existing cultural traditions and values are understood, appreciated and celebrated, it is possible for globalisation and national identity to exist simultaneously.

21.2.4 Active citizenship in globalised world

As citizens in a pluralist society, it is our responsibility to embody the values and demonstrate behaviours that are characteristic of **pluralism**. Each Australian citizen has rights and responsibilities which, if upheld, can protect and foster pluralism within our society. The responsibilities of an Australian citizen according to the Australian Department of Home Affairs are shown in **FIGURE 4**.

pluralism the recognition and affirmation of diversity within a political body, which is seen to permit the peaceful coexistence of different interests, convictions, and lifestyles

A further complexity in this discussion occurs when we consider why some migrants choose to become Australian citizens whilst others do not. While Australia does allow its citizens to hold dual citizenship of another country, that other country may not.

In fact, some migrants may be forced to completely renounce their citizenship in their home countries, before becoming an Australian citizen.

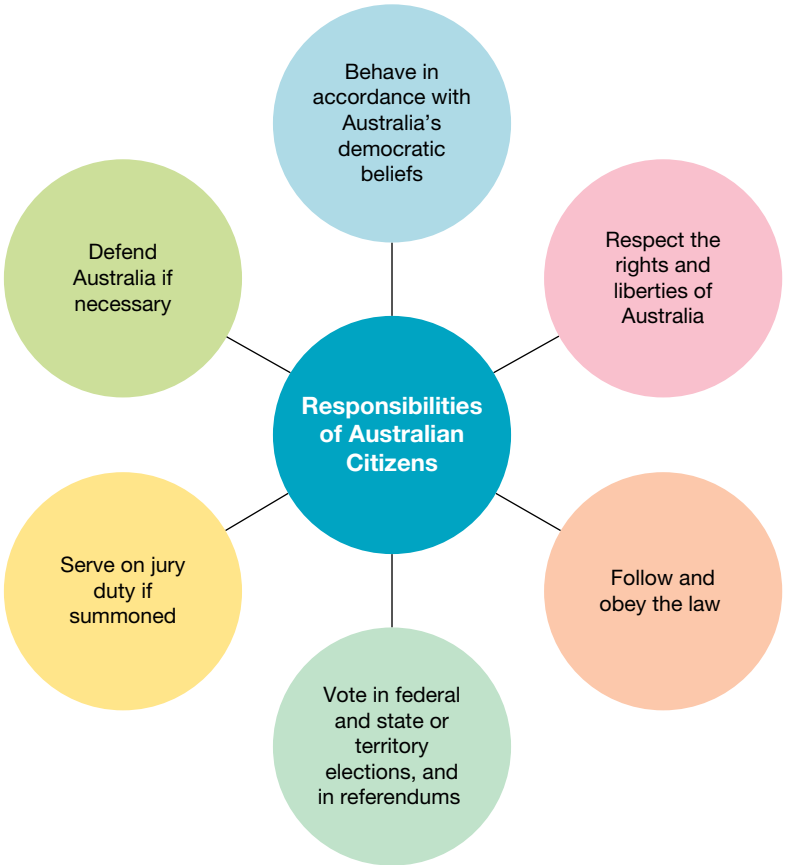
Most migrants to Australia must sit a 'citizenship test' as part of the citizenship process. This test is based on their knowledge of:

- Australia and its people
- Australian democratic beliefs, rights and liberties.
- government and the law in Australia.
- an understanding and commitment to Australian values based on freedom, respect and equality.

You can practice the test by visiting the immigration and citizenship page of the Department for Home Affairs website.

tlvd-10641

FIGURE 4 The responsibilities of an Australian citizen



These are the rights and responsibilities we have as Australian citizens. However, as our country is part of the global community, we also need to consider our role as global citizens. According to the Oxfam International definition of **global citizenship**, these responsibilities include those shown in **FIGURE 5**.

global citizenship being aware of the interconnectedness of the globalised world and acting in a way which promotes this notion

As you can see, being an active global citizen is no easy task, especially when you consider that active global citizens also need to be active citizens of their own countries. However, to maintain the strength and cohesion of our communities, it is important that we have an understanding of our roles and a willingness to participate.

tlvd-10642

FIGURE 5 The responsibilities of a global citizen



21.2 SKILL ACTIVITY: Analysis, evaluation and interpretation

As you have learned in this lesson, globalisation has several key positive and negative impacts on contemporary society. In this skill activity, you will **evaluate** the impacts globalisation can have on national identity.

When you evaluate something, you need to make a judgement. If you are evaluating a cake, you would judge it by its taste, texture and appearance. If you are evaluating an issue, such as globalisation, you need to set parameters which enable you to make that judgement. For this activity, you may wish to use categories of factors to help you. For example, what are the social, environmental and economic impacts of globalization?

21.2 Exercise

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21.2 Exercise

Learning pathways

■ LEVEL 1	■ LEVEL 2	■ LEVEL 3
1, 2, 3	4, 5	6, 7, 8

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Check your understanding

1. At one stage in their families' history, most Australians were
   - A. emigrants.
   - B. immigrants.
   - C. colonialists.
   - D. convicts.
2. It is often said that Australia's national identity is characterised by what?
   - A. Its diversity
   - B. Its age
   - C. Its language
   - D. Its people
3. **Identify** the two areas in which technology improvements have facilitated globalisation.
   - A. Mobile phones
   - B. Transport
   - C. Machinery
   - D. Information technology
   - E. Robotics
4. **Identify** two positive and two negative consequences of globalisation.
5. **Define** the term cultural homogenisation.

Apply your understanding

Communicating

6. **Explain** why it is so difficult to assign one singular view of Australian national identity.
7. Do you believe the benefits of globalisation outweigh the negative consequences? **Explain** your opinion.

Civic participation and decision-making

8. **Compare** the responsibilities of individuals as both Australian citizens and global citizens.

LESSON
21.3 How has Australia's identity been shaped?

LEARNING INTENTION

By the end of this lesson you should be able to explain how events in Australian history have influenced our national identity.

TUNE IN

To get you thinking in the right frame of mind for this lesson, think about your own family's history in Australia. Consider the following questions or discuss with a partner if you feel comfortable doing so.

1. When/how did your family come to Australia?
2. What challenges has your family faced during its history in Australia?

FIGURE 1 Immigration arrivals



21.3.1 Diversity as identity

Because ours is a pluralist society, it is difficult to define Australian identity. The identity of a pluralist society will, by definition, be as diverse as the backgrounds of its citizens. Australian identity has evolved over time and continues to evolve today. Our history has featured several waves of immigration which have brought new cultures, traditions and beliefs to our shores. Each wave has contributed to the diverse cultural identity that we see in Australia today. We see evidence of these changes in different aspects of daily life including food, music and fashion. In this lesson we will consider how waves of immigration have contributed to the evolution of Australian identity.

FIGURE 2 Shaped by waves of immigration, Australia's diverse cultural identity continues to develop.



21.3.2 The evolution of First Nations identity

Our investigation of Australian identity begins with the First Australians. One of several mistakes made by early European settlers was the assumption that First Nations Peoples of Australia lacked an identifiable culture. Since the First Nations Peoples' way of life bore little resemblance to British culture, the settlers made the flawed assumptions that First Nations culture must simply not exist. This false claim lay the foundation of the British claim of **terra nullius**. Yet for tens of thousands

terra nullius ('land belonging to no-one') in Australia, the legal idea that since no-one was 'using' the land when the first Europeans arrived, it could be claimed by the British Crown

of years before European settlement, Australia had indeed been occupied by a people with complex social structures and cultural traditions. First Nations Peoples' habitation of Australia began at least 65 000 years ago, with the first Australians arriving via a land bridge that once connected Australia with Papua New Guinea.

For thousands of years, First Nations populations flourished with cultures characterised by strong family connections and deep spiritual connection with the land. As First Nations Peoples spread across the country, more than 500 nations developed with distinct geographic boundaries. Despite some cultural and language differences that existed between these nations, they were linked by key ideological themes including kinship and connection to Country. Kinship was, and still is, a central principle of First Nations cultures. An individual's place within the kinship system established their relationship to others and their responsibilities and duties to their community. This sense of civic responsibility can still be seen in contemporary Australian culture.

Land or 'Country' has a special meaning in First Nations cultures and refers to more than simply a physical location. While natural environments and the resources they contain can be used by humans, they are also sacred places that must be protected and preserved for the future. In this way, we can see First Nations cultures as the origin of the close connection that many Australians have with their natural environment.

21.3.3 The evolution of Australian identity: European settlement

It could be argued that the impact of European settlement in Australia has had the biggest influence on the evolution of Australian identity. The arrival of the First Fleet in 1788 and the subsequent development of colonial settlements across Australia significantly altered the country's physical and cultural landscapes. While interactions between European settlers and First Nations Australians may have begun peacefully, settlers' marginalisation of First Nations Peoples, combined with cultural differences and a lack of understanding, soon led to conflict. Competition for resources, resistance against the Europeans and the introduction of European diseases **decimated** First Nations communities. By 1798 — just 20 years after the arrival of the First Fleet — it is estimated that Australia's First Nations population had been reduced by 90 per cent.

Not only did these interactions have a horrific impact at the time, but they have continued to influence First Nations communities, leaving a legacy of disadvantage and **marginalisation**. Unfortunately, we still see aspects of this disadvantage in First Nations communities today, as detailed in **TABLE 1**; measurements of wellbeing for First Nations Peoples are lower than that of non-Indigenous Australians in all indicators listed.

It is important to remember the negative impacts that European settlement had on First Nations communities. We also need to consider the other ways in which this period of Australian history influenced the evolution of our national identity. British colonisation of Australia left our country with significant links to Britain, particularly in regard to aspects of popular culture. British sport, literature, music, customs and traditions were all very much a part of Australian life. In fact, it was our connection to Britain, as a member of its empire, which directly led to Australia's involvement in World War I.

decimate to kill, destroy, or remove a large proportion of something

marginalisation treatment of a group of people which relegates them to the fringes of society

TABLE 1 Differences in wellbeing statistics for First Nations Peoples and non-Indigenous Australians (2021)

Wellbeing indicator	First Nations Peoples of Australia	Non-Indigenous Australians
Male life expectancy	71.6 years	81.3 years
Female life expectancy	75.6 years	83.2 years
High school completion rate	57%	89%
Median weekly income	$830	$1,124

21.3.4 The evolution of Australian identity: The bonds of war

Over 400 000 Australians enlisted in the First Australian Imperial Force (AIF) during World War I, with 60 000 losing their lives. The horrors of war left many soldiers with physical and psychological scars. Some soldiers found it difficult to return to their previous jobs and lives and it took the entire country time to recover as a nation. Amidst the hardship of war, however, came one of the most frequently debated parts of Australia's cultural identity — the concept of mateship.

The word mateship is commonly associated with Australian 'diggers' who fought in World War I, and more specifically, at Gallipoli. The word itself conjures images of soldiers risking their own lives to help injured comrades. However, the concept of mateship and even the use of the word 'mate' in Australia originated a long time before World War I. The word mate has its origins in the Germanic word gemate, which refers to people 'eating at the same table'. 'Mate' was also used frequently in a naval context and more broadly in colonial Australia as well. The concept of mateship in Australian culture gained prominence in the early twentieth century through the works of poets such as Henry Lawson. The romantic view of mateship was further enshrined in Australian culture through stories of war and resilience.

Australia's involvement in World War II also had significant cultural impacts. This event marked the beginning of a closer relationship between Australia and the United States of America. To strengthen its position in the Pacific, the US established naval bases in Queensland. At the height of this operation, more than 150 000 US soldiers were based in Australia. The American presence began to influence trends in fashion, music, technology and other customs. By the end of 1944, nearly two-thirds of Australian imports were sent from the US. Soon, it was the US, rather than Britain, that would have the strongest influence on Australian culture and identity.

The cultural impacts of war on Australian identity are also evident in the waves of migration that have been preceded by various twentieth-century conflicts. For a significant part of the twentieth century, immigration to Australia was closely restricted by the now controversial Immigration Restriction Act (1901) or, as it was widely known, the White Australia Policy. Under this policy, it was extremely difficult for immigrants from non-European countries to settle in Australia. The policy was relaxed after World War II and finally abolished in 1973 under the Whitlam government. **TABLE 2** summarises the relationship between global conflicts and immigration patterns.

FIGURE 3 Word War I diggers are often associated with the concept of mateship due to the close bonds they formed under extraordinary circumstances.



TABLE 2 Flows of migrants to Australia associated with world conflicts

Conflict	Origin of migrants
World War II	Europe
Vietnam War	Vietnam, Cambodia
Cold War	USSR: Russia, Ukraine, Baltic states
Various African civil conflicts	South Africa, Sudan, Somalia

21.3.5 The evolution of Australian Identity: Twenty-first-century influences

Australian identity has also been influenced by global events that have occurred in the early part of the twenty-first century. The impacts of the horrific terror attacks committed in the US on 11 September 2001 were felt across the world, including in Australia. Not only were strict and controversial anti-terror laws introduced by the federal government, but an underlying feeling of fear began to seep into Australian society. The 2002 Bali bombings, in which 88 Australians were killed, and the 2014 Lindt Café siege in Sydney, in which two hostages and the lone gunman were killed, also contributed to the development of a tense social climate. Times of crisis caused by these events are difficult for governments and communities to manage. While the safety of Australian citizens is paramount, we must also ensure that such events do not inflame racial tensions or lead to xenophobia (fear or dislike of anything or anyone considered foreign).

As Australia's relationship with our Asian neighbours has increased, so too has that region's influence on our national identity increased as well. Asian immigration is nothing new to Australia — with the first major wave of Asian migrants experienced during the Gold Rush. However, Australia's economic relationship with South-East Asia has intensified over the last 20 to 30 years. Strong trade partnerships with China, India, South Korea and Japan are a critical part of the Australian economy. A larger number of international students from Asia also attend Australian universities. As of September 2021, there were over 500 000 international students in Australia. Out of the top ten countries on this list, eight were from Asia. Cultural influences from a youthful Asian population can be readily seen in Australian cities — from fashion and music to more trivial examples such as the bubble tea phenomenon.

FIGURE 4 Bubble tea is now very popular in Australia.



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- 19.8 Writing and conducting a survey

21.3 SKILL ACTIVITY: Questioning and researching, Communicating

Your task is to research your family's migration history. (Note: if you have Aboriginal or Torres Strait Islander heritage, you will still be able to complete this project). By developing interview questions and then conducting an interview with an older family member, you will gain a better understanding of your family's heritage and what their identity means to them and to your family.

1. Your first step is to **develop** your interview questions. The best way to write an interview question is to think carefully about what you want to discover. A basic list of questions could include:
   - Where does our family come from?
   - Who were the first people in our family to migrate to Australia and why did they come here?
   - When did our family arrive in Australia and how did they get here?
   - What was life like when you (they) first arrived in Australia?
   - How did you (they) demonstrate their identity then and how do you (they) demonstrate your identity now?
   - If your family has Aboriginal and Torres Strait Islander heritage, you could ask questions such as:
     - What language group does our family belong to?
     - Where are the traditional lands of our family?
     - Does anyone from our family still live there? Why/why not?

   You can also add your own questions to these lists.

2. Once you have written your questions, **organise** a time to conduct your interview (this will have to be after school or on a weekend).
3. **Conduct** your interview. Make sure you either record your interview or write comprehensive notes during the interview.
4. Once you have completed your interview, you will need to **present** your findings to the class. The format you choose for this presentation is up to you. You can create a poster, Google Slide/PowerPoint or another form of multimedia presentation.
   Your presentation should provide a summary of your interview and should focus on the topic of Australian identity.

21.3 Exercise

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21.3 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 3, 4	2, 5, 7	6, 8, 9, 10

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Check your understanding

1. Upon their arrival in Australia, European settlers assumed that First Nations cultures were foreign and complicated. True or false?
2. **Explain** how the first inhabitants of Australia arrived.
3. After 20 years of European settlement in Australia, what percentage of First Nations Peoples had died?
   A. 10 per cent
   B. 30 per cent
   C. 60 per cent
   D. 90 per cent
4. **Identify** which of the following was an impact of British settlement of Australia.
   A. Interest in British sport, literature, music and customs
   B. Australia's involvement in World War I
   C. Development of the Australian accent
   D. All of the above.
5. **Explain** why it was difficult for non-European migrants to enter Australia during the mid-twentieth century.

Apply your understanding

Analysis, evaluation and interpretation

6. a. **Identify** the country you believe has had the biggest impact on Australia's national identity.
   b. **Justify** your decision.

Communicating

7. **Explain** how Australia's involvement in World War II led to a closer relationship with the United States of America.
8. First Nations cultures have a strong connection to natural environments. **Explain** how this connection can be seen in Australian culture today.
9. **Identify** evidence of British cultural influence that still exists in Australia today.
10. **Consider** how the concept of mateship applies to modern Australians. Do you feel a sense of mateship with anyone? **Explain** your answer.

LESSON
21.4 What are the different perspectives on national identity in Australia?

LEARNING INTENTION

By the end of this lesson you should be able to explain why the debate over Australia's national identity is not always clear and straightforward.

TUNE IN

Though debates can be formal and public events, often they are just a discussion between people in which they express different opinions about something.

1. Think of an issue which has multiple sides to the debate. Briefly discuss this issue and the arguments of the opposing sides with a partner.
2. Which side of the debate do you believe and why?
3. Discuss whether you believe this debate (or similar issues) need to have a clear outcome.

FIGURE1 Debating involves differing perspectives.



You have already learned how there is no such thing as one singular Australian national identity, but instead our identity is in fact defined by its diversity. Due to this diversity, individuals and groups within Australian society may have different perspectives on national identity and issues related to cultural celebrations, values and traditions. Unfortunately, some of these perspectives are built on false assumptions and incorrect cultural stereotypes. Later in this lesson, we will use two case studies to investigate differing perspectives on national identity in Australia. Before discussing these case studies, it is important to learn about how stereotypes can impact these perspectives and, in turn, social cohesion.

21.4.1 Representations of social groups in Australian media

Stereotypes exist due to the way social groups are represented in the media. Our perceptions of these groups are heavily influenced by what we watch on television and read in newspapers and on social media. So influential are these sources of information that they can often override our existing knowledge of social groups. We can see the influence of stereotypes in the results of the following two studies. A 2018 Deakin University report found that over a third of news stories about minority communities portrayed them in a negative light. Another study investigated the ways in which elderly people are represented by the Australian media. The results of this survey are shown in the **FIGURE 2** graphic. Words that appear more frequently appear larger in this image. These two studies remind us that we need to think critically about the way that social groups are represented in the Australian media and consider the impacts these representations can have.

Stereotypes can have a significant impact in societies regardless of the way that they are created or perpetuated. Most stereotypes have negative connotations and are based on only a small part of a social group's true identity. By accepting a stereotype, we limit ourselves in developing a true understanding of different cultures. We exaggerate cultural and religious differences and forget the similarities we may share. In this way, stereotypes can undermine cohesion in Australian society.

stereotype widely held but oversimplified idea of a type of person or thing

FIGURE 2 Perceptions of how older people are portrayed in the media



21.4.2 Asylum seekers and refugees

The second verse of the Australian national anthem is sometimes ignored at school assemblies and sporting events. However, the lyrics of this verse are among the most important of the anthem.

> *'For those who come across the seas, we've boundless plains to share,*
>
> *With courage let us all combine to Advance Australia Fair'*

This lyric directly relates to welcoming migrants into our society — an issue that has a mixed history in our country. In modern Australia, we like to think that our communities are tolerant and welcoming — and for the most part, there are just that. However, the treatment of **asylum seekers** and **refugees** in Australia continues to cause debate. Every year, Australia accepts approximately 12 000 refugees. This number includes only those people who are settled as part of official United Nations refugee settlement programs. An asylum seeker is someone who claims to be a refugee, but whose official status has yet to be confirmed. Until recent years, there were also thousands of asylum seekers who were classified as 'irregular arrivals'. These people attempted to enter Australia via unofficial methods, most commonly by boat. In recent years, the attitudes of both governments and regular Australians to refugees has been extremely different to the way asylum seekers are treated.

FIGURE 3 Protesters in Brisbane objecting to the treatment of asylum seekers



A 2016 Lowy Institute report investigated public perceptions of refugees and asylum seekers. Fifty-nine per cent of respondents thought that no asylum seeker arriving by boat should be allowed to settle in Australia. However, 63 per cent of respondents support an individual's right to seek refuge. These two conflicting results suggest that some Australians may be confused about their attitudes towards refugees and asylum seekers. While they respect an individual's

asylum seeker a person whose request for sanctuary has yet to be processed

refugee a person who has been forced to leave their country in order to escape war, persecution, or natural disaster

right to seek refuge, they want that person to do so through official channels. What some people do not understand is that it may not always be possible for an asylum seeker to pursue assistance through these channels. Besides, if the second verse of the anthem were true, shouldn't the same rights be offered to all those seeking to make Australian their home?

21.4.3 Flagging a change?

The design of the Australian flag has been frequently debated, particularly in recent years. The current flag was chosen from a national competition to celebrate Australia's federation in 1901. It features the Union Jack — the flag of Great Britain, as well as Southern Cross and a seven-pointed larger star to represent Australia's state and territories. While the current flag is well-known and loved by many, proponents of changing the flag point to several key issues with the current design. The presence of the Union Jack is the most pressing of these concerns.

FIGURE 4 The Australian flag



Although Australia is still part of the Commonwealth, it is no longer under the direct control of Great Britain. As such, there is no real need for the Union Jack to feature on our national flag. Since so many other national flags feature the Union Jack, its presence on the Australian flag also detracts from the unique quality of its design. Yet most importantly, the Union Jack's presence is also a painful reminder to First Nations Peoples of the significant impacts of British colonisation.

The depiction of the Southern Cross constellation is another element of the flag which has promoted discussion. The Southern Cross had been used on colonial flags long before federation and was a familiar symbol to European settlers. While the Southern Cross also has some meaning to First Nations Peoples, they traditionally have seen the constellation as merely one of many parts to a larger story. In recent years, some social commentators have noted the symbol's negative connotations, particularly in reference to some racist and far-right organisations. Historian Dr Martin states that:

It was used in the trade union movement, but in recent years has also been picked up by elements of the racist right. For many Indigenous or non-white Australians, it is a very difficult emblem. We need to think carefully about how it has been used if we want a symbol for all Australians.

This quote shows that we need to carefully consider the ways in which symbols can have meaning for different groups of people. By including symbols on our national flag, we are in turn making comments about our national identity. It is for this reason that many individuals and community groups have called for the Australian flag to be updated to better reflect our diverse national identity.

on Resources

Weblinks Refugee Council of Australia
Red Cross
Asylum Seeker Resource Centre

21.4 SKILL ACTIVITY: Questioning and researching, Communicating

There are lots of incorrect assumptions and perceptions of refugees and asylum seekers in Australia. Your task is to communicate the facts around the issue to other Year 8 students.

1. **Conduct** research on five areas regarding refugees and asylum seekers. Areas to focus on could include:
   - why they have fled their countries
   - their average age, gender and situation (single, family, occupation, etc.)
   - how they travel to Australia
   - what they have with them when they arrive
   - what processes and conditions they face when they arrive in Australia
   - how long they are detained.

   You could use the **Refugee Council of Australia**, **Red Cross** or **Asylum seeker Resource Centre** weblinks in your research.
2. **Create** a factsheet about this topic. A factsheet should be free of opinion and should focus on statistics and factual information.

   Remember your audience (year 8 students) and your purpose (to inform).

21.4 Exercise

learnon

21.4 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 5	3, 4	6, 7, 8

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Check your understanding

1. **Name** three factors that can influence someone's perspective on national identity.
2. How are stereotypes created and perpetuated?
   - A. Through the media
   - B. Personal experiences
   - C. Cultural trends
   - D. All of the above
3. **Explain** the difference between a refugee and asylum seeker.
4. Approximately _____ refugees are resettled in Australia each year.
5. The Australian flag was designed to celebrate which event?
   - A. Federation
   - B. The arrival of the First Fleet
   - C. The 1967 referendum
   - D. The 1956 Olympic Games

Apply your understanding

Communicating

6. **Propose** a way in which negative stereotypes could be changed to better reflect true cultural traditions, values and practices.
7. **Explain** whether you believe refugees and asylum seekers are treated differently by the Australian government. Is this difference justified?
8. **Create** a new version of the Australian flag. Ensure that your design appropriately reflects Australia's diverse national identity. Include a written explanation of the features/symbols/colours which you have chosen to include.

LESSON
21.5 INQUIRY: Change the Date — The future of Australia Day

LEARNING INTENTION

By the end of this lesson you should be able to describe the debate surrounding Australia Day and propose a new date based on your own research and analysis.

Background

The debate that surrounds the celebration of Australia Day provides another example of the complex nature of Australian national identity. Australia Day (currently celebrated on 26 January) is the official national day of Australia. This date commemorates the arrival of the ships of the First Fleet at Port Jackson, New South Wales in 1788. The first evidence of Australia Day celebrations comes from colonial New South Wales.

Referred to as 'Foundation Day', Governor Lachlan Macquarie issued the first official observance of the date in 1818 — the thirtieth anniversary of the founding of the colony. Prior to 1888, the individual colonies celebrated their respective commemorative events on separate days. It was not until 1935 that all Australian states and territories officially adopted the term 'Australia Day' and it was only as recent as 1994 that the date was marked by a national public holiday.

The celebration of this day is far from straightforward — even before we start to discuss what a national day to celebrate the arrival of the British signifies to First Nations Peoples.

FIGURE 1 Invasion Day protesters call for a change of date



In modern Australia, our national day is celebrated in many different ways. Barbeques, concerts, community events and citizenship ceremonies are held on Australia Day across the country. Some people argue that Australia Day is the perfect opportunity to reflect on what makes our country unique and what it means to be Australian. But to many other Australians, there is nothing about 26 January that warrants celebration.

To many Australians, this date is a reminder of the beginning of a brutal invasion and one which had lasting consequences. For this reason, celebrating Australia's official national day on the anniversary of European colonisation is seen by many as deeply disrespectful to First Nations Peoples and their cultural heritage. The first official protests against Australia Day celebrations occurred in 1938 with the National Day of Mourning. This event was heavily publicised and is seen by many historians as the beginnings of the Indigenous civil rights movement. Day of Mourning protests have been held ever since, with more recent events using the names Invasion Day or Survival Day. In recent years, there have been calls to change the date of Australia Day. People calling for this change are not against celebrating an Australian national day. Instead, they want to celebrate Australian culture and identity on a date that has a more positive meaning for all Australians.

Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

Inquiry steps

Your task is to choose a new date to host Australia's national day. You need to **create** and **communicate** a presentation to your class which explains the rationale behind your choice. Use the following scaffold to help you investigate the issue further and to help you create your presentation

Step 1: Questioning and researching

The basis of the issue has been provided for you, but now it's up to you to find out more. Start by **listing** potential new dates and their significance to Australian history.

Step 2: Analysis, evaluation and interpretation

What are you looking for in a new date for Australia Day? What do you think would unite Australians behind your choice? Why is one potential new date better than another?

Step 3: Civic participation and decision-making

Having researched and analysed the issue, now comes the time to make your own decision. Which date provides the best reflection of Australian society?

Step 4: Communicating

Now it's time to put it all together.

Select a line of argument and stick to it. Be clear and concise with your reasoning. Make sure that you include evidence to support your decision.

Complete your self-assessment using the **Inquiry rubric** or access the 21.5 exercise set to complete it online.

on Resources

Digital document Inquiry rubric (doc-39547)

LESSON
21.6 Review

Hey students! Now that it's time to revise this topic, go online to:

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21.6.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

21.2 What does national identity mean in a globalised world?

- Due to Australia's diverse cultural composition, a singular national identity is difficult to isolate.
- Improvements in transportation and information communication technology, the world has been a smaller place — a process known as globalisation.
- Globalisation has facilitated the movement of people and ideas, creating a blend of cultural identities within many countries, including Australia.
- National identities have become more similar in the modern world.
- Citizens of countries have responsibilities to their own countries but also to the global community.

21.3 How has Australia's identity been shaped?

- Australian national identity has evolved over time, beginning with First Nations Peoples over 65 000 years ago.
- Changes to Australian national identity have mirrored the country's immigration history and also our changing regional relationships and alliances.

21.4 What are the different perspectives on national identity in Australia?

- People have differing perspectives on national identity and what it means to be Australian. These perspectives are sometimes built on false assumptions and incorrect cultural stereotypes.
- Symbols (such as the Australian national flag) and issues (such as Australia's attitude towards refugees and asylum seekers) can often reflect the way cultural identity is felt and represented by different cultural groups within Australian society.

21.5 INQUIRY: Change the Date — The future of Australia Day

- The date currently used to celebrate Australia Day is problematic, largely because of the significance of that date in the history of First Nations Peoples.

21.6.2 Key terms

asylum seeker a person whose request for sanctuary has yet to be processed

cultural homogenisation the diversity of unique national identities are being replaced by a uniform identity for all

cultural tokenism when demonstrations of national identity lose meaning, becoming token gestures or novelties

decimate to kill, destroy, or remove a large proportion of something

global citizenship being aware of the interconnectedness of the globalised world and acting in a way which promotes this notion

globalisation the process of interacting with markets in other countries around the world, as part of an integrated global economic system

marginalisation treatment of a group of people which relegates them to the fringes of society

pluralism the recognition and affirmation of diversity within a political body, which is seen to permit the peaceful coexistence of different interests, convictions, and lifestyles

refugee a person who has been forced to leave their country in order to escape war, persecution, or natural disaster

stereotype widely held but oversimplified idea of a type of person or thing

terra nullius ('land belonging to no-one') in Australia, the legal idea that since no-one was 'using' the land when the first Europeans arrived, it could be claimed by the British Crown

21.6.3 Reflection

Complete the following to reflect on your learning.

Revisit the inquiry question posed in the Overview:

What are the influences on Australian identity and how is this identity represented by individuals and communities?

1. Now that you have completed this topic, what is your view on the question? Discuss with a partner. Has your learning in this topic changed you view? If so, how?
2. Write a paragraph in response to the inquiry question, outlining your views.

on Resources

eWorkbooks Customisable worksheets for this topic (ewbk-10784)
Reflection (ewbk-10786)
Crossword (ewbk-10787)

Interactivity Citizenship, diversity and identity crossword (int-9038)

21.6 Review exercise

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Multiple choice

1. Which of the following is NOT a benefit of globalisation?
   - A. Faster international travel times
   - B. More effective communication channels
   - C. Increased environmental damage
   - D. Global transference of ideas and information
2. Globalisation has made a country's national identity
   - A. easier to identify.
   - B. harder to identity.
   - C. more similar to that of other countries.
   - D. All of the above.
3. Which of the following provides the best definition of cultural homogenisation?
   - A. When all countries have the same national identity
   - B. When some countries have similar parts of their national identity compared to others
   - C. When all countries have unique national identities
   - D. When some countries have no identifiable national identity
4. What effect can cultural tokenism have on the meaning of traditions and customs?
   - A. It can make them better and easier to see
   - B. It can lessen the meaning of these traditions and customs
   - C. It has equal positive and negative effects
   - D. It has no impact at all
5. All of the following are rights and responsibilities of Australian citizens except
   - A. follow and obey the law.
   - B. defend Australia if necessary.
   - C. respect the rights and liberties of Australia.
   - D. give everyone a 'fair-go'.
6. The impact of _____ had the biggest impact on the evolution of Australian national identity.
   - A. European settlement
   - B. Post-war immigration
   - C. The White Australia Policy
   - D. First Nations cultures
7. Changes in Australian national identity have followed
   - A. waves of cultural trends.
   - B. waves of immigration.
   - C. waves of global conflicts.
   - D. waves of economic relationships.
8. Which region has had the biggest recent impact on Australian national identity?
   - A. South-East Asia
   - B. Sub-Saharan Africa
   - C. Western Europe
   - D. North America

9. Most stereotypes are
   - **A.** accurate and constructive.
   - **B.** true and helpful.
   - **C.** negative and hurtful.
   - **D.** neither positive nor negative.
10. Asylum Seekers are people whose refugee status has
   - **A.** been ignored.
   - **B.** been denied.
   - **C.** been approved.
   - **D.** not been decided.

Short answer

Analysis, evaluation and interpretation

11. **Evaluate** the impact of globalisation on Australian national identity. Do you think globalisation has had an overall positive or negative impact on the evolution of our identity?
12. After reading the section on Halloween and cultural homogenisation, do you think Australians should continue to celebrate this event? **Justify** your stance.

Communicating

13. **Suggest** ways in which cultural tokenism can be avoided.
14. **Explain** what you think should be the higher priority for Australians — to act as Australian citizens or as global citizens?
15. **Create** a timeline which documents important changes in Australia's immigration history and their impacts on national identity.

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ECONOMICS AND BUSINESS

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23 Markets: Consumers, businesses and government 738
24 Achieving economic goals 778




Julie White

22 Economics and Business concepts and skills



LESSON SEQUENCE

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22.2 Concepts in Economics and Business 726
22.3 Skills in Economics and Business 733
22.4 SkillBuilder: Conducting research into prices and markets ..... online only
22.5 SkillBuilder: Interpreting and explaining supply and demand graphs ..... online only
22.6 SkillBuilder: Evaluating an opportunity with a cost–benefit analysis ..... online only
22.7 SkillBuilder: Writing a pitch for a new product / business idea ..... online only
22.8 Review 736

LESSON
22.1 Overview

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22.1.1 Introduction to the world of Economics and Business

The **economy** can seem like a big concept, but we are all involved in it every day. Have you purchased food today? Have you used electricity, caught public transport or been driven in a car? Do you have a bank account, or have you sent a text to a friend? If you answered yes to even one of these questions, you have been involved in the world of economics and business. When we buy goods and services, deposit money in a bank account or obtain a casual job, we are all contributing to the economy.

The focus of learning in Year 8 is the topic of Australian markets. You will identify how markets influence how resources are used to produce certain goods and services. You will investigate ways that businesses see opportunities in markets and respond to the work environment. You will learn about the importance of Australia's taxation system and its effect on decision-making. You will also consider why individuals and/or businesses budget and plan. Studying economics and business provides you with valuable knowledge for making decisions in everyday life and understanding the world around you. In this topic, you will develop the skills of questioning and research, interpreting and analysing, evaluating, concluding and decision-making and communicating.

economy a system established to determine what to produce, how to produce and to whom production will be distributed

FIGURE 1 The world of Economics and Business affects many everyday decisions we make.



on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10788)

Video eLesson Economics and Business concepts and skills (eles-6038)

LESSON
22.2 Concepts in Economics and Business

LEARNING INTENTION

By the end of this lesson you will be able to explain the Economics and Business key concepts: resource allocation and decision-making, the business environment, entrepreneurship, work and work futures and consumer and financial literacy.

The world of Economics

Economics studies people and the choices they make. It investigates how limited resources are used to satisfy our unlimited needs and wants. Economists consider how to improve the living conditions of people in their everyday lives. The world of economics is everywhere: it is occurring right now all around you, happening day and night, going on today and continuing tomorrow. The economic environment is always changing. This means that it is an exciting world, full of surprises and opportunities.

The world of Business

Businesses are at the core of our society. You buy from different types of businesses every day, and interact with business entrepreneurs or people who are employed by a business. You may have your own idea for a business venture or perhaps you have operated your own 'business' mowing lawns, baby sitting or running a market stall.

The Economics and Business concepts can help us to make sense of the world. By using these concepts you can identify questions, guide your investigations or assist decision-making about the world you live in. You can also use them to try to imagine a different world. The five key concepts are: resource allocation and decision-making, the business environment, entrepreneurship, work and work futures, and consumer and financial literacy.

economics a social science (study of human behaviour) that analyses the decisions made by individuals, businesses and governments about how limited resources are used to satisfy society's unlimited needs and wants

business any activity conducted by an individual or individuals to produce and sell goods and services to make a profit

FIGURE 1 The five key concepts in Economics and Business help make sense of the world.



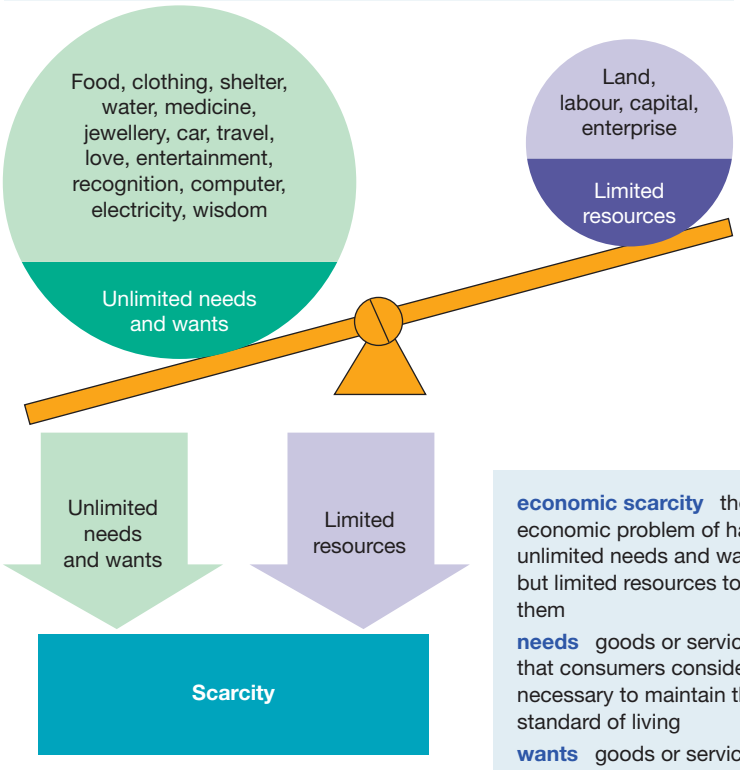
22.2.1 Resource allocation and decision-making

As you learned in Year 7, **economic scarcity** is the concept of people having unlimited **needs** and **wants**, but only having limited resources available to satisfy them. As individuals, nations and as a planet, we only have a certain amount of resources available to us. We call this the basic economic problem and it always exists, in all world economies.

Needs are items that people must have in order to survive, such as food, water and clothing. Wants are a wish or desire for something that will make life more enjoyable for a person and are not necessary for survival. In order to make good choices with their available resources, people must know the difference between needs and wants.

However, the difference between a need and a want is sometimes not clear. Generally, most of us would say that needs include shelter, health care and access to good hygiene facilities. You might say that a car, computer, internet and mobile phone are wants. However, many people would suggest that these are needs.

FIGURE 2 The basic economic problem is scarcity, where we have unlimited needs and wants, but limited resources to satisfy them all - this creates an unbalance.



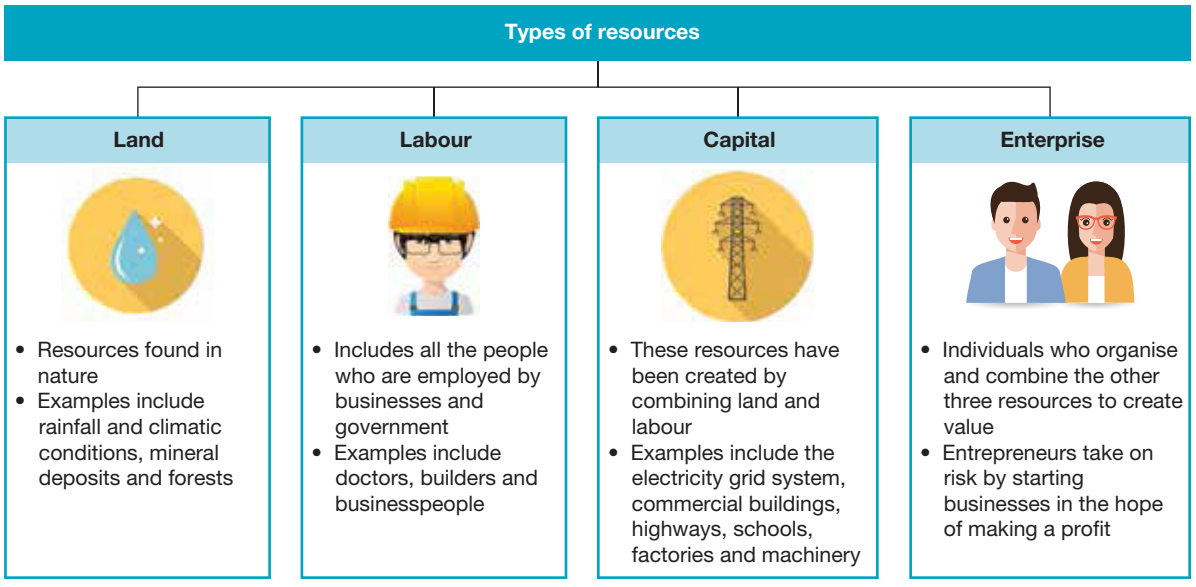
economic scarcity the economic problem of having unlimited needs and wants, but limited resources to satisfy them

needs goods or services that consumers consider necessary to maintain their standard of living

wants goods or services that are desired in order to provide satisfaction to the user, but which are not necessary for survival or to meet the basic standard of living in a community

To satisfy our needs and wants, businesses use resources to produce goods and services. There are four main types of economic resources: land, labour, capital and enterprise. These types of resources can be seen in **FIGURE 3.**

FIGURE 3 There are four main types of economic resources: land, labour, capital and enterprise.



To produce goods and services, resources usually need to be combined. For example, to bake a loaf of sourdough bread, we need flour, water and salt (land resources), an oven (capital resource) and a baker (labour resource). Unfortunately, as we have seen, the resources available to us are limited. We can only produce a certain amount of goods and services from these resources. We are not able to satisfy the unlimited needs and wants of society. Because of economic scarcity, we must choose some things which means giving up other things.

FIGURE 4 Businesses use economic resources to produce the goods and services that society wants and needs.



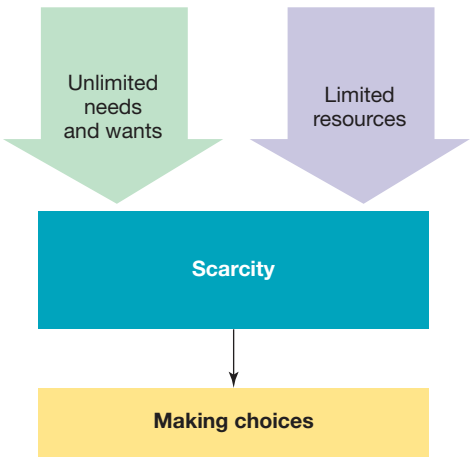



Economic scarcity means that we cannot produce an unlimited amount of everything, and neither can we buy an unlimited amount of everything either. So, everyone is forced to make choices.

In economics, **opportunity cost** describes the relationship between scarcity and making choices. This is the alternative that is given up when making a choice. It is the sacrifice you make when you choose one thing over another. Every choice we make involves an opportunity cost.

For example, say Ayesha finds herself with enough money to buy either a new book or a pair of earrings. She does not have the money for both. After much thought, she decides to put the money towards the book. The opportunity cost of doing this are the earrings that she was not able to buy.

Opportunity cost is the best alternative given up when making a choice. Consumers, business and the government all need to



opportunity cost the next best alternative given up whenever a choice is made

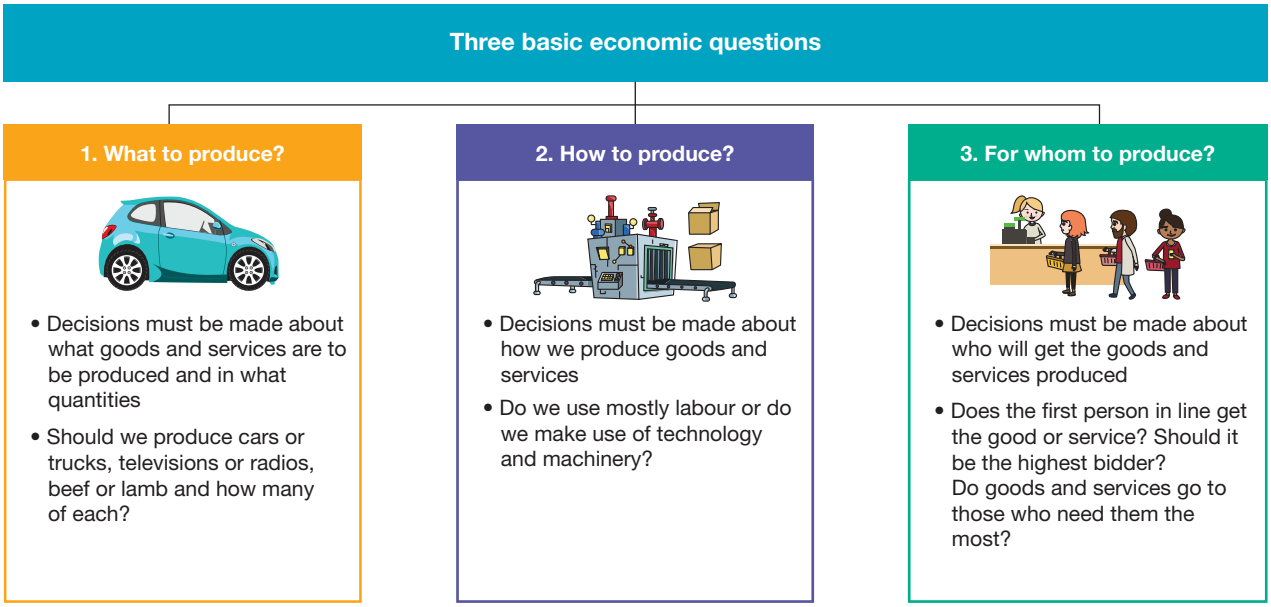
consider opportunity cost when they make choices. Consumers constantly have to make choices when they purchase goods and services. They must also make choices about how they will work and how they will spend their leisure time. Businesses need to make choices about what goods to produce and how to satisfy the needs of their customers. Governments also make choices about how to best manage society and the economy.

All economies must decide how they will use their scarce economic resources to satisfy their unlimited needs and wants. Making decisions about how we will use resources is known as **resource allocation**. Our society has developed an **economic system** to make choices that will solve the basic economic problem.

FIGURE 5 The cost of buying a video game is not just the price paid, but also the opportunity cost of not being able to spend the money on something else.



FIGURE 6 The three basic economic questions



An economic system is the way we organise the production and distribution of our goods and services. All economic systems must answer three basic economic questions:

- What to produce?
- How to produce?
- For whom to produce?

For example, a farmer must decide what to grow on her available land. Does she grow apples or avocados? Then she must decide how to produce the crops. Does she grow organic crops, use hi-tech machinery or hire workers to harvest the fruit? And who will she sell her fruit to? A supermarket chain, direct to consumers at a farmers' market or to cafes and restaurants?

resource allocation relates to decisions about how scarce resources are distributed among producers, and which types of goods and services will be produced to satisfy wants and needs

economic system a way of organising the production and distribution of the nation's goods, services and incomes

These questions are summarised in **FIGURE 7**.

FIGURE 7 Australia's economic system answers the three economic questions through the market.

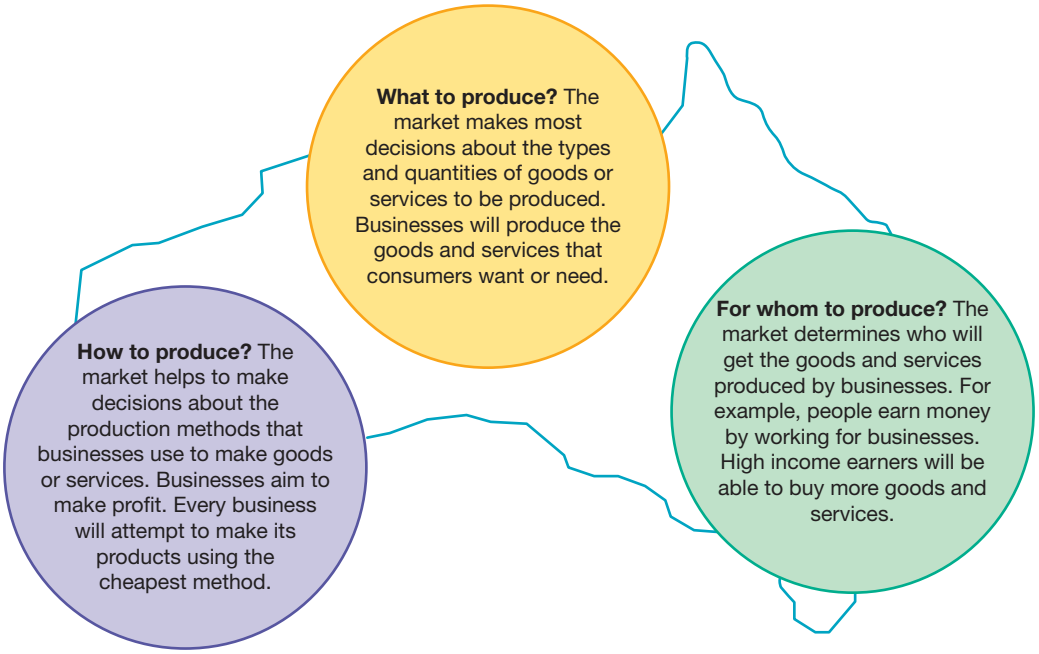


FIGURE 8 In traditional marketplaces, such as the Yandina Markets in Queensland, buyers and sellers negotiate prices for goods.



The economic system used in Australia is called a **market capitalist economy**. A market economy works a bit like a traditional **market** stall — there are buyers and sellers.

The price of goods and services is negotiated between the buyers and sellers, and if a seller can obtain a higher price for a good or service then scarce economic resources are redirected to produce more of that item. Markets aren't always in physical places. There are lots of different types of markets where buyers and sellers come together. For example, the Yandina Markets in Queensland is in a physical place. eBay and Amazon are both virtual markets. Other examples of markets include the labour market, property and stock markets.

Sometimes the market allocates resources inefficiently. For example, lower income earners may not be able to afford the goods or services that they need. In these cases, governments need to intervene in the economy to reduce these problems. They can do this by providing services such as health care, housing and education to lower income earners.

market capitalist economy an economic system that relies on the market to allocate resources based on the actions of consumers and producers, and where resources are generally owned by private individuals and businesses

market the place where goods, services or resources are exchanged between buyers and sellers

22.2.2 The business environment

As you learned in Year 7, different types of businesses exist within different markets and they exist for many different reasons. Many businesses are able to identify needs, and new opportunities in established markets to guide them towards the development of specific services or products to address new opportunities, for example, affordable electric cars.

Businesses are also increasingly using new technologies to develop more efficient products and production processes. These technological advances also have an impact on the ways that people work. In this topic we will consider the jobs available, and how the workforce in Australia has changed over time due to factors in the business environment, including the global economy and rapid communication changes.

FIGURE 9 Businesses are able to identify specific opportunities and develop products to meet these.



22.2.3 Entrepreneurship

In Year 7 you may remember that we learnt about the **entrepreneur**, this is someone who starts up their own business, or pursues a new idea. Entrepreneurs bring a special kind of knowledge and skill to their business, and they have their own defining characteristics which includes being able to spot opportunities, negotiate with stakeholders and stay within the law and regulations.

entrepreneur a person who sets up a business or businesses, taking on financial risks in the hope of profit

In this topic we will investigate First Nations Australian businesses and entrepreneurs, who establish partnerships or cooperatives to provide goods and services, such as farming, fashion, design or tourism. First Nations Australian communities have their own approaches to marketing, employment and social contribution and their reasons for setting up a business may differ from those of other entrepreneurs.

FIGURE 10 A First Nations Australian business offers a native plant food tasting plate derived from the local environment.



22.2.4 Work and futures

The world of work can be quite complicated when we consider the importance of Australia's system of taxation and how this system affects decision-making by individuals and businesses.

In this topic we will explore the tax obligations that working Australians have and the reasons for paying taxes. You will be able to answer questions such as 'When should I apply for a **tax file number**?' and 'How do I lodge a tax return?'

The collection of taxes is an essential part of our economy and ensures that the government can support individuals and communities within our wider society.

FIGURE 11 Understanding the tax system in Australia is important and may influence an individual's decision-making about spending.



tax file number a unique number issued by the Australian Taxation Office to each taxpaying entity — i.e., an individual, company, superannuation fund, partnership, or trust

22.2.5 Consumer and financial literacy

We are all consumers within our economy, and in Year 7 we were introduced to some of the rights and responsibilities that come with being a consumer.

In this topic we will focus on **financial literacy**. This means being able to take effective decisions regarding the use and management of money. In today's world of increasingly complex financial decisions, financial literacy may be considered a vital skill for all consumers. We will investigate short- and long-term personal financial objectives, and how these can be achieved; for example, through developing a budget and having a savings plan.

You will also learn how businesses manage their finances and how financial records, such as income statements, balance sheets, budgets and cash flow statements, inform business decision-making

LESSON
22.3 Skills in Economics and Business

22.3.1 What skills will you build this year?

This year, you will continue to build your ability to use the four broad categories of skills in Economics and Business. The summaries below are to remind you of these four key skills.

1. **Questioning and researching** involves locating relevant and detailed information and/or data from a range of appropriate sources. In Year 8 Economics and Business, this includes developing key questions using economic and business terms such as 'How is the price of goods and services determined?'.
2. **Interpreting and analysing** involves interpreting information to identify the main features or ideas, then examining the information closely to determine how the parts relate to the whole. In Year 8 Economics and Business, this includes interpreting data displayed in tables and graphs to identify trends and answer questions such as 'For a 10-year period, what is the trend in the percentage of people over 60 paying income tax?'.
3. **Evaluating, concluding and decision-making** means examining your interpretations of information to draw evidence-based conclusions. It requires taking into account ambiguities and multiple perspectives in a source and proposing potential responses to contemporary challenges or issues. In Year 8 Economics and Business, this includes identifying the potential costs and benefits of a decision, for example, doing casual work involves identifying benefits, such as money earned, and costs, such as less certainty about work hours each week.
4. **Communicating** your ideas means presenting information in a range of formats to suit the intended audience and purpose. This includes essays, oral presentations, debates, tables and cartoons. **Reflecting** on your skills is also an important part of the process. In Year 8 Economics and Business, this includes learning how to write a business pitch for a new product or a new business idea.

22.3.2 SkillBuilders in the topic

In addition to these broad skills, there is a range of essential practical skills that you will learn as you study Economics and Business. The SkillBuilder topics will tell you about the skill, show you how to apply the skill and let you practise the skill with tasks related to the topics covered in this subject.

financial literacy the ability to make informed judgments and to take effective decisions regarding the use and management of money

The SkillBuilders you will use in Year 8 are:

- Conducting research into prices and markets
- Interpreting and explaining supply and demand graphs
- Evaluating an opportunity with a cost–benefit analysis
- Writing a pitch for a new product / business idea

LESSON 22.4 SkillBuilder: Conducting research into prices and markets

online only

What are prices and markets?

While studying Economics and Business you will develop the skill of asking questions. Asking questions will help you to complete research (discovering or verifying knowledge about something). Questioning relates to posing statements that require answers. You usually ask questions about what is known and what is not known in order to improve your knowledge. Research is important because it allows us to find out what is unknown and contributes to filling in gaps in our knowledge.

Select your learnON format to access:

- an overview of the skill and its application (Tell me)
- a step-by-step process to explain the skill (Show me)
- an activity for you to practise the skill (Let me do it).

LESSON 22.5 SkillBuilder: Interpreting and explaining supply and demand graphs

online only

Where are supply and demand graphs?

Interpreting and analysing is another skill that you will develop while studying Economics and Business. This skill involves interpreting information to identify the main features or ideas. You then examine the information closely to determine how the parts relate to the whole. One way in which you might analyse in economics and business is by interpreting and explaining information in tables and graphs.

Select your learnON format to access:

- an overview of the skill and its application (Tell me)
- a step-by-step process to explain the skill (Show me)
- an activity for you to practise the skill (Let me do it).

LESSON
22.6 SkillBuilder: Evaluating an opportunity with a cost–benefit analysis

online only

What is a cost–benefit analysis?

Evaluating means to propose explanations for events or issues and to make overall judgements based on the evidence. This is a skill that you might develop in economics and business by looking at the benefits or advantages of something and then examining the costs or disadvantages of something.

This is known as a cost–benefit analysis. The principle behind a cost–benefit analysis is that you should only decide to act on an alternative if the benefit from taking it is greater than the cost.

Select your learnON format to access:

- an overview of the skill and its application (Tell me)
- a step-by-step process to explain the skill (Show me)
- an activity for you to practise the skill (Let me do it).

LESSON
22.7 SkillBuilder: Writing a pitch for a new product / business idea

online only

What is writing a pitch?

When you use the skill of communicating in Economics and Business, you will be presenting your findings or representing information using an appropriate format to suit a particular audience. You will also need to use terminology that is used by economists and businesspeople. For example, when writing a case study on a business, you would be expected to use business terminology and write as if your audience are people who are interested in studying businesses.

A pitch is a speech or presentation given by a prospective business owner where they attempt to persuade an audience (often a group of investors) to see that their idea for a product or a business is a good one. With a good pitch, the business owner would hope that the investors would choose to invest in the new product or business idea.

Select your learnON format to access:

- an overview of the skill and its application (Tell me)
- a step-by-step process to explain the skill (Show me)
- an activity for you to practise the skill (Let me do it).

LESSON
22.8 Review

Hey students! Now that it's time to revise this topic, go online to:

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22.8.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

22.2 Concepts in Economics and Business

- Resource allocation and decision-making involves the idea of 'scarcity'. Economic scarcity is the 'basic economic problem' — this involves society having limited resources available to satisfy unlimited needs and wants.
- There are four main types of economic resources: land, labour, capital and enterprise.
- All economies must make decisions about how resources will be allocated among producers and what types of goods and services will be produced. Economies must answer the three economic questions: What to produce?, How to produce? and For whom to produce?
- Australia is a market capitalist economy — this means that most answers to the three economic questions are made by the market (where buyers and sellers negotiate prices for goods and services).
- Governments may need to intervene in the economy to reduce inefficiencies.
- Businesses exist to identify needs, niches and gaps in established markets and they use technology to guide the development of specific services or products.
- Businesses need to respond and adapt to the changing nature of work.
- First Nations Australian entrepreneurs develop specific opportunities within the market and their communities.
- Australia's tax system affects the decision-making of individuals and businesses.
- Individuals and businesses can plan and budget to achieve their short- and long-term objectives.

22.3 Skills in Economics and Business

- Questioning and researching involves posing statements that require answers, particularly in regards to what is known and what is not known in order to improve your knowledge. Research is important because it allows us to find out what is unknown and contributes to filling in gaps in our knowledge.
- Interpreting and analysing involves interpreting information to identify the main features or ideas, then examining the information closely to determine how the parts relate to the whole.
- Evaluating, concluding and decision-making involves proposing explanations for events or issues and making overall judgements based on the evidence.
- Communicating and reflecting involves presenting findings or representing information using an appropriate format to suit a particular audience. The appropriate use of economics terminology and business terminology is very important.

22.8.2 Key terms

allocate assigning resources to different uses within the economy
business any activity conducted by an individual or individuals to produce and sell goods and services to make a profit
economic scarcity the economic problem of having unlimited needs and wants, but limited resources to satisfy them
economic system a way of organising the production and distribution of the nation's goods, services and incomes

economics a social science (study of human behaviour) that analyses the decisions made by individuals, businesses and governments about how limited resources are used to satisfy society's unlimited needs and wants

economy a system established to determine what to produce, how to produce and to whom production will be distributed

entrepreneur a person who sets up a business or businesses, taking on financial risks in the hope of profit

financial literacy the ability to make informed judgments and to take effective decisions regarding the use and management of money

market the place where goods, services or resources are exchanged between buyers and sellers

market capitalist economy an economic system that relies on the market to allocate resources based on the actions of consumers and producers, and where resources are generally owned by private individuals and businesses

needs goods or services that consumers consider necessary to maintain their standard of living

opportunity cost the next best alternative given up whenever a choice is made

resource allocation relates to decisions about how scarce resources are distributed among producers, and which types of goods and services will be produced to satisfy wants and needs

tax file number a unique number issued by the Australian Taxation Office to each taxpaying entity — i.e., an individual, company, superannuation fund, partnership, or trust

wants goods or services that are desired in order to provide satisfaction to the user, but which are not necessary for survival or to meet the basic standard of living in a community

on Resources

eWorkooks Customisable worksheets for this topic (ewbk-10788)
Reflection (ewbk-10790)

Interactivity Economics and Business concepts and skills crossword (int-9039)

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LESSON
22.4 SkillBuilder: Conducting research into prices and markets

LEARNING INTENTION

By the end of this lesson you will be able to approach researching prices and markets.

22.4.1 Tell me

While studying economics and business you will develop the skill of asking questions. Asking questions will help you to complete your research (discovering or verifying knowledge about something). Questioning relates to posing statements that require answers. You usually ask questions about what is known and what is not known in order to improve your knowledge. Research is important because it allows us to find out what is unknown and contributes to filling in gaps in our knowledge.

FIGURE 1 Asking questions helps you to learn about the world around you.



The following steps are a useful guide to the process of writing questions and carrying out research:

- Develop a series of specific questions that will help guide your research in the appropriate direction, and help you determine the information you need.
- Locate appropriate sources of that information.
- Record relevant information from a range of sources.
- Present the information in an appropriate form.

22.4.2 Show me

Imagine you have been asked to investigate ethical and socially responsible behaviour in a market of your choice in Australia.

Your first step is to clearly identify the key task. This could be expressed as:

Prepare a report on how two businesses in an Australian market of your choice utilise ethical and socially responsible practices.

You should choose a market and then two businesses within this market. There are many markets you could choose from, including retail markets, labour markets, financial markets and stock markets. Let's assume that you choose the retail market. You might choose two supermarkets from Aldi, Coles, Woolworths and IGA.

It is now necessary to break the task down into a series of more specific questions. These could include:

1. What ethical practices has the business adopted?
2. What policies does the business have in relation to ethical and socially responsible practices?
3. Where does the business source its products from?

4. How does the business treat its employees and customers?
5. What does the business do to protect the environment?
6. How does the business involve itself in the community?
7. How can the business improve in its ethical and socially responsible practices?

The next step is to locate your sources. Most well-known businesses today have websites that include information on corporate responsibility and sustainability. For example, Coles' website includes information on how it provides an inclusive work environment for staff, how it works with suppliers, its community involvement, and how it protects the environment. By entering the name of the business you are researching, and the search term 'sustainability' in a search engine, you will be presented with useful sources. It would be a good idea to search for Australian sources.

FIGURE 2 Some people won't buy a certain product, even if the price has been lowered. Can you think of any reasons for this?



Keep your questions beside you as you navigate through the sites and conduct your research, and note the location of material that provides answers. You can select and print some text, and then highlight those sentences or paragraphs that provide answers to your questions. Sometimes a complete answer to a question may be found in several places in a piece of text. Be sure to highlight all relevant text, and indicate with a number which question the information answers.

When you are satisfied you have found the answers to all the questions, you need to write the answers in order, making sure you use your own words as much as possible. You can then use the answers to present your information in the required form. This may be an oral report to the rest of the class, an essay to be marked by your teacher, a PowerPoint presentation, or any other format that is appropriate.

22.4.3 Let me do it

22.4 ACTIVITY

Using the process in section 22.4.2 as a model, devise a series of questions and carry out the research to produce a report on the following key question:

Prepare a report on why some consumers are prepared to pay a higher price for a product while other consumers would not buy the product even if the price was low. Explain what this tells you about the relationship between price and customer tastes and preferences.

LESSON
22.5 SkillBuilder: Interpreting and explaining supply and demand graphs

LEARNING INTENTION

By the end of this lesson you should be able to accurately interpret and explain the data displayed in supply and demand graphs.

22.5.1 Tell me

Analysing is another skill that you will develop while studying economics and business. This skill involves interpreting information to identify the main features or ideas. You then examine the information closely to determine how the parts relate to the whole. One way in which you might analyse in economics and business is by interpreting and explaining information in tables and graphs.

In section 22.2.3 we explored the idea that the market answers most of the economic questions. Prices in a market are usually determined through interaction between buyers and sellers. Typically, the buyers want to pay as low a price as possible while the sellers want to charge as high a price as possible. From these different preferences, the market will usually arrive at a price that is acceptable to both buyers and sellers. We can interpret and explain how this works through the use of simple tables and graphs.

22.5.2 Show me

Imagine a fruit and vegetable market such as the Fremantle Markets. These markets have a number of different businesses all competing against each other, allowing buyers to browse the different stalls and compare prices and quality. We assume that sellers want to sell their product for the best, and highest price possible so that they can make a good profit. Buyers however want to buy at the best, and lowest price possible.

The tables below show us a numerical view of the sellers preferences and the buyers preferences in relation to potatoes for sale at a market. Sellers, would prefer to supply and hopefully sell more potatoes at a higher price per kg. This is the opposite for buyers, who will buy more potatoes at a lower price per kg.

FIGURE 1 There are multiple fruit and vegetable shops at the Fremantle Markets. Can you think of any factors that could influence a customer's decision on where to shop?



TABLE 1 Seller's preferences

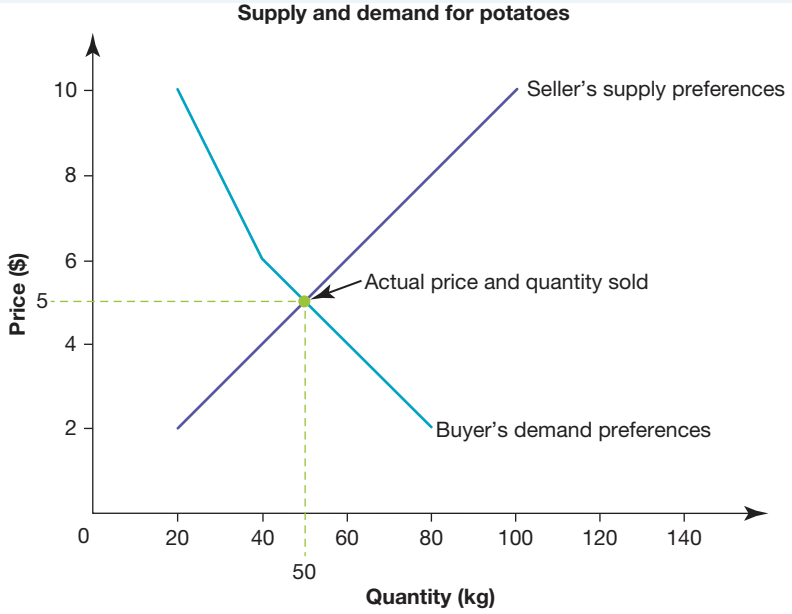
Price per kg	Quantity supplied
$2	30 kg
$5	100 kg
$7	150 kg
$10	200 kg

TABLE 2 Buyer's preferences

Price per kg	Quantity purchased
$10	10 kg
$8	40 kg
$6	80 kg
$4	120 kg
$2	160 kg

FIGURE 2 is a graphical representation of **TABLES 1** and **2** and it too shows us the same concept. This is that if sellers can get a higher price they will supply more, and if buyers can pay a lower price they will buy more. In reality, buyers and sellers meet somewhere in the middle and settle upon an agreed price. This is shown by the 'actual price and quantity sold'. This price, where both buyers and sellers are happy, is also known as equilibrium.

FIGURE 2 Supply and demand graph for potatoes



22.5.3 Let me do it

22.5 ACTIVITY

Practise your skills by completing the following activity.

In the same fruit and vegetable market, tomatoes are also subject to similar buyer and seller preferences.

Sellers agree on the following:

- If they could charge $14/kg, they would happily supply 200 kg of tomatoes for sale each day.
- If they could only charge $8/kg, they would only provide 100 kg for sale a day.
- If they could only charge $3/kg, they would only supply 10 kg for sale a day.

Buyers generally agree on the following:

- If tomatoes cost $14/kg, buyers would demand a total of 20 kg on any given day.
- If the price dropped to $10/kg, buyers might be prepared to purchase 70 kg a day.
- If the price fell to $8/kg, buyers might purchase 100 kg a day.
- If the price fell to $2/kg, buyers might purchase 180 kg a day.

1. Construct a table showing the different quantities sellers would be prepared to supply at each price level.
2. Construct a table showing the quantities that consumers would demand at each price level.
3. Comment on what you see occurring in regard to prices, demand and supply in the tables. Explain what you think will be the equilibrium price and quantity for tomatoes.
4. Enter the data from these tables onto a graph that shows both sellers' supply preferences and buyers' demand preferences.
5. What is the equilibrium price and quantity for tomatoes (in other words, what is the price per kilogram at which buyers and sellers preferences would be matched, and what quantity would be sold at that price)?

LESSON
22.6 SkillBuilder: Evaluating an opportunity with a cost–benefit analysis

LEARNING INTENTION

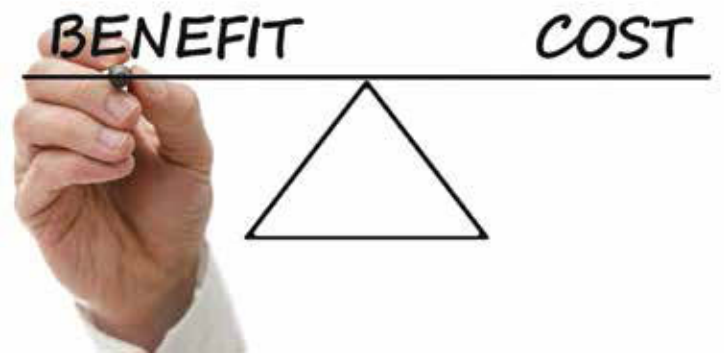
By the end of this lesson you will be able to use a cost–benefit analysis to effectively evaluate a business opportunity.

22.6.1 Tell me

Evaluating means to propose explanations for events or issues and to make overall judgements based on the evidence. This is a skill that you might develop in economics and business by looking at the benefits or advantages of something and then examining the costs or disadvantages of something.

A cost–benefit analysis is a detailed examination of the strengths and weaknesses of different alternatives in order to see whether the benefits outweigh the costs. The principle behind a cost–benefit analysis is that you should only decide to act on an alternative if the benefit from taking it is greater than the cost.

FIGURE 1 A cost–benefit analysis involves weighing up the pros and cons of a decision. You are doing it everyday without even realising. Can you think of any examples?



A cost–benefit analysis helps to determine if an option will be a good decision or investment. It is also useful for comparing alternatives or projects, as well as estimating the resources needed to complete the alternative or project.

A good cost–benefit analysis:

- identifies opportunities
- proposes alternative ways to take advantage of these opportunities
- calculates the costs and benefits
- compares the costs and benefits to determine if the benefits outweigh the costs
- makes a decision about the best alternative to recommend.

22.6.2 Show me

We can apply the five elements of a good cost–benefit analysis to a case study, to see how this works in practice.

CASE STUDY: Olando's opportunity

Step 1: ***Identify opportunities in the market***

Olando is the general manager of a large soft-drink manufacturer. He and his team are looking at the market to identify opportunities.

The manufacturer has spent a great deal of time looking closely at its business and the local market it sells to. By asking a wide range of questions they have determined there are two business strategies that could meet the changing needs of the soft-drink market.

Olando's team believes that there is an unmet need in the Australian market for low-sugar alternatives to cola flavours. There are currently some products available, but customer feedback suggests some frustration with the lack of widespread access to these options. These options also suffer from poor quality.

Step 2: *Propose alternative ways to take advantage of these opportunities*

The company thinks that there are two possible alternatives. One alternative is that they can introduce a new range of low-sugar soft drinks based on the unmet need. The other alternative is to select suitable products that other companies are selling overseas and offer these, or copies of these, to local customers. This would involve buying the rights to distribute these soft drinks.



Step 3: *Calculate the costs and benefits of each alternative*

Olando's team conducts a cost–benefit analysis of the alternatives proposed. This means that they add up all the costs and all the benefits of each alternative, and then they compare them to decide if the benefits outweigh the costs. A summary of the costs and benefits of each alternative can be seen in **TABLES 1** and **2**.

TABLE 1 A summary of costs and benefits for a new range of low-sugar soft drinks

	Costs	Benefits
Monetary	Total (including raw materials, factory overheads, transportation, packaging, research and development, salaries): $20 million	Total (including sales): $30 million
Non-monetary	Extra workload for staff	New research and development that could benefit the business in the future A positive image built up among existing and potential customers

TABLE 2 Summary of costs and benefits for selling or imitating overseas products

	Costs	Benefits
Monetary	Total (including raw materials, factory overheads, transportation, packaging, salaries): $15 million	Total (including sales): $20 million
Non-monetary	Staff dissatisfaction with using ideas from overseas Customer dissatisfaction with using products designed for overseas markets	Research and development team will be free to look at other products

Step 4: *Compare the costs and benefits to determine if the benefits outweigh the costs*

The team calculates that the benefits outweigh the costs when analysing the first alternative, introducing a new range of low-sugar soft drinks. The monetary costs are $20 million, while the monetary benefits are $30 million.

This means that the monetary benefits outweigh the monetary costs by $10 million. They also consider that the non-monetary benefits considerably outweigh the non-monetary costs.

When analysing the second alternative, selecting or imitating overseas products and selling these to local customers, Olando's team calculates that the monetary benefits outweigh the monetary costs by $5 million. The team feels that, even though the non-monetary costs of this alternative are high, the non-monetary benefits still outweigh the non-monetary costs.

Step 5: *Choose the best alternative*

Olando's team determines that the best alternative is the first one, introducing a new range of low-sugar soft drinks. This is because they believe that the benefits of this alternative far outweigh the costs when compared with the second alternative.

22.6.3 Let me do it

22.6 ACTIVITY

You can now carry out this five step process to complete a cost–benefit analysis using the Uncle Bill's case study. Complete the activities that follow to practise this skill.

CASE STUDY: Uncle Bill's

Uncle Bill's is a global manufacturer of cereal products and snacks. Its marketing department has recommended that the business should respond to opportunities in the Australian market to produce products that meet different dietary needs, including low-salt, yeast-free and gluten-free products. It has proposed two alternatives. The first alternative is to introduce a new range of gluten-free cereals. The second alternative is to modify existing products already being used in other markets and sell these in the Australian market.

Bridie is the Australian regional manager for Uncle Bill's. She has asked you to be part of the team that will undertake a cost–benefit analysis of the alternatives proposed. Bridie has provided the team with a breakdown of the costs and benefits of each alternative (see **TABLES 3** and **4**).

TABLE 3 A breakdown of costs and benefits for Uncle Bill's: Alternative 1 — new gluten-free products

	Costs	Benefits
Monetary	Raw materials (ingredients): $12 million Factory overheads — salaries, insurance, power, repairs and maintenance: $8 million Transportation: $1 million Packaging/labelling: $2 million Selling/distribution: $3 million Research and development — salaries, other overheads: $4 million	Improve market share by 5% Sales of $50 million
Non-monetary	Extra workload for staff	New research and development that could benefit the business in the future Building a positive image among existing and potential customers Empower staff (as they are involved in the development of the new product) and improve corporate culture

TABLE 4 A breakdown of costs and benefits for Uncle Bill's: Alternative 2 — modification of existing products

	Costs	Benefits
Monetary	Raw materials (ingredients): $12 million Factory overheads — Salaries, insurance, power, repairs and maintenance: $8 million Transportation: $1 million Packaging/labelling: $2 million Selling/distribution: $3 million	Improve market share by 4% Sales of $40 million
Non-monetary	Some staff may be dissatisfied with using ideas from other countries when local ideas could have been used Loss of customers who may be dissatisfied with products that are designed for overseas markets	Research and development team will be free to look at other products

Construct your cost–benefit analysis by completing the following steps:

Step 1: Identify the opportunities for Uncle Bill's.

Step 2: Identify the alternatives that have been proposed to take advantage of these opportunities.

Step 3: Add up the costs and benefits of each alternative. Write down the total costs and benefits for alternative 1 and the total costs and benefits for alternative 2.

Step 4: Compare the costs and benefits for each alternative. Do the benefits outweigh the costs for one alternative or both? In your opinion, which alternative has more benefits than costs?

Step 5: Make a decision about which alternative to recommend.

Complete the following questions.

1. How did you decide which alternative to recommend?
2. Compare your decisions to the decisions made by other people in your class. How do the decisions differ? Can you explain the variation in decisions?
3. What aspect of completing a cost–benefit analysis did you find relatively easy and what did you find more challenging?
4. Reading the Olando's opportunity case study, identify the opportunities in the market for Olando's soft-drink manufacturer.
5. How did Olando's company respond to opportunities in the Australian market?

LESSON
22.7 SkillBuilder: Writing a pitch for a new product/ business idea

LEARNING INTENTION

By the end of this lesson you will be able to prepare, research, structure and write a pitch for a new product or business idea.

22.7.1 Tell me

When you use the skill of communicating and reflecting in economics and business, you will be presenting your findings or representing information using an appropriate format to suit a particular audience. You will also need to use terminology that is used by economists and businesspeople. For example, when writing a case study on a business, you would be expected to use business terminology and write as if your audience are people who are interested in studying businesses.

A pitch is a speech or presentation given by a prospective business owner where they attempt to persuade an audience (often a group of investors) to see that their idea for a product or a business is a good one. With a good pitch, the business owner would hope that the investors would choose to invest in the new product or business idea.

FIGURE 1 A business pitch is sometimes called an 'elevator pitch' because the listener should be able to understand the idea or concept in a short amount of time.



22.7.2 Show me

Elements of a good business pitch

A good business pitch has the following features:

- an introductory statement that will grab attention
- a clearly defined problem the business owner is solving
- an explanation about what the new product is or what the business idea is about
- an outline about why the new product/business idea is unique and/or better than the competition
- it is easy to understand
- it is well-presented.

CASE STUDY: Inventing self-service machines

The man who invented the self-service checkout system, Dr Howard Schneider, was laughed at when he first pitched his machine to a supermarket chain in the 1980s. Back then, the idea of replacing humans with an object seemed ridiculous. Today, we can see how much the world has changed.



The rollout of self-checkout systems is steadily increasing in Australia, even though some shoppers find them frustrating and difficult to use. Messages about unexpected items in the bagging area or the inability to locate pomegranates in the fruit category can lead to frustration and irritability and thus also customer dissatisfaction. Other people love the new invention because it provides convenience when they just 'pop in' for a few items. However, the machines are yet to provide a complete win for the stores, because they must still 'staff' the self-checkout areas to provide help with working the systems and in an attempt to combat theft. Nevertheless, newer modules are already being built with increased scanning accuracy.

22.7.3 Let me do it

22.7 ACTIVITY

Have a go at writing your own pitch for a new product or business idea. Your task is to plan a unique business using the parameters provided below and then prepare a business pitch. You will be able to work by yourself or with a group. Your teacher will determine the maximum and minimum group sizes.

Your first step is to develop a new product or business idea. Some suggestions are:

- a new style of shoe incorporating state-of-the-art technology
- a healthy snack-food option
- a new technology for creating energy
- a new type of home service
- a unique social media website or app.

Use the following points to guide your preparation for your pitch:

- the name of the new product or the name of the business and what products it will sell
- business logo
- description of what the business will do
- type of business ownership
- location of business
- target market information — who your customer is and why they need your new product or business
- a list and explanation of the qualities you possess and that your partner/s may possess that will make your new product or business a success
- what your competitive advantage is.

The pitch should be delivered as a written report but could also be given as an oral presentation.

23 Markets: Consumers, businesses and government



LESSON SEQUENCE

23.1 Overview 739
23.2 Who are the participants in the market system? 740
23.3 How do markets operate? 744
23.4 What are key economic questions for businesses? 753
23.5 How is the government involved in the market? 759
23.6 How does Australia's taxation system work? 766
23.7 INQUIRY: How would you tax the Australian public? 772
23.8 Review 774

LESSON
23.1 Overview

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How do markets operate, what do they influence, and what influences them?

23.1.1 The Australian economy

The Australian economy is the total of all activities undertaken for the purpose of producing, distributing and consuming the goods and services we require to satisfy our needs and wants.

As consumers, we all hope to earn the income necessary to purchase our needs and many of our wants. We would like to be treated fairly when dealing with businesses and we would like to know our rights, but we should recognise that some business owners and employees fail the fairness test when it comes to serving their customers. This is where we need the government to provide a legal and justice system so that buying and selling occurs within a set of rules that is fair to all participants.

In this topic, we will examine Australia's economic system, the activities of producing, distributing and consuming goods and services, how markets make decisions regarding the allocation of resources and why governments are needed in an economy.

FIGURE 1 In Australia we live in a market economy. This means that the quantity and price of goods and services is determined by supply and demand.



on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10792)
Video eLesson Development of the market economy (eles-1811)

LESSON
23.2 Who are the participants in the market system?

LEARNING INTENTION

By the end of this lesson you should be able to explain the identities and roles of the different people/groups that operate within our market economy.

TUNE IN

Imagine you are stranded on a deserted island.

1. What do you need to survive?
2. How will you obtain the items you need?
3. How important would it be to be able to contact your fellow survivors?
4. Discuss why it is important that we are connected to others in our economy.

FIGURE 1 What would you need to survive?



23.2.1 Buyers and sellers

Markets refer to places where buyers (consumers) and sellers (producers) meet and exchange goods and services. Producers provide the goods and services and consumers purchase them. We can think of a market in a physical setting, such as when we enter a shop and pay for goods and services. The exchange is immediate, we pay money to receive the goods and services. Markets do not have to have a physical location, online shopping and streaming subscriptions for example are virtual places where buyers and sellers 'meet' and exchange goods and services.

FIGURE 2 People who are employed are considered to be producers (sellers).



Consumers and producers are at the centre of Australia's market system. All of us are consumers, and those of us who are employed are also producers. We satisfy our needs and wants by working to earn money, and then buying goods and services from businesses that produce those goods and services. When we are working, we are providing our **labour** to contribute to the process of producing goods or services for other consumers to buy. When we are spending our money, we are consumers, purchasing goods and services that others have produced, in order to satisfy our needs and wants.

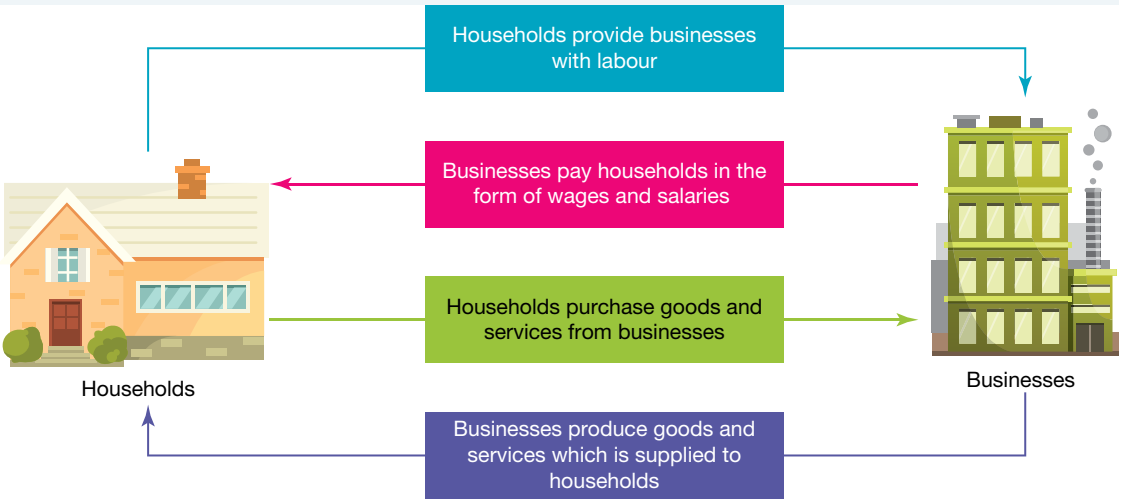
The total of all consumers in the economy is sometimes called the **household sector**. The total of all producers is sometimes known as the *business sector*.

We can examine the relationship between the business sector and the household sector by looking at **FIGURE 3**. It shows the flow of goods and services, and the flow of money between households and businesses. It also demonstrates how labour

labour the human skills and effort required to produce goods and services

household sector a term used by economists to refer to the total of all consumers in the economy

FIGURE 3 Model showing the flow of money, goods and services between households and businesses



is exchanged for money, and how that money is used to purchase goods and services. This tells us about the financial relationship between consumers and producers in our market system.

The decisions made by the household sector in terms of what goods and services they purchase inform the business sector as to what goods and services to produce. Knowing what goods and services to produce determines which limited resources are allocated to the production of goods and services.

23.2.2 The financial sector

Do you spend every cent you receive in pocket money or in return for any work you do, or do you set some aside as savings? While most people of your age don't save much, many others in the economy do put aside some of their income as savings. This money is usually deposited in a bank or similar **financial institution**.

FIGURE 4 Financial institutions are able to direct savings into investment in the growth of businesses.



Banks and other financial institutions receive deposits, and use this money to lend out to others who need to borrow money. Most businesses will borrow money, particularly when they need to expand the business. This may involve buying new equipment, or even moving to bigger premises. Money spent in this way is known as **investment**. Financial institutions collect the savings of thousands of depositors, and then have large sums available for businesses to invest in growth.

These financial institutions make up what we sometimes call the *financial sector* of the economy. They perform an important role in our market system because they allow businesses to borrow money in order to expand their operations. As businesses grow, they are able to employ more people, who in turn have more money to spend on goods and services.

financial institution any organisation that takes deposits from those with surplus funds, and makes those funds available to borrowers

investment the direction of money into the purchase of equipment or premises for the establishment of a new business, or the expansion of an existing business

DISCUSS

Are you a saver or are you a spender? Would you like to be able to save more money? What advantages do people who save their money have over those who spend their money?

Banks and other financial institutions also play an important role in providing credit for households. When consumers make large purchases, such as a house or a car, it is usually easier to borrow the money to pay for these than to save up for years to pay cash for them. When purchasing a house or land, most people take out a **mortgage loan**. This enables them to borrow to pay for the property, and pay back the loan over a relatively long period of time. The housing market depends on the amount of money available for mortgage loans. If more people are able to buy houses, more new houses are built, creating more jobs in the construction industry.

23.2.3 The government sector

Another element involved in the market system is the government. In Australia this refers to the federal government based in Canberra, state and territory governments based in capital cities, and local councils. As well as spending money on consumption and investing in savings, households and businesses pay money to the government in the form of taxes and rates, and receive particular types of goods and services back from the government. A detailed examination of the role of government can be found in lesson 23.5. Government plays an important role in the market system for a number of reasons:

FIGURE 5 When a government pays businesses to construct roads it helps those businesses to grow and employ more people.



- The level of taxation taken by government can affect the amount of money consumers have available to spend on goods and services. High levels of taxation can mean that consumers spend less, businesses cannot grow as quickly, and cannot employ as many people.
- Money collected in taxes can be spent on providing welfare payments. These payments, in the form of pensions and unemployment benefits, allow many people to purchase more as consumers, providing more income to businesses and creating more jobs as businesses grow.
- Government also provides services such as schools and hospitals, which are paid for from taxes collected from both households and businesses.
- When the government spends money on building roads, schools and hospitals, it is providing money to the businesses that do the actual building, helping those businesses to grow and employ more people.

23.2.4 The overseas sector

Australia is an open economy, which means we trade goods and services with other countries. Australian businesses **export** goods and services to both consumers and producers in other countries. Australian consumers buy many products that have been manufactured in other parts of the world and **imported** into this country.

mortgage loan a loan advanced to allow a person to buy a house or other property, with the property itself as security for the loan. This means the bank or other lender can take possession of the property if the borrower fails to make the regular payments.

export a good or services sold by local businesses to overseas consumers

import a goods or services purchased by local consumers from overseas businesses

International trade can affect our market system in a number of ways:

- Australia has a relatively small population, so if overseas consumers are willing to buy the goods and services we produce, this can help our local businesses to grow and employ more people.
- There are some products that we are unable to produce with the same efficiency as can be achieved in other countries. A lot of the highly sophisticated machinery used in factories is imported, helping the factory to produce goods more cheaply.
- Imported goods are sometimes cheaper than locally produced goods, which can make it difficult for local producers to compete with the imported products. This can lead to local producers going out of business. The motor vehicle manufacturing industry is an example of an industry that has closed its Australian operations due to lower priced imported products. A local industry or large business closing, will mean job losses. However, consumers will benefit from being able to buy cheaper priced imported cars.

FIGURE 6 Australia imports from and exports to many other countries.



23.2 SKILL ACTIVITY: Questioning and researching

Trade is an important part of our lives and an important component of the economy. When we consider trade we likely have ideas about who we trade with and what we trade. Remember, much of Australia's trade takes place with overseas countries.

1. **Conduct** a survey of the class, asking students to write down:
   a. The top 5 countries we export (sell) to
   b. The top 5 countries we import (buy) from
   c. The top 5 items we export (sell)
   d. The top 5 items we import (buy)
2. Use the **DFAT** weblink in the resources panel to view the actual data regarding Australia's trade.
3. **Compare** your survey results with the actual results and write a short report **summarising** your findings.

on Resources

Weblink DFAT

23.2 Exercise

learnon

23.2 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 5, 6, 7	8, 9, 10

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Check your understanding

1. A person can be both a producer and a consumer. True or false?
2. Taxes are considered a leakage from our economic system. True or false?

3. **Define** the following terms:
   a. market
   b. labour
   c. household sector.
4. **Outline** one means by which governments can influence markets.
5. **Outline** how the financial sector can influence markets.

Apply your understanding

Communicating

6. **Explain** how it is possible for a person to be both a producer and a consumer.
7. **Explain** the difference between imports and exports.

Evaluating, concluding and decision-making

8. **Predict** the impact that each of the following might have on the level of goods and services sold by Australian businesses.
   a. Households decide to save a larger proportion of their income.
   b. Financial institutions make it easier for consumers to acquire credit cards.
   c. Governments decide to increase the level of taxation for households.
   d. Governments increase the level of welfare payments.
   e. There is a large increase in the availability of cheaper imported goods.

Communicating

9. Taxes and government spending are linked. **Explain** this relationship.
10. Exports and imports involve the overseas sector and trade. **Explain** why Australia needs to trade.

LESSON
23.3 How do markets operate?

LEARNING INTENTION

By the end of this lesson you should be able to explain how each good, service or employee is part of a specific market as well as the broader market economy.

TUNE IN

Some stores such as supermarkets or department stores offer a wide range of goods. Whereas some stores specialise in a specific good or service, such as a shoe store, butcher or cosmetics store.

1. Why do you think people may choose to shop at a specialist store?
2. What benefits are there for using this type of store?
3. Can you think of any possible disadvantages of shopping at a specialist store like this rather than a supermarket?

FIGURE 1 What do you think of when you see the following image?



23.3.1 What is a market?

A market exists in any situation where buyers and sellers come together to exchange goods and services for money. A market can exist in a single physical location, it can be spread across a number of locations, or can have no physical trading location at all, such as online retailing. It is the act of buying and selling, not the actual location, that creates the market. We will now look at a number of different markets that exist within the Australian economy: retail markets, labour markets, financial markets and stock markets.

23.3.2 Different types of markets

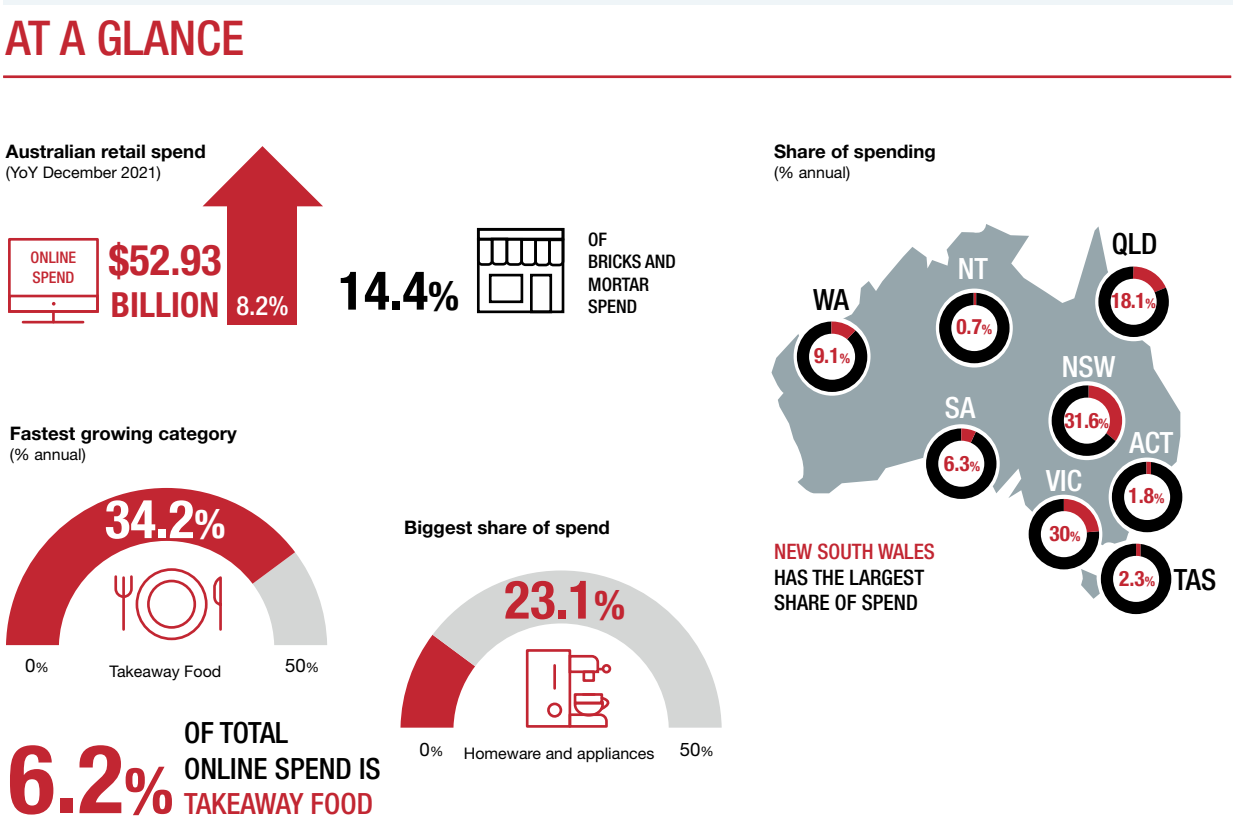
Retail markets

We are all very familiar with retail markets. These are the markets that allow us to buy most of our goods and services. They include:

- shopping areas in the central business districts (CBDs) of our large capital cities
- huge suburban shopping malls such as Carillon City in Perth, Westfield Parramatta in western Sydney and Chadstone in Melbourne
- local shopping centres with a supermarket and a number of specialty stores
- shopping strips located along major roads and near public transport hubs
- the groups of shops gathered in the main streets of country towns and regional centres
- online shopping websites, online streaming services and subscriptions.

Online shopping has continued to grow in importance. In 2016, it accounted for 7 per cent of all household spending, valued at $20.8 billion. In 2021, after two years of the COVID-19 pandemic and related state lockdowns, that figure had grown to 14.4 per cent of all spending, valued at $52.9 billion.

FIGURE 2 Online shopping continues to grow each year.



Labour markets

At any given time, there are people looking for a job. Some of them are unemployed and want to find work, while some of them already have a job but want to work for a new company or do different work. At the same time, many businesses are looking to employ people to work for them. Prospective employees are hoping to sell their labour to employers. Those employers wish to buy the skills and effort of suitable employees. This combination of buyers and sellers of labour constitutes the labour market.

FIGURE 3 Online job boards such as SEEK are the fastest growing source of job advertisements.



Like many other markets, the labour market does not operate in a particular physical location. The labour market relies on a variety of means of communication between the sellers of labour (potential employees) and the buyers of labour (employers). These allow employers to advertise vacancies in their businesses, and potential employees to find out about job opportunities. The operation of the labour market can involve the following:

- The simple placement of a sign in a shop or café window indicating that the owner has a job vacancy
- Newspaper advertisements for job vacancies. This method has declined significantly in recent years, with relatively few vacancies advertised this way today.
- Online 'jobs boards' such as SEEK, Indeed and Australian JobSearch. These are the fastest growing source of job advertisements, updated every day. Employers pay a fee to advertise their vacancies, and jobseekers can apply online for the vacancies advertised.
- Any person receiving **unemployment benefits** from the government is usually required to take an active role in looking for work. The government pays independent agencies to assist unemployed people to find work. Many of these are run by community organisations and a list of these, including Matchworks and the Salvation Army, can be found on the Australian JobSearch website.

The price the employer pays as a buyer of labour is known as a wage or salary. Wages and salaries are quite highly regulated in Australia. There is a **minimum wage** that must be paid to all employees over the age of 21 years. It is adjusted every year to account for rises in the **cost of living**. At July 1st, 2021 this was set at $20.33 per hour, or $772.60 (before tax) for a standard working week.

unemployment benefit a welfare payment by government to people who are unemployed and looking for work. Such payments in Australia are generally known as the Newstart Allowance.

minimum wage the legally binding minimum that must be paid to any employee over the age of 21 years

cost of living the level of prices paid by consumers for goods and services

Financial markets

Just as there are a number of markets for goods and services throughout the economy, there is also an important market for money. While households earn money in the form of wages and salaries, they will often choose to borrow money to buy larger items such as cars or houses. Businesses do the same, they will often borrow large amounts of money so that they can expand. Borrowing money comes at a price and financial institutions will charge borrowers a per cent 'fee' known as interest.

The functions of money

Money performs four very important functions in our market system:

1. **Medium of exchange** — Money allows us to exchange goods and services using a common means of exchange we all accept. Employees exchange their labour for money, and all businesses accept money in exchange for the goods and services they supply.
2. **Measure of value** — We use money to put a price on the goods and services we exchange. The price is a measure of what we believe the goods or services to be worth, when compared with other goods and services.
3. **Store of value** — We are able to save our money to spend at a later date.
4. **Standard of deferred payments** — Using money allows us to purchase goods and services on credit, with both buyer and seller knowing how much has to be paid at a later date.

FIGURE 4 Money performs important functions in our economy.



FIGURE 5 Stockbrokers buy and sell shares on behalf of their clients.



The working of financial markets

Just as all goods and services have a price, so too does money. The price of having access to money that actually belongs to someone else is known as **interest**. When you deposit your money in a bank account, the bank will pay you interest on your savings. This is usually based on a percentage figure. If you deposit $100 in your account and the bank is paying 3 per cent per annum (per year), the bank will pay you three dollars in interest after a year. Interest is often calculated monthly or even daily, so that if you withdraw your money before the year is up, you will be paid a lesser amount to cover the time the bank had the use of your money. Banks then lend out the money that they have deposited with them to other consumers or to businesses. They will usually charge a higher rate of interest to borrowers than they pay to their depositors. This is how they make a profit.

Financial markets operate like any other market, with sellers wanting to charge the highest price they can for their goods and services, and buyers wanting to pay the lowest price they can. If you are selling the use of your money (i.e. you are a depositor), you want to get the best price (interest earnings) you can for allowing someone else to use that money. If you are buying the use of someone else's money (i.e. you are a borrower), you want to pay the lowest price (interest payments) you can.

interest a charge made for the use of money that has been deposited or borrowed

Share market

Like other markets, the stock market (also called the share market) is simply a relationship between buyers and sellers. In this case it is shares in companies that are bought and sold. A share is a unit of ownership in a company. Large companies divide their ownership into millions of shares, which can be bought and sold through the stock market, known in Australia as the Australian Securities Exchange (ASX). The ASX was formed in 1987 by merging the six capital-city stock exchanges. Today the ASX is based in Sydney, but also has offices in Perth and Melbourne.

There are more than 2000 companies listed on the ASX. These include large retailers such as Woolworths and Wesfarmers (owners of Coles), the four big banks (ANZ, CBA, NAB and Westpac) and large mining companies such as BHP Group Limited and Rio Tinto. The value of shares can go up and down, depending on the demand for those shares. When a company reports that it has had a successful year, many people may want to buy shares in that company. If there are more people wanting to buy than to sell, the price tends to rise. If the company appears to not be performing well, there may be more shareholders wanting to sell their shares than there are buyers, so the price is likely to go down.

As the price of a company's shares goes up or down, so too does the value of a shareholder's investment. The value of most shares tends to rise over time, even though the prices can fluctuate daily. People who hold shares for long periods (generally more than 10 years) benefit from **capital growth**. Owning shares means you can also benefit when the company makes a profit, as profits can be distributed to shareholders as **dividends** or in extra shares.

FIGURE 6 Buying shares listed on the ASX enables you to become a shareholder in a variety of different businesses.



The buying and selling of shares is usually handled by stockbrokers. These are licensed agents who have access to the ASX, and who conduct share transactions on behalf of the general public in exchange for a small fee. Most stockbrokers will recommend that their clients buy shares in a variety of different companies. If you only buy shares in one company and that company experiences problems, the value of your shares can drop and you lose money. Buying shares in a number of different companies reduces your risk, as you have a better chance of having some shares that will perform well.

However, as with retail, it is possible for individuals to buy shares in companies themselves, online, by creating their own account, usually through their bank. Commsec and ANZ Etrade are examples of online trading platforms that allow consumers to buy shares if they have an account with that bank and have a minimum amount of money available — usually $600.

23.3.3 The market mechanism

As we have learnt, the market is a place for buyers and sellers to meet and exchange goods and services.

In simple terms buyers (consumers) demand goods and services and sellers (businesses) supply them.

capital growth an increase in the value of shares or property over time

dividends company profits paid to shareholders, either in cash or as more shares

The interaction of buyers and sellers can be shown on a diagram, which also shows us how price is agreed upon. This is sometimes called the market mechanism because it is showing how the market works.

Two key features of the market mechanism are demand and supply.

23.3.4 Demand

Demand is the quantity of a product that consumers are willing to purchase at a particular price at a given point in time. As prices increase, demand for that good or service decreases. If the price decreases, the demand for that good or service increases.

tlvd-10643

So, if we think of blueberries, the cheaper they are, the more people will want to buy them. However, the more expensive they are, the fewer blueberries people will want to buy.

Plotting the information on a graph gives us the demand curve for blueberries (see **FIGURE 7**).

As we can see when blueberries are at a lower price of $4 there will be many buyers and many blueberry punnets sold. At a higher price of $8, there will be fewer blueberry punnets sold.

FIGURE 7 Demand curve for blueberries

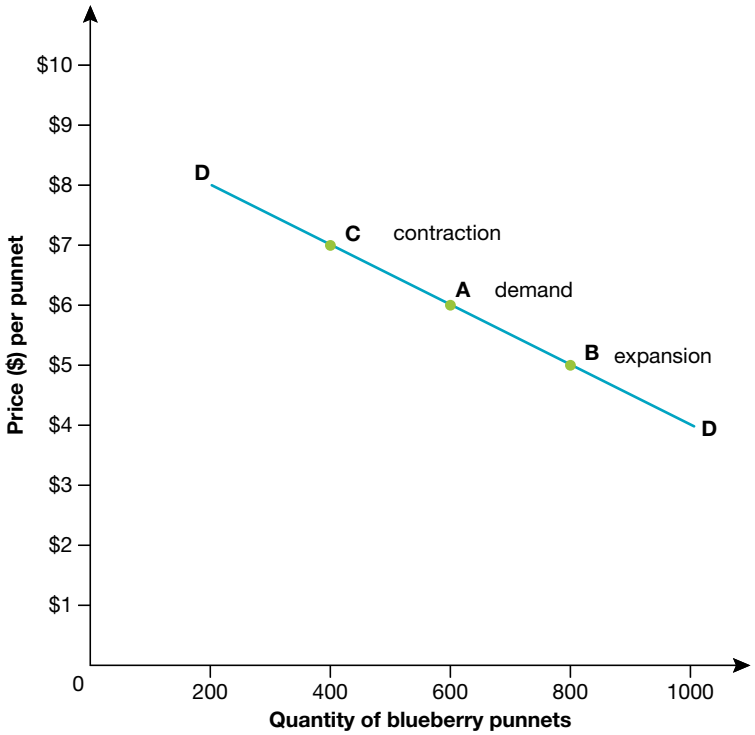


FIGURE 8 The demand for blueberries is impacted by the price



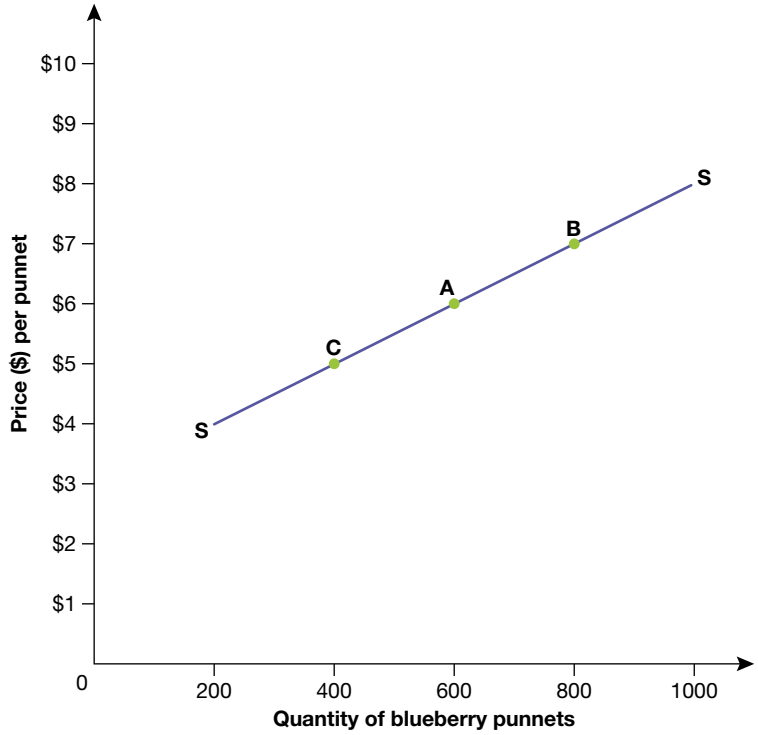
23.3.5 Supply

Supply refers to the quantity of a good or service that businesses are willing and able to offer for sale at a given price, at a given point in time. For blueberries, fruit farms are the businesses who are growing the blueberries. As prices for a good or service increase, the quantity supplied will increase. If the price decreases, the supply of that good or service will decrease.

This relationship can be illustrated using a supply schedule or table. Plotting this information on a graph gives us the supply curve for blueberries (see **FIGURE 8**).

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FIGURE 9 Supply curve for blueberries



As we can see from the graph, blueberry suppliers will wish to supply fewer blueberry punnets at a low price of $4. Instead they would prefer to supply more blueberries at a higher price, this will earn them higher profits!

23.3.6 The price mechanism

Once the supply and demand for a good or service has been established, it is possible to plot them both on a graph. The point at which the demand and supply curve intersect is called **market equilibrium**. This is the point at which buyers and sellers agree on a price and exchange the good or service for money.

The **price mechanism** refers to the forces of demand and supply in determining the price and quantity of a good or service.

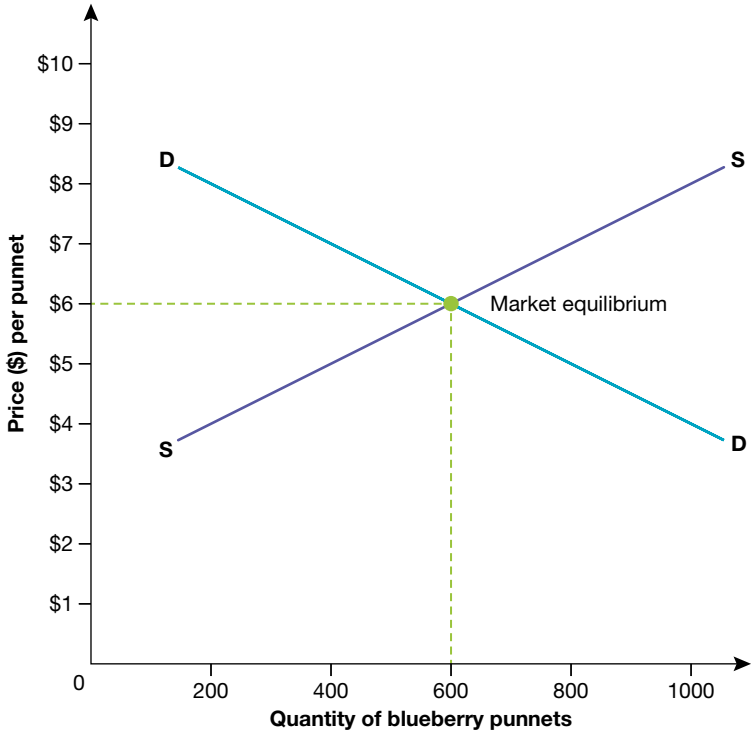
We can see on the graph that the equilibrium price for blueberries is $6 a punnet and the equilibrium quantity for blueberries is 600 punnets (see **FIGURE 10**).

market equilibrium the point at which the demand and supply curves intersect

price mechanism the interaction of the forces of demand and supply that determines the price of a good or service

tlvd-10693

FIGURE 10 Graph showing the market equilibrium for blueberries



on Resources

Video eLesson Share market basics (eles-0256)

Weblinks
- Australian JobSearch
- Fair Work
- ASX
- Jindabyne Holiday Park
- Petrol price

23.3 SKILL ACTIVITY: Analysis, evaluation and interpretation

Petrol prices often rise and fall a number of times during the week and the price is affected by a number of factors.

Use the **Petrol price** weblink in the Resources panel to find the price of petrol in your postcode area.

1. **Chart** the prices shown.
2. **Propose** reasons why the prices may vary in a relatively small region (your postcode area).
3. **Explain** how consumers may use the information from the website to inform their purchases of petrol.
4. **Explain** why consumers may not always use this information to inform their purchases of petrol.

FIGURE 11 The changing price of petrol is a constant issue for consumers.



23.3 Exercise

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23.3 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 5	4, 6, 8	7, 9, 10

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Check your understanding

1. **Identify** the term that describes the point where demand and supply intersect.
   - A. Price mechanism
   - B. Equilibrium point
   - C. Market equilibrium
   - D. Demand curve
2. What does ASX stand for?
   - A. The Australian Stock Exchange
   - B. The Australian Securities Exchange
   - C. The Authority for Stock Exchange
   - D. The Australian Securities Commission
3. Generally, as the price for a good or service increases, the quantity that a business is willing to supply will **decrease** / **increase** / **remain the same**. On the other hand, if the price for a good or service decreases, the quantity that a business is willing to supply will **decrease** / **increase** / **remain the same**.
4. **State** the four functions of money.
5. **State** three types of markets.

Apply your understanding

Communicating

6. **Explain** what is meant by 'markets' and provide reasons why markets don't need to have a physical presence.
7. **Explain** the relationship between the labour market and the retail market.

Interpreting and analysing

8. a. **Construct** the following demand and supply curves for the hypothetical product:

Price	Quantity demanded	Quantity supplied
$100	300	500
$80	350	450
$60	400	400
$40	450	350
$20	500	300

   b. **State** the equilibrium price and quantity traded.

Communicating

9. a. **Identify** two factors that can cause an increase in demand for apples.
   b. **Explain** the effect of the increase in demand for apples on the equilibrium price and quantity.
10. a. **Identify** two factors that can cause a decrease in supply of apples.
    b. **Explain** the effect of the decrease in supply of apples on the equilibrium price and quantity.

LESSON
23.4 What are key economic questions for businesses?

LEARNING INTENTION

By the end of this lesson you should be able to describe the role and importance of prices in an economy and identify the three key questions an economy tries to answer.

TUNE IN

We have all seen signs like this. Some of us may have been tempted by them and bought something at a sale or because it was 'on sale'.

Why do businesses offer sales or discounts to customers? Consider this question and then discuss the following:

1. Besides an increase in profits, why do you think a business might put products on sale?
2. How does the number of competitors or sellers in a market influence other sellers to sell products at discounted prices?

FIGURE 1 Stores use bold sale signs to attract customers



23.4.1 Market forces

A key factor in any market is the price charged for the goods and services sold in that market. Sellers will generally decide how much they wish to charge for the goods or services they are supplying, but they cannot do this in isolation. They must take into account the price that consumers are willing to pay. If there are a large number of sellers in any market, prices will tend to be lower because these sellers have to compete with each other to attract customers. When prices are influenced by the interaction between buyers and sellers, they are said to be influenced by market forces. These market forces can also affect what goods and services producers choose to supply and the methods they choose to produce them. Market forces can also determine who the ultimate buyers of these goods and services will be.

23.4.2 Influencing prices

The prices paid for goods and services can be influenced by both sellers and buyers. Sellers can adopt a number of strategies to determine prices, including:

- applying a retail price recommended by the manufacturer of the goods being sold. Although it is illegal for a manufacturer to enforce such a price, it can provide a useful guide for the seller.
- following the prices set by other sellers in the same market. This may involve matching those prices, or setting a slightly lower price to attempt to attract more customers.
- adding a **percentage mark-up** to the cost of the goods to the business. The seller may calculate a sale price by adding a fixed percentage to the price that they paid for the goods.

percentage mark-up a fixed percentage increase to the price paid by a business for goods, to determine the selling price of those goods

The selling price needs to be enough to help cover all the business expenses, and also provide a profit.

Whatever method a seller uses, it is a general rule in all markets that sellers will attempt to charge as high a price as possible, while buyers will look for the lowest price they can find. A seller who attempts to charge too high a price will find that buyers will not buy from their business. The seller must cover the business's expenses and make a reasonable profit, but cannot afford to charge too high a price if competitors are selling the same product at a lower price. A buyer who expects to pay too low a price may find that there are no sellers willing to sell at that rate, so has to be realistic about what constitutes a fair price.

FIGURE 2 Sellers must set a price that will not turn customers away.



23.4.3 The key economic questions

The aim of any economy is to provide goods and services to consumers in as efficient a manner as possible. We would expect consumers to buy goods and services that will satisfy their needs and wants, and that producers will want to make a profit by selling them those goods and services. In order for both consumers and producers to be satisfied, the economy has to answer three basic questions:

1. What to produce? — What goods and services should be produced, and in what quantities?
2. How to produce? — What methods should be used to provide those goods and services?
3. For whom to produce? — To whom should those goods and services be distributed?

Because the Australian economy operates largely as a market system, we would expect the interaction between buyers and sellers in a variety of different markets to answer these questions.

What to produce?

How does our market system help producers to decide exactly what goods and services to supply, and in what quantities to supply them? Up to a point, the market system operates largely by trial and error. A producer may make certain goods or services available to consumers and hope that these will satisfy the needs and wants of those consumers. If the goods or services fail to sell, the producer will probably go out of business. In Australia more than 60 per cent of small businesses close within their first three years, while one in three fail in their first year. This means that a lot of potential producers are entering the marketplace, but not selling the goods or services necessary to satisfy the needs and wants of consumers.

The market largely determines which businesses are likely to be successful. Some factors that can influence markets include:

- **Established habits and experience** — Producers know from people's existing behaviour that there will always be a demand for certain types of goods or services. Families need to buy food on a regular basis, so a supermarket in a new suburb may well be successful. In any new shopping centre, businesses such as cafés and hairdressers will probably meet a demand from consumers if there are no similar businesses nearby. If a second or third café or hairdressing salon is established in the same shopping centre, the success of these businesses will depend on whether the level of demand from consumers is sufficient for all of them to survive. If not, one or more will close. The operation of the market for those goods and services will determine how many similar businesses can survive in the same marketplace.

- **Changing tastes and preferences** — An example of this is the market for Australian-made cars. For many years, family sedans and wagons such as the Holden Commodore and Ford Falcon were Australia's best-selling cars. Car manufacturing was so successful that other manufacturers such as Toyota also set up factories in Australia. Over time, consumers' preferences have changed, and smaller imported cars and larger SUVs have become more popular. This led to a decline in car manufacturing in Australia. As a result, Holden, Toyota and Ford all ceased motor vehicle production in Australia in 2017.
- **Marketing and advertising** — Any business introducing a new product or service into the market needs to ensure that consumers are aware of its availability. For many years, businesses have used television, newspaper and radio advertising to persuade consumers to buy their goods and services. In addition, online advertising has increased dramatically, and today an online presence is essential for almost all businesses.
- **Technological change** — As a society we have become very enthusiastic about new technology. Whenever a new model iPhone is released, consumers queue up outside their nearest Apple store to be one of the first to buy it. Consumers monitor new developments in technology, and many will quickly replace outdated products with newer models. Producers can be quite confident that improvements in technology will quickly attract buyers to new goods and services.

FIGURE 3 Improvements in technology soon attract consumers.



How to produce?

Producing goods and services generally involves a combination of labour, equipment and raw materials. These are known as **inputs**, and any production process will involve different types and combinations of these three inputs. A factory producing frozen vegetables will be set up with different types of equipment, such as freezers to keep the vegetables cold, machines to chop them, and machines to pack and seal them in plastic packaging. The same factory will employ workers to control those machines, and perhaps carry out some other tasks, such as managing the whole process. The raw materials are the vegetables that are processed.

inputs those things that contribute to the production process

At different times, the managers of the factory will have to make decisions about the best methods to produce their final product, and the operation of the market can influence these decisions. Competition from rival frozen food companies will mean that the business will wish to keep its costs as low as possible. If efficient new equipment becomes available, it may be worth changing the methods of production to take advantage of this new machinery.

FIGURE 4 The use of robotics has changed the way manufacturers produce goods.



Automated production lines and robotics-based equipment are technologies that have improved factory production. In most cases, automation enables a factory to employ fewer workers, saving wage costs and allowing the prices of products to be kept at a level where they can compete in the marketplace. When one business in a particular market is able to cut costs by changing its methods of production, other businesses in the same market will usually make changes also, to remain competitive.

For whom to produce?

The economy answers one final question and that is 'for whom to produce?' This means that a business owner or government must think about who they will make their goods and services for. In other words, they will think about who their market is.

FIGURE 5 Luxury motor vehicles cost much more to produce, but the manufacturers are not attempting to sell to the mass market.



As an example, a car manufacturer may decide to produce expensive luxury cars only. This type of business will sell to people who have large enough household incomes to be able to afford this type of car. People who have normal or average household incomes may be excluded from buying this type of good.

It is worth remembering that household incomes come from a range of sources, including wages, government welfare, returns on investment and even winnings! The amount of income that you have to spend is sometimes called your **disposable income**.

disposable income the amount of money that households have available for spending and saving after income taxes have been accounted for

It is also worth knowing that whatever your income, the market and the businesses within it will provide for all different income levels. This is why we see businesses offering cheaper alternatives. Staying with our example of cars, there are businesses who sell average priced vehicles such as Toyota and businesses who might sell cars at a lower price. In this way, the market provides for most of us.

23.4.4 Market forces and the allocation of resources.

How do businesses determine what goods and services they will produce? Businesses seek to maximise their profits and so will look for markets or opportunities to increase their sales and profits. These markets and opportunities can arise from a variety of circumstances:

- Overseas issues — the war in Ukraine in 2022 disrupted the supply of resources such as gas. Gas became a scarce commodity and gas (and other fuel) prices rose in Australia. To avoid paying higher gas prices, alternatives such as solar panels for electricity became a more viable option and presented opportunities for businesses.
- Changes in the values of society have seen a number of car manufacturers commit to moving all their resources to the production of electric cars rather than petrol-driven vehicles. This move recognises our growing concern for the environment.
- Weather conditions in Australia during 2021 and 2022 saw some produce prices rise and some items become scarce (KFC announced in 2022 they were substituting cabbage for lettuce in some burgers due to a shortage of lettuce). This provides an opportunity for farmers to grow these crops to take advantage of higher prices.

FIGURE 6 Fuel prices rose due to the Ukraine war



Other businesses are able to take advantage of the type of product they sell:

- Staples, such as bread and milk are everyday items and consumers purchase these items, if not daily, then multiple times per week. The constant demand for these items guarantees relatively low prices and consistent supply.
- The brand recognition attached to some products, such as Ferrari, allow those products to be sold at a premium price. Ferrari uses better materials and engineering, so it is their premium quality that allows them to be sold for a premium price. A better example of brand recognition would be Nike or Adidas, that sell because of the logo, not because the quality of their products is so superior to others.

Businesses are also able to identify gaps or niches in markets. Consider local shopping centres — new businesses may open up because there may be perceived to be a gap in the market — a need not being met or a service not being provided. This type of gap could be used to explain the increase in food delivery services such as Door Dash or Uber eats.

Where businesses find opportunities, resources will be pulled or drawn to that opportunity.

23.4 SKILL ACTIVITY: Analysis, evaluation and interpretation

In a fruit and vegetable market, sellers change their prices regularly. The sellers naturally like to sell their bananas at a higher price.

a. **Suggest** one reason why the sellers of bananas would like to sell them at a higher price.
b. **Suggest** one reason why the sellers may reduce the price of the bananas.
c. Concerning price, what is the main priority for the business and what is the main priority for the consumer?
d. Your response to c helps to explain the two forces of supply and demand, and how the market settles on a price. **Explain** the concept of how the market determines the prices of goods and services.



23.4 Exercise

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23.4 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 3	4, 5, 7, 9	6, 8, 10

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Check your understanding

1. What is 'disposable income'?
   - A. The difference between the wholesale and retail price
   - B. The amount of money an individual earns per year
   - C. The amount of money a household has to spend
   - D. The amount of money an individual earns per week
2. The decreased use of technology in production techniques is one of the key ways in which businesses keep their production costs low. True or false?
3. **Identify** the three different types of inputs that go into any production process.
   - A. Money, equipment and raw materials
   - B. Labour, equipment and raw materials
   - C. Labour, money and water
   - D. Money, water and electricity
4. **Explain** two factors that could influence which goods and services businesses decide to produce.
5. **Recall** two methods a business might use to determine the prices for the goods or services it sells.

Apply your understanding

Communicating

6. **Explain** how markets can influence to whom different goods and services are distributed.
7. **Explain** the meanings of the three economic questions.
8. **Describe** two methods that can impact how businesses produce goods.
9. **Explain** why luxury goods, such as expensive cars, are still popular despite there being many other cheaper options available.

Interpreting and analysing

10. Imagine you own a homemade ice-cream shop in a coastal town. **Predict** what will happen to buyer preferences in the following scenarios:
    a. The market price of cream rises, raising the cost of producing ice cream.
    b. A new ice cream shop opens a couple of doors down.
    c. Your town experiences an unusually cold summer.

LESSON
23.5 How is the government involved in the market?

LEARNING INTENTION

By the end of this lesson you should be able to describe the different roles played by the government in the economy.

TUNE IN

We have probably all heard of some or all of the following government agencies:

- Reserve Bank of Australia
- Australia Taxation Office
- Medicare
- Centrelink.

They are official government bodies that assist consumers and businesses manage their interaction in the economy.

1. Brainstorm what you think are the main functions of each of these institutions.
2. Discuss why we need these institutions.

FIGURE 1 Centrelink and Medicare are two important Australian government agencies.

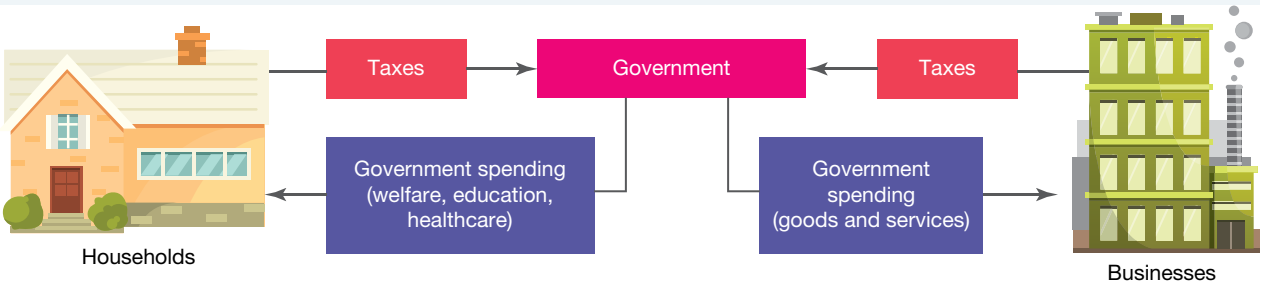


23.5.1 Role of the government

The involvement of government in our market system is illustrated by **FIGURE 2**. We can see that both households and businesses pay taxes to government.

Some of this money comes back to households in the form of welfare payments such as pensions, or as services such as education and healthcare. Some of it is spent on buying goods and services from businesses, or paying businesses to build roads, schools or hospitals.

FIGURE 2 Model showing the role of the government in the flow of money, goods and services between households and businesses



23.5.2 Welfare

The government provides financial and other support to disadvantaged members of the community. The aged pension supports those who are beyond retirement age and no longer working. Unemployment benefits are designed to support those who cannot find work. The National Disability Insurance Scheme (NDIS) provides people with a permanent and significant disability with money to access support and services.

FIGURE 3 Welfare payments help those who are not able to earn an income.



Not only are welfare payments designed to provide fairness and support to those who need help, but the payments can also have a positive economic effect on markets. Those receiving welfare are likely to spend most of their money and so their spending adds to the circular flow of income throughout the economy. Businesses gain revenue from selling additional goods and services. This, in turn, allows them to employ more people, who also spend their money buying goods and services.

23.5.3 Provision of infrastructure

Government has a major responsibility for providing the **infrastructure** for the country. This includes roads, railways and ports, and has traditionally included other means of communication, as well as energy supplies. Roads and railways are essential if goods are to be transported from place of manufacture to the shops where they are sold. Ports are not only required to allow for the import and export of goods in and out of Australia, but also for the transport of goods within Australia. Tasmania relies on shipping across Bass Strait to bring goods from mainland Australia, and to transport goods produced within the state to consumers in other states.

FIGURE 4 Government provides infrastructure to enable markets to function more efficiently.



infrastructure the facilities, services and installations needed for a society to function, such as transportation and communications systems, water and power lines

The government provides a postal service that supports correspondence between businesses, as well as the delivery of goods through a parcel delivery service. The telephone service was originally provided by government before Telstra was **privatised** and other providers were allowed to enter the market for telephone services. Even today, the national broadband network is an important infrastructure project being funded by the government. Markets cannot operate without efficient systems of communication between consumers and businesses.

Traditionally, energy supplies such as electricity and gas have also been provided by government. These are not only essential for the domestic uses we are all accustomed to, but also for the functioning of businesses. In some states of Australia, electricity and gas supplies have been privatised and are now run by businesses rather than by the government. Even where this has occurred, the original infrastructure was usually built by the government before being sold to the business sector.

DISCUSS

Privatisation of essential industries, such as electricity and gas supplies, can lead to increased prices as the companies that provide these services seek to make larger profits. Do you think these essentials should be sold for profit?

23.5.4 Economic management

Our government is responsible for making sure that Australia's economy performs well. This means that our economy should grow, or produce more, in order to satisfy our growing population and its needs and wants.

The government can help an economy grow. It does this by spending money in the economy and buying things such as new schools or roads. This is beneficial, not just for the end user, but also because it creates jobs. We need to employ people to build schools and roads! An important element to this is that these people will earn an income and spend it in their local communities. This in turn supports local businesses and encourages them to supply goods and services.

Governments plan their spending in a yearly **budget**. The budget tries to keep our economy in a stable position, having a balance between supporting growth and avoiding the negative impacts of it.

privatise to sell a government-owned provider of goods or services to private investors

budget estimates of all government income to be raised by taxes and other charges, and the planned spending of that income, within any given year

FIGURE 5 Governments will use a variety of statistics to assist with decision-making.



23.5.5 Wages and employee relations

As we have discussed, there is a market for labour in which workers offer their skills and experience for sale to businesses and businesses buy that labour by paying wages and salaries. In order to ensure that the labour market functions fairly, it is regulated by laws passed by governments. The major law dealing with wages and working conditions in Australia is the Fair Work Act, a federal government law.

State governments provide regulations to ensure safe workplaces through Occupational Health and Safety laws. Both federal and state governments have also sought to prevent discrimination in the workplace by passing laws supporting equal employment opportunity. These make it illegal to discriminate against someone in any workplace on the basis of gender, race, age or ethnicity. Victoria also has laws to deal with bullying in the workplace.

FIGURE 6 Occupational Health and Safety laws are designed to prevent injuries at work.



23.5.6 Provision of goods and services

Governments can also become involved in the marketplace as actual suppliers of goods and services. For example, every state and territory government provides an education system. In addition, state governments provide hospitals and other health services. Although other organisations also provide many of these services, such as private schools and private hospitals, most people consider it a responsibility of government to ensure that everyone has access to education and health services. Ambulance services and firefighting and emergency services are similarly considered to be the responsibility of state governments.

Public transport systems also are mostly provided by state governments, and those public transport systems that are provided by non-government businesses usually receive large amounts of money from the government to assist in their running. Public transport does not make a profit, so no business would want to run it without such funding. Further, without this government assistance, for public transport to be profitable fares would have to be so expensive that many people could not afford to use it. Public transport is recognised as an essential service, so governments either provide it themselves or pay businesses to provide it at a reasonable price.

FIGURE 7 It is a responsibility of governments to provide hospitals and health services.



23.5.7 Planning and the environment

State governments and local councils have powers to control the type of buildings and other developments that are built within their borders. Governments establish building standards to ensure that all buildings are structurally sound, and not likely to fall down or cause a hazard in any other way. Anyone wishing to build a house or other structure on vacant land must gain a building approval. This is to ensure that the building conforms with certain standards. Councils and the state government can also determine whether or not a particular type of building is appropriate in a particular area. For example, it would usually be considered inappropriate to build a large factory in the middle of a residential area.

FIGURE 8 Governments have introduced laws to prevent businesses from polluting the environment.



Since the early 1970s, state governments have also introduced laws to protect the environment. These place restrictions on both businesses and individuals in relation to what they can release into the atmosphere and waterways. These laws can affect markets because they can increase costs for some businesses. For example, businesses that may once have released waste material into a creek, river or drain now have to dispose of it in an environmentally responsible manner. Smoke and fumes have to be properly filtered before being released into the atmosphere. Motor vehicles have emission controls to limit the levels of harmful chemicals in exhaust fumes.

Environmental laws have also created new business opportunities, with waste management and recycling businesses providing services for a variety of different customers. As with most government involvement in the economy, while some businesses may appear to be disadvantaged, opportunities are often created for new and different businesses to grow.

23.5.8 International trade policies

Governments have the power to regulate what comes into and goes out of the country. Customs and quarantine laws can have an influence on the markets for a number of products. Until 2011, Australia banned apples from New Zealand because of fears the apples may spread a disease known as fire blight. Such a regulation would obviously have an impact on the market for apples throughout Australia.

FIGURE 9 A reduction in tariffs has increased the quantity of imported clothing sold in Australia.



Traditionally governments have also attempted to protect goods produced by local industries by imposing special taxes on similar goods imported from other countries. These taxes are known as **tariffs**. The clothing and textile industries were once protected in this way. In the early 1980s, there was a 28 per cent tariff on all imported clothing. This made these imported goods more expensive than locally produced clothing, thus encouraging consumers to buy the Australian-manufactured product. Over the next thirty years this tariff was reduced, making imported clothing much cheaper than the local product.

tariff a tax on goods imported from a foreign country

As a result of reduced tariffs, many local clothing manufacturers have been unable to compete with cheaper imported clothing and consequently have had to close. A similar program of tariff reduction occurred in the motor vehicle industry. While this has been a negative for the Australian clothing and motor vehicle industries, the positive impact for Australian consumers is clothing and motor vehicles being much cheaper. Since the 1980s, Australian governments have also negotiated trade agreements with other countries. We agree to reduce tariffs on imports from those countries, and in return they agree to reduce tariffs on goods they import from us. Although this can make it difficult for some local manufacturers who have to compete against cheaper imported products, it can be good for our export industries and for consumers, who pay lower prices.

23.5.9 Immigration policies

As well as controlling the goods that come into and go out of Australia, governments can regulate the movement of people. This particularly applies to immigration into the country. Immigration allows the population to rise faster than would occur through natural increases in the birth rate. Rapid population increases can provide more consumers for businesses to supply with goods and services. Further, new arrivals add to the workforce, providing businesses with new employees who may have new skills to help the business grow.

Governments can also affect the market for particular goods and services through decisions made about who is encouraged to migrate here. If particular skills are required in certain industries and not enough people in Australia have the required qualifications, governments can allow employers to bring in migrants with the necessary skills. This can affect the labour market in that industry. Australia has also become a major provider of tertiary education for our region. Encouraging international students to come here provides additional income for our universities, as these students pay fees to study here.

FIGURE 10 Australia has become a major provider of tertiary education for fee-paying students from Asian countries.



on Resources

Weblinks Australian Bureau of Statistics
Fair Work

23.5 SKILL ACTIVITY: Analysis, evaluation and interpretation

Use the **Australian Bureau of Statistics** weblink in the Resources panel to complete the following tasks.

a. **Find** out the current estimated population of Australia.
b. **Explain** how this estimate is calculated.
c. **Select** two headlines or media releases, and for each one, **describe**:
   i. three significant facts or figures included in the report
   ii. the trends or changes that have occurred in recent years in the facts or figures reported.

23.5 Exercise

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23.5 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 4	5, 6, 7	8, 9, 10

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Check your understanding

1. **Recall** what the following acronyms stand for.
   - a. ATO
   - b. RBA
   - c. ABS
2. **Match** the terms with their definitions by adding the correct number to the column on the left.

	Infrastructure	1. An increase in the size of a country's economy, and levels of production, over a period of time
	Economic growth	2. When the government announces its spending and taxation plans
	Government budget	3. Large-scale building projects including roads, railways and public spaces

3. **Identify** what tariffs are.
   - A. A tax on goods imported into the country from overseas
   - B. A general rise in prices across all sectors of the economy
   - C. Goods and services purchased by local consumers from overseas businesses
   - D. Those things that contribute to the production process
4. **Recall** what happens when a service provided by the government is privatised.
   - A. Governments gain the majority of their influence over how this service is run.
   - B. The private company loses the majority of their influence over how this service is run.
   - C. Governments lose the majority of their influence over how this service is run.
   - D. None of the above
5. **Explain** why the government usually must provide funding for public transport to operate.

Apply your understanding

Communicating

6. **Explain** how a government budget can influence economic growth.
7. **Identify** two goods or services that the government supplies.
8. **Explain** why the government is involved in the setting of wages and working conditions of employees.
9. **Identify** two ways in which environmental laws might affect a business.
10. Governments welcome skilled migrants into Australia. **Explain** how this might increase the growth of our economy.

LESSON
23.6 How does Australia's taxation system work?

LEARNING INTENTION

By the end of this lesson you should be able to explain the purpose and workings of Australia's taxation system.

TUNE IN

Paying taxes isn't necessarily the most enjoyable thing to do each year, but our taxation system does have many benefits for our society.

1. Brainstorm reasons why taxes are important in our economy.
2. Suggest a list of services and/or products we may not have if there were no taxes to be paid.

FIGURE 1 The phrase 'in this world, nothing is certain except death and taxes' signifies that it is inescapable that we will all be required to pay taxes.



23.6.1 Australia's system of taxation

Tax is a term used to describe a compulsory financial charge or some other type of levy imposed on an individual, household or business by a government body in order to fund government spending. In Australia, taxation is primarily monitored by the Australian Tax Office (ATO).

The Australian government and the individual state and territory governments impose a variety of taxes on individuals, households and businesses.

Out tax system can be looked at from a variety of ways:

Direct and indirect taxation

Direct taxation refers to any tax that falls directly on the taxpayer, for example, income tax, company tax, licence fees. The tax is levied on the income of the individual or business and paid directly by the business.

Indirect taxation refers to any tax that is passed on to other tax payers, for example, Goods and Services Tax (GST), sales taxes, import duties. The GST is paid by businesses but is passed on to consumers who pay the tax when they buy goods or services. The businesses (sellers) then collect it and pass the tax on to the ATO.

Rate of taxation

TABLE 1 The tax brackets used by the ATO

Income thresholds	Tax rate	Tax payable on this income
$0–$18 200	0%	Nil
$18 201–$45 000	19%	19c for each $1 over $18 200
$45 001–$120 000	32.5%	$5092 plus 32.5c for each $1 over $45 000
$120 001–$180 000	37%	$29 467 plus 37c for each $1 over $120 000
$180 001 and over	45%	$51 667 plus 45c for each $1 over $180 000

Source: https://www.superguide.com.au/how-super-works/income-tax-rates-brackets.

The tax brackets used by the Australian Tax Office give us a guide as to how we are taxed on our own wages or salaries. What do you notice about the percentage of tax paid across the different earnings?

23.6.2 The purpose of Australia's system of taxation

The main aim of the Australian government's taxation policy is to improve the fairness of the distribution of income amongst individuals and households. The government has three main roles in imposing taxes on individuals, households and businesses — distribution, allocation and production.

Distribution

The distribution of income is a government goal. It tries to reduce the gap between the rich and the poor by taxing high-income earners more than low-income earners and redistribute some of that income. The government will then use this collected taxation to redistribute income to low-income earners or those without any income through transfer payments (welfare, such as the Newstart Allowance).

Allocation

The system of taxation adopted by the government can also be used to allocate resources. The government uses the income receipts to spend on the provision of goods and services not produced by businesses.

These services are available to all and are often free or provided at a very low cost. These services include public parks, street lighting, police and emergency services, defence and other such services.

The government can also use the tax system to encourage or discourage the purchase of certain items.

The government can provide rebates (a reduction in the cost of an item) by returning some of the purchase price to the consumer to encourage consumption of that item. An example was the Energy Efficient Homes package which provided, amongst other things, a rebate to households that installed insulation in their homes. Insulation reduces costs of energy as less energy is used and can be expensive. This increased demand in this area and also affected the demand for electricity. It will also influence producers to produce more of these products.

The government can also use taxation to discourage the use of some items. An example is tobacco which can cause health problems. The government impose an excise duty which increases the price of tobacco products and will hopefully discourage the consumption of such products. An excise duty on alcohol is another example.

FIGURE 2 Taxes are used for resources such as emergency services.



Production

The money collected through taxation is also used to produce goods and services that will assist low -income earners. The government spends much of the tax revenue it receives on public schools, public hospitals and transport. These are all provided at a relatively low price so all consumers can access them.

23.6.3 Government spending and receipts

We have mentioned budgets previously in the context of what the government plans to spend. However, as you may know, budgets are two-sided and the Australian government's budget consists of what it will spend and also what it will earn.

The government earns money from a variety of sources but a big part of this is from taxing incomes. Sometimes a government spends more than it earns and this is known as a deficit or government debt. At other times a government spends less than it earns and this is called a surplus.

The government's plan for 2021–22 is shown in **FIGURE 3**, with the government planning a deficit of $92.7 billion in 2021–22 — an increase from the previous year with the plan to reduce the deficit over the coming years.

FIGURE 3 The government's plan for 2021–22 and beyond

	Actual	Estimates				
	2019–20 $b	**2020–21 $b**	**2021–22 $b**	**2022–23 $b**	**2023–24 $b**	**2024–25 $b**
Revenue	486.3	504.9	496.6	505.1	544.5	578.0
Expenses	578.5	659.4	589.3	595.4	614.7	633.7
Net operating balance	–92.3	–154.5	–92.7	–90.2	–70.2	–55.7

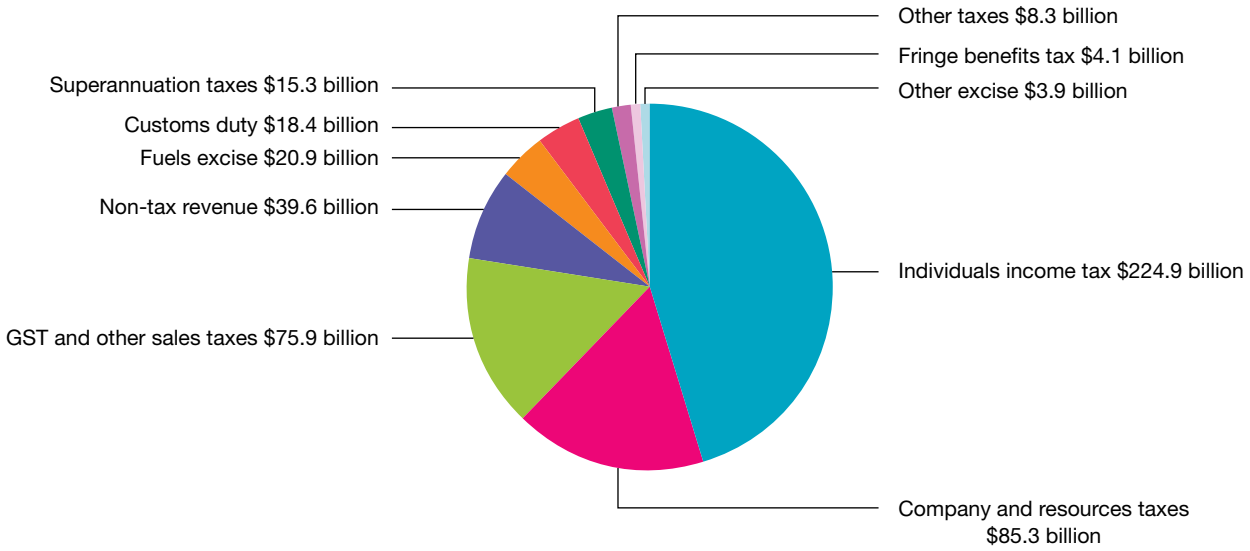
The graphs in **FIGURE 4** show where the receipts are coming from and where the payments are being made.

FIGURE 4 Revenue and spending 2021–22

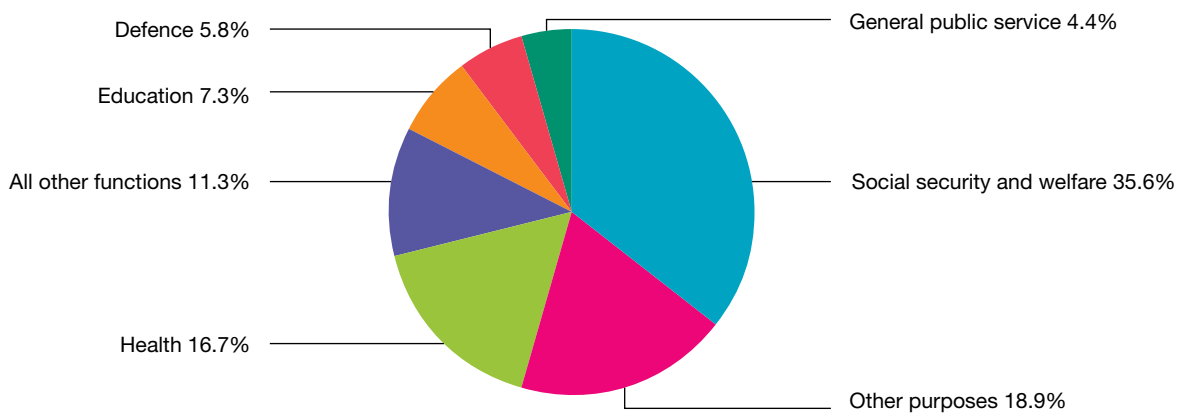
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tlvd-10645

Where revenue comes from (2021–22)



Where taxpayers' money is spent (2021–22)



23.6.4 Young people and tax

Young people or full-time secondary school students probably don't think about paying tax. However, everyone in Australia will pay some tax each year, the most common being GST.

While most food and drink are GST-free, there are some exceptions to this rule and so students in junior and middle secondary school will pay some GST. These items include:

- chewing gum
- potato chips
- hot dim sims
- donuts
- energy drinks.

GST is also paid by young people when they buy clothes, sporting goods or go out to places such as the movies or bowling.

FIGURE 5 Most students with a casual or part-time job will not earn enough to pay income tax.



In terms of income tax, most people under the age of 18 won't pay income tax. All persons earning an income from work are eligible for the tax-free threshold. This is an amount of income a person can earn that does not incur income tax. In 2022, this figure was $18 200.

Most secondary school students who have a part time job will not earn this amount of money in a year and so won't pay income tax.

If a person is under 18 and has left full-time schooling and work full time, then they will be subject to income tax like everybody else working full time.

To pay income tax a person must have a tax file number. A tax file number (TFN) is a personal reference number in the tax and superannuation systems. A person's tax file number is an important part of your tax and super records and an important part of your identity — it is important to ensure it is kept secure. Each person will have the tax file number for life, even if they change your name, change jobs, move interstate or go overseas.

People don't have to have a TFN, but without one a person will pay more tax. That person also won't be able to apply for government benefits, lodge a tax return electronically or get an Australian business number (ABN).

Most secondary school students will apply for a tax file number when they gain their first part-time job or when they undertake work experience in Year 10.

23.6 SKILL ACTIVITY: Interpreting and analysing

Australia utilises a progressive income tax system known as the PAYG (Pay As You Go) system. The system groups income earners into tax brackets based on their incomes. The tax brackets in 2022 were shown in **TABLE 1** in section 23.6.1.

1. The following people have asked you to **determine** how much tax they will pay using these tax brackets. Calculate the amount for each person.

Person	Income	Person	Income
Adam	$35 800	Josh	$12 700
Anil	$132 500	Megan	$350 000
Feng	$89 200	Dev	$231 600
Claire	$157 400	Kaan	$800 000

2. **Explain** to Kaan and Megan why they pay more tax than others in the group. Ensure you use the information you learned in this lesson in your explanation. Try to keep it simple.

23.6 Exercise

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23.6 Exercise

Learning pathways

■ LEVEL 1	■ LEVEL 2	■ LEVEL 3
1, 2, 3, 4	5, 6	7, 8, 9, 10

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Check your understanding

1. Excise duty is only paid by businesses, not by individuals. True or false?
2. **Identify** what GST stands for.
   - A. Government Services Tax
   - B. Government Spending Tax
   - C. Goods and Spending Tax
   - D. Goods and Services Tax
3. **Identify** two products that have an excise duty imposed upon them.
   - A. Fruit
   - B. Alcohol
   - C. Clothing
   - D. Homewares
   - E. Tobacco
4. **State** three purpose of Australia's tax system.
5. **Identify** the two types of taxes used by the government.

Apply your understanding

Communicating

6. **Explain** what is meant by a regressive tax and provide an example.
7. **Explain** what is meant by a rebate and how it can influence consumer spending.
8. Why is it important for the government to redistribute income through taxation? **Justify** your response.
9. **Explain** why the government needs to use some taxation revenue to produce goods and services.
10. **Explain** the concept of a budget deficit and why you think it may be necessary for a government to plan for a deficit.

LESSON
23.7 INQUIRY: How would you tax the Australian public?

LEARNING INTENTION

By the end of this lesson you should be able to explain the process involved in developing a tax system.

Background

In reading and discussing the material in this topic, you should now have an understanding of Australia's taxation system. Each year it is the responsibility of the Treasurer (a government minister) to prepare Australia's budget. They determine how much they will raise through taxation — whether to raise or lower taxes, introduce new taxes or abolish a tax. They also determine what the money will be spent on and in which amounts.

Your task is to consider how you might tax the Australian public and how you might allocate the tax raised.

FIGURE 1 Jim Chalmers became Australia's Treasurer in 2022.



Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

Inquiry steps

Step 1: Questioning and researching

Investigate the current tax system to work out some of the tax types and rates.

Step 2: Interpreting and analysing

Analyse the information you found and **consider** how fair you think it is.

Step 3: Evaluating, concluding and decision-making

Decide on your own version of a tax system for Australia — **consider** the types of taxes and the rate.

Allocate how you would spend the money raised — use percentages (such as 10 per cent of revenue on health care). Be prepared to **justify** your choices if asked.

Step 4: Communicating

Communicate your new tax system in a visual way. You might **create** a poster containing infographics or a PowerPoint presentation.

Complete your self-assessment using the **Inquiry rubric** or access the 23.7 exercise set to complete it online.

Resources

Digital document Inquiry rubric (doc-39548)

LESSON
23.8 Review

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23.8.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

23.2 Who are the participants in the market system?

- Consumers satisfy their needs and wants by working to earn money, and then buying goods and services from businesses that produce those goods and services.
- The basic circular flow of money is between the household sector and the business sector.
- Financial intermediaries, the government and the overseas sector are all involved in the operation of the market system in Australia.

23.3 How do markets operate?

- There are a large number of different types of markets that make up the Australian economy. These include the retail market, the labour market, financial markets and the stock market.
- The price of some goods or services is always changing due to the interaction of supply and demand.
- Supply refers to the quantity of a good or service that businesses are willing and able to offer for sale at a given price, at a given point in time.
- Demand is the quantity of a product that consumers are willing to purchase at a particular price at a given point in time.

23.4 What are key economic questions for businesses?

- The interaction between buyers and sellers in the marketplace can influence prices charged for goods and services.
- Markets can also help determine what goods should be produced and in what quantities, how those goods and services are produced, and to whom they are distributed.

23.5 How is the government involved in the market?

- The government performs a number of roles in the Australian market system including:
  - the provision of welfare and infrastructure
  - economic management
  - regulation of wages and employment conditions
  - provision of some goods and services
  - management of planning and the environment
  - regulation of international trade
  - setting of immigration policies and targets.

23.6 How does Australia's taxation system work?

- Australia's tax system comprises numerous different types of taxes.
- Taxes can be direct or indirect.
- Taxes may be progressive, proportional, or regressive.
- Taxes (rebates) can influence consumer decision and producer behaviour.

23.7 INQUIRY: How would you tax the Australian public?

- Many considerations need to be made when developing a fair tax system.

23.8.2 Key terms

budget estimates of all government income to be raised by taxes and other charges, and the planned spending of that income, within any given year

capital growth an increase in the value of shares or property over time

cost of living the level of prices paid by consumers for goods and services

disposable income the amount of money that households have available for spending and saving after income taxes have been accounted for

dividends company profits paid to shareholders, either in cash or as more shares

export a good or services sold by local businesses to overseas consumers

financial institution any organisation that takes deposits from those with surplus funds, and makes those funds available to borrowers

household sector a term used by economists to refer to the total of all consumers in the economy

import a goods or services purchased by local consumers from overseas businesses

infrastructure the facilities, services and installations needed for a society to function, such as transportation and communications systems, water and power lines

inputs those things that contribute to the production process

interest a charge made for the use of money that has been deposited or borrowed

investment the direction of money into the purchase of equipment or premises for the establishment of a new business, or the expansion of an existing business

labour the human skills and effort required to produce goods and services

market equilibrium the point at which the demand and supply curves intersect

minimum wage the legally binding minimum that must be paid to any employee over the age of 21 years

mortgage loan a loan advanced to allow a person to buy a house or other property, with the property itself as security for the loan. This means the bank or other lender can take possession of the property if the borrower fails to make the regular payments.

percentage mark-up a fixed percentage increase to the price paid by a business for goods, to determine the selling price of those goods

price mechanism the interaction of the forces of demand and supply that determines the price of a good or service

privatise to sell a government-owned provider of goods or services to private investors

tariff a tax on goods imported from a foreign country

unemployment benefit a welfare payment by government to people who are unemployed and looking for work. Such payments in Australia are generally known as the Newstart Allowance.

23.8.3 Reflection

Complete the following to reflect on your learning.

Revisit the inquiry question posed in the Overview:

How do markets operate, what do they influence, and what influences them?

1. Now that you have completed this topic, what is your view on the question? Discuss with a partner. Has your learning in this topic changed your view? If so, how?
2. Write a paragraph in response to the inquiry question, outlining your views.

Resources

eWorkbooks Customisable worksheets for this topic (ewbk-10792)
Reflection (ewbk-10794)
Crossword (ewbk-10795)

Interactivity Markets: consumers, businesses and governments crossword (int-8237)

23.8 Review exercise

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Multiple choice

1. Economists identify the household sector as
   - **A.** all people living in houses.
   - **B.** all consumers in the economy.
   - **C.** businesses that operate from private homes.
   - **D.** consumers that have taken out a mortgage loan.
2. A business can determine the prices it charges for its goods and services by
   - **A.** applying a percentage mark-up.
   - **B.** calculating consumers' disposable income.
   - **C.** paying lower dividends to shareholders.
   - **D.** negotiating an enterprise agreement.
3. The government in Australia has an impact on markets by
   - **A.** determining prices in the retail market.
   - **B.** controlling interest rates in the financial market.
   - **C.** regulating minimum wages in the labour market.
   - **D.** promoting capital growth on the stock market.
4. When the government enters into trade agreements with other countries
   - **A.** both countries may agree to lower tariffs for each other's goods and services.
   - **B.** both countries may agree to increase tariffs for each other's goods and services.
   - **C.** the exporting country may agree to increase tariffs.
   - **D.** the importing country may agree to increase tariffs.
5. Income tax in Australia is an example of
   - **A.** an indirect tax.
   - **B.** a proportional tax.
   - **C.** a progressive tax.
   - **D.** a regressive tax.
6. Identify the type of economy used in Australia.
   - **A.** Capitalist economy
   - **B.** Market economy
   - **C.** Socialist economy
   - **D.** Command economy

7. A percentage mark-up is
   - **A.** the amount of money an individual earns per year.
   - **B.** the difference between the wholesale and retail price.
   - **C.** the amount of money that a household has to spend.
   - **D.** the savings made by a customer during a sale.
8. Which of the following is an accurate statement about prices of products and consumer demand?
   - **A.** As price increases, demand stays the same
   - **B.** As price increases, demand increases
   - **C.** As price increases, demand decreases
   - **D.** Prices of products and consumer demands are not related
9. Which of the following **is not** a function of money?
   - **A.** Medium of exchange
   - **B.** Store of value
   - **C.** Measure of value
   - **D.** Measure of credit
10. A business will supply more of its good and services
    - **A.** if the price that it can charge is low.
    - **B.** if the price that it can charge is high.
    - **C.** if it can supply at all price levels.
    - **D.** if the price paid is always the same.

Short answer

Communicating

11. **Recall** the four functions of money.
12. **Explain** the role of buyers in the Australian economy.
13. **Distinguish** between imports and exports and explain why we need them in our economy.
14. **Explain** two roles played by the government in the economy.
15. **Describe** Australia's tax system.

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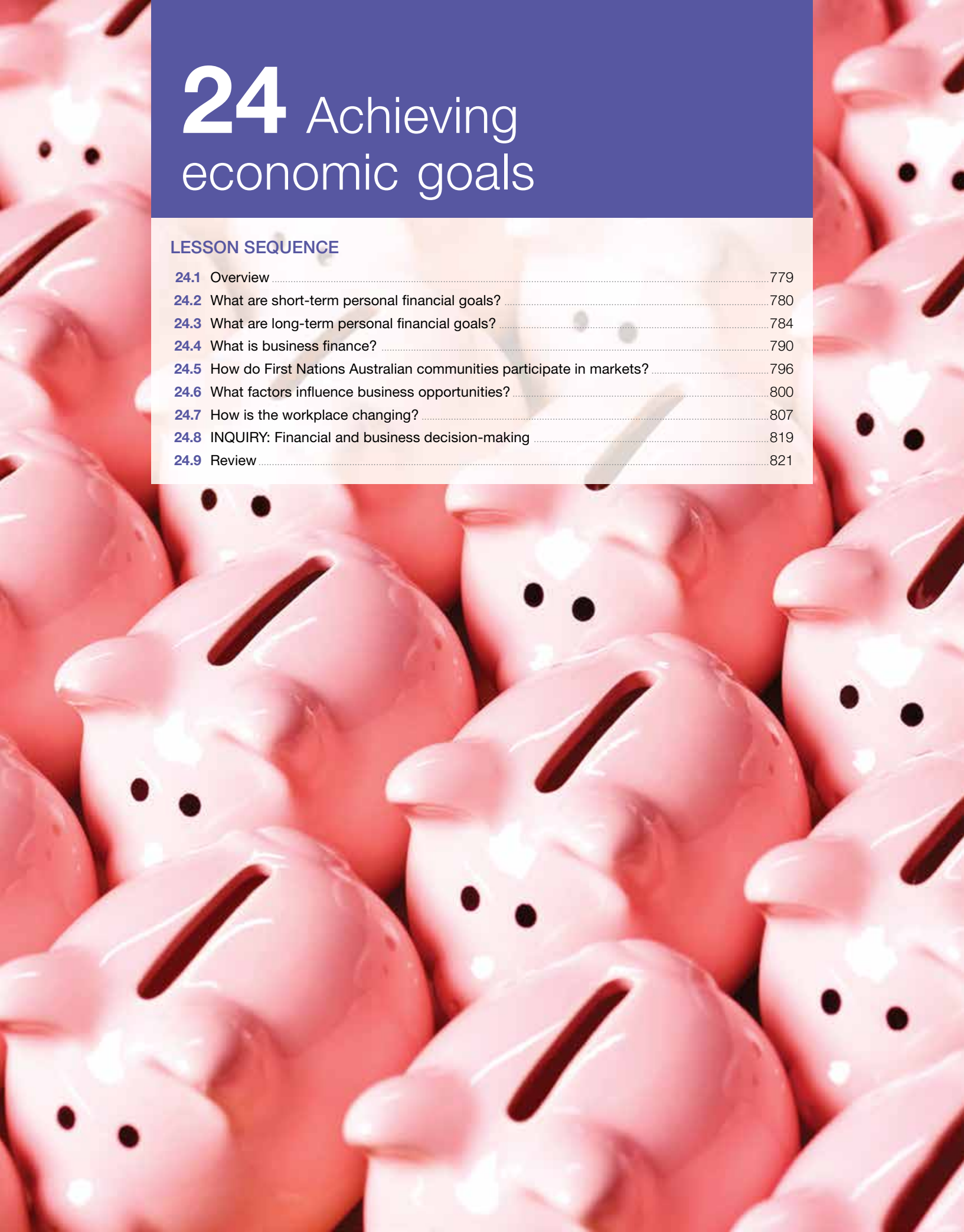
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24 Achieving economic goals



LESSON SEQUENCE

24.1 Overview 779
24.2 What are short-term personal financial goals? 780
24.3 What are long-term personal financial goals? 784
24.4 What is business finance? 790
24.5 How do First Nations Australian communities participate in markets? 796
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LESSON
24.1 Overview

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Why is personal, organisational and financial planning for the future important for consumers and businesses?

How do different businesses respond to opportunities in the market?

24.1.1 Introduction

You may already know how economic decision-making by consumers and producers influences the ways in which limited resources are allocated to produce goods and services. This affects what is produced and in turn what we buy.

FIGURE 1 Every time you purchase something you are participating in the economy.



However, have you ever stopped to think about your own goals? What do you want to do in life and how will you manage your money? In this topic we will consider that both individual consumers and producers have goals. For the individual consumer, these goals are focused on what we wish to buy or do with the money that we earn or have access to. These goals in turn may affect the way an individual chooses to work or the value that they place on their careers.

It is a similar story with businesses; remember that businesses will wish to sell products, however they will also have their own unique short- and long-term organisational and financial goals. These goals may also include looking at different types of business ownership and the ways that entrepreneurs might respond to opportunities, including the ways First Nations Australian communities create economic activity.

on Resources

eWorkbook Customisable worksheets for this topic (ewbk-10796)

Video eLesson Achieving economic goals (eles-6039)

LESSON
24.2 What are short-term personal financial goals?

LEARNING INTENTION

By the end of this lesson you should be able to identify sources of income and forms of expenditure for individuals. You should also be able to identify and explain options for a budgeting and savings plan using short-term personal financial objectives.

TUNE IN

People, including teenagers, require money to purchase the things they want (non-essentials) and the things they need (essentials). How could young people make and manage this money?

1. Make a list of the type of things that you would expect a secondary school student of your age to purchase each week.
2. Decide whether these things are *needs* or *wants.*
3. Where could a teenager's money come from to buy the items? Regular pocket money, allowance, or other cash income? If so, what methods could they use to make it last until the next payment?

FIGURE 1 Where does your money come from and where does it go?



We all like to have money to spend. Many of us aspire to be wealthy and to be able to buy whatever we like. Unfortunately, very few of us have that luxury. As individuals we need to think about how we will earn the money we need, and how we can manage it to get the best value from it.

Some people choose to earn money by starting up their own business. If you have particular skills or a good idea for a business, there can be many benefits in choosing to go down this path. Regardless of whether you start your own business, have a paid job working for someone else or are a teenager with a part-time job, careful planning and management of your money is important.

24.2.1 Setting short-term goals

It is easier to buy what you want if you have clear financial goals in mind. When we think about **short-term goals**, we think about things that we want to do within the next couple of months or even within the year. You probably already have some ideas about the type of things you want to buy now or soon into the future. The good thing about setting goals is that they can give you an immediate and achievable purpose and this may include you saving money to get what you want.

Tips for goal setting:

- Goals should be realistic, or you will become discouraged.
- Goals should be specific. For example, 'My goal is to save $200 in 6 months for new sneakers'.
- Avoid vague goals (such as 'My goal is to get rich') because their exact meaning is unclear.

short-term goals are things that we want to do within the next couple of months or even within the year, this might include a short-term goal to buy something

24.2.2 Budgeting

A common short-term financial goal is to save money so that you can buy something expensive in the near future. Money is great to have but it won't last long unless you make wise choices. If you keep track of your money and spending habits, you can make your money work for you.

FIGURE 2 Working out your current financial position is important.



You may not realise it, but saving money is quite easy. By putting aside even a small amount on a regular basis, you will be amazed at how soon you can build up your wealth. Then you will have more cash available to buy those things you really want!

To save the money needed to buy a new PlayStation for example, you will need a **budget**. A budget is a plan which considers the amount of money that you have coming in compared to the money that you have going out. Preparing a budget means that you can plan your finances to ensure that you have enough money to meet your future needs. Most people prepare a budget to manage their personal finances. Families, businesses and governments also use budgets. The aim is always the same: planning to ensure that expected income (estimated cash in) will match or hopefully exceed expected expenses (estimated cash out).

Assessing your current financial position

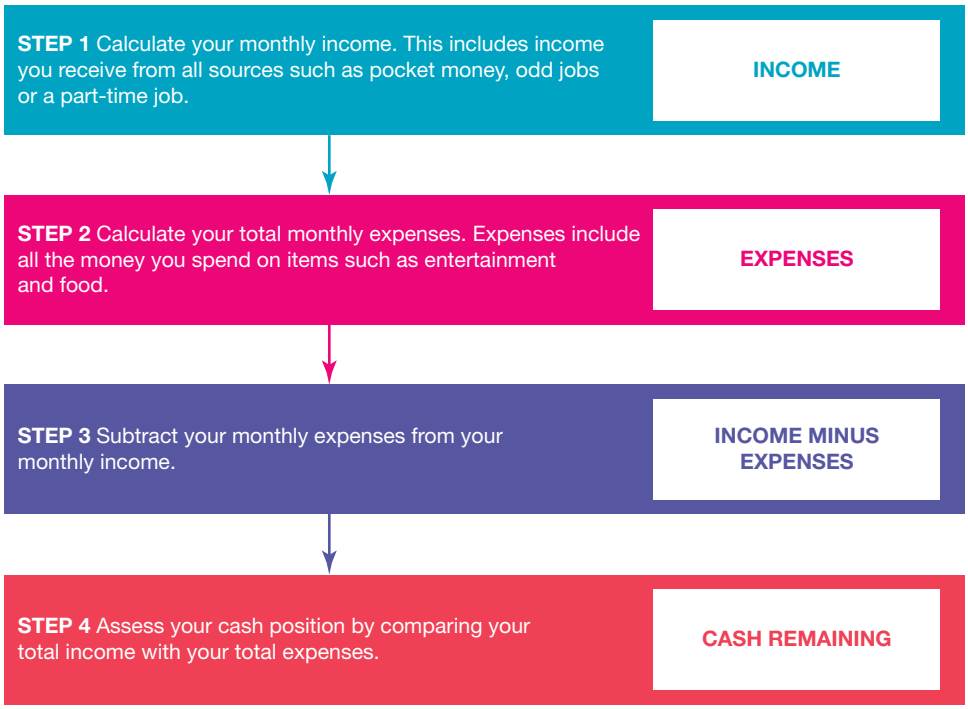
With a bit of planning, you can start to budget. However, the first stage is to realistically examine your **current financial position**. Here are three questions that you can ask yourself:

- What **income** do you have (money coming in)?
- What are your regular **expenses** (money out)?
- Do you have any money left over after covering your expenses?

You can start your planning by following the steps illustrated in **FIGURE 3**.

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FIGURE 3 If you extend these steps to cover several months of income and expenses, you will gain a more complete picture of your spending and saving habits.



budget an itemised estimate of income and expenses for a given period

current financial position a calculation of what income someone has (money coming in) minus any regular expenses (money out)

income the money that a person receives. This can consist of money earnt from employment such as a wage, but it also includes income from other sources.

expenses the regular outgoings of money (money out) that a person may have. This might include rent or a mortgage, grocery bills, energy bills, a loan repayment for a car, and medical bills.

TABLE 1 shows the current income and expenses of Minh, a 14-year-old Year 8 student.

TABLE 1 Minh's current income and expenses

	January	February	March
Income	$	$	$
Pocket money	45.00	45.00	45.00
Odd jobs	20.00	15.00	5.00
Allowance from grandparents	15.00	15.00	15.00
Total income	80.00	75.00	65.00
Expenses			
Magazine	5.00	5.00	-
Fast food	30.00	25.00	20.00
Mobile phone	10.00	10.00	10.00
Games	20.00	25.00	15.00
Total expenses	65.00	65.00	45.00
Cash remaining (income – expenses)	15.00	10.00	20.00

DISCUSS

Can you see some possible savings? Can you see the possibility of extra income? How much is Minh able to save each month given his current income and expenses?

Minh has decided he wants to buy a new PlayStation controller in 3 months' time, at a cost of $90. This is a short-term goal. He has offered to do some odd jobs around the house for his parents to maintain his income of $20 per month from this source. He has also decided he can cut back on some spending by reducing his fast-food purchases, limiting his game purchases to $20 per month and cancelling the magazine purchase.

TABLE 2 shows what Minh's ***planned*** budget for three months might look like.

TABLE 2 Minh's planned three-month budget

	April	May	June
Income	$	$	$
Pocket money	45.00	45.00	45.00
Odd jobs	20.00	20.00	20.00
Allowance from grandparents	15.00	15.00	15.00
Total income	80.00	80.00	80.00
Expenses			
Fast food	15.00	15.00	15.00
Mobile phone	10.00	10.00	10.00
Games	20.00	20.00	20.00
Total expenses	45.00	45.00	45.00
Cash remaining (income – expenses)	35.00	35.00	35.00

DISCUSS

How much is Minh able to save each month given his planned changes to his income and expenses? In total how much has Minh saved? How much will he have left once he has bought his PlayStation controller?

24.2.3 Benefits of saving

Basic budgeting for short-term goals, as shown in the example above, is beneficial as it allows you to develop a savings plan. Saving comes with many benefits for an individual, below are just a few:

- more independence and security
- a sense of satisfaction
- helps an individual pay for unexpected expenses
- avoids the need to borrow money and the worry about repaying the debt
- helps an individual plan for buying big items, such as a bike or a car.

FIGURE 4 What short-term goals do you have?



24.2 SKILL ACTIVITY: Questioning and researching

1. **Identify** two short-term achievable personal financial goals that you, or another student in a secondary school might have. *It may help to think about things that a student may wish to save for and buy. Examples might be a new pair of sneakers, Playstation, or Xbox, or some new clothes.*
   a. How long might it take you to achieve each goal?
   b. **Compare** your goals with others in your class. Are they similar or different?
   c. What can you learn about financial goals by comparing them with the goals of others?
2. **Prepare** a cash budget for the next three months which will allow for the financial goal to be met. Copy the format used for Minh's budget in **TABLE 2**, but with the typical income and expenses of a secondary school student *(you may wish to refer back to the Tune in activity for a list of expenses that a student may have)*.
3. **Compare** your budget with that of the person next to you. What are the similarities? What are the differences?
   a. Does your budget allow for any savings, or
   b. If you wanted to save more to meet one of the short-term goals in question 1, how could you adjust the budget? Are there any extra sources of income you could access? Can you **identify** any possible savings within your expenses?
   c. **Create** an amended budget to show the changes.

24.2 Exercise

learnon

24.2 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 3, 4	2, 5	6, 7, 8

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Check your understanding

1. Which of the following best **describes** the term 'budget'?
   A. Anything to do with money — particularly income, expenses and savings
   B. A compulsory savings scheme
   C. A person's wage or salary before it is taxed by the government
   D. An estimate of future income and expenses used to assist financial planning

2. **Define** what is meant by a short-term financial goal.
3. **Complete** the following sentences.
   a. Income is otherwise known as money **coming in** / **going out**.
   b. Expenses are otherwise known as money **coming in** / **going out**.
4. 'My goal is to be a millionaire by the time I'm 30.' **Identify** the problems with this statement as a short-term financial goal. **Select** all possible answers.
   A. It is not specific
   B. It is unrealistic
   C. It is too realistic
   D. It is a longer-term goal
   E. It is impossible
5. **State** the steps involved in preparing a budget.

Apply your understanding

Communicating

6. **Describe** the benefits of preparing a cash budget.
7. **Explain** what is meant by the term budget and **outline** why a budget might be a useful tool for an individual to use.
8. **Explain** what is meant by a short-term personal financial goal and provide two examples of short-term personal financial goals.

LESSON
24.3 What are long-term personal financial goals?

LEARNING INTENTION

By the end of this lesson you should be able to identify and explain options for a budgeting and savings plan using long-term personal financial objectives. You should also be able to explain why the prioritising of needs and financial responsibilities over personal wants is important.

TUNE IN

Setting goals and budgeting helps us to save money for our expenses.

1. With a partner, make a list of the financial goals that you might have as an adult. One example might be buying a house.
2. List the possible sources of income that you might have as an adult. This may include access to a steady income.
3. What might be the typical expenses that you would have as an adult? Using the following categories, list the costs that you may encounter as part of your total monthly expenses.

FIGURE 1 What are your financial goals?



Home & utility bills | **Insurance** | **Groceries** | **Entertainment**

4. What things are missing? What other categories of expenses might you have?

24.3.1 Setting long-term goals

Long-term personal financial goals are something that you will want to accomplish in the future. **Long-term goals** require time and planning. They are not something you can do this week or even this year. Long-term goals are usually at least several years away. Sometimes it takes many steps to complete a long-term goal.

For example, your long-term goal might be to graduate high school with a senior secondary certificate. This of course will take several years of going to school and studying. Going to class next month might be one step in achieving your goal. Or passing an important test can be another step. Achieving these steps helps you reach your long-term goal.

As a young person, we may not think too far into the future, however once we start to earn money and have a regular income our short-term financial goals turn into bigger long-term financial goals. These include putting down a deposit on a house, paying off a mortgage, starting a business, saving for a child's higher education fees, and planning for our retirement fund.

long-term goals are personal financial goals that you will want to accomplish in the future i.e. to buy a house

24.3.2 Common long-term personal financial goals

Buying a house

For most people, buying a house is a long-term personal financial goal. It may be the largest purchase they make in their lifetime. A house is also an investment for the future. Property almost always increases in value over the long term.

In many parts of Australia's larger cities, houses that cost less than $100 000 to buy 25 years ago are now worth over a million dollars. Most people value the security of owning their own home, particularly when raising a family or as they approach retirement age. Buying your first home can involve a significant amount of financial planning.

FIGURE 2 The purchase of a house can be a great investment for the future.



Purchasing a house usually involves taking out a mortgage loan, with the property itself used as security for the loan (This means the bank or other lender can take possession of the property if the borrower fails to make the regular payments.) In most cases the loan must be repaid over 20 years or more, with regular monthly payments.

It is a long-term commitment, and you need to make sure that you are earning enough to keep up the monthly payments. Because you are paying interest on the loan over a long period, the total amount you eventually pay can be as much as three or four times the amount borrowed.

Throughout the term of the loan, most people find that their wages increase, so the monthly repayments take up a smaller proportion of their earnings as the years progress. Many people find it worthwhile to pay back more than the required minimum monthly payments. This way they save on interest by paying off the loan early. A thoroughly planned budget will reflect a person's monthly loan commitments.

DISCUSS

Increasing house prices have meant that a whole generation of Australians are struggling to own a property. Do you think that high house prices are good for society? Which members of society would respectively want lower and higher house prices?

Investing in shares

Many Australians choose to invest their money by buying shares. This means that they buy a certain number of units of ownership in a company. Some large businesses have thousands of shareholders, and because these shares have value, people can buy and sell them just as they would any other goods. As the value of a company's shares goes up or down, so too does the value of the person's investment.

FIGURE 3 Stockbrokers buy and sell shares on behalf of their clients.



Owning shares means you benefit from the company's profits, which can be given to you as dividends or as extra shares. You may also benefit from capital growth if the value of your shares increases. Owning shares is a long-term financial objective for many Australians.

Buying and selling shares takes place through the Australian Securities Exchange (ASX). A stockbroker has direct access to the market for trading shares and, for a small fee, acts as an agent to buy and sell shares on behalf of people amongst the general public who are over 18.

Saving for retirement

Retirement is the point at which someone chooses to stop working because they have reached a certain age. In Australia, people can retire whenever they like, but they need to be able to pay for their living expenses once they are no longer working. The federal government provides a pension to those people who have met the retirement age, and choose to stop working. The retirement age, and the age at which the government provides a pension, in Australia is between 66 and 67 years of age (depending on your birth date).

The **pension** does not allow for a luxurious lifestyle and may only be sufficient to pay for basic needs. In the years ahead, as average life expectancy increases, the minimum age at which a person can access the pension will be raised. The retirement age is being incrementally increased so that by 2035 a person will only be able to access the age pension when they are 70 years old.

Those who have the financial resources to do so are advised to plan for retirement, so they can be self-funded retirees. A self-funded retiree does not need to rely on the state pension. To do this, a person will put money aside into a **superannuation** scheme while they are working.

pension your employer pays a percentage of your earnings into your superannuation account, and your superannuation fund invests (or grows) the money until you retire

superannuation or super, is the term for retirement funds. Most working Australians pay into a super fund from their income (as wage or salary) and employers make similar regular contributions.

What is superannuation?

Superannuation, sometimes shortened to 'super', is a compulsory savings scheme whereby employers contribute an additional percentage of an employee's **gross wage** into a **superannuation fund**. Employees can also choose to contribute to this fund, thus increasing the overall amount they will receive on retirement. How much any employee chooses to contribute is up to them. There are laws in place that determine the age at which you are eligible to access your superannuation savings.

In general terms, people cannot access their superannuation unless they retire, reach the official retirement age or have an illness/medical condition that prevents them from working again. By the time people retire there may be 40 years of contributions in the individual's fund, so this may be enough to fund retirement. Any extra contributions the person makes during their working life can help achieve this goal.

24.3.3 Budgeting and savings plan

As you have probably realised by now, budgeting for long-term goals works on the same principles as the budgets that we looked at in lesson 24.2.

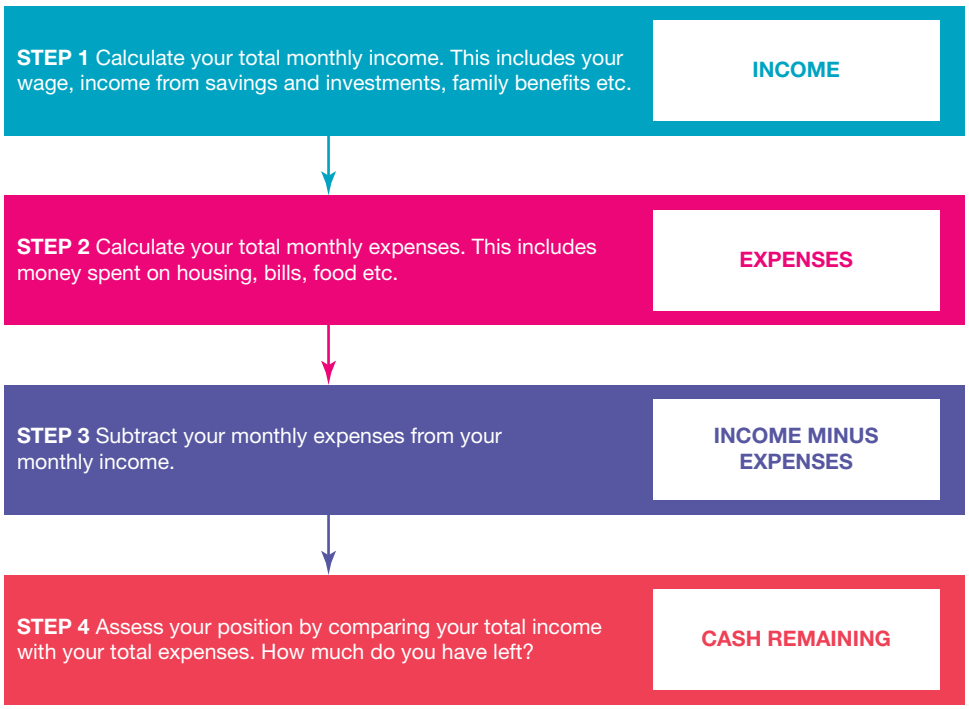
The money that is left once we have subtracted our expenses from our income is usually referred to as the money that we can save. Savings add up over time in our bank accounts and earn interest for us at the same time. The money that we save can eventually be used for major financial purchases, such as providing a deposit for a house or it can be placed into a pension fund for retirement.

gross wage a person's wage or salary before it is taxed by the government

superannuation fund how much money a person has in their retirement fund. This will consist of the payments that the person has made from their income, combined with what their employer has contributed.

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FIGURE 4 Creating a long-term savings plan uses the same 4-step process as a budget that is used for achieving short-term financial goals.



24.3.4 Prioritising needs and financial responsibilities over personal wants

When you are planning your budget and examining your income and expenses to achieve a short- *or* long-term personal financial goal it is important to know the difference between what you **need** and what you **want**. It also means knowing the difference between immediate financial commitments and things that can wait.

Have a look at the following expenses in **FIGURE 5**.

FIGURE 5 Common expenses



Can you decide which things are an immediate need which must be paid for straight away and cannot wait? Which things are long-term wants, and is there anything that is in between?

When we are budgeting and thinking about our long-term financial goals, we need to consider everything that we need to pay for straight away, and make sure that we have enough money to cover this first. That means identifying things like groceries, any medicines needed and transport expenses and making sure that these things are budgeted for before anything else.

24.3 SKILL ACTIVITY: Questioning and researching, Interpreting and analysing

1. **Explain** why buying shares might be a considered a sensible long-term financial goal.
2. **Examine** a stock market report online by visiting the **ASX** weblink in the Resources panel and selecting the ASX200 top 5. You can click on an individual company for more detailed information. *This will display a graph of the share prices.*

Answer the following questions:

a. **Identify** two companies that experienced an increase in share price during the previous day's trading.
b. By how much did each increase in price?
c. How many shares were bought and sold for each company?
d. Set the time period on the graph to one year. What is the highest and lowest price that each company's share reached during this time period?
e. Is the current price closer to the highest or lowest experienced during the past year?
f. From what you can see of the shares in these two companies, do you think they would be good value to buy right now? **Explain** your answer.

Resources

Weblink ASX

24.3 Exercise

learnon

24.3 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 4, 5	2, 3, 8, 9	6, 7, 10

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Check your understanding

1. By the year 2035, the minimum age for accessing the pension will have risen to _____.
2. **Define** what is meant by a long-term personal financial goal.
3. **Provide** three examples of long-term personal financial goals.
4. What are three benefits of owning shares? **Select** all possible answers from the options below.
   A. The value of shares can fall which means that you lose money.
   B. The value of shares can rise which means that you can gain money.
   C. You 'earn' a share in the company's profits.
   D. Shares allow you the flexibility to buy and sell when you need to.
   E. Your shares may only be worth a fraction of what you paid for them if the company fails.
5. From the options below, **select** the expenses which are classed as needs.
   A. Groceries
   B. A holiday
   C. Medicines
   D. Dinner at a restaurant
   E. Coffee with friends
   F. A gym subscription

Apply your understanding

Communicating

6. **Explain** why a property is considered a long-term investment. You may wish to give an example to support your answer.
7. **Describe** the role of superannuation in planning for retirement.
8. **Distinguish** between short-term personal financial goals and long-term personal financial goals, providing an example.
9. **State** the steps involved in preparing a long-term budget.
10. **Explain** the difference between wants and needs in relation to budgeting and financial planning.

LESSON
24.4 What is business finance?

LEARNING INTENTION

By the end of this lesson you should be able to identify sources of revenues and costs for businesses. You should be able to explain how financial records can inform business decision-making.

TUNE IN

Consider a simple cup of coffee.

1. Split a page in your book or Word document into two, so that you have two sides or columns. With a partner, brainstorm the ***costs*** involved with making a cup of coffee for a customer in a café. Place these on the left-hand side.
2. Now think about the money that the business takes in. How much is a cup of coffee? How many cups of coffee might a cafe sell in one day? Would the daily income from the cups of coffee a cafe sells be likely to cover its daily ingredient costs?
3. Is this the only source of income for a business? What else could the business sell? Where else might the business get money from? Add these to the right-hand side of your page.

FIGURE 1 Coffee is a popular item sold in cafes.



24.4.1 Revenue and costs for businesses

All business activity involves thinking about the money coming in or money going out of a business. Take the example of selling a cup of coffee in a cafe. Every time the café sells a cup of coffee, it receives money. Every time it buys milk from other businesses, it must pay for it. If a business owner employs any additional staff, they have to be paid wages. A café also has regular electricity, gas and internet bills to pay.

All of these money-based activities are known as financial transactions. Running a business involves keeping a record of all **costs** and sources of income because it will help the owner to track how well the business is performing.

All financial transactions can be classed as receipts or payments. Receipts, otherwise known as **revenue**, occur when a business receives money, this is usually when a customer purchases something. On the other hand, payments — known as costs, occur when a business pays out money. This might be to a supplier or to staff. To make a profit a business must receive more money than it spends. **FIGURE 2** shows how this works.

costs represent a cash outflow to the business. Costs are the expenses involved in making a product. Some costs relate to the actual production of the product — such as cost of goods sold. Others relate to running the business (such as wages, gas, electricity).

revenue refers to receipts, otherwise known as revenue, that occur when a business receives money; this is usually when a customer purchases something to come

In the past, business owners would manually by write up their financial records in books called journals. This meant writing down each time a sale was made or each time a cost was encountered. Journals are still important, but they are usually not handwritten records anymore. Instead, most businesses use simple computer programs, online banking, cash registers and an EFTPOS terminal, to record transactions immediately and accurately.

The process of entering and maintaining financial records is called bookkeeping. Businesses can by software such as MYOB or QuickBooks to help with this process. These programs set up electronic journals that allow a business owner to enter details of the day's transactions. The programs are based on spreadsheets and, with all the necessary formulae already entered, the business owner simply has to enter the figures and the program performs the necessary calculations.

FIGURE 2 If revenue is greater than costs, a business should make a profit.



24.4.2 Recording revenue and costs

Revenue

Most businesses have a cash register on the counter. There should be some cash in the drawer of the cash register. This is known as a float, and it is there so a business owner can give change to customers if they pay with cash. As each customer pays, the sale is recorded on the register and the cash deposited in the register drawer. The cash register will then print a receipt for the customer.

Nearly all businesses also have a card reader for EFTPOS and credit card transactions. This reader is linked to the cash register, which also records these transactions. A copy of the EFTPOS receipt will be printed for the customer, and a second one for the business. This is usually placed in the register drawer with the cash.

At the end of the day, a business owner can retrieve a total of the day's receipts from the cash register. They will then add the total of the cash and EFTPOS receipts in the drawer, subtract the amount in the float before the first transaction, and it should equal the total amount recorded in the register. A business owner will record this revenue figure in the cash receipts journal of the bookkeeping software. At some stage the cash will be deposited into the business bank account.

FIGURE 3 relates to a small café business.

tlvd-10646

FIGURE 3 The revenue for a café business over a 7-day period

Date	Details	Receipt no.	Cash sales ($)	EFTPOS sales ($)	Other receipts ($)	Total revenue
Jan, 3	Sales		460.00	630.00		1090.00
	Refund-ACafe	0003			120.00	120.00
Jan, 4	Sales		340.00	540.00		880.00
	Sales		440.00	590.00		1030.00
Jan, 5	Soft drink machine sales	0004			100.00	100.00
Jan, 6	Sales		450.00	610.00		1060.00
Jan, 7	Sales		430.00	520.00		950.00
Jan, 8	Sales		380.00	580.00		960.00
	Refund-ACafe	0005			90.00	90.00
Jan, 9	Sales		470.00	650.00		1120.00
Jan, 9	**Total**		**2970.00**	**4120.00**	**310.00**	7400.00

Most of this revenue is made up of cash and EFTPOS sales. The business owner has also included a section for refunds from a local supplier and they receive money from the sales from a soft drink machine. Calculating the total revenue is the first stage in seeing if the business makes a profit.

Costs

Just as much of the sales in a business are electronic, most businesses pay for things via online banking. Each time a business makes a payment the bank provides a reference number as a means of recording the transaction. Bookkeeping software enables the business owner to record each payment just as they did with each cash receipt. The software has a cash payments journal set up, with columns to record each type of payment.

tlvd-10647

FIGURE 4 The costs of a café over a 7-day period.

Date	Details	References	Bakery ($)	Groceries ($)	Wages ($)	Utilities ($)	Total costs
Jan, 3	A1 Bakery	346189	500.00				880.00
	Groceries	458214		380.00			
Jan, 4	Electricity	675312				490.00	490.00
Jan, 5	Groceries	789324		430.00			430.00
Jan, 6	A1 Bakery	876931	500.00				500.00
Jan, 8	Wages	987214			600.00		1010.00
	Groceries	996526		410.00			
Jan, 9	Total		1000.00	1220.00	600.00	490.00	**3310.00**

You can see regular payments to a bakery, which is a supplier of baked goods. There are also grocery costs such as milk. You can also see the wage costs and an electricity bill.

24.4.3 Financial reports

A business owner will want to know how much money they are earning. Importantly they will want to know if they are making a profit or a loss. Is there enough cash coming in to ensure that the owner can pay the business costs on time? The bookkeeping software can make use of the entries in the journals and provide the business owner with the information they need in different types of reports. Two of these are the **income statement** and the **cash flow statement**.

Income statement

An income statement can tell a business owner whether the business has made a profit over a period of time. It does so by using the following information:

The amount of money earned by selling goods and services, known as the **sales revenue**.

The income statement also shows the business's costs. The costs at this stage are split into two. Firstly, the business owner will be able to identify the **costs of the materials** used in generating the sales revenue (in our coffee example this would include milk, coffee beans, sugar etc). These costs are also known as the **cost of goods sold**.

Secondly, the business owner will be able to identify the **operating expenses** used to run the business (such as wages, gas, electricity).

income statement tells a business owner whether the business has made a profit over a period. It does so by looking at the amount of money earned by selling goods and services, and the business's costs.

cash flow statement cash flow is the movement of money in and out of the business. A cash flow statement can show the net cash flow, this is the money left after money out has been deducted from money in.

sales revenue the amount of money earned by selling goods and services

costs of the materials relates to the cost (or the price paid by the business) for the materials used in generating the sales revenue. These costs are also known as the costs of goods sold.

cost of goods sold otherwise known as cost of sales — is the direct cost of the goods that have been sold; for example, the raw materials used to make the product

operating expenses are those costs which are encountered to run the business (such as wages, gas, electricity)

tlvd-10648

FIGURE 5 An income statement for a café

Café

Income statement for the week ended 9 January 2022

Revenue	**$**	**$**	**$**
Cash sales		2970.00	
EFTPOS sales		4720.00	
Soft drink sales		100.00	7190.00
Less **Cost of goods sold**			
Groceries		1220.00	
Bread	1000.00		
Less Bread refunds	210.00	790.00	2010.00
Gross profit			5180.00
Less **Expenses**			
Wages		600.00	
Utilities		490.00	1090.00
Net profit			4090.00

To calculate profit, the first step is to subtract the cost of materials used from the total sales revenue. This figure will give a business owner a figure for gross profit. The operating expenses can then be subtracted from gross profit to provide a figure for net profit.

Gross profit = sales revenue – cost of the materials
Net profit = gross profit – operating expenses

The total of all sales revenue was $7190.00. To calculate the cost of goods sold, the money paid for groceries and bread (as shown in the cash payments journal) had to be added, although the actual cost of the bread was reduced by the amount of the refunds as shown in the cash receipts journal. This cost of goods sold was then subtracted from the revenue figure to give the gross profit. Subtracting the total of the operating expenses from the gross profit gives a final figure for net profit. In this case, the business has made a good profit of $4090 this week.

Cash flow statement

As well as determining whether the business has made a profit during the week ending 9 January, a business owner needs to know if they have enough cash coming into their business to cover the various costs that will have to be paid. Using the data from the two journals, the bookkeeping software can produce a cash flow statement that provides this information.

This statement would be prepared as shown in **FIGURE 6.**

tlvd-10649

FIGURE 6 A cash flow statement for a café

Café

Cash flow statement for the week ended 9 January 2022

	$	$
Cash inflows		
Total sales revenue	7190.00	
Other cash inflows (bread refunds)	210.00	
Total cash inflows		7400.00
Cash outflows		
Bakery	1000.00	
Groceries	1220.00	
Wages	600.00	
Utilities	490.00	
Total cash outflows		3310.00
Net cash flow		**4090.00**

The net cash flow figure is the amount calculated by subtracting total cash outflows (or payments) from total cash inflows (or receipts). In this case, the figure for net cash inflow was the same as the net profit figure ($4090.00). As the net cash flow is positive, the Café is bringing in enough cash to cover expenses.

24.4 SKILL ACTIVITY: Evaluating, concluding and decision-making

After completing an apprenticeship in Building and Construction, and being employed by a medium-sized construction company, Hans has set up his own small building business with his business partner Claire. Both Hans and Claire want to be able to make a living from running their own business. They want the business to make a profit. For this to happen, they must make sure that money received from selling goods and services is greater than what they pay in expenses to run the business.

1. **Define** each of the following in your own words:
   - a. gross profit
   - b. net profit
   - c. cost of goods sold
   - d. journal.
2. **Distinguish** between cash inflows and cash outflows.
3. **Explain** the purpose of an income statement for a business owner.
4. Hans and Claire's business has the following transactions during week ending 31 March 2023.

Date	Details	Amount ($)
March 25	Purchased timber beams	$500
March 26	Paid for supplies (plaster board, nails, screws)	$100
March 26	Deposit received from client	$5000
March 26	Paid mobile phone bill	$46
March 27	Paid for timber beams and concrete slab	$550
March 28	Paid for replacement drill	$150
March 29	Paid for renewal of building insurance	$250
March 30	Paid weekly wages	$1600

   - a. What is the value of cash receipts for Hans and Claire's business?
   - b. **Create** a cash payments journal with columns for date, details, reference no., materials purchases, advertising, utilities, wages and total payments. Record all cash payments for the week in the appropriate columns and sum the columns
   - c. Use the information from the journals to **create** an income statement for the week for this business.
   - d. Use the same information to **create** a cash flow statement for this business.
   - e. **Explain** whether you think the business has had a successful week. Give reasons for your answer.

24.4 Exercise

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24.4 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 5	3, 4, 6	7, 8

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Check your understanding

1. Which of the following statements is false?
   - A. A cash inflow is cash coming into the business.
   - B. A cash outflow is cash going out of the business to pay for costs.
   - C. Cash inflows are payments and cash outflows are receipts.
   - D. All of the above

2. **Match** the terms with their definitions by placing the correct letters in the left column of the table below.
   a. Gross profit
   b. Net profit
   c. Cost of goods sold
   d. A cash journal

	A list of transactions recorded in the order in which they occurred.
	The amount paid for goods that were resold after purchase, or for raw materials used to produce goods for sale.
	The final profit figure, calculated by subtracting operating expenses from gross profit.
	The amount of profit gained from selling goods to the public, calculated by subtracting the cost of goods sold from the revenue gained by selling those goods.

3. **Explain** the purpose of an income statement for a business owner.
4. **Identify** what a summary of the money spent by a business on a regular basis to generate sales is called.
5. A cash flow statement allows the business owner to calculate the level of profit. True or false?

Apply your understanding

6. **Describe**, using an example, what is meant by sales revenue.
7. **Explain** why a business owner should keep financial records.
8. **Distinguish** between a cash flow statement and an income statement.

LESSON
24.5 How do First Nations Australian communities participate in markets?

LEARNING INTENTION

By the end of this lesson you should be able to describe how First Nations Australian businesses and entrepreneurs develop opportunities in the market.

TUNE IN

With so many different First Nations groups within Australia, confirming the authenticity of a piece of creative work (dance, art, musical instruments, recipe) can be challenging. There are many counterfeit artists claiming to be from a First Nations Australian background but are simply not.

1. Identify three reasons why a non-First Nations Australian might sell First Nations Australian art.
2. Look at **FIGURE 1** and explain why you think fake art harms culture.
3. Discuss the reasons why a purchaser should know if what they are buying is authentic verses a counterfeit product.
4. Reflect on why you think First Nations Australian artists should have their works protected by copyright law.

FIGURE 1 Fake art, such as these boomerangs being sold in Bali, misappropriates First Nations Australian culture.



24.5.1 Pre-colonisation trading

Trade was a central part of life for First Nations Australians prior to the British colonistion of Australia. Trading routes criss-crossed the nation, dispersing goods, information, technologies and culture thousands of kilometres away from their origins. Examples include coastal mobs selling abalone as both a delicious meat and the shells for decorative ornaments and to later be fashioned into various tools. Other examples include the trade of animal skins and artefacts which were deemed to have cultural and spiritual significance. Possum skin cloaks were traditionally worn by the leaders of the community and were widely revered and respected.

Technologies such as hunting techniques and tools were also commonly traded between communities as a way of demonstrating 'good faith' and that one group intends to meet peacefully with another. While this was certainly not always the case, most interactions between mobs were peaceful affairs, often with one group simply travelling through another group's Country.

This trading system, which was successfully employed for tens of thousands of years, formed the basis of the First Nations Australians' economy. The 'non-monetised' bartering system encouraged equality and respect between clans and prevented any one nation from becoming bigger (in terms of wealth, success and material possessions) than any other. Simply put, pre-colonial First Nations Peoples of Australia were not interested in material wealth the way western societies were and continue to be. There was such a deep respect, connection and love for the land that no one mob claimed ownership over it. Land was there for survival and sustenance, not for ownership.

24.5.2 First Nations Australian business support

The First Nations Australians' business sector is growing at a pace of around 4 per cent per year, fuelled by growing demand. First Nations Australian businesses are usually established with a not-for-profit incentive. Rather, these businesses focus on maintaining community and traditions and helping others. Many First Nations Australian entrepreneurs have found a **niche market** in the areas of tourism, art, fashion, natural skin and beauty products and cuisine. The latter being linked to cultural food tours and experiences.

niche market a segment of buyers who have a unique need which is met by a business or seller who can supply products that satisfy that need. Buyers in a niche market may be looking for something different than the mainstream consumer.

FIGURE 2 Many First Nations Australian artists sell their artworks.



Partnerships and cooperatives

There are many initiatives which aim to assist First Nations Australian entrepreneurs by linking them with other organisations that may be like-minded in their causes. Partnerships exist when a non-Indigenous business links with a First Nations Australian entrepreneur to assist with raising awareness of their business or by linking them with industry suppliers or customers.

Similarly, a non-Indigenous business may choose a First Nations Australian business as their own preferred supplier and enter a 'partnership contract'. This is not the same as the type of legal structure of a business known as a partnership. Rather, it is an acknowledgment that businesses are working together to assist one another and meet society's needs and wants.

A **cooperative** refers to a business model based around the idea of democratic ownership and control by the people who use the business, or the customers of the business. This is favoured by some First Nations Australian entrepreneurs because it allows them to grow their business but still retain a community element to the business.

cooperative a business owned by employees and customers of the business, which operates to benefit its members and society.

Cooperatives are typically owned by employees of the business and/or customers. An advantage of this model for many First Nations Australian entrepreneurs is that all members involved benefit from the success of the business, not just the owner.

For example, the Murray Valley Aboriginal Cooperative (established in 1974) is an example of a not-for-profit organisation who provides a diverse range of programs from childcare, kindergarten, health, medical, wellbeing, housing and aged care for the First Nations Peoples in Robinvale.

24.5.3 First Nations Australian businesses and contemporary markets

As we have already learned, First Nations Australian communities participate in contemporary markets. The same as all entrepreneurs and businesses, they continue to produce, buy and sell goods and services. However, as stated previously, First Nations Australian entrepreneurs tend to approach marketing, employment and social contribution in their own unique ways. Many First Nations Australian businesses would consider themselves strongly as social traders. They build their businesses with a profit for purpose and are driven by a public or community cause (be it social, environmental, cultural or economic) which aims to make the world a better place.

FIGURE 3 A design by Haus of Dizzy modelled at the First Nations Fashion + Design show.



An example of a business driven by a community cause is Haus Of Dizzy. Haus of Dizzy creator, Kristy Dickinson, is a proud Wiradjuri woman with 20 years of jewellery making experience. She created the bright bold jewellery label in 2015 and it has even been worn by celebrities to red carpet events. Kristy does lots of social justice work with not-for-profit organisations such as the AYCC (Australian Youth Climate Coalition) and Djirra (preventing violence against women). Her business and the products that she makes carry a unique approach to marketing with slogans such as 'Respect Women' or 'Stop the Violence'. Her jewellery starts conversations and brings profits back to their organisation. 'I love to make my jewellery but I also like giving back to the community'. Kristy also encourages her own customers to use Traditional Place names on her online shop.

'It's really good to get the rest of Australia to know these traditional names', she says.

Connection to Country

A connection to Country is something that First Nations Australian entrepreneurs and business people take seriously. Connection to Country can be explained as a sense of belonging and identity. For First Nations Australians that connection to Country, the people in it and the land is deeply spiritual, and First Nations Australians will seek to maintain care and responsibility for Country in their business operations.

Reece Dumbell and Dean Sardellis, the co-founders of the Cameron Wellness Centre, are well connected to Country. Their organisational values are family — community — trust — and respect. Reece is a proud Minang Jupa Galk man, and has been in the fitness industry since 2009. Reece and Dean started the Cameron Wellness Centre, a progressive and holistic treatment centre, after their wives (who are best friends) introduced them. Over time they realised they had a common motivation: seeing people with disabilities achieve the best outcomes in life. They maintain connection to Country by employing people who have the knowledge, skills and confidence to work with First Nations Australian clients. They offer training to staff through opportunities for cultural immersion. This means engaging new staff with a local Traditional Owner to take them out on Country and show them cultural sites and teach them about the local community, its people and history.

'Part of our ethos is making sure the cultural fit of staff is right. When recruiting, we look for people who have buy-in to what we're trying to build here at the Cameron Wellness Centre', said Reece.

24.5 SKILL ACTIVITY: Questioning and researching

Investigate two or three First Nations Australian artists and see what they are doing to combat counterfeit production of their works.

1. **Select** one or two artists and locate their websites.
2. **Consider** the questions below and **summarise** the information into a list or table.
   - Where are they from?
   - What type of art do they create?
   - How do they sell it?
3. **Describe** how they confirm that they are an authentic First Nations Australian seller.

24.5 Exercise

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24.5 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3	4, 6	5, 7, 8

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Check your understanding

1. First Nations Australian businesses are mostly
   - A. profit seeking enterprises.
   - B. charities.
   - C. community focused.
   - D. corporations.
2. **Explain** how a First Nations Australian business might find a partnership useful.
3. A co-operative can be defined as a business model based around the idea of _____ ownership and _____ by the people who use the business.

4. **Outline** why a First Nations Australian entrepreneur would pursue a business which supports a local community.
5. **Explain** why it is important for First Nations Australian businesses to be connected to Country.

Apply your understanding

Communicating

6. a. **Identify** a First Nations Australian owned and operated business from this lesson.
   b. **Explain** one benefit that this business brings to the local community.
7. **Explain** one benefit for a First Nations Australian entrepreneur of entering a partnership agreement with a business.
8. First Nations Australian entrepreneurs operate businesses which supply to niche markets.
   a. **Explain** what this means.
   b. Do you agree with this statement?

LESSON
24.6 What factors influence business opportunities?

LEARNING INTENTION

By the end of this lesson you should be able to explain which external factors influence business opportunities.

TUNE IN

Businesses can target specific groups of people when marketing their products.

1. Consider **FIGURE 1**. If it was an advertisement for a gym, who would it be targeting? What would their age be? What would be their income level and lifestyle? Where would the gym be located and how much might it charge for membership?
2. Think of a product that a business could produce. It could be an existing product like a chocolate bar, sports drink or even a car.
3. Describe the age of the person who might buy this product. What might their income level be? Where might a person purchase this this product? How much might it cost?

FIGURE 1 Who is being targeted by this advertisement?



24.6.1 External factors influencing opportunities

Businesses are always searching for opportunities, including ideas for new products, ways to attract new customers and more efficient methods of running the business. Many factors influence opportunities for businesses, these can be classed as external and internal factors.

tlvd-10650

FIGURE 2 There are multiple external factors that influence businesses, these factors occur outside of the business and the business has no real control over them.



In this lesson we will consider five external factors that influence business opportunities in more detail.

Demographics

Being aware of **demographics** can create opportunities for businesses. Demographics are characteristics or statistics relating to the population, including age, gender, ethnicity, employment, income and education. Businesses can use this information to work out what products consumers prefer or to determine their buying behaviours.

demographics characteristics relating to population, especially age, gender, ethnicity, employment, income and education

FIGURE 3 Looking at demographics can allow a business to identify target markets for their products.



Age

The age of a country's population can influence business opportunities. The products that a business sells will usually appeal to a certain age group. The Australian population is ageing, which means that there is more demand for health services, further education and training, and travel. Some businesses may choose to focus on these opportunities or to target their products at younger consumers. People aged under 35 are more likely to be the first to purchase the latest versions of technologies such as mobile phones, games consoles and televisions.

Income

Income can affect business opportunities. The products that a business sells will usually appeal to a certain income group. A premium product, such as designer clothing, will normally appeal to higher income groups. Lower income groups tend to purchase less expensive products. A business owner may decide to focus on higher income groups by starting a boutique fashion store or focus on lower income groups by opening a discount fashion store.

Competition

Competition can make life difficult for a business. Depending on the market the business is operating in, they may have several competitors or very few competitors. Competition can drive prices down and can restrict the opportunity to make profit.

competition the outcome of two or more businesses attempting to supply their products to the same group of customers

However, competition can also create opportunities for businesses. It can force a business to improve the way they do things or to innovate, either through using technology, altering the product or by improving customer service. Competition can force a business to examine their target market closely to make sure that they are selling to the right consumers and perhaps to change the group of customers they are attempting to sell to.

FIGURE 4 Competing supermarkets Coles and Woolworths are often situated close together and are trying to attract the same customers.



Government policy

The Government can affect opportunities for businesses through several direct and indirect ways. Government policy, to restrict the sale of certain items such as tobacco products for example will influence what a business can produce. In other ways, government policy can result in changes in the economy. Lowering interest rates may cause consumers to spend more money and make larger purchases, resulting in increased sales for some businesses.

Societal attitudes

Societal attitudes refer to the ways that groups in society generally think or feel towards something. When we consider products, it is true that society can have collective feelings towards whether something is positive or negative and this can influence a business's decisions and opportunities.

FIGURE 5 Society's attitudes about how and where food is grown has changed in recent years.



For example, as we are becoming more and more aware of climate change, many consumers are thinking more carefully about what they buy and where it comes from. 'Greener' produce, which is organic (grown without harmful chemicals) and grown locally, is becoming increasingly valued by society as consumers become more environmentally conscious.

Trends of the target market

A business working out its target market will do so by 'segmenting the market'. This means grouping the market according to demographic characteristics, geographical characteristics (where people live, such as in urban, rural, or suburban areas, or the country they are located in), behavioural characteristics (the way that customers purchase products, for example, are they a regular user or a first-time user of a product, do they have loyalty to a brand?) and psychographic characteristics (people's personalities, values, attitudes, interests and lifestyles).

A business selling car products may determine that its target market are people aged 30–50 and living in suburban areas with limited public transport. A business selling gourmet sandwiches may have a target market of customers aged 25–50, working in the city and who like to eat healthily at lunchtime. Defining a target market allows a business to decide who will demand their products, what products they want, and if there are enough potential customers to make the business profitable.

24.6.2 Internal factors influencing business opportunities

Whilst a business does not have control over its external environment, it will have some control over its internal factors and these factors themselves can influence business opportunities. These internal factors range from decisions about the product, locations, resources, and business culture. Businesses who can respond to opportunities quickly are often most successful.

Product

Businesses need to respond and change their products to suit changing consumer needs and wants. Uber Eats is a good example of a business that has expanded its service offering from a ride sharing service to a takeaway delivery service.

FIGURE 6 Uber Eats is an example of a successful response to a business opportunity.



After identifying opportunities in the market, a business owner will need to respond to those opportunities in some way. This may involve developing new products to satisfy demand or changing the way the business delivers its products or services to consumers.

A business might respond to opportunities in the market by developing a new product to satisfy demand. **Product development** can involve modifying an existing product or the way in which it is presented or creating an entirely new product that meets the demands of a newly defined customer or market. Starting with an idea for a new product, or an idea to modify a product, a business will go through a series of steps to bring the product to market.

Location

The location a business chooses can create opportunities or restrict them, according to the nature of the business. A business needs to consider how important passing trade will be, whether visibility is important, how important access to resources will be, or whether cost will be the most important factor.

For example, a business that is hoping to sell to young people or young families would find limited opportunities if it was in an area whose population has an average age of over 60; a boutique fashion store would struggle to find customers if it was in an industrial area; and a business that manufactures goods might encounter difficulties if it was in an area that its suppliers could not access easily.

product development the creation of products with new or different characteristics that offer new or additional benefits to customers

Resource management

In simple terms, resource management is about ensuring that the organisation's resources are where you need them most. This means that physical resources such as materials or ingredients are ready for manufacture or that people, a business's employees, are also in the right place. This might refer to a particular business having enough employees to serve customers or a production facility having enough staff to be able to manufacture the number of items it needs to. If any of these are lacking, a business will find it very difficult to respond to opportunities.

Business culture

Business culture is *how* you do what you do in the workplace. Business cultures include all the formal and informal behaviours and even the values of a business's employees. These things all create an experience for employees and customers. Some businesses use culture to their advantage to seize opportunities. For example, a business may be well known for creating new ideas and products and it may have a reputation for creative staff. This kind of business may be able to respond quickly to an opportunity to meet a new need in the market.

FIGURE 7 Employees of Google are known for being innovative and the company has a flexible working culture.



24.6.3 First Nations Australian communities and business opportunities

There continues to be increasing numbers of First Nations Australian entrepreneurs, who start up their own business enterprises in Australia. These entrepreneurs may have similar aspirations to other entrepreneurs, yet they also respond to opportunities to establish a business to serve a community need.

FIGURE 8 Kungka's can cook is a First Nations Australian business located in Alice Springs that specialises in organic bush foods.



It is still the case, as has been for thousands of years, that First Nations Australians trade via art and craft related practices. However, this 'trade' is has become more commercialised and the Australian Bureau of Statistics (ABS) research shows that First Nations Australians are more likely to be employed in visual arts and crafts occupations as their main job than other Australians. Furthermore, many First Nations Australian entrepreneurs find opportunities in the tourism sector. This sector is worth billions of dollars every year in Australia and hundreds of thousands of international visitors arrive every year hoping to learn more about First Nations Australian cultures.

Tourism Australia has a First Nations Australian tourism webpage where tourists can explore detailed content, images, footage, and information about how tourists can best engage with indigenous culture in Australia. There are many First Nations Australian businesses offering cookery courses, tours, dance, and music related products.

24.6 SKILL ACTIVITY: Questioning and researching, Evaluating, concluding and decision-making

Work in pairs to complete the following activities:

1. For each of the target market groups below, **propose** an opportunity (a product or a business idea) that would cater for their needs.
   - **a.** High-income earners
   - **b.** New parents
   - **c.** Diet-conscious consumers
   - **d.** Well-educated people
   - **e.** Young and active students
2. Select a business in your local area. **Describe** whether the business has an advantage or disadvantage in its location regarding:
   - how visible it is to potential customers
   - cost (including the likely rent or costs of transportation)
   - how close it is to suppliers and customers
   - how close it is to competitors.

24.6 Exercise

learnon

24.6 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
2, 3, 5	1, 4, 6, 10	7, 8, 9

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Check your understanding

1. **Explain** how the following factors influence business opportunities:
   - **a.** Target market
   - **b.** Competition
   - **c.** Location.
2. An external factor influencing a business is something that can be controlled. True or false?
3. An internal factor influencing a business can be best described as
   - **A.** a factor that the business will have some control over such as business culture or location.
   - **B.** factor that the business cannot control such as the economy or government policy.
4. **Define** what is meant by a societal attitude.
5. **Complete** the following sentence:
   Businesses should respond and change their _____ to match changing consumer needs and _____.
   A business that does this is more likely to be _____.

Apply your understanding

Communicating

6. **a.** **Explain** what is meant by product development and how it helps a business respond to opportunities.
   b. **Provide** an example of product development that you are familiar with.
7. **Outline** what is meant by the term 'demographics' and explain how this is related to business opportunities.
8. **Name** one government policy and **outline** how it might affect a business.
9. **Distinguish** between societal attitudes and business culture.
10. First Nations Australian businesses often seek to meet a community need. Give an **example** of a type of First Nations Australian owned business and what need they might meet.

LESSON
24.7 How is the workplace changing?

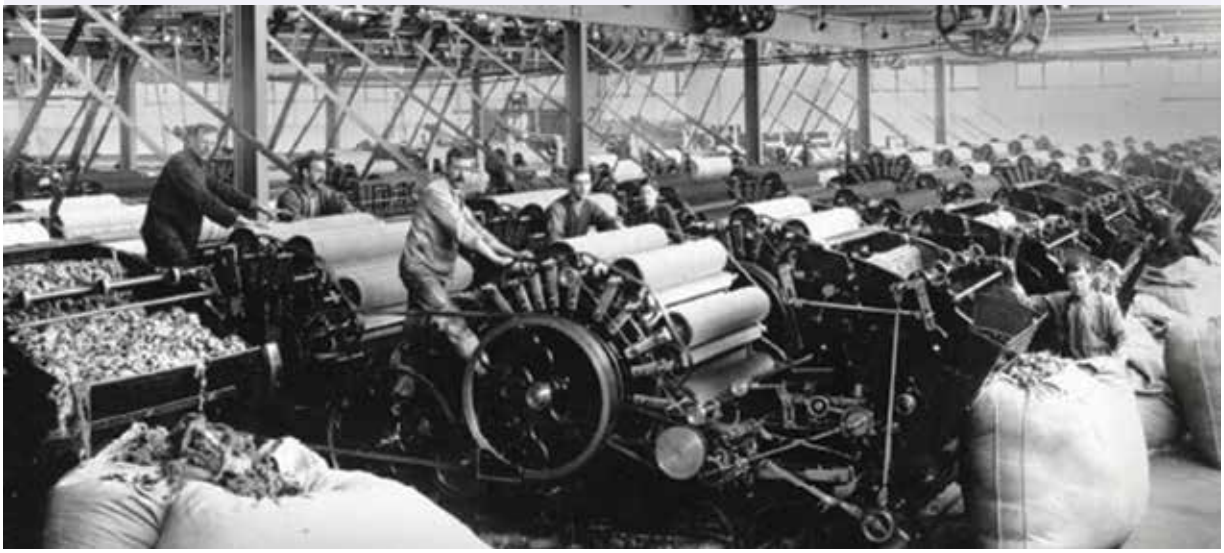
LEARNING INTENTION

By the end of this lesson you should be able to identify changes to the workforce over time, such as the jobs available, the way individuals or businesses value particular work, career length and human resource development, changing demography, corporate social responsibility, sustainability practices and changes to workplace laws.

TUNE IN

Study **FIGURE 1**. Many of Australia's wool mills have closed now, and the one in the photograph closed many years ago in 1955.

FIGURE 1 A typical wool mill in Geelong, Victoria, Australia in the early 1900s



1. What type of work would this be classed as? Do you imagine that it would be well paid?
2. Discuss what the working conditions might be like in this mill in the early 1900s. Include what kind of people might be employed. Where would they come from? What would their backgrounds or educations be? What hours would they work?
3. **Discuss** how employment and work might be different in the present day.

24.7.1 The workforce

The workforce is a word which refers to the people involved in or available for work, either in a country or area, or in a particular firm or industry.

The types of work, or the jobs, that Australians do is constantly evolving. These changes may be attributed to the changing expectations of **employees** and **employers**. Some employers expect that employees will work harder and or more flexible hours, while most employees want a greater balance between their working and their non-working lives (**work–life balance**). Employees also want job security.

employees the people who make the product or provide the service to the customers. Employees have a massive effect on the outcome of the business.

employers the person or business that pays workers for the work they do

work–life balance a feeling of having an appropriate balance between work and non-working time (i.e. leisure time and free time)

Arguably the greatest influence on today's world of work has been the rapid development of technology. Jobs have changed through time, particularly from the late-1700s to the mid-1800s.

At this time technological advances associated with the Industrial Revolution (for example, the development of steam power, and the use of processed fuel to fire and heat the furnaces in iron ore production in England) changed the way that people lived and worked. People who previously worked on farmland moved to towns and cities to work in factories. Unfortunately, working conditions were not a priority.

FIGURE 2 Many employees can now work from home to help achieve a healthy work–life balance.



Substantial workplace reforms in the many decades since this time have greatly improved working conditions for most workers in industrialised, developed countries such as Australia. Advances in technology, in particular communications technology; more effective, lower cost methods of transportation; and largely unrestricted trade between countries have allowed the whole world to become a single, integrated marketplace. With this many jobs have moved overseas.

24.7.2 The changing workforce

As described above the workforce and the work available in an economy changes over time. This is influenced by many things including technological change, outsourced labour in the global economy, rapid communication changes and casualisation of the workforce.

Outsourced labour in the global economy

Outsourcing involves engaging individuals or businesses outside of an organisation to carry out jobs previously carried out within the business itself. This is often done in an attempt to improve productivity or cut costs. Many larger Australian businesses now outsource some of their jobs.

Some businesses have taken this a step further and outsourced various functions to workers and organisations overseas — some have even moved their entire production process overseas. This practice is known as offshoring.

FIGURE 3 Many clothing companies use offshore labour.



Offshoring provides a business with the ability to cut labour costs, which can be as much as ten times cheaper in a developing country such as China, India or Sri Lanka, than in a developed country such as Australia. Many larger companies have outsourced their call centres to India or the Philippines. Offshoring can also improve the ability of a business to stay competitive and to seize new opportunities overseas. However, businesses that do use offshoring must ensure that they carefully monitor for any signs of labour exploitation.

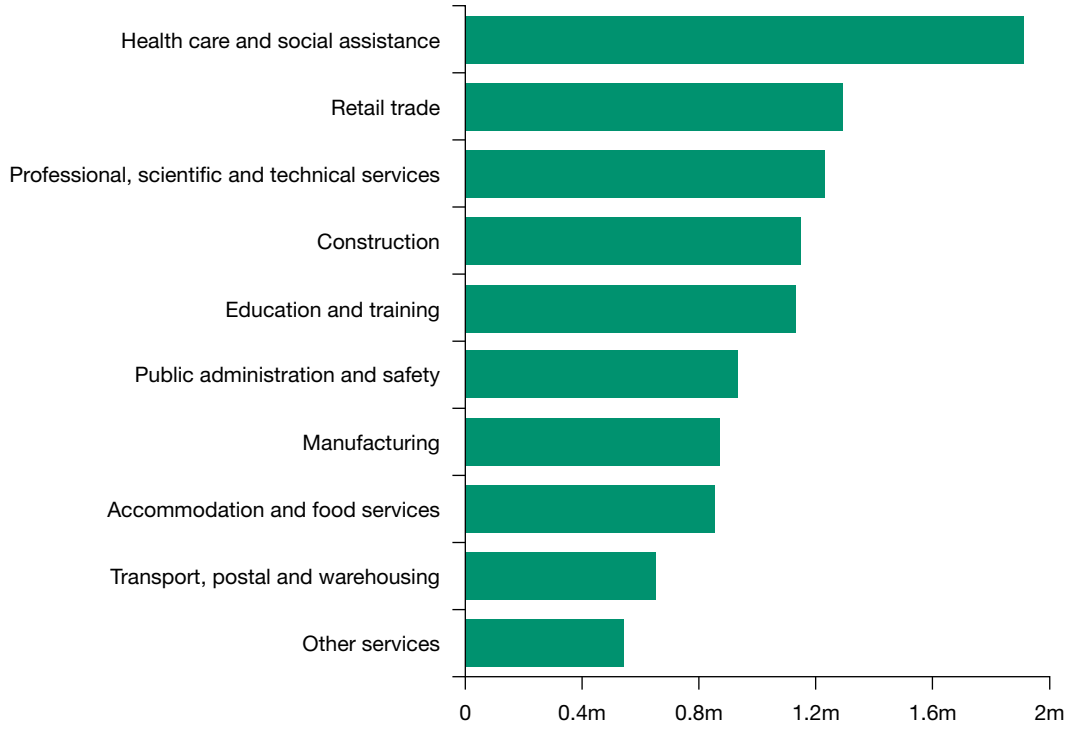
Technological change

It has long been the case that technological advances are constantly changing the workplace. Automation of production through robotics has been around for decades and as such many established industries have reduced their employment opportunities as machines are doing the work. For this reason technology is often blamed for redundancies. Businesses like Coles and Woolworths are turning to the use of robots in warehouses who are capable of picking orders faster and with more accuracy than a human.

Technology can also be seen to be providing opportunities for small business. Businesses can operate from anywhere with affordable access to safe and secure payment systems, and reduced technology costs through the use of cloud systems and free software.

Technological advances also present opportunities for new businesses to develop; for example, in areas such as telecommunications and digital technologies. Jobs such as website designers, social media managers, e-commerce consultants and app developers are relatively new professions. There is strong growth in jobs that relate to data analysis, website building and cyber security. While technology continues to evolve within all industries, it is worth looking at which industries have strong jobs related growth.

FIGURE 4 Employment by industry, 2021



The growth in health care and social assistance work can be attributed to the ageing population in Australia.

Rapid communication changes

Technology has completely changed how we communicate; we can see this in our daily personal lives as we rely on apps and mobile technology. This same change has happened in the workplace. We can communicate faster, more efficiently and more conveniently.

There are new devices, tools and software coming out that continue to advance communication technology, and the existing popular technologies are constantly being updated and improved. Businesses have been using email, video conferencing and mobile devices for years. However, this increased hugely during the recent COVID-19 pandemic. So has the use of collaborative technology that allows multiple editors in real time.

FIGURE 5 Video conferencing has its origins from the invention of the webcam back in the 1990s. However, its use has grown substantially in recent years as working from home became a necessity during the COVID-19 pandemic.



24.7.3 Career length

It is a fact that people are less likely to do one job for their entire working lives. People may move within the same industry or undertake complete career changes, possibly several times, in a quest to find work that provides a sense of purpose and satisfaction in their lives. In Australia, the national average time spent in a job is 3.3 years. Research has found that the reason for changing jobs varies from person to person, but may include:

- social reasons — response to life events, such as having children
- economic reasons — wanting to obtain better working arrangements
- career-related reasons — wanting to gain further career experience
- other personal reasons — a desire to gain new experiences.

TABLE 1 Job tenure by age group in Australia

Age group	Average job tenure
Under 25	1 year, 8 months
25–34	2 years, 8 months
35–44	4 years
45+	6 years, 8 months
Average	3 years, 4 months

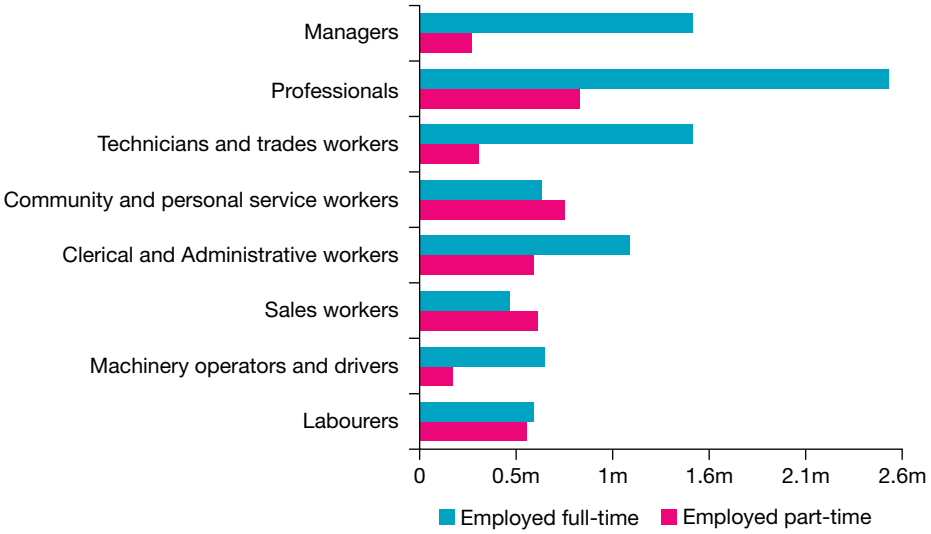
Source: The Household, Income and Labour Dynamics in Australia (HILDA) Survey, Department of Employment.

24.7.4 Full-time and part-time participation rates

An employee is considered to work full-time if their hours of work equate to 35 hours or more per week, or they work the agreed upon or award hours for a person in their occupation or industry, and the work is ongoing. An employee is considered to work part-time if they work less than 35 hours a week in ongoing employment, where the number of hours they work is either fixed or variable.

Employees are more likely to be employed on a part-time or casual basis than they were 20 years ago. This is partly due to significant changes in the types of jobs in which people are employed. Consider the graph below, many of the occupations employ people on a shift basis, whereby they do not do a regular nine to five job. Instead, hours might be determined by the employers opening hours and an expectation of 24/7 service. This is common in retail and personal services such as caring professions.

FIGURE 6 Employment status by occupation, 2021

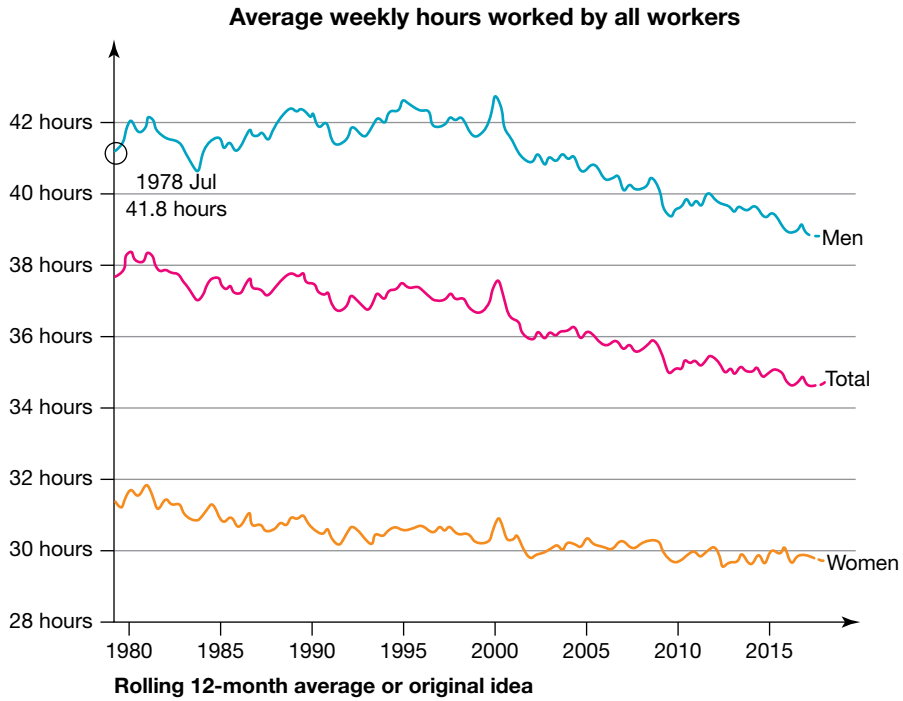


24.7.5 Hours of work

In today's work environment, there is a perception that people will be available outside of traditional work hours due to technology-enabled connectivity, and that they are generally working longer hours than ever before. While in some industries this may indeed be the case, Australian Bureau of Statistics figures show that since the 1980s there has been a decline in the average hours worked by Australians — from 37 hours in the 1980s to 34 hours in 2015.

tlvd-10651

FIGURE 7 Average weekly hours worked by all workers, 1980–2015



Most recent relevant data available at time of publishing

However, working hours began to rise following the 2020–2021 COVID-19 pandemic. It would form a good discussion point to unpack the reasons for this.

Flexible working arrangements and benefits that promote staff satisfaction and increase productivity may become an increasingly common feature of the future world of work.

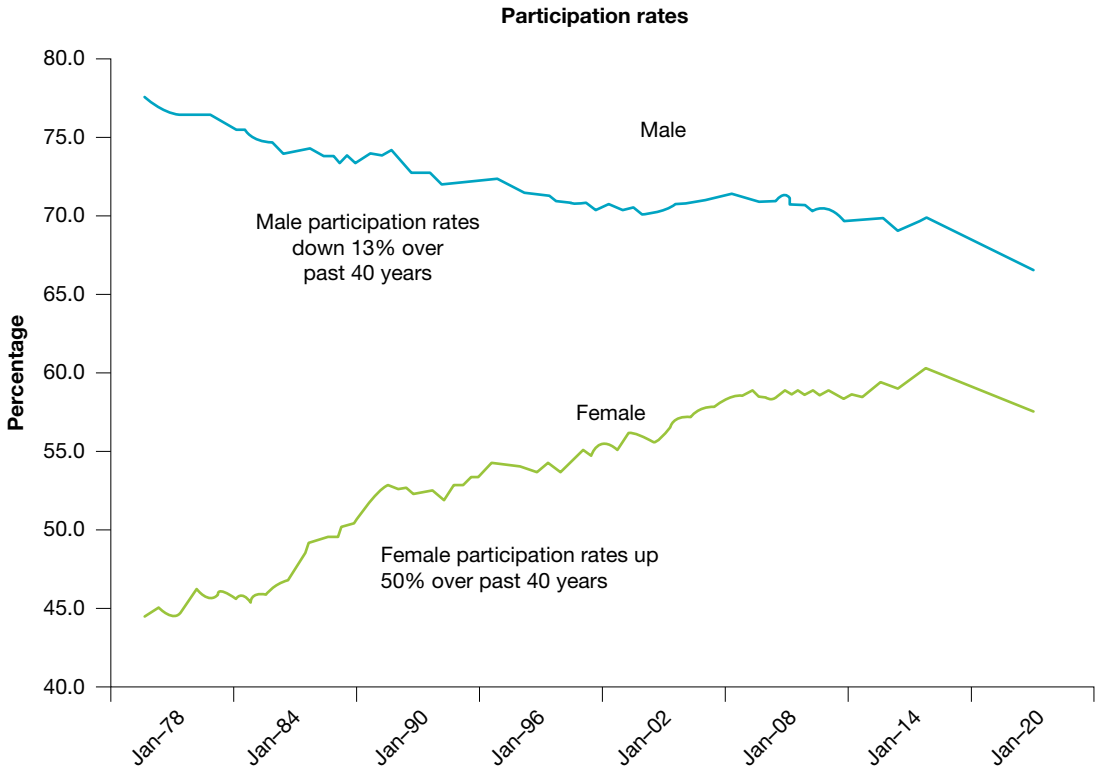
As new generations fill the workforce, we have also seen a shift in the style of environments within which people work. Employers may need to create a new style of workplace, one that encourages workers to stay, rather than changing jobs on a regular basis, as is the tendency of younger generations.

24.7.6 Demographics of the workforce

The changing roles of men and women

Demographics refers to statistical data relating to the population and different groups within it. Demographic change is the study of how these human populations change over time. An example of a demographic change can be seen in the example of considering when your grandparents worked. At that point in time, most of the Australian workforce was male. Most of these men were the 'breadwinners' — supporting their wives and families until retiring in their sixties. Women often 'retired' from the workforce when they married, and it was relatively uncommon for a woman to work if she had young children. Today, working families, and families in general, are far more diverse. Gender stereotypes in the workplace are continuously being broken down. It is more likely that people will be able to access and enjoy equal rewards, resources and opportunities in the workplace regardless of their gender.

FIGURE 8 Labour force participation rates for men and women



Age of the workforce

Decades ago, it was common for people to retire early, this was attributed to many things — amongst them being that the nature of manufacturing work often left workers tired and ready to leave industry by the age of 65, or sooner if they had a pension or savings put aside. Older Australians are a now a critical part of the workforce and economy. The share of workers aged 55+ has more than doubled from 9 per cent in 1991, to 19 per cent in 2021, led by women re-entering work in mid-life and delaying retirement. There are many Australians who are healthy and active enough to wish to continue working beyond the retirement age.

24.7.7 Human resource management

With the shift in the way people approach their careers, human resources management has become increasingly important within the business world, emphasising the value placed on finding the right person for a particular role.

The term **human resources** refers to the people who work within an organisation. In any business, the human resources are one of the most vital elements. With the world of work undergoing such rapid and ongoing changes, the effective management of a business's employees — **human resource management** — has become increasingly important. Human resource management involves many aspects, such as staff recruitment, negotiation of employment conditions, training, professional development and carrying out staff performance reviews. The goal of successful human resource management is to ensure an organisation has the right people with the skills and knowledge necessary to meet the needs of the business.

Finding the best employees with the most appropriate skills and other attributes that will suit the organisation and its culture is an important part of the human resource manager's role. This recruitment process has changed significantly because of technological advances including software development and the internet.

Through advances in technology, employers can now easily access potential employees from around the world.

A possible downside for potential employees is the way in which the online environment has also made it easier for employers to 'background check' job applicants. It is relatively common for an employer to look on social media sites to find information about the employee they are considering hiring. Therefore, applicants need to be mindful of their 'online presence' so that it does not potentially limit their employment opportunities.

human resources the people, or employees, who work within an organisation are sometimes referred to as a human resource which is used to produce a good or service

human resource management the process of managing the people who work within an organisation

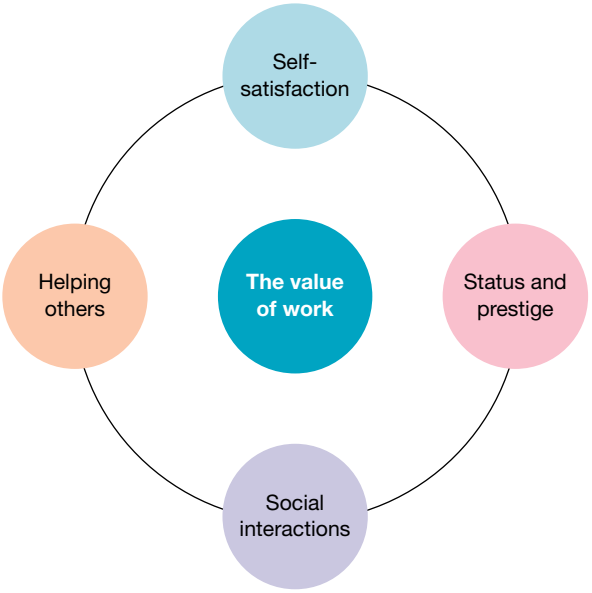
FIGURE 9 Online sites that store potential workers' résumés allow people in search of work to place their details online so employers can find them more quickly and easily. Job adverts are also posted on these sites and most employers require prospective employees to complete the application process online, which can streamline the whole recruitment process compared to traditional paper-based job applications.



24.7.8 The value of work

Regardless of the occupations that people choose to work in, or the hours that they work, having regular and purposeful employment is very important to most people. **FIGURE 10** shows the main reasons that people place a high value on working. Can you think of other reasons why people work, apart from the obvious financial gains?

FIGURE 10 The value of work



To obtain self-satisfaction

Many workers try to complete their tasks to a very high standard, and this reflects the attitude they have towards their work and their employers. These workers take pride in the work they do and this in turn raises their level of work satisfaction. When workers have ownership of their work and are proud of their achievements, they are more likely to work harder and longer to achieve the objectives of the organisation. Praise from a supervisor or work colleague are often the most rewarding aspects of a job. Therefore, recognition of a job well done increases the value of the work itself.

To gain status and prestige

The type of work a person does is often used to measure that person's status and prestige within our society. In other words, their status comes from their occupation. The value we place on a person's job determines his or her income. For example, a heart surgeon's highly skilled work is valued more than a labourer's, so the surgeon receives a higher income. This is partly because of the education and training needed to become a surgeon as well as their high skill level and specialisation.

Historically, society has unfairly tended to place a lower value on work in what are referred to as the 'caring professions', such as childcare, nursing and aged care. For this reason, salaries for people who work in these areas have generally been lower than in many other fields. These roles have traditionally been filled by women, and this provides another reason for the disparity that is often seen between the relative wages of men and women in Australia. This attitude is slowly changing, with wage rises being fought for and won in many of these areas.

To enjoy social interactions with others

The social aspects of work increase its value. On average, employees spend more time at work with their co-workers than they do at home with their families (not including sleep time). Work provides the opportunity to meet other people and make friends. Some workplaces have social clubs that employees can join, to participate in organised activities aimed at increasing the sense of staff connectedness and satisfaction.

To help others

For many people the need to make a difference and contribute to society is an important part of why they work. This may be particularly so in the case of those who work in the 'caring professions', or who choose to work for not-for-profit organisations. Some people place such a high value on the desire to help others that they are prepared to offer their time and skills through volunteer work, seeking no payment for the work they do.

FIGURE 11 Social interaction is one of the key reasons that people work.



24.7.9 Changes to workplace laws

Industrial relations laws govern the relationship between employers and employees and have a significant impact on the ways people work in Australia. These laws have undergone many changes since the inception of the industrial relations system in the early 1900s. Many of these changes have occurred as a result of different government policies over time, and also as a result of the work of *unions* — formal organisations that negotiate with employers and the government on behalf of the workers in a particular industry to ensure that their **conditions of employment** are fair and reasonable. Conditions of employment are the arrangements made between an employer and employee; that is, what the employer agrees to give an employee in return for their work. These conditions are usually outlined in a formal agreement, which covers issues such as the number of hours an employee is expected to work, annual leave and other entitlements such as sick leave and long service or maternity leave.

Government legislations protect employees in the workforce, the main law that protects all Australians is *The Fair Work Act 2009* (FW Act) and the Fair Work Regulations 2009. These laws govern the employee / employer relationship in Australia. They provide a safety net of minimum entitlements, enable flexible working arrangements and fairness at work and prevent discrimination against employees.

Corporate Social Responsibility and sustainability practices

The concept of **Corporate Social Responsibility (CSR)** is generally understood to refer to businesses that show a degree of responsibility not only for the economic consequences of their activities, but also for the social and environmental implications. Businesses that show Corporate Social Responsibility will go above and beyond government legislations to look after their employees and the environment, for example. Many businesses display information about the positive steps that they take to help others. Google, our example in the 24.7 skill activity, presents on its website that it has provided $1 billion in grants, 1 million volunteer hours and that it has invested in communities, individuals and local economies. Its reputation for looking after employees is explored below.

conditions of employment the arrangements made between an employer and the employee in terms of work requirements and employee benefits

Corporate Social Responsibility when businesses take responsibility for employees, the environment and the broader community and go above and beyond what they legally need to.

Sustainability is also a big area of concern for businesses and the workplace is expected to provide sustainable practices. When we think of sustainability we might recall the reduce, reuse, recycle slogan. Being a sustainable workplace may mean that the business takes on some of these values. Having a sustainable workplace helps to reduce the costs of a business, but has also been shown to improve the wellbeing of employees, and attract customers who are looking to do business with eco-friendly brands.

sustainability (in Business and Economics) a business who meets the needs of its customers without damaging the environment

The Teachers Mutual Bank dedicates much of its marketing to telling its customers that it is sustainable in its practices. It does not lend money to fossil fuel industries and has net zero for all its direct greenhouse emissions (electricity and fuel use).

on Resources

Weblink Labour Market Insights

24.7 SKILL ACTIVITY: Questioning and researching, Evaluating, concluding and decision-making

Google is considered a pioneering company and this approach extends to its workforce. It is relatively common knowledge that the company offers its employees a wide range of extra activities such as volleyball, roller hockey, bicycles, yoga classes, sharing spaces (couches and comfy chairs where workers can discuss whatever topic they want), weights rooms, workout rooms, washers and dryers for workers to wash their clothes, massage rooms, ping pong and pool tables, outdoor seating for sunny days, and a wide variety of lunch and dinner places — these are all free or for only a small charge to its workers.

FIGURE 12 A building in Googleplex, the company's main campus in Silicon Valley, California



Google provides its employees with a work environment that has interesting décor to encourage them to be more creative. Even sleeping pods are provided, so employees can catch up on sleep and feel refreshed to continue working. The company also encourages employees to take up to 20 per cent of their work time to develop their own ideas that they think might benefit the company.

1. **Consider** the job or career that you would like to do once you finish your secondary school studies.
2. Use the **Labour Market Insights** weblink in the Resources panel to explore your chosen career.
3. Locate the career that you are interested in and **write** a summary of what this job is.
4. Click the work environment tab and read what this might be like in this profession. Write down some key points. You may include the demands and the values that are required.
4. View the overview of your chosen job and write down the hours, the average age of a worker, the gender mixture, and the average pay. Is this a growth industry? How many people are employed part time? It may be helpful to write this down in a table.
5. What are your feelings on your chosen job? Do you still think that it would be a good choice? What kind of work–life balance do you think you will have?
6. **Communicate** your findings in a presentation to your class.

24.7 Exercise

learnon

24.7 Exercise

Learning pathways

LEVEL 1	LEVEL 2	LEVEL 3
1, 2, 3, 5	4, 5, 6, 7	8, 9, 10

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Check your understanding

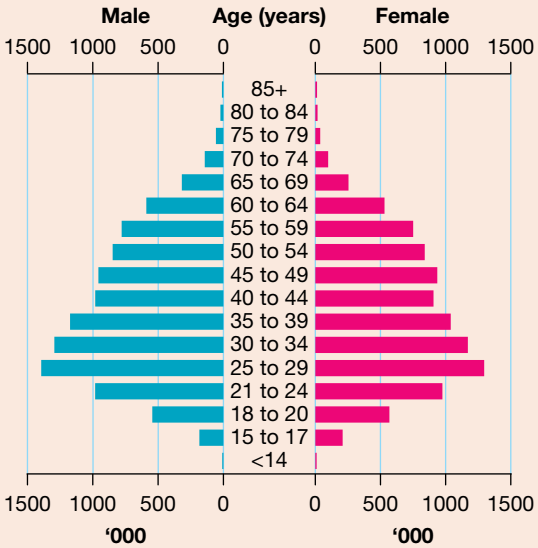
1. What is a significant change that has occurred in the Australian workforce in the past 50 years?
   - A. A greater proportion of female workers
   - B. People working until later in their lives and people changing jobs and professions more regularly
   - C. Increased popularity of part-time and casual work
   - D. All of the above
2. Full-time work is where people work the _____ number of hours per week allowed under federal law and/or workplace agreements. This is usually more than _____ hours a week. Part-time work is where employees work an agreed percentage of that full-time number of hours. It is always _____ hours per week.
3. **Explain** why there has been a growth in people working part time.
4. **Define** what is meant by human resources management.
5. **Identify** the current largest industry employer in Australia.

Apply your understanding

Interpreting and analysing

6. Examine **FIGURE 8**.
   - a. **Describe** how the participation rates of females has changed since 1978.
   - b. **Analyse** why the participation rates for females is lower than that of males.
7. **Examine FIGURE 13**.

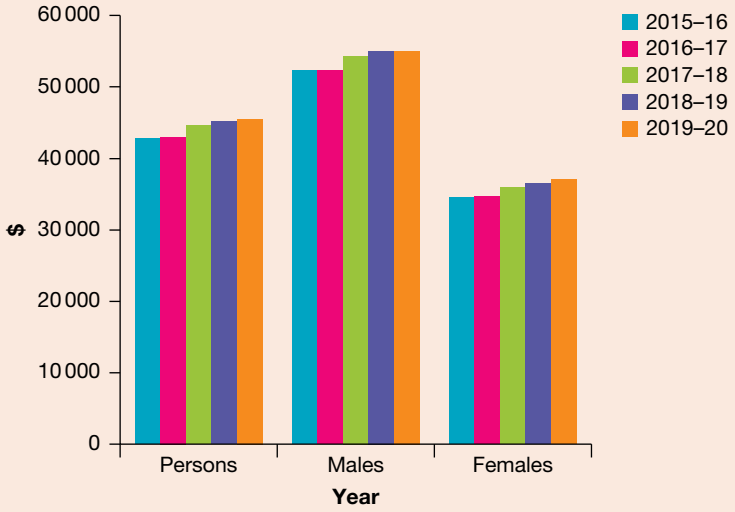
FIGURE 13 Number of jobs by age and gender of job holders, 2019–20



   - a. **Describe** the trend in the number of jobs by age in Australia.
   - b. **State** three reasons for the trends that you have described.

8. **Examine FIGURE 14.**

FIGURE 14 Median employee income per job, 2015–16 to 2019–20



a. Median employee income per job has decreased across all persons. True or false?
b. **Explain** why income of males is different to the income of females despite increasing levels of equality in the workplace.

9. During 2019–20, the industries with the most jobs were:
- health care and social assistance (11.3 per cent)
- administrative and support services (9.5 per cent)
- retail trade (8.8 per cent).

a. Workers with health care and social assistance skills and qualifications are likely to find it easy to get a job. True or false?
b. **Identify** one reason that explains why health care and social assistance offered the most job opportunities in 2019–20.
c. **Suggest** one industry area which might have a low level of jobs.

Communicating

10. **Describe** two reasons, apart from money, why people place a high value on working.

LESSON
24.8 INQUIRY: Financial and business decision-making

LEARNING INTENTION

By the end of this lesson you should be able to identify processes that individuals and/or businesses use to plan and budget to achieve short-term and long-term financial objectives. You should also be able to identify the different ways that businesses adapt to opportunities in the market and respond to the changing nature of work.

Background

Why is personal, organisational and financial planning for the future important for consumers and businesses? How do different businesses respond to opportunities in the market?

Omari is an electrician. He works full time and has been in his current occupation for five years. Omari earns a fair wage, and he is saving for a deposit on a house. Omari enjoys his job, and his employer is thinking about moving into a new market to repair faulty electrics on solar panels. This is a growing need for homes that have solar panels installed.



Before you begin

Access the **Inquiry rubric** in the digital documents section of the Resources panel to guide you in completing this task at your level. At the end of the inquiry task you can use this rubric to self-assess.

Inquiry steps

You will use two online sources of reference for this inquiry, the Australian Bureau of Statistics and Labour market insights.

Step 1: Questioning and researching

Omari works full time. Use the **Australian Bureau of Statistics** weblink to help you answer the following questions:

a. **Define** what is meant by full time employment
b. What is the current rate of unemployment in Australia?
c. What are the average weekly earnings in Australia?

Omari is an Electrician. Use the **Labour market insights** weblink to locate the job profiles for an electrician.

a. What would Omari's weekly earnings be?
b. What is the average age of an electrician?
c. What percentage of electricians are male?

Step 2: Interpreting and analysing

Omari is saving for a deposit on a house.

a. **Explain** what kind of financial goal this is. Do you think that this is a sensible goal? Explain and justify your answer.
b. Omari's employer wants to enter a new market, repairing solar panels. Why might the business have decided to do this? What influences will the business need to consider before taking the opportunity to enter a new market?
c. **Outline** the two financial reports that Omari's employer might use when planning his new business opportunity.

Step 3: Evaluating, concluding and decision-making

Omari's employer would like him to be a partner in the business.

a. **Explain** what is meant by a partnership.
b. What other forms of business ownership exist?
c. **Outline** the advantages and disadvantages to Omari going into partnership with his employer.

Step 4: Communicating

Present your findings to your class. Advise Omari on what he should do, should he enter the partnership with his employer? Will he still be able to save for a deposit on his house? Is being an electrician a stable profession?

Complete your self-assessment using the **Inquiry rubric** or access the 24.8 exercise set to complete it online.

on Resources

Weblinks Australian Bureau of Statistics
Labour market insights

Digital document Inquiry rubric (doc-39549)

LESSON
24.9 Review

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24.9.1 Key knowledge summary

Use this dot point summary to review the content covered in this topic.

24.2 What are short-term personal financial goals?

- Individuals can improve their financial flexibility by saving money, allowing them to avoid debt and be prepared for unexpected expenses.
- Preparing a personal budget can assist us to achieve our financial goals.

24.3 What are long-term personal financial goals?

- Longer term savings through superannuation contributions, home ownership or investment in shares can provide security for us as we get older and approach retirement age.

24.4 What is business finance?

- Business owners need to keep track of all financial transactions so that they can determine the level of success of the business.
- An important part of any business plan is the financial plan, which allows the business owner to create a budget, and keep track of establishment and operating expenses.

24.5 How do First Nations Australian communities participate in markets?

- First Nations Australian businesses and entrepreneurs develop opportunities in the market.
- First Nations Australian businesses and entrepreneurs establish partnerships or cooperatives.
- First Nations Australian communities participate in contemporary markets and have distinct approaches to marketing, employment and social contribution.
- First Nations Australian business and entrepreneurs use connection to Country to make innovations in the production and distribution of goods and services.

24.6 What factors influence business opportunities?

- Business opportunities are influenced by factors including demographics, target market, competition and location.
- A business can respond to opportunities by following a process to develop new products to satisfy demand or by changing the way products are delivered to consumers.

24.7 How is the workplace changing?

- Globalisation, offshoring and outsourcing will continue to have an impact on the Australian labour market.
- There will be further advances in technology and this will affect the type of work people do, when they do it and where they do it.
- Distance will not be a barrier to obtaining a job in the future.
- Technology will significantly impact organisations' future human resources needs, and the way in which they find and retain employees.
- The need for training and development will only increase with time.

- The next generation of workers will need to be more highly skilled and educated, and more focused on technology.
- Employee relations and agreements will need to change even further to enable greater flexibility.
- Changing work environments and the need for work–life balance will be a key feature of the future world of work.
- Corporate Social Responsibility and sustainable practices are continue to become increasingly important.

24.8 INQUIRY: Financial and business decision-making

- Personal, organisational and financial planning for the future is important for consumers and businesses.
- Different businesses respond in different ways to opportunities in the market.

24.9.2 Key terms

budget an itemised estimate of income and expenses for a given period

cash flow statement cash flow is the movement of money in and out of the business. A cash flow statement can show the net cash flow, this is the money left after money out has been deducted from money in.

competition the outcome of two or more businesses attempting to supply their products to the same group of customers

conditions of employment the arrangements made between an employer and the employee in terms of work requirements and employee benefits

cooperative a business owned by employees and customers of the business, which operates to benefit its members and society.

Corporate Social Responsibility when businesses take responsibility for employees, the environment and the broader community and go above and beyond what they legally need to.

cost of goods sold otherwise known as cost of sales — is the direct cost of the goods that have been sold; for example, the raw materials used to make the product

costs of the materials relates to the cost (or the price paid by the business) for the materials used in generating the sales revenue. These costs are also known as the costs of goods sold.

costs represent a cash outflow to the business. Costs are the expenses involved in making a product. Some costs relate to the actual production of the product — such as cost of goods sold. Others relate to running the business (such as wages, gas, electricity).

current financial position a calculation of what income someone has (money coming in) minus any regular expenses (money out)

demographics characteristics relating to population, especially age, gender, ethnicity, employment, income and education

expenses the regular outgoings of money (money out) that a person may have. This might include rent or a mortgage, grocery bills, energy bills, a loan repayment for a car, and medical bills.

employers the person or business that pays workers for the work they do

employees the people who make the product or provide the service to the customers. Employees have a massive effect on the outcome of the business.

gross wage a person's wage or salary before it is taxed by the government

human resources the people, or employees, who work within an organisation are sometimes referred to as a human resource which is used to produce a good or service

human resource management the process of managing the people who work within an organisation

income the money that a person receives. This can consist of money earnt from employment such as a wage, but it also includes income from other sources.

income statement tells a business owner whether the business has made a profit over a period. It does so by looking at the amount of money earned by selling goods and services, and the business's costs.

limited liability where shareholders cannot lose more than their investment in the event of the failure of the business

long-term goals are personal financial goals that you will want to accomplish in the future i.e. to buy a house

niche market a segment of buyers who have a unique need which is met by a business or seller who can supply products that satisfy that need. Buyers in a niche market may be looking for something different than the mainstream consumer.

operating expenses are those costs which are encountered to run the business (such as wages, gas, electricity)

pension your employer pays a percentage of your earnings into your superannuation account, and your superannuation fund invests (or grows) the money until you retire

product development the creation of products with new or different characteristics that offer new or additional benefits to customers

revenue refers to receipts, otherwise known as revenue, that occur when a business receives money; this is usually when a customer purchases something to come

sales revenue the amount of money earned by selling goods and services

short-term goals are things that we want to do within the next couple of months or even within the year, this might include a short-term goal to buy something

superannuation fund how much money a person has in their retirement fund. This will consist of the payments that the person has made from their income, combined with what their employer has contributed.

superannuation or super, is the term for retirement funds. Most working Australians pay into a super fund from their income (as wage or salary) and employers make similar regular contributions.

sustainability (in Business and Economics) a business who meets the needs of its customers without damaging the environment

work–life balance a feeling of having an appropriate balance between work and non-working time (i.e. leisure time and free time)

24.9.3 Reflection

Complete the following to reflect on your learning.

Revisit the inquiry questions posed in the Overview:

Why is personal, organisational and financial planning for the future important for consumers and businesses?

How do different businesses respond to opportunities in the market?

1. Now that you have completed this topic, what is your view on these questions? Discuss with a partner. Has your learning in this topic changed your view? If so, how?
2. Write a paragraph in response to the inquiry questions, outlining your views.

on Resources

eWorkbooks Customisable worksheets for this topic (ewbk-10796)
Reflection (ewbk-10798)
Crossword (ewbk-10799)

Interactivity Achieving economic goals crossword (int-9035)

24.9 Review exercise

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Multiple choice

1. The Australian labour market has been affected by which of the following factors?
   - A. Globalisation
   - B. Technological advances
   - C. The changing expectations of employees and employers
   - D. All of the above
2. Which of the following statements about the change in Australian workforce participation rates over the past 50 years is not correct?
   - A. Female participation has increased.
   - B. The proportion of people employed part-time has decreased.
   - C. The proportion of people employed part-time has increased.
   - D. The proportion of males employed part-time has increased.
3. In the past 30 years, the average number of hours worked by employed Australians has
   - A. increased significantly.
   - B. increased slightly.
   - C. decreased.
   - D. stayed the same.
4. In the past decade, which of the following Australian industries has experienced a significant decrease in the proportion of the workforce that it employs?
   - A. Retail trade
   - B. Construction
   - C. Manufacturing
   - D. Health care and social assistance
5. Technological advances enable businesses to
   - A. create new markets.
   - B. communicate instantly.
   - C. produce better products.
   - D. do all of the above.
6. What is one of the key changes to working conditions in Australia over the past few years?
   - A. A decrease in the number of jobs available in major cities
   - B. An decrease in the minimum wage for all workers
   - C. The introduction of flexible working arrangements for some employees
   - D. The removal of sick leave entitlements for all workers
7. First Nations Australian entrepreneurs will often operate businesses as social enterprises. Identify the benefit of this.
   - A. These enterprises can raise awareness of local traditions and support local communities
   - B. These enterprises can reduce access to education and training programs
   - C. The businesses are not supported by the government
   - D. All of the above

8. People work for self-satisfaction. What does this mean?
   - **A.** A person is satisfied with the money they earn
   - **B.** A person is proud of their achievements in the workplace
   - **C.** A person is satisfied with their working conditions
   - **D.** Self-satisfaction is the feeling of enjoyment we get from friends and family.
9. The human resources department in a workplace is there to
   - **A.** issue pay in the form of wages to staff.
   - **B.** produce the goods and services that the business will sell.
   - **C.** look after many aspects including recruitment, training and negotiation of pay and conditions.
   - **D.** to organise social gatherings for staff.
10. Individuals, businesses and governments create budgets. These are
    - **A.** goals for setting up a new business.
    - **B.** plans of how much money you may spend.
    - **C.** the amount left over once costs have been taken away from revenue.
    - **D.** a forecast of money coming in and money going out.

Short answer

Communicating

11. **Describe** the impact of globalisation on Australian employers and employees.

Evaluating, concluding and decision-making

12. 'Standard work hours in the future are likely to still be 9 am to 5 pm.' **Discuss** whether you agree or disagree with this statement.
13. **Discuss** the impact of technology within the workplace.
14. **a.** **List** three personal financial goals that you may have as working adult.
    b. A common goal is a want to purchase a house. **Discuss** the risk that comes with buying a house.
15. **Explain** the concept of personal budgeting. How might you use this type of budgeting when you are working in a full time job?

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GLOSSARY

abrogate passing an Act of Parliament to cancel or abolish a law (precedent) made by the courts

accused the party in a criminal trial against whom an action has been brought

Act a law passed by Parliament

Althing Iceland's parliament; Icelandic governing national assembly formed during the Viking Age, which met once a year

altitude height above sea level

ambassador an authorised messenger or representative

anatomical drawing drawing showing the workings of organs and systems of the body

anatomy the scientific study of the structure of the body

anthropologist a person who studies the culture and beliefs of different groups of people

aquifer a body of permeable rock below the Earth's surface that contains water, known as groundwater

arable land that can be ploughed for crops

archbishop head bishop

archipelago an area that contains a chain or group of islands scattered in lakes, rivers, or the ocean

arsenalotti craftsmen who built ships in Venice

artefact an object made or changed by humans

artillery large mounted firearms such as the cannon

artisan a skilled worker who produces handmade items

asylum seeker a person whose request for sanctuary has yet to be processed

atoll a circular coral island often enclosing a lagoon

autonomy the ability to self-govern

backwash the movement of water from a broken wave as it runs down a beach returning to the ocean

balance of power when no political party holds a clear majority in parliament, smaller parties or independent members can hold the power to influence or block legislation

balance of probabilities requires reasonable satisfaction that the facts as presented are probably correct and occurred as stated

barbarian uncultured and uncivilised; not Christian

beri-beri a disease caused by a lack of vitamin B

berserker Viking warrior who fought naked or near-naked and rushed wildly into battle. The word 'berserk' is derived from this.

beylik a small territory in Anatolia

biased one-sided or prejudiced, seeing something from just one point of view

Bill a proposed law that has not yet been agreed to by Parliament or received royal assent

binding precedent a decision made in a higher court in the same court hierarchy that must be followed by a lower court where the facts of the cases are similar

bishop clergyman who governs a diocese, a large church district

biwa a four-stringed Japanese musical instrument

blasphemy any words or actions that were considered disrespectful or insulting towards God or religion. This included things like cursing, speaking rudely about religious figures or religion, or denying the existence of God. It was considered a serious crime and was pushed by fines, imprisonment, or even death.

blockade the shutting off of a location to prevent entry or exit

boss metal bulge used as reinforcement in the centre of a shield

breach of contract a situation where a legally binding agreement is not honoured by one or more of the parties to the contract

bronze metal alloy mainly of copper and tin

bubonic plague the commonest form of plague in humans, characterized by fever, delirium, and the formation of buboes

Buddha Siddhartha Gautama who founded Buddhism in the sixth century BCE

Buddhist to do with Buddhism; a follower of Buddhism

budget an itemised estimate of income and expenses for a given period

budget estimates of all government income to be raised by taxes and other charges, and the planned spending of that income, within any given year

burden of proof the legal principle describing who has to prove a case in court. In a criminal trial, this burden is on the prosecution

bushidō the way of the warrior; the rules that prescribed correct behaviour for all samurai

business any activity conducted by an individual or individuals to produce and sell goods and services to make a profit

Cabinet the main group of parliamentary members from the governing party

caliph in Islamic countries, the chief civil and religious ruler and a successor to the Prophet Mohammed

calligraphy the art of beautiful handwriting

cannibalism the practice of eating human flesh

capital growth an increase in the value of shares or property over time

capitalism economic system in which the means of production, distribution and exchange are privately owned

capitalist spirit the way of thinking behind capitalism

cardinal leading clergyman who is a member of the Pope's Council, or Sacred College, and who has the power to elect the Pope from among his own group

cash flow statement cash flow is the movement of money in and out of the business. A cash flow statement can show the net cash flow, this is the money left after money out has been deducted from money in.

caste a social status which is set by birth and passed down from your parents and family members.

cathedral main church of a diocese; contains the bishop's throne

cause and effect the concept that every historical event will have a cause, and every event or action is likely to be the cause of subsequent effects or consequences

cavalry a unit of the army mounted on horseback

centralised control of a country from one central location

chador a dark dress or cloak that covers the body and face below the eyes

chastity choosing not to have sexual relationships

chronicle a record of events as they happened, usually written by a person who was present at the time they occurred

city-state a city that with its surrounding territory forms an independent state

civil law the branch of law that protects people's rights and property

civil servant a person who works for the public

civil war a war between two competing groups within one country

civilian an ordinary citizen

clan a large group of closely related people

clergy officials of the Church

codex a pictorial book

codified refers to laws that have been collected and organised, usually in written form

coexist live together at the same time in the same place

common law law developed by judges through the decisions of courts

competition the outcome of two or more businesses attempting to supply their products to the same group of customers

compost a mixture of various types of decaying organic matter such as dung and dead leaves

concentric having a common centre

conditions of employment the arrangements made between an employer and the employee in terms of work requirements and employee benefits

confidence the level of support that the government has from the parliament, which is necessary for the government to remain in power

conquistador one of the Spanish conquerors of Mexico in the sixteenth century

conscript a person ordered by the government to do compulsory military duty

contestability when particular interpretations of the past are open to debate

continuity and change the concept that while many changes occur over time, some things remain constant

conurbation area when cities merge to form one continuous urban area

convection current a current created when a fluid is heated, making it less dense and causing it to rise through surrounding fluid and sink if it is cooled; a steady source of heat can start a continuous current flow

converging plate a tectonic boundary where two plates are moving towards each other

cooperative a business owned by employees and customers of the business, which operates to benefit its members and society.

Corporate Social Responsibility when businesses take responsibility for employees, the environment and the broader community and go above and beyond what they legally need to.

cosmology the world view of a group of people, including gods, goddesses, creation stories and explanations for the way things are

cost of goods sold otherwise known as cost of sales — is the direct cost of the goods that have been sold; for example, the raw materials used to make the product

cost of living the level of prices paid by consumers for goods and services

costs represent a cash outflow to the business. Costs are the expenses involved in making a product. Some costs relate to the actual production of the product — such as cost of goods sold. Others relate to running the business (such as wages, gas, electricity).

costs of the materials relates to the cost (or the price paid by the business) for the materials used in generating the sales revenue. These costs are also known as the costs of goods sold.

courier a messenger, often carrying important government documents

criminal law the branch of law that judges whether someone has committed a crime, and punishes them if they are found guilty

Crown the King's authority in the Australian parliament, represented by the Governor-General at the federal level and a Governor at the state level

cult a system of religious worship

cultural relating to the ideas, customs and social behaviour of a society

cultural homogenisation the diversity of unique national identities are being replaced by a uniform identity for all

cultural tokenism when demonstrations of national identity lose meaning, becoming token gestures or novelties

current financial position a calculation of what income someone has (money coming in) minus any regular expenses (money out)

curtain wall outer wall surrounding an inner wall in a castle

cuspate spits projections of a beach into an enclosed or semi-enclosed lagoon

customary law rules for behaviour developed by and for First Nations Peoples

daimyō great feudal lord of Japan during the Classical and shōgunate periods

decimate to kill, destroy, or remove a large proportion of something

defamation unlawful damage to a person's good reputation through written or verbal statements

defendant the party in a civil trial against whom an action has been brought

deity a god or goddess

deliberative having the power to make decisions

democracy a form of government in which the people determine how they will be governed

democratic supporting democracy, or the system of government where supreme power is vested in the people and exercised directly by them or by their elected representatives under a free electoral system

demographics characteristics relating to population, especially age, gender, ethnicity, employment, income and education

denomination a religious group, especially an established church

deposition the laying down of material carried by rivers, wind, ice and ocean currents or waves

destructive wave a large powerful storm wave that has a strong backwash

diet the name given to a law-making assembly in some countries

direct action showing your disapproval or disagreement with the government and their policies by directly trying to influence their decisions and the views of the public, for example through protesting

disposable income the amount of money that households have available for spending and saving after income taxes have been accounted for

dispute an argument

distillation the purification or concentration of a substance

divergent plate a tectonic boundary where two plates are moving away from each other and new continental crust is forming from magma that rises to the Earth's surface between the two

dividends company profits paid to shareholders, either in cash or as more shares

doctrine a collective teaching

doctrine of Mahomet the religion of Islam; the Muslim faith, which follows the teachings of Mohammed

domain the territory ruled by a daimyō, including the farming and fishing villages within it

dormant inactive or sleeping, with the potential to become active at any time

double-hulled canoe a canoe with two connected parallel hulls — a feature that made it light, fast and stable

downstream nearer the mouth of a river, or going in the same direction as the current

dowry a payment of money or goods as part of a marriage agreement

drainage basin an area of land that feeds a river with water; or the whole area of land drained by a river and its tributaries

Duke in England, a lord whose status placed him just below that of a prince; elsewhere in Europe, a ruler of a small state called a duchy or dukedom

dyke a barrier or bank of earth for controlling water of the sea or river

dynasty a sequence of rulers from the same family

Early Modern Times the sixteenth and seventeenth centuries

ecological footprint the amount of productive land needed on average by each person in a selected area for food, water, transport, housing and waste management

economic growth an increase in the size of a country's economy over a period of time

economic scarcity the economic problem of having unlimited needs and wants, but limited resources to satisfy them

economic system a way of organising the production and distribution of the nation's goods, services and incomes

economics a social science (study of human behaviour) that analyses the decisions made by individuals, businesses and governments about how limited resources are used to satisfy society's unlimited needs and wants

economy a system established to determine what to produce, how to produce and to whom production will be distributed

ecosystem an interconnected community of plants, animals and other organisms that depend on each other and on the non-living things in their environment

edict order issued by a monarch or other person in authority

electorate an area of Australia that elects one member to parliament

employees the people who make the product or provide the service to the customers. Employees have a massive effect on the outcome of the business.

employers the person or business that pays workers for the work they do

endemic normally and regularly found in a particular location or environment

entrepreneur a person who sets up a business or businesses, taking on financial risks in the hope of profit

epic a long story in verse narrating the deeds of its hero

epicentre the point on the Earth's surface directly above the focus of an earthquake

erosion the wearing away and removal of soil and rock by natural elements, such as wind and water, and by human activity

escarpment a steep slope or long cliff formed by erosion or vertical movement of the Earth's crust along a fault line

estuary the wide part of a river at the place where it joins the sea

excommunicated to be banned from membership of the Church

expenses the regular outgoings of money (money out) that a person may have. This might include rent or a mortgage, grocery bills, energy bills, a loan repayment for a car, and medical bills.

export a good or services sold by local businesses to overseas consumers

fallow when a field was left for a period without being sown in order to restore its fertility through the nutrients in the soil

fault an area on the Earth's surface that has a fracture; a fault lies at the major boundaries between Earth's tectonic plates.

fault plane the area of a tectonic plate that moves vertically as a result of an earthquake

feudalism social order in medieval Europe

fief a gift, usually land, given by a lord to a vassal (or tenant) in exchange for loyalty and service

filigree a type of delicate ornament made from fine threads of metal

financial institution any organisation that takes deposits from those with surplus funds, and makes those funds available to borrowers

financial literacy the ability to make informed judgments and to take effective decisions regarding the use and management of money

fjord long, narrow inlet flanked by high cliffs and slopes

flax plant cultivated for its seeds and fibres, which can be used to produce many things such as textiles

floodplain an area of low-lying ground adjacent to a river, formed mainly of river sediments and subject to flooding

fly-in, fly-out (FIFO) a system in which workers fly to work, in places such as remote mines, and after a week or more fly back to their home elsewhere

focus the point where the sudden movement of an earthquake begins

franklin in the fourteenth century, one who was a landowner but not a member of the nobility

Franks people of a group of a Germanic nation who ruled in western Europe from the sixth century CE

fresco a picture painted on a freshly plastered wall or ceiling

friar a member of a Catholic order who was supposed to live in poverty

geld a form of land tax

genealogy the study of the past and present members of a family

geothermal energy energy derived from the heat in the Earth's interior

geyser a hot spring sending a jet of steam and boiling water into the air

glacier a large body of ice, formed by an accumulation of snow, that flows downhill under the pressure of its own weight

glaze a substance fused onto pottery to give it a glass-like appearance

global citizenship being aware of the interconnectedness of the globalised world and acting in a way which promotes this notion

globalisation the process of interacting with markets in other countries around the world, as part of an integrated global economic system

gourd an edible fruit with a shell that can be dried and used for storage

granary a storehouse for grain

gross domestic product the total value of goods produced and services provided in a country during one year

gross wage a person's wage or salary before it is taxed by the government

groundwater water that seeps into soil and gaps in rocks

guild an association of people engaged in a particular trade or craft for the mutual benefit of its members

Gulf Stream great warm current of water flowing from the Caribbean Sea all the way to northern Europe

hard engineering a coastal management technique that involves using physical structures to control the effects of natural processes

heathen one who is neither Christian, nor Jewish nor Muslim, and is often seen as therefore being uncivilised

hemp plant favoured for its tough fibre, useful in the making of rope

hereditary passed from parent to a child

heresy opinion that challenged or differed from that of the Roman Catholic Church or the less tolerant Protestant churches

heretic one who rejects the teachings of the Church

heritage everything that has come down to us from the past

high-density housing residential developments with more than 50 dwellings per hectare

Hindu the most ancient of all the main world religions; originated in India

homage pledging duties and loyalty to someone of superior rank in the feudal system

homicide the killing of one person by another person

hostage a person kept for security

hotspot an area on the Earth's surface where the crust is quite thin and volcanic activity can sometimes occur, even though it is not at a plate margin

household sector a term used by economists to refer to the total of all consumers in the economy

humanist a doctrine, attitude, or way of life centred on human interests or values

human resource management the process of managing the people who work within an organisation

human resources the people, or employees, who work within an organisation are sometimes referred to as a human resource which is used to produce a good or service

humus nutrient-rich dark organic matter, created by decaying animal and plant matter

hypothesis (plural: hypotheses) a theory or possible explanation

idolatry the worship of idols

illumination hand-painted illustration in a medieval book

imperial the rule of an emperor or something belonging to an empire

import a goods or services purchased by local consumers from overseas businesses

incarnation the representation of a spirit or quality in a living human

income the money that a person receives. This can consist of money earnt from employment such as a wage, but it also includes income from other sources.

income statement tells a business owner whether the business has made a profit over a period. It does so by looking at the amount of money earned by selling goods and services, and the business's costs.

indulgence a payment people would make to allow their loved ones to enter heaven

infrastructure the facilities, services and installations needed for a society to function, such as transportation and communications systems, water and power lines

inputs those things that contribute to the production process

Inquisition body established by the Catholic Church to try people suspected of heresy

inselberg an isolated hill, knob, ridge, outcrop or small mountain that rises sharply from the surrounding landscape

interest a charge made for the use of money that has been deposited or borrowed

intermittent describes a stream that does not always flow

internal displacement when people are forced to leave their homes due to conflict or environmental disasters, but remain within their country's borders

internal migration the movement of people from one defined area to another within a country

investment the direction of money into the purchase of equipment or premises for the establishment of a new business, or the expansion of an existing business

jury in a criminal trial, a randomly selected group of people who decide the guilt or innocence of an accused person

kabuki a colourful form of theatre combining play-acting, dance and music

kana a writing system that represents Japanese syllables

keel lowest timber running along the length of a vessel, and upon which the framework of the whole boat is built

keep innermost tower of a castle

Khmer the Cambodian people

kiln an oven used at high temperatures to heat and harden ceramic items

knarr a Viking trading ship

kumara sweet potato

lacquer a hardened layer of made of tree sap which could be applied to surfaces to add strength

lamellar made up of overlapping metal plates or scales

labour the human skills and effort required to produce goods and services

lance a long wooden shaft with steel point used as a weapon by mounted knights

landslide a rapid movement of rocks, soil and vegetation down a slope, sometimes caused by an earthquake or by excessive rain

laws the system of rules that Australia recognises as regulating the actions of its citizens, which it may enforce by the imposition of penalties and sanctions

leaching a process that occurs in areas of high rainfall, where water runs through the soil, dissolving minerals and carrying them into the subsoil. The process can be compared to a coffee pot in which water drips through the grounds.

legislation a law made by Parliament

legitimate lawful or proper

liable legally responsible for a civil wrong

linen cloth made from flax

linga a phallic symbol that would have originally been a feature of most Hindu temples

liquefaction transformation of soil into a fluid, which occurs when vibrations created by an earthquake, or water pressure in a soil mass, cause the soil particles to lose contact with one another and become unstable; for this to happen, the spaces between soil particles must be saturated or near saturated

literacy the ability to read and write

literate able to read and write

lithosphere the crust and upper mantle of the Earth

longhouse a Viking farmhouse with a curved shape like an upturned boat. Particularly large longhouses meant for 30–50 people are often called halls.

longphort a fortified base

longshore drift a process by which material is moved along a beach in the same direction as the prevailing wind

long-term goal a personal financial goal that you will want to accomplish in the future, i.e. to buy a house

lord feudal term for aristocracy of big landowners

lymph node lump of tissue that helps the body fight infection; part of the immune system

mace iron-headed club

magistrate a court official who hears cases in the lowest court in the legal system

Mahayana Buddhism one of the two main forms of Buddhism that influenced mainland South-East Asia

mail armour comprising chain links

mandate a command or order from a superior power

manslaughter the accidental or unintentional killing of one person by another person

mantle the layer of the Earth between the crust and the core

marginalisation treatment of a group of people which relegates them to the fringes of society

market the place where goods, services or resources are exchanged between buyers and sellers

market capitalist economy an economic system that relies on the market to allocate resources based on the actions of consumers and producers, and where resources are generally owned by private individuals and businesses

market equilibrium the point at which the demand and supply curves intersect

martyr someone who dies for their faith or is recognised by their religion in death

mass Roman Catholic Church service

mausoleum a huge tomb

meander a winding curve or bend in a river

megacity city with more than 10 million inhabitants

megaregion area where two or more megacities become connected as increasing numbers of towns and ghettos develop between them

mercenary soldier who fights for money rather than for ideals or patriotism

merchant a person who buys and sells goods for profit

miasma unpleasant smells or fumes thought to be the cause of disease in medieval times

microclimate specific atmospheric conditions within a small area

middle class a social class between the privileged nobility and the poor peasants. It typically comprised merchants and wealthier craftspeople.

migrant a person who leaves their own country to go and live in another

migration the movement of people (or animals) from one location to another

minimum wage the legally binding minimum that must be paid to any employee over the age of 21 years

missionary a person sent on a religious mission, especially one sent to promote Christianity in a foreign country

moat water-filled defensive ditch surrounding a castle

monochrome varying tones of a single colour, usually black and grey

monopoly an organisation or group that has complete control of something

Moor a member of a north-west African Muslim people of mixed Berber and Arab descent

mortgage loan a loan advanced to allow a person to buy a house or other property, with the property itself as security for the loan. This means the bank or other lender can take possession of the property if the borrower fails to make the regular payments.

motte a mound upon which a castle was built

Mundrum fine a penalty imposed by William the Conqueror in 1070 for the killing of a Norman. The fine was paid by the guilty person or their community to the king or lord of the person killed, and the amount paid varied according to the social status of the victim.

musket a muzzle-loading gun with a long barrel

mutton the flesh of a mature sheep used as food

national identity the parts of a society that make people feel like they belong, such as shared values or sense of identity

needs goods or services that consumers consider necessary to maintain their standard of living

negligence a situation where a person breaches a duty to exercise reasonable care to avoid a foreseeable risk, resulting in another person being injured or suffering a risk of injury

New World a term for the Americas during Early Modern Times

niche market a segment of buyers who have a unique need which is met by a business or seller who can supply products that satisfy that need. Buyers in a niche market may be looking for something different than the mainstream consumer.

nirvana in Buddhism, the perfect state; free of suffering and desire

nobles the aristocracy; hereditary privileged class

Normandy now a French province, in the Middle Ages it was a dukedom in northern France

nuisance interference with someone's enjoyment of public or private property

nun member of a closed community of women living under religious vows and rules

oath breaker someone who goes back on their word

obsidian a type of rock that is almost like glass

occupation invasion, conquest, and control of a nation or territory by foreign armed forces

oligarchy a form of government where all power is held by a few people

operating expenses are those costs which are encountered to run the business (such as wages, gas, electricity)

opportunity cost the next best alternative given up whenever a choice is made

Opposition the main political party in the lower house of parliament not in power

origami the art of folding paper into different shapes and designs

orographic rainfall occurs when a topographic barrier such as a mountain blocks the path of a movement of air horizontally. This forces the air upward where it cools, thus increasing the likelihood of rain.

pagan someone who is not a Christian, Jew or Muslim, but who worships many gods

pagoda a Hindu or Buddhist temple, typically in the form of a many-tiered tower

palanquin a sort of couch for transporting passengers, with long poles on each side so that servants could carry it on their shoulders

palisade tall fence made of pointed timber stakes driven into the ground

pandemic widespread across a large region

Pangaea the name given to all the landmass of the Earth before it split into Laurasia and Gondwana, which over time became the continents we know today

pantheon the collection of gods, goddesses and other deities worshipped in a religion

patron a person or institution who pays for a work to be created

peninsula land jutting out into the sea

pension your employer pays a percentage of your earnings into your superannuation account, and your superannuation fund invests (or grows) the money until you retire

percentage mark-up a fixed percentage increase to the price paid by a business for goods, to determine the selling price of those goods

percolate filter through porous material such as soil

perennial describes a stream that flows all year

permafrost a layer beneath the surface of the soil where the ground is permanently frozen

persecution oppression or punishment of a person or group of people, usually because of their religion

perspective point of view or attitude

persuasive precedent a decision made in a lower court or a court in a different hierarchy that does not have to be followed but may be used as a guide

petition a formal request for change signed by many people

petroglyph a form of art where rocks are carved with images

phalanx body of foot soldiers in close battle order

philosophy the study of the principles underlying all knowledge

physical processes continuing and naturally occurring actions such as wind and rain

piety religious devotion

pigment a natural colouring material made of plant or animal tissue

pike long spear-like weapon carried by foot soldiers

pious devout, very religious

plaintiff the person who commences a legal action in civil law

plateau an extensive area of flat land that is higher than the land around it. Plateaus are sometimes referred to as tablelands.

pluralism the recognition and affirmation of diversity within a political body, which is seen to permit the peaceful coexistence of different interests, convictions, and lifestyles

pneumonic plague a severe lung infection caused by the bacterium *Yersinia pestis*

polytheistic the belief in or worship of more than one god

pommel rounded knob at the end of a sword hilt

popolo grasso the fat people in the Renaissance. A term used to describe the wealthy.

popolo minuto the small people in the Renaissance. A term used to describe people of modest means.

population density the number of people living within one square kilometre of land; it identifies the intensity of land use or how crowded a place is

population distribution the pattern of where people live; population distribution is not even – cities that have high population densities and remote places such as deserts usually have low population densities

porter a person who carries luggage and heavy loads

pounamu a general term for several types of hard green stone found in New Zealand which were highly valued by the Māori

precedent a legal principle developed by a court in the process of resolving a dispute

precipitation the different forms in which moisture is returned to the Earth from the atmosphere, most commonly in the form of rain, hail, sleet and snow

prevailing wind the main direction from which the wind blows

price mechanism the interaction of the forces of demand and supply that determines the price of a good or service

primary source an object or document that was created or written in the period of time that the historian is investigating

primary wave also known as a P-wave; the first waves to hit an area during an earthquake, which cause a sudden jolt

privatise to sell a government-owned provider of goods or services to private investors

product development the creation of products with new or different characteristics that offer new or additional benefits to customers

propaganda information, especially of a biased or misleading nature, used to promote a political cause or point of view

prosecute to take legal action against another person for a criminal offence

protectorate when stronger states protect and control weaker states

pull factor favourable quality or attribute that attracts people to a particular location

push factor unfavourable quality or attribute of a person's current location that drives them to move elsewhere

rafter sloping timbers supporting the outer covering of a roof

reconnaissance a search made to gain military information

reconstruction rebuilding or re-making: in archaeology, rebuilding an artefact using archaeological remains as a guide

reeve a magistrate administering law in a village

referendum the process of allowing the people to vote on an important issue that will result in a change to the Australian Constitution.

Reformation Era the period of the emergence of Protestant churches

refugee a person who has been forced to leave their country in order to escape war, persecution, or natural disaster

regent a person appointed to rule a country if a monarch is too young or ill to do so

regurgitate to vomit, or bring up the contents of the stomach or throat

reincarnation being continuously born and reborn in other lives

Renaissance period of great changes in the arts, science and learning in the fifteenth and sixteenth centuries

republic a state in which the head of the government is not a ruler who inherits his position as might a king or emperor

resource allocation relates to decisions about how scarce resources are distributed among producers, and which types of goods and services will be produced to satisfy wants and needs

revelation a communication or message from God

revenue refers to receipts, otherwise known as revenue, that occur when a business receives money; this is usually when a customer purchases something to come

rickshaw a small two-wheeled vehicle pulled by a man

rift zone a large area of the Earth in which plates of the Earth's crust are moving away from each other, forming an extensive system of fractures and faults

right an entitlement to be treated in a particular way. A legal right is a right that can be enforced by law.

river delta a landform created by deposition of sediment that is carried by a river as the flow leaves its mouth and enters slower-moving or stagnant water. Can take three main shapes: fan shaped, arrow shaped and bird-foot shaped.

Roman Inquisition a system of tribunals set up by the Catholic Church during the sixteenth century to censor literature and prosecute people accused of heresy and other crimes

ronin a wandering samurai who had no lord or master

rudder broad wooden or metal piece at the end of a boat used for steering; on a longship, it was a broad oar attached to the tiller

rule of law a legal principal that all citizens are subject to the law and equal before the law. The law applies equally to all citizens regardless of status or wealth

ruling class kings, nobles and high officials

runes letters of the Scandinavian alphabet based on Roman or Greek letters but modified to be easily carved on wood or stone

sacrament sacred Christian ceremony; in the Catholic Church, for example, baptism and marriage

saga a medieval Scandinavian tale about exploits and adventures in the life of a hero or his family

sake a Japanese alcoholic drink made from fermented rice; sometimes known as rice wine

sales revenue the amount of money earned by selling goods and services

samurai the warrior class in Japan during the Classical and shōgunate periods

sanctuary a legal concept that offered individuals protection if they were seeking refuge from persecution or punishment. The right of sanctuary was based on the idea that churches and other religious institutions were sacred and provided a safe place for those in need of protection. They were granted temporary protection from arrest, allowing them time to negotiate a settlement for their crime, or seek a pardon.

sanitation facilities provided to remove waste such as sewage and household or business rubbish

Sanskrit ancient and sacred language of India

Scientific Revolution age of scientific discoveries and achievements

sea change movement of people from major cities to live near the coast to achieve a change of lifestyle

secondary source a reconstruction of the past written or created by people living at a time after the period that the historian is studying

secondary wave also known as a S-wave; the waves that arrive at an area after the P-waves, which cause a sustained up-and-down movement

sediment material carried by water

seismic wave a wave of energy that travel through the Earth as a result of an earthquake, explosion or volcanic eruption

self-sufficient able to provide for its own needs

seppuku a form of ritual suicide, carried out by disembowelling oneself (cutting open the abdomen) with a sword

septicaemic plague a plague wherein bacteria multiply in the blood

sermon moral or religious lecture delivered by a priest

shaman a person who claims to communicate with evil spirits through mystic rituals

shell middens First Nations Australian archaeological sites where the debris associated with eating shellfish and similar foods has accumulated over time

Shintō an ancient Japanese religion that believes in nature spirits and ancestor worship

shōgun literally 'barbarian-conquering great general'; the Japanese emperor's chief military adviser and hereditary commander-in-chief, with the duty to protect Japan from foreign invasion

short-term goals are things that we want to do within the next couple of months or even within the year, this might include a short-term goal to buy something

siege capturing a protected place by surrounding it and cutting off supplies

significance the importance assigned to particular aspects of the past, for example, events, developments, movements and historical sites

sinew the tissue that binds bones and muscle together

slash and burn agriculture a nomadic form of farming in which people clear part of a forest, grow crops, harvest them and then move on to repeat this in another place

slum a run-down area of a city characterised by poor housing and poverty

soft engineering a coastal management technique where the natural environment is used to help reduce coastal erosion and river flooding

soluble able to be dissolved in water

stalactite a feature made of minerals, which forms from the ceiling of limestone caves, like an icicle. They are formed when water containing dissolved limestone drips from the roof of a cave, leaving a small amount of calcium carbonate behind.

stalagmite a feature made of minerals found on the floor of limestone caves. They are formed when water containing dissolved limestone deposits on the cave floor and builds up.

standard of proof the level of proof required to establish a case. In criminal law, the prosecution must prove that the accused is guilty beyond reasonable doubt

statute law law made by Parliament

statutory interpretation the process used by judges to decide the meaning of words or phrases in a statute (Act of Parliament)

steppe a vast plain without trees

stereotype widely held but oversimplified idea of a type of person or thing

stirrup foot supports suspended from a saddle by straps

subjective based on personal feelings rather than on facts

sultan the king or sovereign of an Islamic country

superannuation or super, is the term for retirement funds. Most working Australians pay into a super fund from their income (as wage or salary) and employers make similar regular contributions.

superannuation fund how much money a person has in their retirement fund. This will consist of the payments that the person has made from their income, combined with what their employer has contributed.

sustainability (in Business and Economics) a business who meets the needs of its customers without damaging the environment

swash the movement of water in a wave as it breaks onto a beach

tabled in Parliament the document has been presented to the Parliament and laid on the Table in either or both houses of Parliament. This means it is available to members for review.

Tai ethnic groups that migrated from southern China into northern mainland South-East Asia from the tenth century

tapestry carpet-like wall-hanging

tariff a tax on goods imported from a foreign country

taro the root of a plant that is made edible through boiling

tax file number a unique number issued by the Australian Taxation Office to each taxpaying entity — i.e., an individual, company, superannuation fund, partnership, or trust

tea ceremony an ancient Japanese ritual of serving and drinking tea

tectonic plate one of the slow-moving plates that make up the Earth's crust. Volcanoes and earthquakes often occur at the edges of plates.

temperate zone describes the relatively mild climate experienced in the zones between the tropics and the polar circles

terra nullius ('land belonging to no-one') in Australia, the legal idea that since no-one was 'using' the land when the first Europeans arrived, it could be claimed by the British Crown

thatch straw used for making roofs

theologian a person who is considered to be an expert in religious matters

Theravada Buddhism one of the two main forms of Buddhism that influenced mainland South-East Asia

thermal relating to heat or temperature

thing regional meeting held to decide local issues in Norway and Iceland during the Viking Age

tithe barn a barn where peasants' produce is stored as a form of taxation

Tonle Sap the largest freshwater lake in South-East Asia

transport the movement of eroded materials to a new location by elements such as wind and water

treaty a formal agreement between two or more nations

tree change movement of people from major cities to live near the forest to achieve a change of lifestyle

trespass a tort (civil wrong) involving direct and intentional interference with a person, or a person's land or goods

tributary a state that gives payment to another state or ruler

tribute a tax or regular payment given to ensure protection or peace

trolling lure a hook designed to trail behind a boat or canoe and mimic dying, injured or fast-moving prey

tuberculosis a serious and infectious disease that affects the lungs

typhoon name given to big tropical storms in the Pacific or Indian ocean

unemployment benefit a welfare payment by government to people who are unemployed and looking for work. Such payments in Australia are generally known as the Newstart Allowance.

urban relating to a city or town; the definition of an urban area varies from one country to another depending on population size and density

urban growth the rate at which the population of an urban area increases

urban sprawl the rapid expansion of the geographic extent of cities and towns, often at the expense of green areas and farmland

urbanisation the growth and expansion of urban areas and the increasing proportion of people living in urban areas as compared to rural areas

variables (in Geography) characteristics that can be measured and provide information about a place, beyond just the location of that place

vassal a person who holds land for a lord, and in return pledges loyalty and service to him

vassal state a state whose ruler acknowledges a foreign ruler as his overlord

vernacular everyday language spoken by a particular group or class

volcanic loam a volcanic soil composed mostly of basalt, which has developed a crumbly mixture

wants goods or services that are desired in order to provide satisfaction to the user, but which are not necessary for survival or to meet the basic standard of living in a community

ward a district in a city or town

washi handmade paper created from the bark or fibre of various shrubs, grasses or trees

watershed an area or ridge of land that separates waters flowing to different rivers, basins or seas

weathering the breaking down of bare rock (mainly by water freezing and cooling as a result of temperature change) and the effects of climate

work–life balance a feeling of having an appropriate balance between work and non-working time (i.e. leisure time and free time)

yam a potato-like tropical plant used as food

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