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Leo Conti | Mark Easton | Maggy Saldais
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Using **Oxford Big Ideas Humanities and Social Sciences**

Oxford Big Ideas Humanities and Social Sciences is a brand-new series developed and written to provide complete coverage of the Western Australian Curriculum: Humanities and Social Sciences – Geography, History, Economics and Business, and Civics and Citizenship – across Years 7–10.

Focus on inquiry

Each chapter of *Oxford Big Ideas Humanities and Social Sciences* is structured around key inquiry questions from the Western Australian Curriculum. Each unit of the text supports teachers and students as they adopt an inquiry-based approach to the key learning areas in the Humanities and Social Sciences.

The learning sequence in each chapter is clearly set out under key inquiry questions. Students are encouraged to use their prior knowledge and make predictions at the start of each new topic.

Stunning full-colour photography generates discussion and interest.

Focus on engagement

Each unit of the Student book combines a range of engaging source materials – such as photographs, videos, data tables, graphs and illustrations – with supporting questions and activities.

Source materials – such as photographs, infographics, political cartoons, graphs – simplify difficult concepts and engage reluctant learners.

Check your learning activities accompany every unit, allowing students to consolidate and extend their understanding. These are graded according to Bloom's Taxonomy – catering for a range of abilities and learning styles.

Focus on concepts and skills

Complete coverage of all concepts and skills provided in stand-alone reference 'toolkits'. All of these concepts and skills are also integrated throughout the text so students can see them at work in context.

Rich task activities encourage students to apply the knowledge and skills they have learned in each chapter to a new and interesting case study, event or issue.

Skill drill activities guide and support students step by step as they learn and apply key skills.

Extend your understanding activities challenge students to conduct further research, or complete group work, to deepen their understanding of an issue or skill being investigated.

Digital support

obook assess

Student obook assess provides a fully interactive electronic version of the print Student book in an easy-to-read format. A host of additional resources for students – such as videos, worksheets, interactives objects, online quizzes and multimedia links – are linked to each unit in the book making them easier to access than ever before.

obook assess is compatible with laptops, iPads, tablets and IWBs, and access to content is provided online and offline.

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Teacher support is offered in digital format via **Teacher obook assess**. Teacher notes, answers, tests, additional worksheets, lesson ideas, planning tips and assessment advice are provided for every unit. **Teacher obook assess** allows teachers to manage their classes by assigning work, tracking progress and planning assessment.

part

1

geography

Concepts and skills

The geography toolkit

Geography is the study of the world around us. Studying geography helps us understand how the Earth works. This includes natural processes (such as volcanoes, floods and the weather) as well as human activities (such as mining, tourism and building cities).

Geographers use a range of key concepts and key skills to study the world. Each of these concepts and skills is a tool that you can use to better understand your world. As you master each of these concepts and skills you will gradually fill your toolkit with a range of useful geographical tools.

Geographers are curious. They look at the Earth's **features** and always want to know more about them. For example, when they look at the Bungle Bungle Range (Purnululu National Park) located in the East Kimberley **region**, Western Australia, shown in Source 1, they wonder about many aspects of this natural feature. They want to know about:

- its size
- its location
- the types of rock in the area
- the types of plants and animals in the area
- its significance to Indigenous Australians
- the way it is used by people
- the way it is changing.

1A

What are the geographical concepts?

1B

What are the geographical skills?

1

Source 1 The Bungle Bungle Range in Purnululu National Park

1C

What is fieldwork?

1.1 Geographical concepts

Geographers use seven concepts to help investigate and understand the world. The seven key concepts in geography are:

- **place**
- **space**
- **environment**
- **interconnection**
- **sustainability**
- **scale**
- **change.**

Place

Places are parts of the Earth's surface that are identified and given meaning by people. A place can be as small as your bedroom or as large as the entire planet!

Places can be natural (that is, shaped by the environment and largely unchanged by humans) or built (that is, constructed by humans).

The life of every person and animal on Earth is influenced by place. Places determine our relationships with one another. Our closest relationships are likely to be with people in the same place. The environmental and social qualities of a place all influence the way we live. Climate, landscapes, types of plants and **resources**, transport networks, entertainment venues and workplaces all have a major impact on place and on the way we live.

For Indigenous Australians, place also has a deeper spiritual meaning. Their sense of identity comes from their relationship with place. Aboriginal people have lived in the Kakadu region of the Northern Territory for over 50 000 years. The region contains approximately 5000 rock art sites, some of which are over 20 000 years old. They represent the longest historical records of any group in the world.

Geographers use the concept of place when conducting any **geographical inquiry**. For example, a geographer studying Perth (Source 1) would use the concept of place to help understand why people originally settled there, how the city was built and how it has changed over time.

They would also use place to investigate the important role the city plays in the lives of people from Perth, Australians, and people all over the world.

Source 1 Perth – an example of a built environment

Just as place influences people, people also influence place. The ways in which we live, and the actions we take, change the places in which we live. Geographers investigate the outcomes of these changes. For example, by investigating the way in which human actions have altered the Brazilian rainforest, geographers can learn how to better manage and care for our natural resources.

Space

To most people space means the empty universe but to a geographer it has a different meaning. Geographers investigate the way that things are mapped and arranged on the Earth's surface. They look for patterns and try to explain them. The concept of space helps them to do this. It has three main elements:

- location – where things are located on the Earth's surface
- spatial **distribution** – the shapes and patterns in which things are arranged on the Earth's surface
- organisation – how and why things are arranged and managed on the Earth's surface by people.

Geographers investigate the way that people use and change the space in which they live. They recognise that different groups of people use space in different ways and that this changes over time.

The city of Shimabara in the south of Japan (Source 2) illustrates the concept of space well. The city has been built on a flat coastal area at the foot of an active volcano, Mount Unzen. Houses, schools and office buildings in Shimabara are linked by roads leading to nearby farms closer to Mount Unzen. The volcano clearly presents a danger to people living in the town. As Source 2 shows, the flow of superheated ash and rock from the volcano has buried part of the city as it makes its way to the sea. At first glance it may not be clear why anyone would risk living this close to a volcano, but the fertile volcanic soil in the area makes it ideal for growing crops.

The concepts of place and space can be difficult to separate, but it will help if you remember that places can be divided into spaces. For example, a place, such as your school, has different spaces for learning (such as classrooms), playing (such as playgrounds), eating (such as the cafeteria or canteen) and running the school (such as staffrooms).

Larger places (such as your suburb, town or city) are also organised into different spaces. There are spaces for housing, businesses, industry, entertainment, and sport and recreation.

Our understanding of the location, patterns and planning of spaces helps geographers to make sense of our world.

Source 2 An **aerial photograph** showing the path of the hot ash and rock that flowed to the sea from Mount Unzen, an active volcano on the island of Kyushu in Japan. Part of the city of Shimabara (shown in the foreground) has been buried by the eruption.

Environment

The world in which we live is made up of many different environments. Some environments are natural (or physical) such as deserts, grasslands, mountains, coral reefs, forests, oceans and ice caps. In order for an environment to be considered natural, its soils, rocks, climate, plants and animals must remain largely untouched by humans. Today, there are very few truly natural environments left on Earth.

Other environments have been so altered by humans that very few natural features remain. These environments are known as built (or human) environments and include large cities, towns, suburbs and vast areas of farmland. Human environments not only affect the natural features (such as soil, plants and animals); they also affect the climate. A large city, such as New York, has its own microclimate. It will often be a few degrees hotter than the surrounding areas because concrete in the buildings traps the Sun's heat.

Most environments on Earth are now a combination of natural and human features. For example, Antarctica, the harshest environment on the planet, is considered a natural environment despite humans having altered some areas of it. These changes have included the building of a number of permanent research bases and the carrying out of various scientific studies both on land and at sea. The McMurdo research base, for example, operated by the United States (Source 3), has three airfields, a harbour and more than 100 buildings. In addition to these built structures, other human influences have affected this environment. The warming of the planet has contributed to the increased melting of ice shelves and pollution of our oceans has had an impact on sea and land animals in Antarctica.

The study of different environments helps geographers to analyse the changes humans make to natural environments and better appreciate their impact so that they can be managed more wisely.

Source 3 A scientist looking out over McMurdo Station at Observation Hill in Antarctica. The line between the natural and built environment is clearly illustrated in this photograph.

Interconnection

Geographers use the concept of interconnection to better understand the complex links between natural and human processes that shape our Earth. Places and people can be linked in many different ways that can be categorised as:

- natural processes, such as the water cycle and the food chain
- human activities, such as the movement of people, the production and trade of goods and the flow of investment and money within and between different countries.

It helps to think of the Earth as a single living organism, much like your body. The Earth's living systems (such as climate, plants, animals, oceans, soils, atmosphere and energy) all function together and are interconnected. Even a slight rise in the Earth's temperature, for example, will affect the oceans (such as damaging coral reefs), the land (such as failure of crops and drought) and the polar ice caps (such as increasing sea levels and forcing

millions of people to relocate). Source 4 shows a slum in Bangladesh, the most densely populated country in the world. Bangladesh is home to 150 million people. Its coastal zone has a very low elevation above sea level, making it one of the countries most vulnerable to **climate change** through rising sea levels.

Source 4 Bangladesh is one of the countries most vulnerable to climate change because of a number of interconnected processes that are causing sea levels to rise. It is estimated that 15 million of the poorest people living in Bangladesh, like those living in this slum, will be affected by a 1-metre rise in sea levels.

Sustainability

The concept of sustainability relates to the ongoing capacity of Earth to maintain all life. This means developing ways to ensure that all resources on Earth are used and managed responsibly so they are
there for future generations.

Many of the world's resources (such as oil, coal and natural gas) are non-renewable. This means that if we continue to use them they will one day run out. Other resources (such as wind, forests, sunlight and water) are renewable. This means that they replace themselves naturally, or can be replaced to meet the needs of society. Sustainability encourages us to think about these different types of resources and take greater care of the Earth. Actions to improve sustainability can operate at a number of levels:

- Local – Recycling of paper by individuals, schools and households reduces the amount of trees that need to be cut down.
- National – In Australia the government has begun to encourage sustainable use of energy through the establishment of wind farms and hydroelectric power plants and the use of solar panels.
- International – Efforts to protect endangered whale species around the world have attracted media attention and focused public opinion on maintaining breeding grounds free of large whaling vessels (Source 5).

Sustainability is an important concept for geographers. They use it to investigate how natural and human systems work, and understand how resources can be managed in such a way that they will be sustained into the future.

Source 5 A minke whale and her one-year-old calf are being dragged on board the Japanese factory ship *Nisshin Maru*. Anti-whaling activists argue that the number of whales hunted by the Japanese each year is **unsustainable**.

Change

The Earth is constantly changing. Some changes occur very rapidly and are easy to see, while others take place over millions of years and are almost undetectable to us. The concept of change is important in geography because it helps us to understand what is happening around us. Changes can be caused by natural processess, such as climate or natural disasters, or by human processes.

Changes take place on many different levels, from personal and local right through to national and global. Small local changes that happen quickly, such as a creek flooding, are often easy to observe and explain. Larger regional or national changes, such as an earthquake or **tsunami**, can happen quickly and their effects can be widespread and have devastating impacts on places and people (see Source 6). Changes that take place on a global scale can take much longer to occur. Global warming, for example, is a long-term change that happens slowly. Global warming has widespread effects that are not easily explained.

Geographers need to look at different types of changes, why they have occurred, over what time period they have occurred and what further changes may take place as a result. Sometimes changes can be positive, such as the conservation of plants and animals in national parks, while other changes can have negative consequences, such as the deforestation of native rainforests in Indonesia. Geographers play an important role in ensuring that change is managed in a sustainable way.
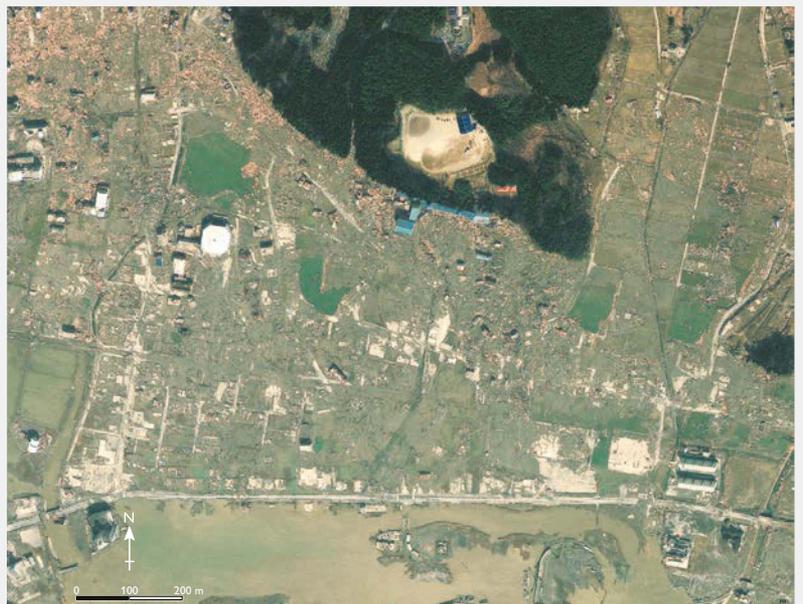
Source 6 The changes that took place in a Japanese coastal suburb of Rikuzentakata as a result of a tsunami in March 2011 were devastating and very rapid. The top image shows the area before the tsunami and the bottom image shows the same area after it had struck.

Scale

Scale is an additional concept used to guide geographical inquiries. Geographers study things that take place on many different spatial levels – meaning from small areas (such as a local park) to very large areas (such as the use of oil and coal all over the world). A geographic inquiry of the ways in which people use parks, for example, may be carried out at a range of scales (from smallest to largest):

- local – such as an inquiry into the daily visitors to a neighbourhood skate park, and whether its facilities meet the needs of visitors
- regional – such as an inquiry into the types of visitors staying at campsites and tourist parks in Western Australia
- national – such as an inquiry into the yearly tourist numbers visiting national parks in Australia (such as Nambung National Park), including the impact these visitors have on our national parks and the way in which these parks are managed.
- international – such as an inquiry into animal poaching in national parks and wild game reserves in different countries across Africa
- global – such as an inquiry into the use of all marine parks around the world and how well they protect endangered species.

Source 7 Geographical inquiries can be carried out on a number of different spatial levels: local (e.g. at a nearby skate park); regional (e.g. at a campsite in the Grampians region of Victoria); national (e.g. at national parks across Australia); international (e.g. in different countries across Africa) and global (e.g. at marine parks all over the planet).

Check your learning 1.1

Remember and understand

1   Examine the photo of the Bungle Bungles (Source 1 on pages 4 and 5). Is this a natural or built environment? Give reasons for your answer.
2   Perth (shown in Source 1 on page 6) is one of the Australia's largest cities. List five ways in which this built environment would affect how people live and work.

Apply and analyse

3   Here are some examples of changes that may be occurring on Earth at any given time:
- A new freeway is being built through the city.
- The Earth's climate is warming.
- An earthquake is destroying a town in Turkey.
    a   Which of these changes are caused by human activities and which are caused by natural processes?
    b   Identify the scale at which each of the above changes takes place; that is, local, regional, national, international or global.
4   List three ways in which your school or household is addressing the concept of sustainability. Which of these do you believe is most successful? Why?
5   Study Source 6 Identify the major changes to the Japanese coastal suburb as a result of the tsunami. How might an understanding of the concept of change be useful in guiding the rebuilding or relocation of the suburb?
6   Your class is undertaking research on the Great Barrier Reef. Develop one question for each of the seven geographical concepts discussed in the text.

Evaluate and create

7   Create a diagram, such as a flow chart, to show the interconnection between the natural and built environment at Antarctica's McMurdo Station (Source 3). Include information on such aspects as climate, landforms, wildlife and human settlement.
8   Choose one of the key concepts that has been discussed. Design a poster for your geography classroom to help you and your classmates remember this concept and use it in geography.

1.2 Geographical skills

Geography has been described as the 'why of where'. Geographers examine the world and try to explain what they see. Like a detective at the scene of a crime they follow a line of inquiry. To follow a line of inquiry, geographers need a range of skills. They are:

1. Questioning and researching
2. Analysing
3. Evaluating
4. Communicating and reflecting

As you develop each new skill you will have gained another important tool for explaining the natural processes and human activities that shape our amazing planet.

Each of the skills you will learn over the course of this year is explained in this section. It might help you to think of each of these skills as individual tools in your toolkit. For some geographical inquiries you may only need to use one tool; for others, you may need to use many.

1 Questioning and researching

3 Evaluating

2 Analysing

4 Communicating and reflecting
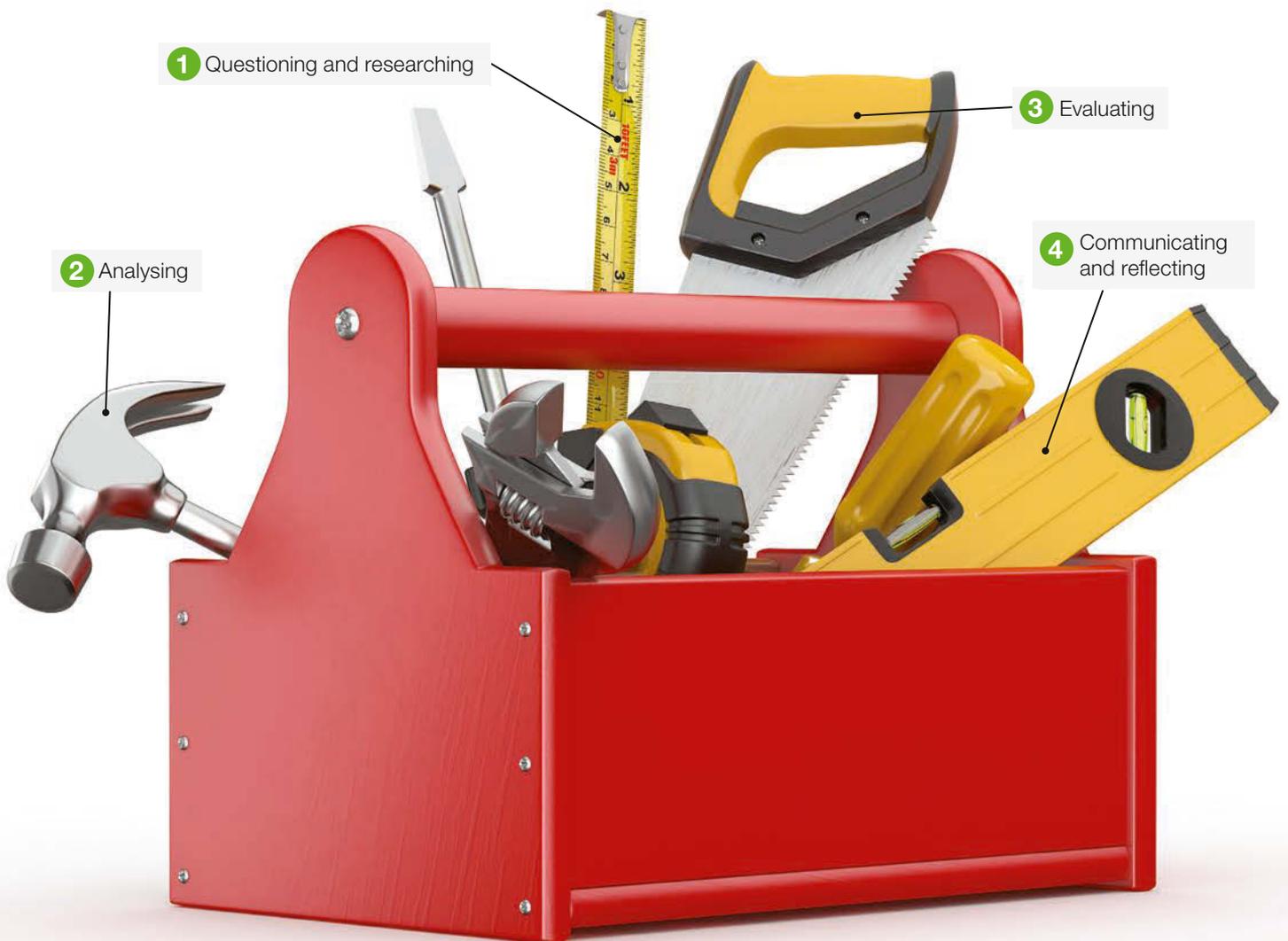
Source 1 The skills needed by every geographer. Think of each of these skills as a tool in your geographer's toolkit.

1.3 Questioning and researching

The visitor is thinking:

What is Uluru?

How did Uluru get here?

How is Uluru changing?

Who looks after Uluru?

How many people visit Uluru each year?

Are there any other similar rocks nearby?

Is it a good thing that so many tourists visit Uluru?
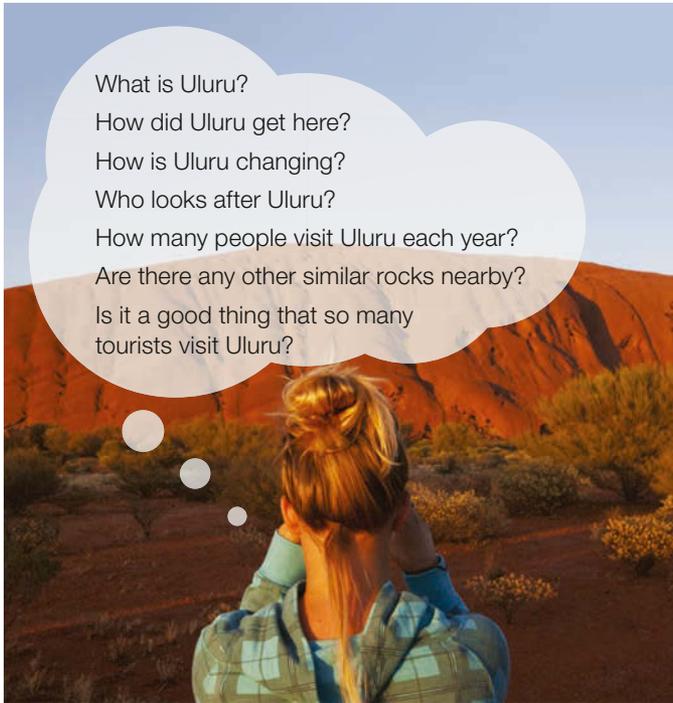
Source 1 Developing geographical questions is an important part of a geographical inquiry.

Asking geographical questions

Geographers ask lots of questions. Geographical questions can be as simple as 'What is it?' and 'Where is it?' or more complex, such as 'What is the connection between these two things?' and 'How and why have things changed over time?'

As a geographer, no longer will you look at something in your world, such as Uluru, and only think of it as an interesting place to visit. Instead, you will begin to ask questions about how it was formed and came to look the way it does. You will also start to ask questions about the area in which it is located, its vegetation, how it is used and managed and its significance for Indigenous Australians.

When we ask questions of the world around us, sometimes we identify possible gaps in our knowledge. These gaps in our knowledge present an opportunity for geographical inquiry to gather new knowledge or challenge existing personal perspectives.

skilldrill

Developing geographical questions

Study Source 1. This visitor to Uluru is asking some important geographical questions. You can learn to do this too by starting your questions with the words 'what', 'where', 'how', 'why', 'what impact' or 'what should' when thinking about a particular feature or place.

Your questions should deal with ideas such as:

- Where is it?
- How many are there?
- How big is it?
- What pattern or shape is it?
- Why is it like this? Is it like this because something else is at this location?
- How does it interact with other things in this place?
- Who interacts with it?
- Is it changing? If so, why is it changing and what will it look like in the future?
- How should people best manage this change?

The very best questions open up an exciting area for you to explore. For example, the visitor might ask a simple question, such as 'How big is Uluru?' This is a question with a relatively simple answer. A better geographical question for the visitor to ask would be 'Why is Uluru so big?' This question opens up a whole new area for her to explore.

Apply the skill

1. Why would it be better to ask 'Why is Uluru so big?' than 'How big is Uluru?'?

2. Where could you look to find answers to the question 'Why is Uluru so big?'?

3. Examine the photograph of the Bungle Bungle Range at the beginning of this chapter. Work with a partner to develop geographic questions about this landscape.

Planning a simple geographical inquiry

Once you have asked a range of more general questions about a geographical feature or issue, it is time to select one question that will become the focus of your inquiry. When you have chosen this, it is useful to decide what data is needed to answer the question and how to collect the data.

Planning a geographical inquiry about Uluru

Having chosen to investigate the **key inquiry question** 'Is it a good thing that so many tourists visit Uluru?', you need to decide what data is needed to answer the question and how to collect the data. See Source 2 as an example.

Collecting information and data

Good planning and preparation will ensure that your geographical inquiry will run smoothly, be relevant and give you the answers you are looking for. You should:

- collect and record the information you think you will need to answer your key inquiry question
- evaluate this information and data to determine that it is accurate and relevant
- represent your findings in an interesting and appropriate way (such as tables, graphs, maps and sketches).

Primary and secondary sources

Geographers find answers to their questions in many places. They may collect information themselves by interviewing people, taking photographs, making sketches out in the field or conducting surveys and questionnaires. This kind of information will generally only be relevant to a particular inquiry and is called **primary data**.

Often a geographer collects information that supports his or her inquiry but has not been specifically collected or designed by the geographer for the inquiry. This type of information is called **secondary data**.

Source 4 Examples of primary and secondary data

Some examples of primary data	Some examples of secondary data
• Hand-drawn maps and field sketches • Photographs and images taken for the inquiry • Questionnaires and surveys designed and created for the inquiry • Graphs created from data (such as number of visitors, number of cars counted, and temperature and wind statistics) gathered by the geographer for the inquiry	• Information from textbooks, atlases, maps, graphs, reports and websites that were not created specifically for the inquiry • Data that was collected by a government department (such as census data), the media, companies and other organisations and was not collected specifically for the inquiry

Source 2 A guide for planning the direction of a geographical inquiry into Uluru

Key inquiry question	Data needed	Possible sources of data
Is it a good thing that so many tourists visit Uluru?	• Information on the importance and significance of Uluru to the Anangu, who are the Indigenous people in the area • Information on the management and maintenance of the park	• Conduct fieldwork into visitor numbers • Create surveys and questionnaires for visitors to complete • Contact Parks Australia and Uluru–Kata Tjuta National Park for information on how the park is managed • Download resources from the Parks Australia website; for example, podcasts, maps, visitor guides, geological reports, audio tours and images

Source 3 Kata Tjuta in the Northern Territory

Primary and secondary data provide either **quantitative data** or **qualitative data**. Quantitative data includes anything that can be recorded as numbers (for example, Uluru is 3.6 kilometres long and 1.9 kilometres wide and has a circumference of 9.4 kilometres). Qualitative data, on the other hand, includes anything that can be recorded in words (for example, Uluru, one of Australia's best known natural landmarks, is very large).

Source 5 Examples of quantitative and qualitative data

Some examples of quantitative data	Some examples of qualitative data
• Climate and temperature statistics • Tourist numbers • Population figures (including birth and death rates) • Types and amounts of food grown • Number of plant and animal species and wildlife in certain areas • Forest clearance rates • Numbers of people killed in natural disasters • Numbers of volcanic eruptions and earthquakes	• Opinions • Points of view • Personal stories • Likes and dislikes • Feelings

Good geographical inquiries will always be based on a combination of primary and secondary data that is both quantitative and qualitative. Even though qualitative data is an important part of any geographical inquiry, quantitative data is considered to be more valuable because it is less open to personal interpretations and can be more accurately represented in graphs and charts. Before you move to the next stage of your inquiry, it is important to check that you have recorded all your data without errors and that it is balanced and fair. Your data should not reflect your personal opinions, emotions or attitudes; instead it should present the facts in a clear and concise way.

Recording information and data

There are many ways to record data and information as you collect it. Choosing the most appropriate method will often depend on the kind of data you are collecting.

If you are collecting qualitative data on the types of geographical features at your nearest beach, you might take photographs, make a list of the features or draw sketches of the beach. If, on the other hand, you are recording data on the number of people who use the beach, you might use a tally or table to keep track of people as they go by.

Mind maps and other graphic organisers can also be used to group ideas and identify relationships between features.

Ethical protocols

It is important to keep in mind ethical protocols when you are conducting your questioning and research. This means you should try to do the right thing by anyone you might involve in your inquiry. In order to do this you should keep in mind the following things:

• Remember to seek permission from someone before you use a photo of them in your inquiry.
• Always seek permission if you intend to visit Aboriginal cultural land.
• If you are using someone else's work in your inquiry, do not take credit for their work. Instead acknowledge correctly by using the format specified by your teacher.

Creating maps and other graphic representations

Geographers can collate information they gather during their inquiries in a number of different ways. They often make maps, create graphs and tables or even draw diagrams to help them gather information or look for patterns in the data they have gathered. These tools also help people who were not involved in the inquiry (such as the general public, the government or people in the media) understand the work that has been done.

Creating maps

One of the most useful tools that geographers use to process information is a **map**. A map is a simplified plan of an area. Maps are drawn in the **plan view** (directly from above) because this ensures the **scale** will be the same across the entire area. If maps were drawn from an angle, some parts of the mapped area would look distorted and so it would not be an accurate representation of the area. When properly used, maps can reveal a great deal about our planet and the ways in which we use it.

Source 6 A **vertical aerial photograph** of Sydney Harbour and the city. A map of the same area is shown in Source 7.

SYDNEY: HARBOUR AND CBD

Source 7   Source: Oxford University Press

Simple maps

Geographers use different types of maps to show a whole range of different natural and built features – and the connections between them. This year you will be learning how to create a number of different types of maps and interpreting the information that they provide. These maps include:

Physical maps

Physical maps show the locations and names of natural features of the Earth. These may include deserts, mountains, rivers, plains, oceans, reefs, volcanoes and lakes.

PHYSICAL MAP OF AUSTRALIA SHOWING OCEANS AND MAJOR MOUNTAIN RANGES, RIVERS, LAKES AND DESERTS
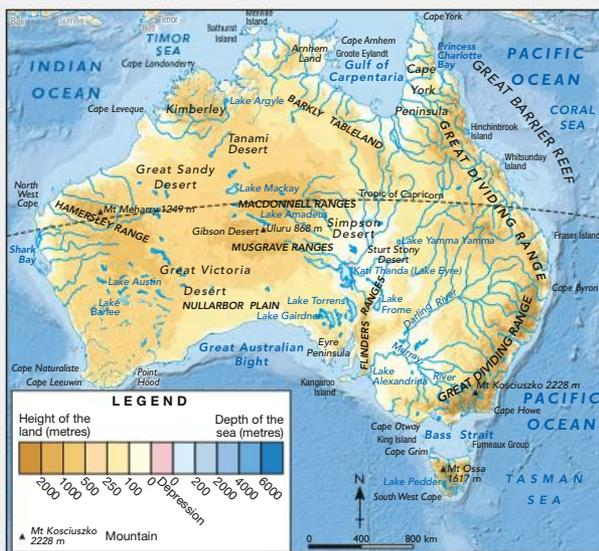
Source 8   Source: Oxford University Press

Political maps

Political maps show the locations and names of built features of the Earth. These may include country borders, state and territory borders, cities and towns.

POLITICAL MAP OF AUSTRALIA SHOWING STATE AND TERRITORY BORDERS, CITIES AND TOWNS

Source 9   Source: Oxford University Press

Dot distribution maps

Dot distribution maps use dots (or shapes) to represent (and sometimes compare) a range of different features. The dots show the location of the chosen feature. The size and colour of the dots on the map can show different characteristics of that feature. For example, in Source 10 small towns are shown as small green dots and big cities are shown as big red squares. Other dot distribution maps show the location of a single feature, such as litter (see Source 3 on page 37). Dot distribution maps help to show patterns and links between features – geographers refer to this as spatial distribution.

DOT DISTRIBUTION MAP OF AUSTRALIA SHOWING POPULATION

Source 10   Source: Oxford University Press

Flow maps

Flow maps show movement from one place to another. Arrows of different thicknesses or colours are used to show where different things (such as people or goods) are moving to and from, and to compare the numbers involved in the movement.

FLOW MAP SHOWING THE FLOW OF TOURISTS WORLDWIDE
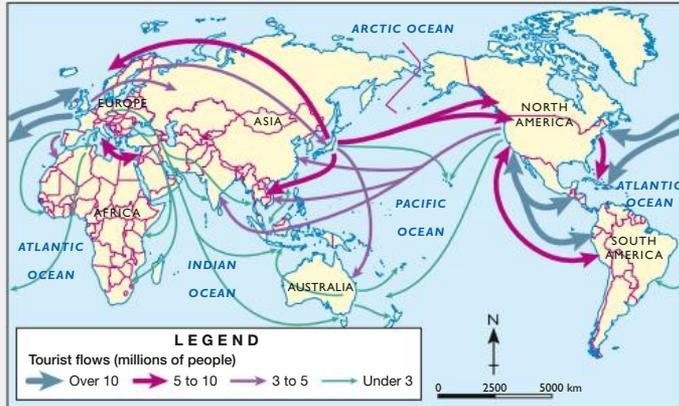
Source 11   Source: Oxford University Press

Choropleth maps

Choropleth maps use different shades of the same colour to give a quick impression of the pattern formed by the data being shown. Darker shades show the highest values or the greatest amounts, while lighter shades show the lowest values or the least amounts.

CHOROPLETH MAP SHOWING INTERNATIONAL TOURIST ARRIVALS WORLDWIDE
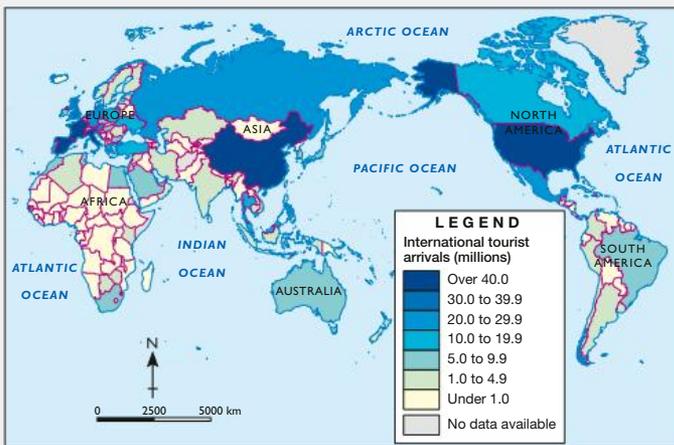
Source 12   Source: Oxford University Press

Overlay maps

Overlay maps show how features on the Earth's surface may be related to each other. To create an overlay map you first need to produce a base map showing one feature (such as the location of Australian rainforests) and then place a piece of tracing paper or plastic sheet over this base map showing the other feature you are investigating (such as areas with a moist tropical climate).
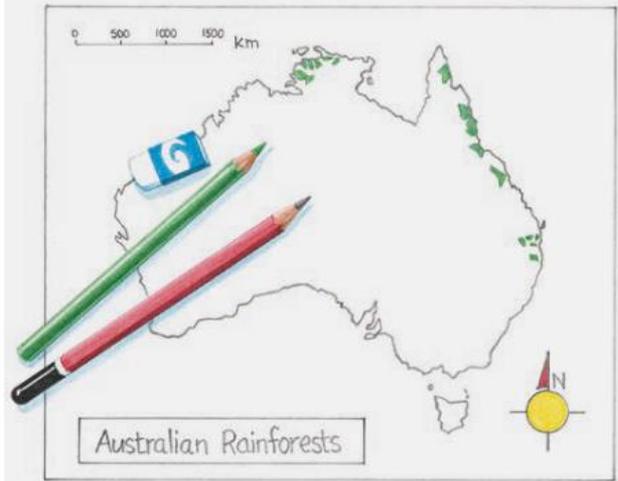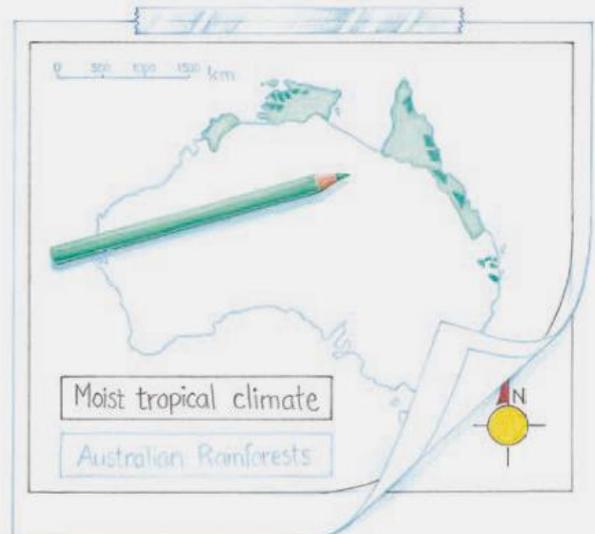
Source 13 An overlay map showing the location of Australian rainforests on a base map (top) and areas with a moist tropical climate on an overlay (bottom)

More complex maps

Over the course of the year you will also be working with a number of other, more complex maps. You won't necessarily be creating these maps yourself, but you will be learning how to make sense of the information they provide. These maps include:

Topographic maps

Topographic maps show the shape of the land (such as the shapes formed by valleys, hills and ridges) by using **contour lines**. Numbers on some of the contour lines show the height of the land above sea level. The closer together the contour lines are, the steeper the land. Symbols and colours are also used on topographic maps to show other natural features (such as forests, rivers and lakes) and built features (such as towns, roads and mines). The contour patterns of three common features are shown below the topographic map in Source 14.

TOPOGRAPHIC MAP SHOWING A
ROUND HILL, A VALLEY AND A RIDGE
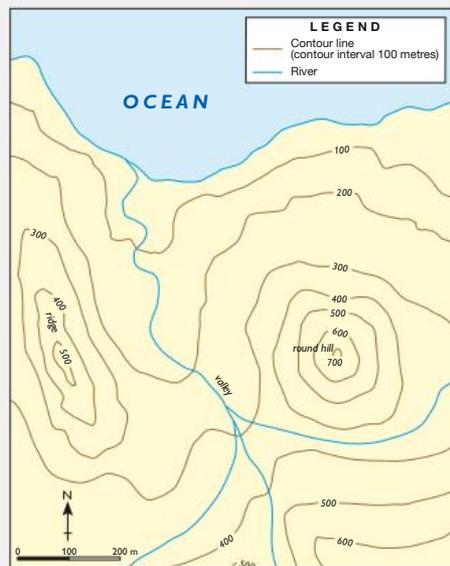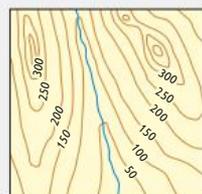
A ROUND HILL   A VALLEY   A RIDGE
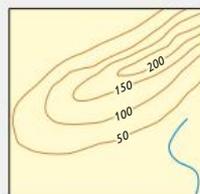
Source 14   Source: Oxford University Press

Weather maps

Weather maps show conditions in the atmosphere, such as air pressure, wind speed and wind direction. They also show the size and location of warm and cold fronts. Weather maps are also known as synoptic charts. They are most commonly seen on the nightly news.

Source 15 Weather maps feature in the nightly news on television

Thematic maps

Thematic maps show a particular theme or topic; for example, the distribution of resources (such as coal and gas), the different types of forests around the world, access to safe drinking water, or the types of crops and animals farmed in Australia.

THEMATIC MAP OF AUSTRALIA SHOWING TYPES OF
ANIMALS AND CROPS GROWN

Source 16   Source: Oxford University Press

Geographic Information Systems (GIS)

Geographic Information Systems (GIS) are a way of creating, viewing, organising and analysing geographical information with the use of a software application. GIS are an exciting development in the world of geography because they allow geographers to access and share an incredible amount of data and look at the world in new ways. GIS are made up of three elements:

- digital base maps
- data that is layered over the base map (such as a chart, overlay or table)
- a software application or platform that links these elements together and allows the user to interact with all of this information.

GIS combine satellite images, graphs and databases to allow you to identify patterns and **trends** so that you can gain a better understanding of the world around you. They allow you to turn different layers of data on and off in order to isolate exactly what you are looking for. You can even create and share your own maps, look at 3D models of areas and record video simulations, known as flyovers.

GIS are already a part of many people's everyday life. Governments, companies and individuals all around the world use GIS. There are a number of GIS platforms available today, but one of the most commonly used and free GIS is Google Earth.

Essential features of maps

BOLTSS

Regardless of the type of maps you are creating or interpreting, all will share some common features. There are six features that ensure every map is drawn in a clear, concise and accurate way. To help you remember these features, you can use a mnemonic (memory aid) that consists of the first letter of each of the features. Together, these six letters make up the word **BOLTSS**.

Source 17 shows a map of Australia that is held together with BOLTSS.

B	**Border** – an outline or box drawn around the map

O	**Orientation** – an indication of direction, usually shown with a north arrow or compass rose

L	**Legend** – an explanation of the symbols, colours and patterns used on the map (also known as a key)

T	**Title** – a heading that describes the map and what it is showing

S	**Scale** – a way of indicating what **distances** on the map represent in the real world. Scale can be shown in three different ways: as a written scale, a line scale or a ratio. Source 20 shows the three ways scale can be represented on a map.

S	**Source** – where the information used to create the map came from. If these details are not known, simply write 'Source: unknown'. If you have created the map from your own data, simply write 'Source: own map' or 'Source: [add your name]'.

AUSTRALIA: INDIGENOUS LAND AND SITES, 2006
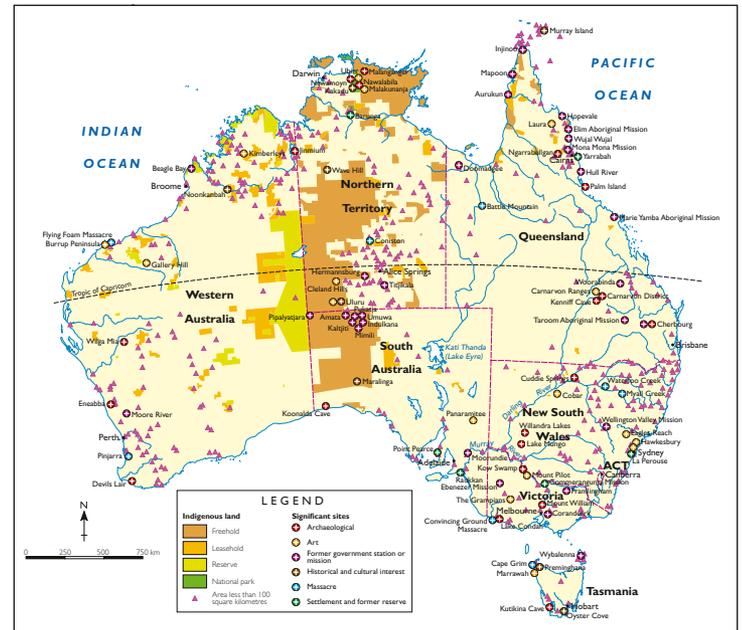
Source 17 A map of Australia showing all the features of BOLTSS
Source: Oxford University Press

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Direction

Direction must always be shown on maps because it enables the user to work out the location of features shown. Direction is shown on maps by the use of compass points. A **compass** is an instrument with a magnetised needle that will always point to the Earth's magnetic field near the north pole (known as **magnetic north**). The face of a compass shows a circle made up of 360 degrees (see Source 18).

The four main directions on a compass are north, south, east and west. These are known as **cardinal points**. Most maps are oriented to north. Once north has been established, you can find the other points of the compass.

Using compass points is an accurate way of giving directions because the compass always points to magnetic north no matter which direction you are facing.

Compass bearings provide an even more precise way to give directions. A bearing is an angle that is measured clockwise from magnetic north. The bearing of magnetic north can be either 0 degrees or 360 degrees, the bearing of south is 180 degrees, the bearing of east is 90 degrees and the bearing of west is 270 degrees. These bearings are also shown in Source 18.

north 0°/360°
north-west 315°
north-east 45°
west 270°
east 90°
south-west 225°
south-east 135°
south 180°
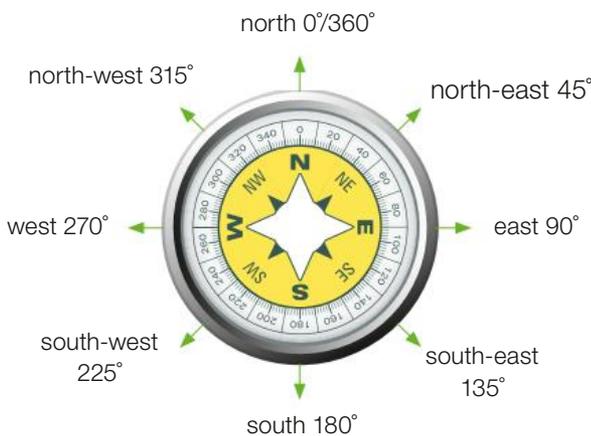
Source 18 A compass face showing cardinal points and compass bearings

Scale

We use **scale** to shrink or increase real world features so they will fit into a space. Model cars are scaled down in size and proportion from real cars.

The model shown in Source 19 looks like the real car, only smaller. It is a 1:35 scale model. This means that 1 centimetre on the scale model is equal to 35 centimetres on the real car. If 1 centimetre represents 35 centimetres, then 10 centimetres (the total length of the model) represents a total length of 350 centimetres (or 3.5 metres) on the real car.

Scale on maps

Maps are scaled representations of real areas. These representations have been designed to fit on a piece of paper or on a computer screen. Maps look the same as the real areas they are representing, just reduced to a size you can work with. Scale on maps allows you to work out the distances in the real world.

Look at the map of Tasmania (Source 20). In the bottom left-hand corner it shows the three types of scale that can be used on maps and how they work:

- Written scale – A written scale tells you how much a distance on the map represents on the ground. The written scale on Source 20 is '1 centimetre on the map measures 30 kilometres on the ground'. Using this information we can easily work out that 5 centimetres on the map would be equal to 150 kilometres on the ground, and so on.
- Line scale – A line scale is a numbered line that acts like a ruler. You can use it to measure distances on the map. The Source 20 line scale shows 1 centimetre is equal to 30 kilometres.
- Ratio scale – A ratio scale shows scale in numbers. The ratio scale for Source 20 is 1:3 000 000, so 1 unit (that is, 1 centimetre) on the map represents 3 000 000 centimetres on the ground. Of course, 3 000 000 centimetres is equal to 30 kilometres.

4 centimetres

10 centimetres

Source 19 This model car is 35 times smaller than the real car. This scale is expressed as 1:35.

Using line scale to measure distances

Scale is a handy tool to help you study the world around you from inside your classroom. Look at Source 20. You will notice that all the features on the map have been shrunk by the same amount so that they fit on the page.

You can use the line scale to measure the distance between two points 'as the crow flies' (that is, in a straight line) by following these steps:

Step 1 Place the straight edge of a sheet of paper over the points you wish to measure.

Step 2 Mark the starting and finishing points on the paper.

Step 3 Hold the edge of the paper against the line scale to work out the real distance between the two points.

Apply the skill

1 Use Sources 20 and 21 to answer the following questions.

   a How far is it from the peak of Cradle Mountain to the centre of Hobart as the crow flies?

   b How far is it from Devonport in the state's north to Queenstown in the west as the crow flies?

   c How long is Lake Gordon from north to south?

   d How wide is the state of Tasmania at its widest point?

TASMANIA

LEGEND
- • • ● Major town
- — Main road
- ▲ Mountain
- National park

SCALE 1 : 3 000 000
One centimetre on the map measures 30 kilometres on the ground.

Source 20   Source: Oxford University Press
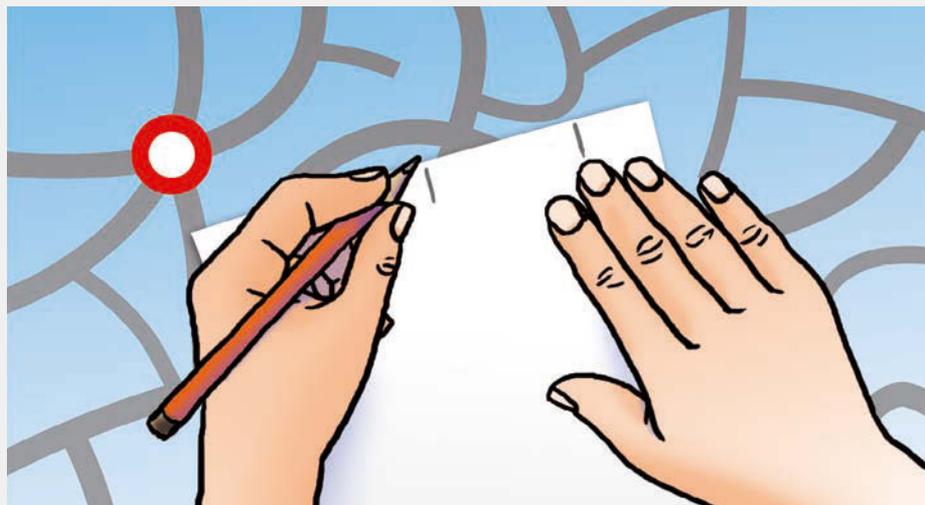
Source 21 Measuring straight distances on a map using a sheet of paper

Comparing map scales

Maps are often shown at different scales depending on the amount of detail they need to show. Source 22 shows three maps at different scales:

- Map 1 is a large-scale map. It shows a large amount of detail but only a small area. You can see the city area (in pink) and Lake Burley Griffin.
- Map 2 is a medium-scale map. It shows a medium amount of detail and a medium area. You can see the whole of the Australian Capital Territory (ACT).
- Map 3 is a small-scale map. It shows a small amount of detail but a large area. You can only just see the border of the ACT.

ACT AND EASTERN AUSTRALIA
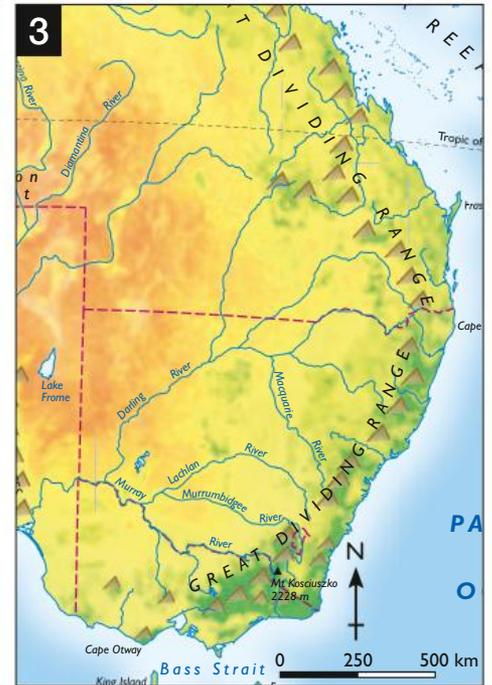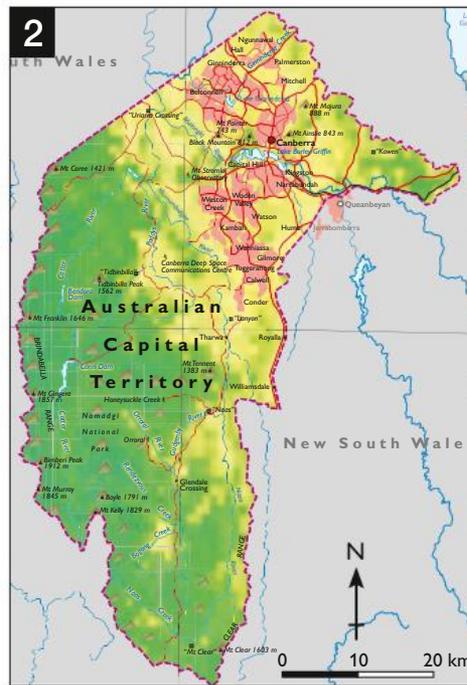
Large-scale maps show detailed information about a small area.

Small-scale maps show general information about a large area.

Source 22

Source: Oxford University Press

Remember:
- Large-scale maps show a *large* amount of detail, but a *small* area.
- Small-scale maps show a *small* amount of detail, but a *large* area.

Locating places on maps

Maps are used for many different purposes, but the most commonly used maps help us to find things we are looking for. These maps are often overlaid with a set of lines that form a grid. These gridlines divide the map into smaller areas and help us find places more easily. There are a number of ways in which you can locate things on maps and a number of methods you can use to help other people find these places. Some of these methods will give you a general idea of where something is, while others can help you pinpoint the exact location of something.

SURFERS PARADISE STREET MAP

Source 23   Source: *Brisway*

Grid and area referencing

Alphanumeric grid referencing

In maps that use **alphanumeric grid** referencing the spaces between gridlines are labelled with letters and numbers. The letters appear along the bottom (or top and bottom) of the map while the numbers appear down the left-hand side (or both sides) of the map. For example, in Source 23 the grid reference for the Paradise Centre is J6.

Area referencing (AR)

The area referencing (AR) method is used on topographic maps that have gridlines. Each line is given a two-digit number. The lines that run up and down the map are known as **eastings** (because the numbers increase as you move east). The lines that run across the map are known as **northings** (because the numbers increase as you move north). A four-figure area reference will pinpoint the bottom left-hand corner of the grid square in which you will find the feature. The eastings are given first, then the northings. For example, in Source 24 the park is located in AR2813.

Six-figure grid referencing (GR)

Six-figure grid references (GR) help locate exact points on a topographic map. The area between each easting and the next is divided into ten further parts (tenths), as is the area between each two adjacent northings. This is just like adding a finer set of gridlines over the existing gridlines allowing you to be very specific about where things are within each grid square. As with area referencing, the eastings are given first, then the northings. The difference is that one more figure is added to the easting and one more figure is added to the northing. This makes six figures in total. For example, in Source 24 the hospital is located at GR297156.

TOPOGRAPHIC MAP EXTRACT SHOWING AR AND GR

LEGEND

—— Road
—— River
—— Contour line
🌳 Park
✚ Hospital
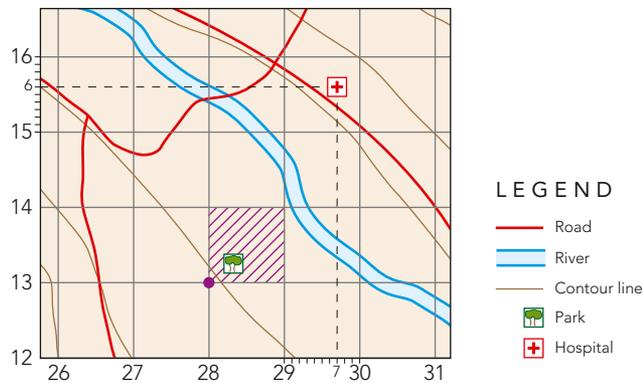
Source 24   Source: Oxford University Press

Latitude and longitude

Maps that show large areas of the Earth's surface (such as world maps) use a set of imaginary lines that form a grid. These gridlines, known as **latitude** and **longitude**, help us to locate places accurately.

Lines that run from east to west are known as lines (or parallels) of latitude. Lines that run from north to south are known as lines (or meridians) of longitude. Each of the lines is identified by degrees rather than distance because the world is round, not flat.

The line of latitude midway between the north pole (90 degrees north) and south pole (90 degrees south) is known as the **Equator**, which is located at 0 degrees latitude. It divides the Earth into the northern hemisphere and southern hemisphere.

Lines of latitude are measured in degrees north and south of the Equator.

Lines of longitude are measured east and west of the Greenwich meridian (also known as the **Prime Meridian**), which is located at 0 degrees longitude.

Remember:
- Latitude – think 'lat is flat'.
- Longitude – think 'long is long'.
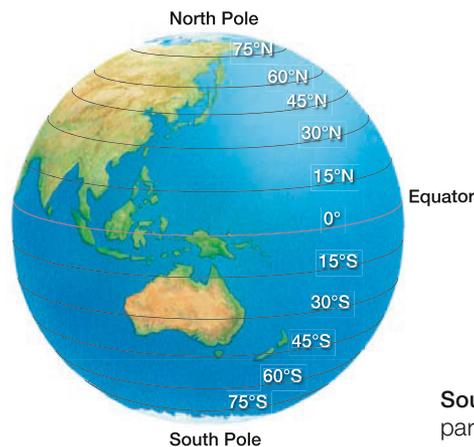
Source 25 Lines (or parallels) of latitude
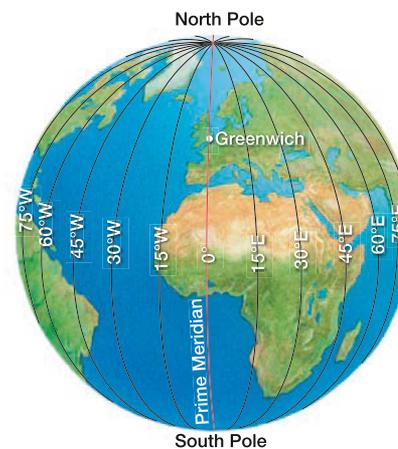
Source 26 Lines (or meridians) of longitude

Check your learning 1.3

Remember and understand

1 What is the difference between primary and secondary sources?

2 On your way to school you notice that bulldozers are clearing an area of bushland.
   a How could this observation form the basis of a geographical inquiry?
   b Write five different types of questions to assist you in your geographical inquiry into the clearing of this bushland.

Apply and analyse

3 There is a proposal to build a new shopping centre.

   a Describe how a geographer would be able to find out what local people thought about the proposal.
   b What two additional issues may be linked to this geographical inquiry into the construction of a new shopping centre? One issue should relate to the natural environment and one should relate to the built environment.

Evaluate and create

4 Develop five questions that may assist a geographer in conducting an inquiry into the proposed development of a new shopping centre within their local area. Create a planning table similar to that used in the text for the inquiry into Uluru (Source 2).

1.4 Analysing

Interpreting information

Once you have collected and recorded your data, it is time to identify any trends, patterns or relationships in the information. You will have used questionnaires and surveys to gather visitor statistics, drawn sketches and diagrams, created graphs and tables and taken photographs (all of which are primary data). You will also have collected information from various other sources, such as textbooks, websites, GIS and atlases (all of which are secondary data). Now it is time to look at this information, identify any possible links and relationships and draw conclusions.

There are a number of methods that geographers use to help them during this stage of their inquiries. These include the PQE method.

Using the PQE method

PQE is a tool used by geographers to analyse the data they have gathered (such as maps, tables, graphs and diagrams) and reach conclusions. The letters PQE stand for pattern, quantify and exceptions.

Pattern (P)

In this step, you need to give a general overview of any patterns you may identify.

When looking at any form of data, look for things that stand out or form patterns. A pattern may be a group of similar features on a diagram, a concentration of a particular colour or feature on a map, or a particular shape that is created by data on a column graph. For example, when looking at a physical map of Australia (see Source 1) you might say, 'Most mountains run along the coast in the east.'

Quantify (Q)

In this step, you need to add specific and accurate information to define and explain the patterns.

Quantifying involves using statistics, amounts, sizes and locations to give specific details. For example,

rather than just saying 'Most mountains run along the coast in the east', you would need to quantify this statement. You might instead say 'A mountain range known as the Great Dividing Range extends more than 3500 kilometres along the eastern coast of Australia from Queensland to Victoria. It is the third-longest mountain range in the world.'

Exceptions (E)

In this step, you need to identify anything that does not fit your patterns.

Often you may find that there are things in your data that do not fit into a pattern you have identified. These are called **exceptions**. They also need to be identified and quantified. For example, you might say 'There are a number of other mountain ranges that are not on the east coast. These include the Flinders Ranges in South Australia and the MacDonnell Ranges in the Northern Territory.'

Creating graphic representations

In addition to maps, geographers use a range of other visual representations to communicate information they have collected. These include:

- tables – These allow geographers to present and compare data by organising it under different headings (see Source 2).
- diagrams – These allow geographers to show the features or characteristics of some places or things much more effectively than describing them in words. Certain interesting or complex processes can also be more easily explained and demonstrated with the help of sketches, flow charts or illustrations (see Source 25 and Source 26 on page 25).
- graphs – These allow geographers to compare data and present it in an interesting and attractive way. There are a number of different types of graphs used by geographers for different purposes. The most common of these are explained on the following pages.

PHYSICAL MAP OF AUSTRALIA SHOWING OCEANS AND MAJOR MOUNTAIN RANGES, RIVERS, LAKES AND DESERTS
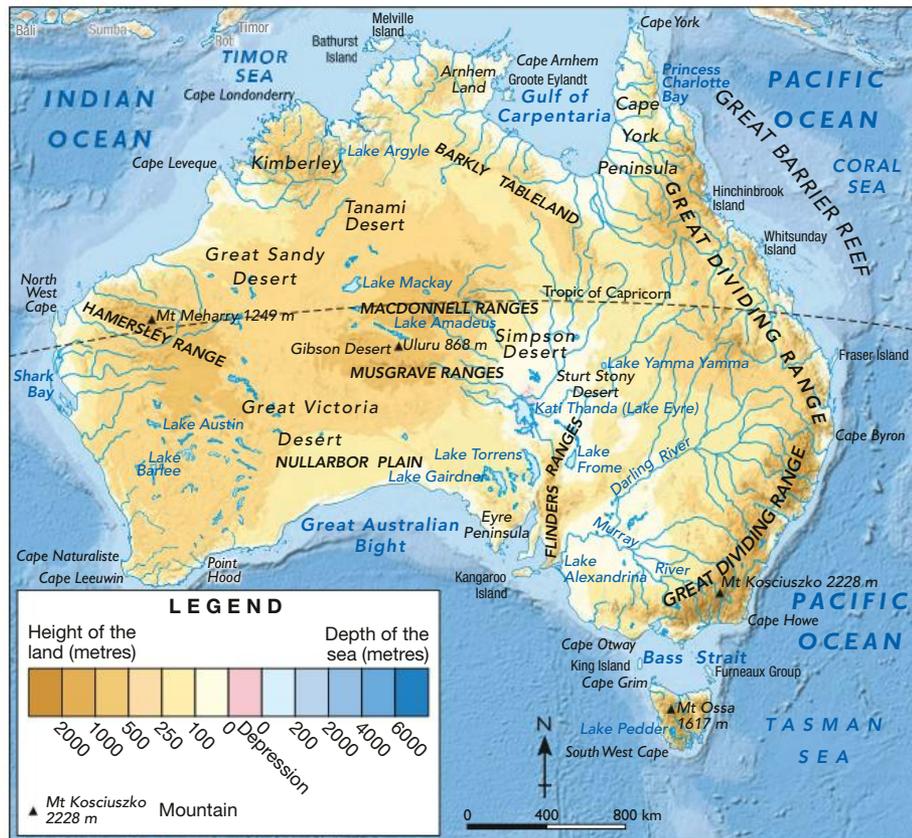
Source 1

Source: Oxford University Press

Source 2 A table showing the populations of Australian states and territories in 2011

State/Territory	Population	Percentage of Australia's population
New South Wales	7 317 500	32.3
Victoria	5 640 900	24.8
Queensland	4 599 400	20.3
Western Australia	2 366 900	10.4
South Australia	1 659 800	7.3
Tasmania	511 000	2.3
Australian Capital Territory	366 900	1.6
Northern Territory	231 200	1.0
Australia	22 693 600	100.0

Selecting information to analyse

When analysing information it is important that the sources you use are relevant. If your information and data do not meet these criteria, you run the risk of being misled and coming to the wrong conclusion. To get the best result from your geographical inquiry, your information and data should adhere to the following guidelines:

- accurate – There should be no mistakes in your data and your information should be based on observations, not guesses.
- reliable – If you are using a secondary source, it should be from a source you can trust. For instance, the statistics on a government website will be more reliable than the statistics from an unverified blog.
- current – Information or data collected in the 1980s will not be as relevant or useful as data collected today. As we know, the world is always changing, so it is best to have information that is as up to date as possible.
- useful– Make sure the information and data you are using helps you to answer your question. If it is not relevant to your topic, it would be better to analyse other data that will not waste your time or skew your results.

Simple graphs

Graphs are one of the most effective graphical representations when it comes to showing numerical (or quantitative) data. Some kinds of graphs are simple, while others are more complex. This year you will be learning how to create a number of different types of graphs and interpreting the information that they provide. Some of these graphs are described below.

Line graphs

Line graphs show information as a series of points that are joined up to form a line. The line shows a trend or change over time. The horizontal axis (x) will usually show units of time and the vertical axis (y) will usually show amounts.
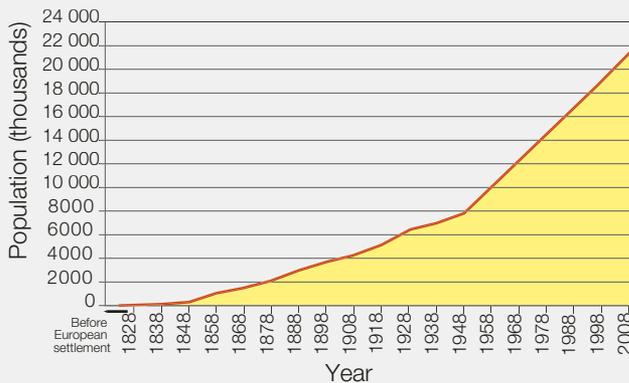
Source 3 A line graph showing the increase in Australia's population, 1828–2011

Bar graphs

Bar graphs show information as a series of bars that run in a horizontal direction and are stacked one on top of the other. They are usually used to compare quantities.
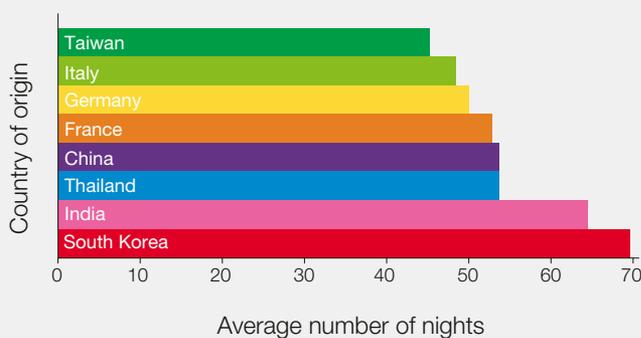
Source 4 A bar graph showing average number of nights spent in Australia by tourists from different countries, 2009

Column graphs

Column graphs are similar to bar graphs, but they show information as a series of vertical columns that are arranged side by side. They are also usually used to compare quantities.
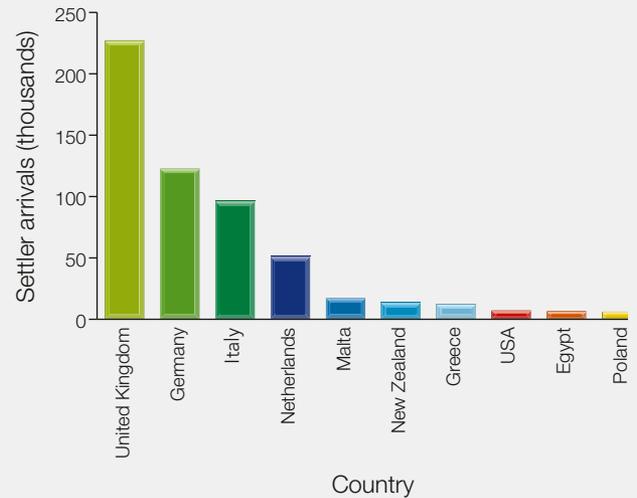
Source 5 A column graph showing top 10 countries of settler arrivals in Australia, 2010–11

Pie graphs

Pie graphs are circular in shape and are divided up so that the information being shown represents the slices of a pie. The circle of 360 degrees represents 100 per cent and each of the slices is a percentage of that. The slices of the pie are organised from largest to smallest in a clockwise direction starting from 12 o'clock.
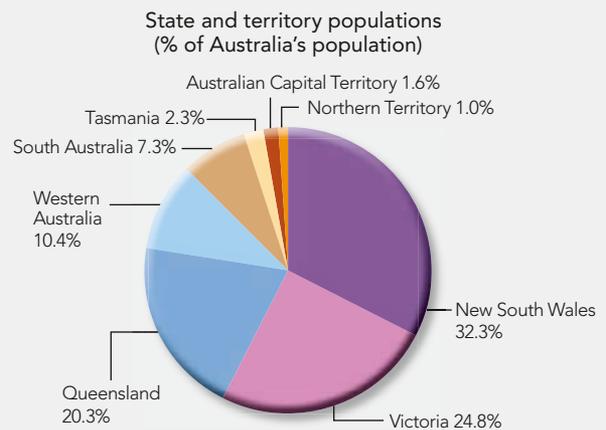
Source 6 A pie graph showing state and territory populations as a percentage of Australia's total population, 2011

More complex graphs

Over the course of the year you will also be working with a number of other, more complex graphs. You won't necessarily be creating these yourself, but you will be learning how to make sense of the information they provide. Some of these graphs are described below.

Climate graphs

Climate graphs show the average monthly temperature and rainfall for a place over a year. Climate graphs combine line and column graphs. Temperature is recorded as a line graph and rainfall is recorded as a column graph.
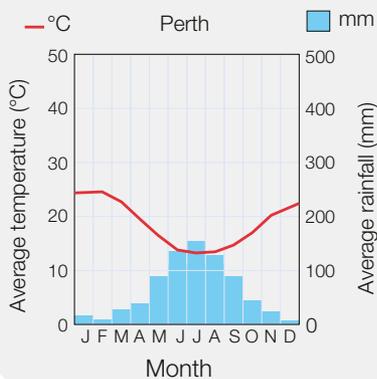
Source 7
A climate graph showing the average monthly temperature and rainfall in Perth

Compound column graphs

Compound column graphs are a more complex type of column graph in which each column is split into sections so results can be more easily compared.
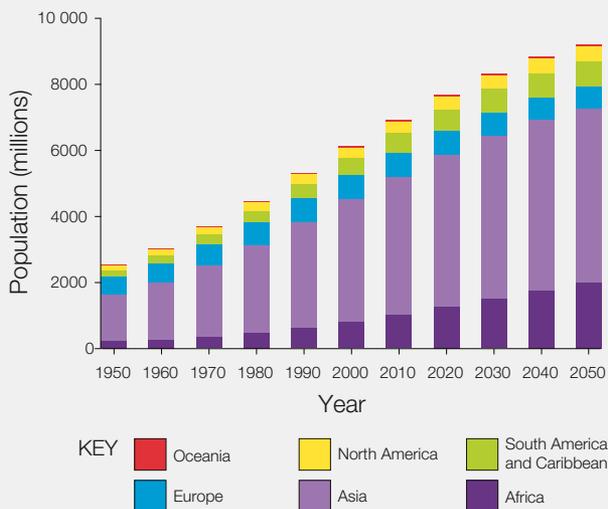
Source 8 A compound column graph showing the increase in world population by region, 1950–2050

Population pyramids

Population pyramids are bar graphs that show the percentage of males and females in different age groups in a population. They help geographers identify trends in population growth in a country. Population pyramids are organised so that younger age groups are at the bottom and older age groups are at the top. Percentages of males are placed on the left-hand side and percentages of females are placed on the right-hand side.
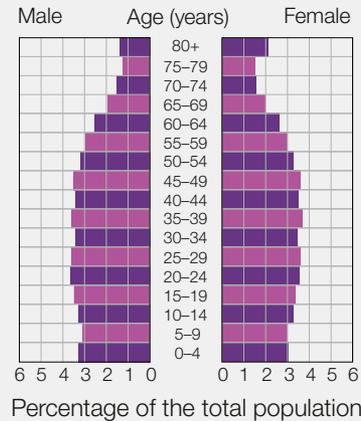
Source 9
A population pyramid for Australia in 2009. From it you can see, for example, that there are more females than males over the age of 80.

Check your learning 1.4

Remember and understand

1 What do the letters PQE stand for?
2 How can the PQE method assist us to identify trends, patterns and relationships in geographical data and draw conclusions?
3 Why is it important for information and data to be from accurate, reliable or current sources?

Apply and analyse

4 Look at Source 1. Use the PQE method to think about Australia's lakes.
   a Can you identify a pattern?
   b Can you quantify this pattern?
   c Are there any exceptions to this pattern?

Evaluate and create

5 Look at Source 2 and construct a bar graph or column graph to represent this data graphically. Analyse trends in this data using your graphic representation.

1.5 Evaluating

Drawing conclusions

The next stage of a geographical inquiry is to evaluate what you have learnt in order to draw a conclusion.

There are a number of methods to evaluate your evidence.

Using the SHEEPT method

SHEEPT is a tool used by geographers to help them consider the many factors that may contribute to the patterns identified in their data. When you are examining issues related to your inquiry, it is useful to think about them in terms of these six factors and rank them in order of importance. This will help you reach your conclusions. The letters SHEEPT stand for:

- social (S) – factors relating to culture and people
- historical (H) – factors relating to past events
- environmental (E) – factors relating to the natural environment (including climate, landforms and vegetation)
- economic (E) – factors relating to the earning or spending of money (including income earned from industry and tourism and the cost of building a dam or highway)
- political (P) – factors relating to governments (including laws, regulations and policies)
- technological (T) – factors relating to the availability and use of different types of technology (including the development of greener technologies, alternative energy sources and GIS).

Planning for action

After coming to a conclusion, you may discover that action is needed in order to respond to the issue you have been investigating. There are a number of different ways that geographers can take action to make a change. These include:

- creating a fact sheet or multimedia presentation about the issue to inform your school or community
- using social media to raise awareness and gather support

- emailing your local government representative or Member of Parliament about the issue
- inviting an expert speaker to present at your school assembly
- planning a campaign to raise money for the issue.

Our geographical inquiry into Uluru based around the key inquiry question 'Is it a good thing that so many tourists visit Uluru?' may lead us to actively campaign for tourism at Uluru to be managed in a more sustainable way so that this important landmark can be enjoyed by future generations. A good example of action resulting from a geographical inquiry is shown in Source 1.

Source 1 A geographical inquiry found that cigarette butts were a leading cause of litter at Uluru. One of the responses was the introduction of personal ashtrays. These ashtrays are available from the Cultural Centre and carry the logo 'Don't let the ranger see your butt'. Park authorities reduced the number of butts littering the area and believe this has also reduced the risk of bushfires.

Check your learning 1.5

Remember and understand

1 What do the letters in SHEEPT stand for?
2 How can SHEEPT assist us to draw conclusions?

Apply and analyse

3 Identify a popular place in your local town or city. Using the SHEEPT method in groups, brainstorm factors that you think might impact the number of visitors to that place.

Evaluate and create

4 Research the way in which Uluru is managed and use the SHEEPT method to think more closely about the factors that impact on Uluru. What conclusion(s) can you make about the way in which Uluru is managed?

1.6 Communicating and reflecting

Geographers use a wide range of methods to inform other people about what they have found over the course of a geographical inquiry. After carefully considering their audience and the purpose of the inquiry they may choose to communicate their conclusions in a number of different ways. Some of the methods that geographers use to communicate their findings include:

- written methods, such as essays or reports
- oral forms, such as oral reports, presentations, discussions and debates
- graphic forms, such as maps, graphs, and diagrams
- visual forms, such as **annotated visual displays (AVDs),** photographs, sketches, satellite images and posters
- digital forms, such as wikis, Geographic Information Systems (GIS), databases, 3-D models and simulations, and multimedia presentations.

All diagrams, sketches, photographs and graphs must have a heading and a caption

Make the heading stand out

Is it a good thing that so many tourists visit Uluru?

NATURAL PROCESSES

Legend
Conglomerate
Arkose
Folded Proterzoic sedimentary rocks
Igneous and metamorphic rocks
Palaeozoic rocks
Alluvial sediments

TOURISM AT ULURU

EROSION

LOCATION MAP

EROSION OF ULURU

The side of Uluru is eroding

Cold nights and hot days can crack the rock

Water running down the side wears rock away

A simple sketch can break up lots of writing

Lists may be better than long paragraphs

Always include a location map; remember BOLTSS

Sunset viewing
Base Walk North/East
Mala Walk
Kantju Gorge
Taputji
Sunrise viewing
Mala carpark
Punu Walk
Uluru
Mutitjulu Waterhole
Kuniya Piti
Liru Walk
Base Walk South
Mutitjulu
Lungkata Walk
Kuniya Walk
Kuniya carpark
Talinguru Nyakunytjaku (sunrise and sunset)
Watiku Walk
Minymaku Platform
Watiku Platform
Minymaku Walk
N
0 750 1500 m

LEGEND
Road — Carpark ● Park headquarters ■ Settlement
Disused airstrip ══ Viewing site • Cultural Centre ■

Name: _____

Source 1 An annotated visual display (AVD)

Natural processes illustration © Director of National Parks (Parks Australia) www.parksaustralia.gov.au

Reflecting on what you have learnt

The final stage of a geographical inquiry is to reflect on what you have learnt and decide whether any action needs to be taken. Reflecting involves not only looking at what you have learnt but also how it has been learnt. It involves asking critical questions about the way in which your geographical inquiry was conducted and your role in it. One of the best ways to reflect on your progress is to complete a self-evaluation checklist rating your performance at each stage and adding comments.

Using correct geographical terminology

Just like scientists, geographers share a common language. They use geographical terminology to clarify what they are talking about and to share their findings. Source 2 lists and defines some commonly used geographical terms; additional geographical terms can also be found in the glossary at the end of this book.

Source 2 Some useful geographical terms

Term	Definition
BOLTSS	The six essential features that should be included on every map: border, orientation, legend, title, scale and source
direction	A way of orienting a map, usually shown by the use of compass points, such as north
distance	The amount of space between two objects or places, generally measured by using the scale on a map
distribution	The way in which things are arranged on the Earth's surface; the pattern formed by the way objects or places are distributed across a space
exception	A feature that falls outside a usual pattern or does not follow an observed pattern
geographical inquiry	The stages that geographers follow to guide their investigations
key inquiry question	A question that helps geographers to plan and focus their geographical inquiries
primary data	Data collected for a geographical inquiry by a person conducting an inquiry, such as survey data, hand-drawn maps or photographs
region	An area of the Earth's surface with a feature that makes it different from surrounding areas
scale	A line that indicates the distances on a map as represented in the real world
secondary data	Data collected for a geographical inquiry from another source, such as textbooks, atlases and government websites
spatial pattern	The distribution of features on the Earth's surface that may form particular patterns, such as linear (in lines), clustered or radial (like spokes on a wheel)
trend	A general direction in which something is developing or changing (e.g. the trend in population in Australia is positive because the population is growing)

Creating an annotated visual display (AVD)

One of the most popular ways of presenting and communicating the findings of a geographical inquiry is to construct an annotated visual display (AVD). An AVD combines written text with visual images (such as photographs) and other graphic representations (such as maps, graphs, tables, sketches and diagrams). To create a successful AVD there are a few steps to follow:

Step 1 Gather your data

Make sure that you have collected all the pieces of information and data that you have found and/ or created throughout your inquiry. Print your photographs, tidy up your sketches and process any data that you have collected. Tables of raw data are usually much more effective when they are made into graphs (for example, bar graphs or pie graphs). Ensure that all your maps, including sketch maps, have BOLTSS. Each resource (such as a graph, map, sketch, photograph, cross-section or written explanation) must also have a title and, in the case of photographs, a caption.

Step 2 Organise your results

On a large sheet of poster paper, lay out all your information and data. All written descriptions and answers should be typed, or neatly printed, on separate sheets of white paper, not written directly onto the poster paper. This will allow you to arrange them on the poster paper in the most logical and relevant way before you glue them down. The key inquiry question that began your geographical inquiry may guide your final layout. In the following example, the focus question, 'Is it a good thing that so many tourists visit Uluru?', suggests that there will be three main parts to the AVD:

- information about Uluru and its physical features
- tourist statistics and other data that show the effects that visitors are having on Uluru and its surroundings
- an analysis of the data. A conclusion that answers the key inquiry question.

Step 3 Present your results

When you are happy with your layout, design a main heading and other smaller headings. Don't forget to write your name in small, neat letters next to the heading or at the bottom of the AVD. Use glue to stick your resources onto your AVD. You may like to draw borders around some information.

Step 4 Acknowledge your sources

If you have used books or other resources (such as websites) these need to be acknowledged in a bibliography or list of references. This can be stuck on the back of your AVD.

Apply the skill

1 Imagine that your class is exploring the Great Barrier Reef as a geographic inquiry with a particular focus on the impact of tourism on this natural environment.

   a Discuss with a partner some geographic questions about this place.

   b Select one of these questions that could be used to complete an AVD.

   c Gather some data in response to this question. There is no need to explore this topic in great depth, but just to practise your communication skills. Your data could be sourced from the Internet, books, magazines or from your own personal experience. You should try to find about three or four images and some writing, such as a newspaper article.

   d Work with your partner to design your AVD on a piece of A3-sized paper.

   e Complete your AVD by following steps 3 and 4 of the skill drill.

   f Display your AVD on the classroom wall and compare it with those of your classmates.

Source 3 A self-evaluation checklist

The title of my geographical inquiry is:		
My geographical inquiry set out to investigate:		
GENERAL POINTS	**My rating**	**Comments**
I was able to complete all stages of my geographical inquiry	1 2 3 4 5	
I was able to answer all my key inquiry questions	1 2 3 4 5	
I was able to plan my inquiry effectively	1 2 3 4 5	
My maps, graphs, tables and diagrams were clear and accurate	1 2 3 4 5	
I was able to analyse my data and reach a conclusion	1 2 3 4 5	
I was able to communicate my findings in an interesting and appropriate way	1 2 3 4 5	
AREAS OF STRENGTH	**Comments**	
My areas of strength are:		
I'm getting much better at:		
AREAS NEEDING IMPROVEMENT	**Comments**	
The part I found most difficult was:		
I need the most help with:		
IMPORTANT ISSUES HIGHLIGHTED BY MY INQUIRY	**Comments**	
The most important thing I learned from my inquiry was:		
This issue is important to me because:		
This issue is important to my community/country/world because:		

Check your learning 1.6

Remember and understand

1   Name two ways in which you could 'reflect' on what you have learnt throughout a geographical inquiry.

2   Give two reasons why it is important to be able to self-evaluate your work.

3   What do the letters AVD stand for?

4   Make a list of the things you need to gather before creating an AVD.

5   Why is it important to spend time on the layout of the written and visual information that will be shown on your AVD?

Apply and analyse

6   Do you think an AVD is an effective way to communicate the findings of a geographical inquiry? Why or why not?

7   As part of a geographical inquiry looking at the key question 'Is it a good thing that so many tourists visit Uluru?' your teacher has asked you to take part in a class debate. List three points for the affirmative and three points for the negative. Which side would you rather be on? Why?

8   Which form (such as written, oral, graphic, visual or digital) do you think would be most appropriate for presenting the findings of a geographical inquiry into tourism at Uluru? Why?

9   Which do you think are the two most important questions to ask yourself in the self-evaluation checklist (Source 3)? Why?

Evaluate and create

10   The completed self-evaluation checklist can look very different depending on what you are investigating. Are there any areas that you think could be improved in Source 3? What questions could be changed or added so that you could improve on the reflection process?

11   Your geography class has been asked by the principal to complete a geographical inquiry into the issue of recycling at your school. The principal hopes that by raising awareness of recycling, the school community may be willing to change their behaviour and make the school more sustainable. Conduct a class discussion on the most effective way to conduct the inquiry. At the end of your discussion, make a decision about the best way in which your findings could be presented to the whole school in order to convince them to participate.

1.7 Fieldwork in geography

What is fieldwork?

Fieldwork is any geographical study that takes place outside the classroom or, as geographers say, 'in the field'. The 'field' is the source of geographical information (primary data). Fieldwork can be conducted at a number of scales – in your school grounds, within your local community, in another state or even in another country. It is an essential part of geography because the world outside the classroom is the geographer's 'laboratory'. Working in the field provides opportunities for first-hand investigation of both natural and built environments.

Fieldwork provides an opportunity to develop skills associated with observing, measuring and recording. Different forms of geographical data can be collected and then analysed to find relationships between the natural and human environments. The results of a fieldwork investigation are presented and communicated in a fieldwork report.

Fieldwork also involves identifying issues or problems and finding possible solutions. It is a way to engage with the real world and make a contribution to developing more sustainable and fair ways to manage the Earth's resources.

Fieldwork often looks at a key feature, issue or conflict. For example, many tourists visit Uluru each year with the intention of climbing 'the Rock'. In doing so, they ignore the wishes of the traditional owners of the land, the Anangu people (see Source 1). About 35 people have died while climbing Uluru and countless others have been injured or rescued. Geography students visiting Uluru may try to find out why people continue to climb it, and study the impacts of this activity on people and the natural environment.
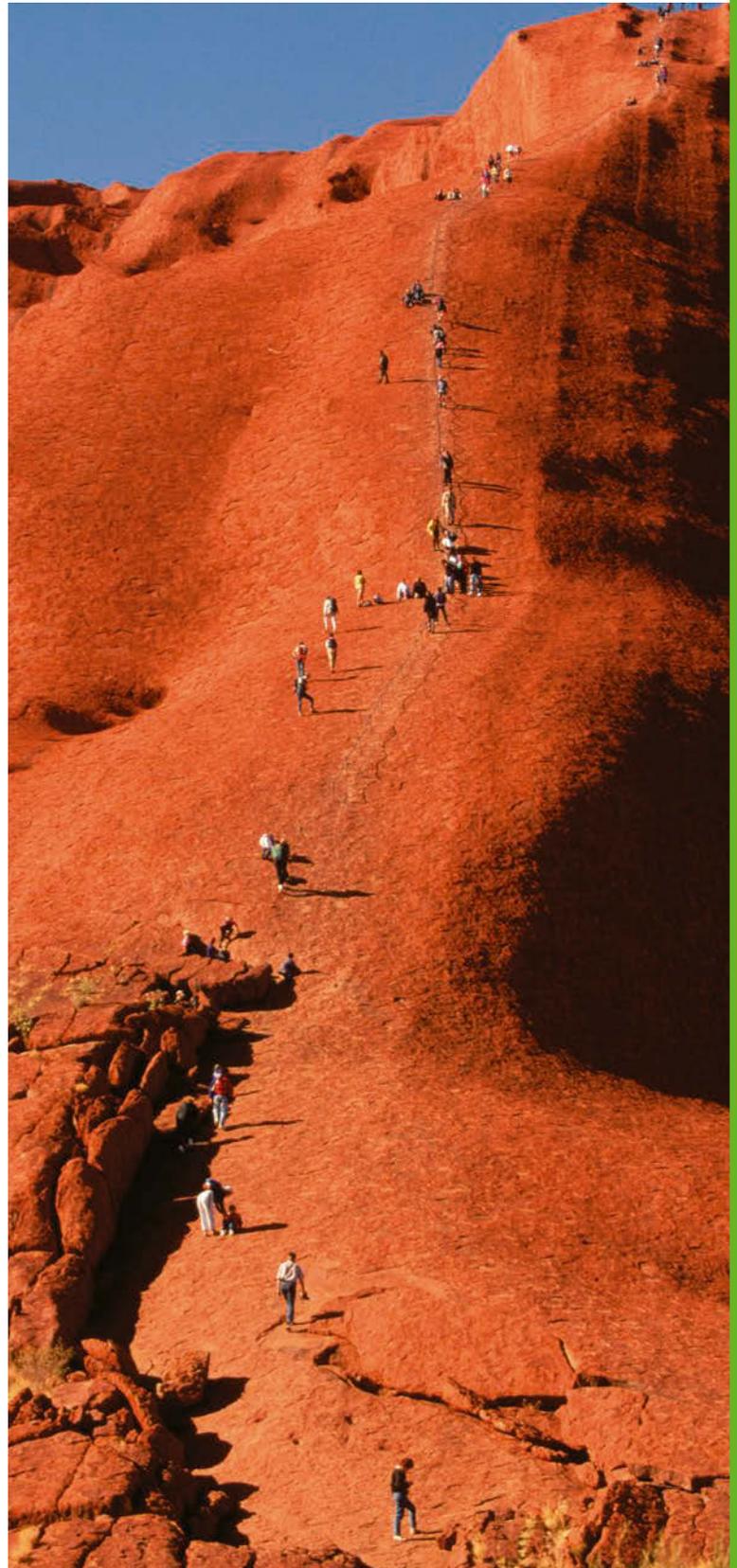
Source 1 Every tourist that climbs Uluru must pass a sign asking them not to climb the rock out of respect for the traditional owners, the Anangu.

Different types of fieldwork

Most topics you learn about in class can also be studied during fieldwork. The types of fieldwork you conduct will differ according to your topic and the places you visit, but all these activities will help you to better understand your world. Source 2 provides examples of fieldwork locations and activities for a range of topics.

Conducting successful fieldwork

Fieldwork is a type of geographical inquiry, so whenever you take part in fieldwork you will need to follow the stages that are outlined in this toolkit, namely:

1 Questioning and researching
2 Analysing
3 Evaluating
4 Communicating and reflecting.

The first stage is vital as this gives you a focus for your fieldwork. It also allows you to make a judgement about whether your fieldwork investigation has been successful.

Stage 1: Questioning and researching

Begin by looking at an issue or location and compile a set of related inquiry questions that you would like to answer. Plan what information you will need and how you will collect it.

Plan your fieldwork so that you can collect the evidence and data that you will need. For example, take photos, draw sketches, conduct tests, construct questionnaires and surveys. You will then need to use this data to create graphs and maps for analysis. You may also need to consider members of the public, including Indigenous people and their beliefs and feelings about places in the landscape. If your class is planning a field trip to a natural environment, such as a forest or beach, you will need to ensure you do not damage the environment by trampling on plants or animals or by dropping litter.

Stage 2: Analysing

Interpret and analyse the data you have collected and look for patterns or clues that will help you to answer your key inquiry question. There are a number of different tools and methods you can use to do this, including PQE.

Stage 3: Evaluating

Draw conclusions from the evidence you have collected by evaluating the information and data you have. You can then decide if any action needs to be taken. To do this you can use methods such as SHEEPT.

Stage 4: Communicating and reflecting

Communicate what you have found to an audience in the form of a report, a presentation or an annotated visual display (AVD). Think about your fieldwork findings and reflect on ways to improve your investigation process.

Topic	Possible location	Sample fieldwork activity
Water in the world	Local river or stream	Water sampling
Liveable cities	Edge of a large city	Observing and describing
Changing cities	Urban renewal project	**Land use mapping**
Coastal landscapes	Local beach	Sketching a cross-section
Landscape hazards	Local beach	Field sketching
Global links	Shopping centre	Using a questionnaire
Communities	Local area, including houses and shops	Street surveying
Food security	Farming area	Asking questions
Endangered environments and animals	Zoo	Comparing environments

Source 2 Examples of fieldwork locations and activities for a range of topics

A fieldwork example: Gumtree College litter investigation

In the following example, a Year 8 geography class at Gumtree College (8G) decided to conduct fieldwork to explore a problem in their school – litter. As a class, they followed a process of inquiry to understand the issue and try to resolve it.

Stage 1: Questioning and researching

During a brainstorm session, a range of investigation questions were raised by 8G. These included:

- What are the most popular foods sold in the school canteen?
- Does our school have the worst litter problem in the city?
- Does our school have enough bins in the yard?

Source 3 A questionnaire of students in the canteen

Source 4 A litter survey
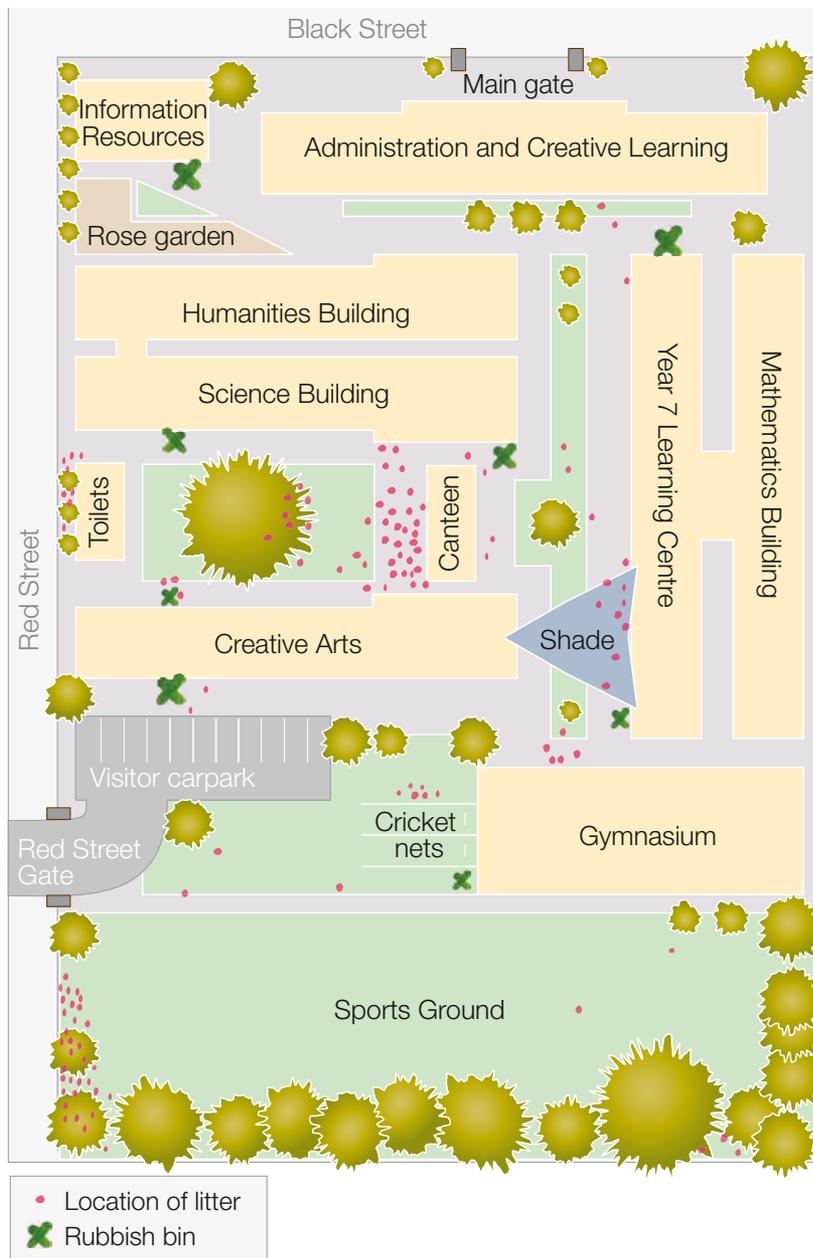
Source 5 A sketch map of the schoolyard showing the locations of the bins and litter at Gumtree College

During discussion it was decided that the first question wasn't really about litter. It was also decided that the second question was too broad and complex to answer in one fieldwork inquiry. The class agreed that the third question was the best one for the class to investigate.

The next stage was to plan what data had to be collected in order to answer the question and choose the methods used to collect this data. As geographers, 8G had to carefully consider other people and the environment when collecting data in the field. For example, they had to be careful not to disturb other classes while collecting their data.

After some discussion, 8G decided to gather the information they needed to answer their inquiry question in three ways:

- a sketch map of the schoolyard showing the locations of the bins and the litter – To complete this map, a group of students would look for rubbish at the end of every lunchtime for five days and show their findings on a dot distribution map (see Source 5).
- a litter survey – This would involve another group of students looking closely at the rubbish and classifying each piece of rubbish using certain headings (see Source 4).
- a questionnaire of students in the schoolyard – Another group of students would ask other students about litter and how they disposed of it (see Source 3).

Stage 2: Analysing

After asking questions and collecting evidence through fieldwork, 8G needed to interpret and analyse this data. Their aim was to use the evidence to answer the key question. By looking closely at their map and applying the PQE method, 8G students identified that most of the litter in their schoolyard was located close to the canteen where there were no bins. It was found that in places where bins were provided they were generally used. The results of the student questionnaire were graphed (see Source 6); the results confirmed that 82 per cent of students used bins if they were nearby.

Stage 3: Evaluating

Based on the interpretation and analysis of their data, 8G concluded that there were not enough bins in the schoolyard. The next step for 8G was to evaluate their results and decide if action was needed. The students argued that three new bins

oxford big ideas humanities and social sciences 8 western australian curriculum

had to be installed in the schoolyard – two near the canteen and one next to the sports ground.

Stage 4: Communicating and reflecting

Based on the data they had collected, 8G prepared an AVD about this issue and presented it to the school council. This information was passed on to the school principal.

The bins were installed within a week, but 8G also decided that students at Gumtree College needed to take more responsibility for their own litter and placed some posters in the canteen to remind students why littering was bad for the school.

In the final stage of their fieldwork, the 8G students had a class discussion to reflect on the ways in which they carried out their fieldwork.

Most of the students felt that the process worked well, but a few thought that the key question about bins was a little too simple.

They decided to use the same method to explore a more complex problem in the local community.

Do you dispose of your litter in a bin if the bin is nearby?

no: 18%   yes: 82%
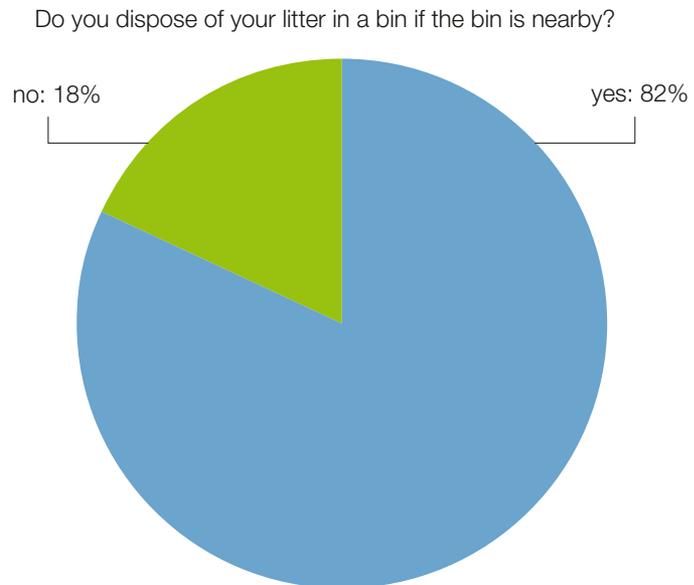
Source 6 A pie graph showing the results of the student questionnaire

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Check your learning 1.7

Remember and understand

1. What is meant by studying geography 'in the field'?
2. List two ways in which the results of a fieldwork investigation may be presented.
3. What is the main aim of all fieldwork investigations?

Apply and analyse

4. In what ways did 8G gather the information they needed to answer their fieldwork question?
5. Which of these methods do you think would have given them the most valuable and reliable data? Why?

Evaluate and create

6. Look again at the geographical questions shown in Source 1 on page 13. Imagine that you are on a field trip to Uluru to study the impact of visitors on the natural and cultural environment.
   a. In small groups, decide on an issue related to Uluru that you would like to investigate.
   b. Generate a set of inquiry questions and decide on the one you would most like to explore in detail.
   c. Create a set of questions for a visitor questionnaire that you think will help you get the information you need to answer your key inquiry question.
   d. Share your key inquiry question with the class and read out the questions you decided to include in your visitor questionnaire. What do your classmates think of your ideas?

Landforms and landscapes

Landforms and landscapes

The Earth's surface is made up of a vast number of elements that have been brought together to create amazing shapes and formations. To study and understand all these formations, geographers organise them into groups based on characteristics that are similar. These different groups are referred to as landscapes. There are many different types of natural landscapes on Earth – including mountain landscapes, coastal landscapes and riverine landscapes. Landscapes created by people are called human landscapes. Natural landscapes are made up of a variety of geographical features known as landforms such as hills, caves and valleys.
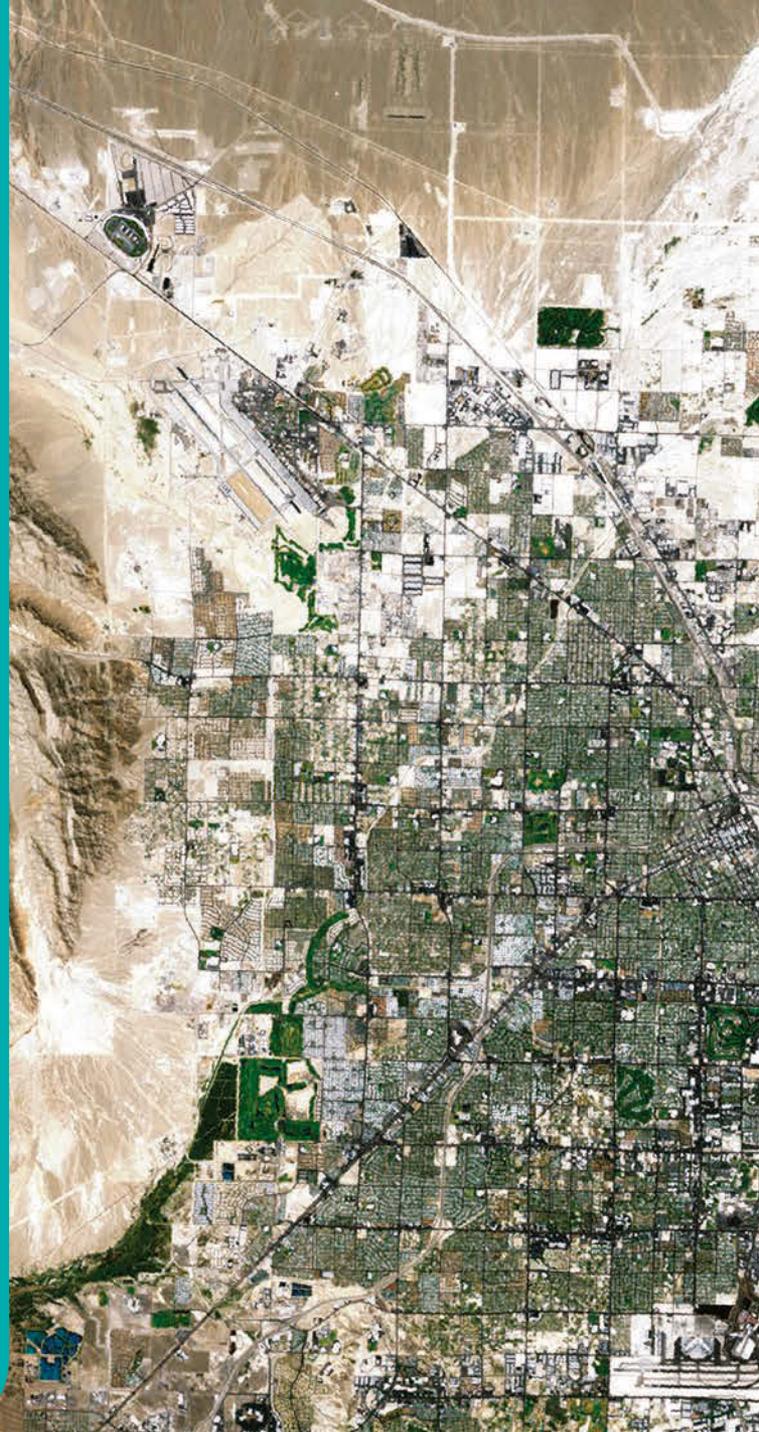
2A

What are landforms and landscapes?

1 Use Source 1 to identify two different landforms and two types of landscapes.

2 Think about the place in which you live. Can you identify two different landforms and two types of landscapes that you see every day?

Source 1 This satellite image of Las Vegas shows many different landscapes and landforms.

chapter

2

2.1 The Earth's landscapes

What is a landscape?

A **landscape** is part of the Earth's surface. It consists of a variety of geographical features that are characteristic of an area. Landscapes are divided into two main categories – natural and human. Natural landscapes (for example, mountains and deserts) are mainly unaffected by human activity and are typical to particular areas of the world. Human landscapes (for example, cities and farms) have been created and modified by people. Human landscapes are sometimes also referred to as cultural landscapes. Some different types of landscapes are described below.

WORLD: EXAMPLES OF DIFFERENT LANDSCAPES

5 Karst

1 Mountain

6 Human

2 Coastal

Arctic Circle

Tropic of Cancer

Equator

Tropic of Capricorn

N

0 1500 3000 km

4 Desert

Antarctic Circle

3 Riverine

Source 1

Source 2 The Himalayas in Asia are an example of a mountain landscape.

① Mountain landscapes

Mountain landscapes are formed by **tectonic plates** on the Earth's surface pushing against each other. This movement and pressure causes the shape of the land to change. The land is pushed up in a vertical direction and over time forms mountains. Mountains rise high above their surroundings. Mountains can stand alone, be grouped in ranges, or form ridges. We will explore mountain landscapes in more detail in Chapter 3.

② Coastal landscapes

The coast is where a land mass meets the sea. Coastal landscapes are shaped by the natural forces of the wind and waves. These geographical forces erode (wear away) or construct (build up) the natural environment, constantly changing its shape. Features of coastal landscapes include beaches, dunes, bays, cliffs, platforms, spits and lagoons. We will explore coastal landscapes in more detail in Chapter 4.

Source 3 Peggy's Cove in Nova Scotia, Canada, is an example of a coastal landscape.

Source 4 The Wanganui River system in New Zealand is an example of a riverine landscape.

3 Riverine landscapes

A riverine landscape is one formed by the natural movement of a water system such as a river. A riverine landscape includes the **ecosystems** (all living things including plants and animals) in and around the area of a river. A riverine landscape may also be defined as a network of rivers and the surrounding land. Riverine landscapes are excellent for agricultural uses such as farming because the land is rich and fertile. They are a valuable resource for growing food.

4 Arid landscapes

A desert is defined as an area of land which receives no more than 250 millimetres of rain per year. Deserts cover about one-third of the Earth's surface and contain some of the most uninhabitable regions on Earth. There are two types of deserts – hot deserts and cold deserts. Hot deserts are located along the Tropics of Cancer and Capricorn (the latitude lines to the north and south of the Equator). Cold deserts are located closer to the Arctic and Antarctic Circles (the circles of latitude in the far north and far south). Because of the lack of rain they have little vegetation (plant life). Instead deserts are characterised by sand dunes, rock and gravel.

5 Karst landscapes

A karst landscape is formed when easily dissolvable bedrock (the rock below the surface of the land) such as limestone is worn away by slightly acidic water, from an underground source or a source on the Earth's surface. These flows of water form unique features such as caves, stalactites, springs and sinkholes. Karst landscapes are extremely unstable areas of land. Sinkholes are formed when rock beneath the Earth's surface has eroded away and sections of land on the surface collapse. Sinkholes can range in size from a few metres to more than 1 kilometre deep and have been known to occasionally collapse, swallowing up everything on the surface including cars and buildings.

Source 6 The Skocjan Caves in Slovenia are an example of a karst landscape.

Source 5 The Sahara desert in North Africa is an example of an arid landscape.

6 Human landscapes

Unlike the types of naturally occurring landscapes described above, human landscapes are created by people. Human landscapes provide evidence of human settlement and occupation of an environment. Features of human landscapes include elements of infrastructure such as buildings, roads, transport, energy, sewerage and telecommunication systems. The construction of human landscapes often results in the damage or destruction of natural landscapes but commonly incorporates some natural geographical features in its design, for example harbours and mountains.

Source 7 The capital city of China, Beijing, is an example of a human landscape.

Check your learning 2.1

Remember and understand

1 What is the meaning of the geographical term 'landscape'?

2 Which types of landscapes are found around the Tropics of Cancer and Capricorn?

3 Why do you think human landscapes are included in the definition of the word 'landscape'?

Apply and analyse

4 Look carefully at Source 1.
 a How many different types of landscapes are shown on this map?
 b What types of landscapes can you identify in Australia?
 c Write a description of the location of desert landscapes. Give possible reasons to explain why they are found there.

Evaluate and create

5 Research one landscape that interests you. Your chosen landscape might be on the World Heritage List (such as karst in the Skocjan Caves Regional Park) or in your local area. Investigate what makes this landscape unique, and provide information about how it is used. Present your research in the form of a brochure, poster or webpage.

2.2 The Earth's landforms

What is a landform?

A **landform** is a natural geographic feature or shape that appears on the Earth's surface. Large landforms include mountains, plains, and rivers while small landforms include hills and billabongs. Landforms are shaped and created by a **natural process**, such as **tectonic activity** and **erosion**. Natural landscapes are made up of a variety of landforms. Often landforms are not unique to a single landscape. For example, a hill can be found in many different landscapes.

mountain range

mountain

ridge

V-shaped valley

volcano

cirque

glacier

watershed

drainage basin

gorge

river

headland

waterfall

floodplain

meander

tributary

lake

oxbow lake

bay

delta

estuary

wadi

oasis

inselberg

mesa

beach

hamada

butte

desert dune

COASTAL LANDSCAPES

Atoll
Ring-shaped coral reef or a string of closely spaced small coral islands encircling a shallow lagoon

Archipelago
Group or chain of islands

Bay
Broad, curved indentation in the coastline

Beach
Deposited rock particles – such as sand, gravel or pebbles – along the coastline

Cliff
Steep rock face formed by the action of the waves

Coral reef
Underwater ridge formed by the growth and deposit of coral

Headland
Narrow, high land jutting out from a coastal cliff into the sea

Island
Area of land surrounded by water

Isthmus
Narrow strip of land or sand that connects an island to the mainland

Spit
Narrow strip of sand protruding into the sea

Stack
Tall pillar of rock formed by wave action eroding a cliff

MOUNTAIN LANDSCAPES

Cirque
Bowl-shaped hollow at the head of a valley or on a mountainside formed by glacial erosion

Glacier
Large frozen river of ice that slowly moves down a valley in response to gravity

Mountain
Steep-sided, lone peak rising over 600 metres above the surrounding land

Mountain range
Chain of connected mountains

Ridge
Long, narrow elevation of land

Volcano
Opening in the Earth's crust where molten rock, ash and gas can escape

RIVERINE LANDSCAPES

Delta
Fan-shaped, low-lying area of deposits at the mouth of a river

Drainage basin
Area providing water to a river system

Estuary
River mouth broadening into the sea

Floodplain
Flat area over which water spreads in times of flood

Gorge
Deep, narrow, steep-sided valley

Lake
Large body of water surrounded by land

Meander
Bend in a river

Oxbow lake
Crescent-shaped lake on a river floodplain

River
Natural waterway that takes water downhill by gravity to the sea

Tributary
Small river that joins a larger river

V-shaped valley
Narrow, steep-sided valley carved out by the upper reaches of a river

Waterfall
River-water spill over resistant rock

Watershed
High point from which water flows into a drainage basin

ARID LANDSCAPES

Butte
Flat-topped hill

Desert dune
Wind-blown particle formation

Hamada
Area covered in boulders and large stones

Inselberg
Isolated, steep-sided hill of resistant rock on a plain

Mesa
Flat-topped, steep-sided plateau

Oasis
Desert area with a water supply provided by groundwater

Wadi
Dry watercourse in a narrow valley that divides a plateau

Source 1 Some common landforms found in different natural landscapes

Check your learning 2.2

Remember and understand

1. Describe the meaning of the geographical term 'landform'.

2. Identify four geomorphic processes.

Apply and analyse

3. Identify an Australian example of at least five of the landforms described in Source 1.

Evaluate and create

4. Create a travel brochure for the Western Australian government tourism agency promoting one of the landforms shown in Source 1. Investigate the landform and provide a description including information about how it was formed. You should include persuasive text that aims to encourage tourists to visit your chosen landform.

2.3 Landforms and landscapes around the world

Australia's landscapes and landforms are among the most unique in the world. From arid desert regions in the north-west to snow-covered mountains in the south-east, Australia's landscapes differ from region to region. Australia is the sixth-largest country in the world by area and due to its large size, our country is home to many diverse landscapes and distinctive landforms.

Iconic landscapes and landforms

When we think of Aussie icons, we might think of Vegemite or the Sydney Opera House. But when geographers use the word iconic, they are describing something that is widely admired, spiritually important or unique to the scenery of the area. We have many iconic landforms and landscapes in Australia – Uluru, the Great Barrier Reef, Wave Rock or the Bungle Bungle Range to name a few – that people from around the world immediately recognise as being from Australia because they are so unique.

These landscapes are so important because they connect people through tourism, spiritual value and historical meaning, and they provide an identity for people and places. Countries all over the world have their own unique landforms. Some examples are Yellowstone National Park in the United States, the Sossusvlei red dunes in Namibia and the Perito Moreno Glacier in Argentina.

Protecting our landscapes and landforms

While some landscapes and landforms around the world are protected from humans, many landscapes have been affected by human activity. A challenge for people around the world is to ensure that natural landscapes and landforms are enjoyed in a sustainable way so that they are there for us in the future. It is everyone's responsibility to look after our landforms and landscapes.

There are over 500 national parks in Australia alone that cover over 28 million hectares of land. These parks, along with other conservation reserves and heritage listed sites, are kept safe from human activities such as farming and land clearing, which are banned in these areas.

Check your learning 2.3

Remember and understand

1   In which two landscape types would you find valleys?
2   In which Australian location would you find an inselberg?

Apply and analyse

3   Look carefully at Source 1.
    a   How many different types of landforms are included in this table?
    b   Why do you think Australia has so many different landforms?

c   Write a short description of the image of the Riverina floodplain in New South Wales. Describe the advantages and disadvantages of living in this area.

Evaluate and create

4   Conduct some research on iconic landscapes and landforms in Australia and around the world. Then create a poster of one example, identifying where it is, how it was formed and what makes it iconic.

Source 1   Some common landforms found in different landscapes

Landscape type	Some common landforms found in that landscape	An Australian example	A world example
Mountain	• Mountain – a large elevation on the Earth's surface • Ridge – a long, narrow, elevated surface • Valley – a low area enclosed by mountains	At a height of 2228 metres above sea level, Mount Kosciuszko in NSW is the highest mountain in Australia	Mount Everest is the tallest mountain in the world at 8848 m tall.
Coastal	• Stack – a vertical column of rock • Beach – a sandy or pebbly shore • Headland – a high, rocky outcrop of land	The Twelve Apostles is a group of limestone stacks off the shore of the Port Campbell National Park in Victoria.	The White Cliffs of Dover are found along the southern coast of England.
Riverine	• Floodplain – a low-lying area regularly flooded by a river • Riverbed – the channel in which the river flows • Billabong – an arm of a river which forms a pool, only joining with the river in times of flooding	The Riverina area in NSW is made up of flat floodplains irrigated by the Murrumbidgee, Edward and Lachlan rivers.	Majuli is one of the largest river islands in the world on the Brahmaputra River in India.
Arid	• Inselberg – an isolated steep-sided rock hill on a plain • Oasis – a supply of groundwater in the desert • Grassland plains – a large, flat area sparsely covered with grasses	Uluru is a large sandstone rock formation in the southern part of the Northern Territory, known as an inselberg.	The Sahara Desert, located in northern Africa, is an example of an arid landscape. It is the third-largest desert in the world.
Karst	• Spring – a basin in the rock allowing water to come to the Earth's surface • Cave – a large hollow underground with an opening • Stalactite – a formation that hangs from the ceiling of a cave, formed by dripping water and minerals	The Wombeyan Caves in NSW consist of nine limestone caves with spectacular stalactites and other formations.	The Guilin Karst hills and caves are made of limestone and are a spiritual place to visit in China.
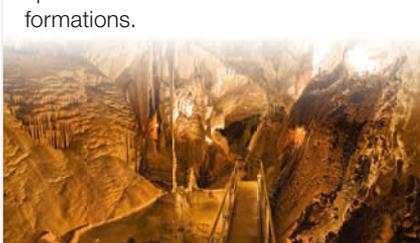
2.4 Valuing landforms and landscapes

Landforms and landscapes around the world are valued by many different people for many different reasons. Some people may feel a deep personal connection to a particular landscape, while others are more interested in the money that can be earned from it. The value a person attaches to a particular landscape often depends on factors such as their age, occupation, education, cultural background and experiences. In general, geographers divide the ways in which people value landforms and landscapes into four categories:

• cultural value   • aesthetic value
• spiritual value   • economic value.

Cultural value

Cultural value is linked to the importance of landforms and landscapes as expressed by people through creative means such as poetry, literature, art and films. Australia's landscapes and landforms have shaped Australian culture and identity. The film *Australia*, shown in Source 1, was a box-office hit in Australia. Set in northern Australia at the start of World War II, the film features the vast, unforgiving landscapes of the outback, as well as the tropical landscape of the Far North. These unique landscapes

Source 1   This poster for the film *Australia* reflects the colours of the Australian outback. It is an example of how the Australian landscape has cultural value.

have a transformative effect on the English Lady Sarah Ashley, and by the end of the film she feels Australian.

Indigenous Australians express the importance of the land to them through Dreaming stories, song and dance, and their art. Nearly all Aboriginal art relates to the landscape and maps the landscape and the landforms of importance to the Indigenous community.

Spiritual value

For Indigenous Australians the spiritual value of land is expressed through the concept of 'Country'. Indigenous peoples believe that the myths of their Dreaming bind them to the land. They also believe that their ancestors live on through the land and ensure their continued connection with it. Landscapes contain many sacred sites of spiritual importance. Uluru, for example, is a sacred place to the Anangu people who live in the area. They believe that in the Dreaming, a great sand hill was transformed into this rock along with the Kunia people who lived there.

Aesthetic value

The aesthetic value of a landscape is closely linked to its beauty and uniqueness. The aesthetic value attached to a place is always subjective (personal).

Source 2   Karlu Karlu (also known as the Devil's Marbles) is sacred to Indigenous Australians. This is an example of how landforms can have spiritual value.

People are drawn to places for many reasons. Being surrounded by the beauty of the landscape may give someone a sense of freedom, stability and wellbeing. An individual might be drawn to a particular landform because of its overwhelming majesty, creating a personal connection to that place.

The aesthetic value of the landscape to the community has been recognised through the creation of national parks, where land has been set aside for the public's use and enjoyment. The first national park in Australia, the Royal National Park, south of Sydney, was established in 1879. There are now 516 national parks. Perth's Kings Park was established in 1895 and was originally called Perth Park.

Economic value

Economic value is a measurement of how financially important landscapes and landforms are. Economic value is particularly relevant to the tourism and mining industries in Australia. Tourism Western Australia, for example, wants regular visitors to its state because people who travel spend money on accommodation, transport, food, souvenirs and activities. This money provides income for the tourism and hospitality industries and the State of Western Australia. The south-west of Western Australia is a landscape with a high economic value due to its popularity with tourists.

Mining is the process of extracting natural resources from within the earth. These resources are sold, processed and used to manufacture a variety of goods – from jewellery and toys to construction materials. The mining industry attaches economic value to landscapes that contain sought-after metals and minerals like coal and gold.

What is the true value?

The same landscape can be valued by different people for different reasons. To a mining corporation, the economic value of a landscape might be most important. To an Indigenous Australian community, however, the spiritual value may be most important. Then again, an artist might appreciate the aesthetic value of a landform. All these values are important to consider when deciding on how a landscape is best put to use.

Source 3   Unique and beautiful landscapes along the Australian coast are an example of aesthetic value.

Source 4   Landscapes with high mineral and metal deposits are an example of economic value.

Check your learning 2.4

Remember and understand

1   Describe the concept of 'value'.
2   What does it mean for a landscape to have aesthetic value?
3   What does it mean for a landscape to have cultural value?

Apply and analyse

4   Look carefully at Source 4.
   a   Which value is being attached to this source?
   b   What groups of people are most likely to have a different opinion as to the value of this landscape? Create a table to show the groups and their possible opinions.
   c   What reasons might you list to account for, or explain, these differences of opinion?

Evaluate and create

5   Research a book, poem, movie or website that has cultural value for Australia, or a country or place that you feel connected to. Create a digital poster using a design program such as Glogster to present your findings. Include the title of the work, its author, a blurb about it and an image to represent it. Most importantly, provide three reasons why you feel it has particular cultural significance.

2.5 Connecting through landscape stories

Landscapes and their stories have been important parts of people's cultures and lives throughout history. In Western Australia, the Noongar people had *Nyitting* or Dreaming – the creation stories that told of the connection between people and the spiritual realm. To Noongar people, who lived in the south-west of Western Australia for over 45 000 years, the landscape had meaning. The stories can vary from place to place, but one creation story of the *Nyitting* (ancestral time) is of the *Waugal*, a great serpent-like spirit that created the landscape. According to the Noongar people, the *Waugal* makes the rain, lightning and thunder. They believe that during the *Nyitting*, the *Waugal* slithering over land created the sand dunes and the shape of the rivers. When the *Waugal* stopped to rest it created the bays and lakes.

The legend of the Glasshouse Mountains: a creation story from Australia

According to the Gubbi Gubbi people, Mount Tibrogargan, the father, and Mount Beerwah, the mother, had many children, the eldest of whom was Mount Coonowrin. One day, Mount Tibrogargan was looking out to sea and saw a great wave approaching. He called out to his eldest son, Coonowrin, to help his mother, Mount Beerwah, who was pregnant with child.

In the meantime, Tibrogargan gathered up his other children and began to run towards higher land. When Tibrogargan looked back to check that Coonowrin was helping his mother, he was angered to see him running off alone. He chased his son and, in a great rage, smashed him on the head with his club, dislocating his neck.

Later, when the floods had gone, Coonowrin begged his father for forgiveness, but all his father could do was weep in shame, creating the streams that still run in the region. He asked his son why he had not helped his mother. Coonowrin – not knowing his mother was pregnant – replied that Beerwah was the biggest of all of them and could look after herself. This angered Tibrogargan even more. He turned his back and vowed never to look at his son again.

Even today, Tibrogargan gazes out to sea and Coonowrin hangs his head and cries, his tears running off to the sea. His mother Beerwah is still pregnant as it takes a long time to give birth to a mountain.

Source 1 Mount Coonowrin sitting beside his pregnant mother, Mount Beerwah, Queensland

keyconcept: Place

Links between people and the natural landscape

Not all people think about and see the same place in the same way. These differences result from many factors, such as cultural background, education and life experiences. Scientists such as geologists and vulcanologists have studied mountains and revealed a great deal about their formation. Local indigenous people, too, have their own stories relating to the creation of these landscapes. For many indigenous people around the world, mountains are much more than lifeless rocks.

Many indigenous people believe that the mountains were alive in the time before humans walked the Earth. They believe that the shapes and locations of mountains can tell us about ancient events. Learning these stories helps us to appreciate that we do not all see the same place in the same way. For many people there is a deep spiritual link between the landscape and themselves.

For more information on the key concept of place, refer to page 6 of 'The geography toolkit'.

Source 2   Mount Taranaki wearing a cloak of clouds

The legend of Mount Tongariro: a creation story from New Zealand

According to the Māori people, the mountains of New Zealand were once warriors and gods who moved about the landscape. In the centre of the North Island stood seven great mountains. Six of the mountains were male; Mount Pihanga was the only female. Clothed in native trees and vegetation, she was a great beauty and all the other mountains loved her deeply. One night they decided to fight for her and a fierce battle erupted. The land shook. Smoke, fire and hot rocks filled the sky.

Eventually, Tongariro was proven to be the supreme warrior and won the right to stand beside Pihanga. The losers were given one night to move away or else they would be turned to stone. Taranaki, filled with anger and jealousy, fled to the coast, gouging out a mighty valley as he went. Reaching the sea, he slept. When the day broke he was trapped, and he still hides beneath a cloak of cloud.

Check your learning 2.5

Remember and understand

1   Examine Source 1. Which of these mountains is Beerwah and which is Coonowrin? Give reasons for your answer.

2   According to the creation story from New Zealand, why did the volcanoes fight?

3   Why do you think many indigenous people have legends to explain landscapes?

Apply and analyse

4   Compare the two legends.
    a   What features do both have in common?
    b   What is unique about each legend?

5   As well as helping people to understand their natural environment, each of these legends contains advice about how to live and behave. What is this advice?

6   What did you learn about the indigenous people of these two regions by reading their legends?

Evaluate and create

7   Research the creation stories from your area and prepare a presentation to your class explaining one of the stories.

2A rich task

Uluru: an iconic Australian landform

The term iconic refers to something that is an 'icon' or represents something of importance. Uluru is an iconic symbol of the Australian outback and one of the most visited landforms in Australia. Part of the desert landscape and close to the continent's geographical centre, Uluru attracts around 200 000 visitors a year.

Uluru rises approximately 348 metres above the ground and measures about 10.6 kilometres around its base. It is a sacred place for the local Aboriginal people, the Anangu. Although the Northern Territory has the smallest population of any Australian state or territory, it has by far the highest percentage of Indigenous Australians. Around one in three people there (33 per cent) are of Indigenous heritage.

Source 1 Uluru is Australia's most recognisable landform.

Constructing a population pyramid

In order to better understand a group of people living in the same place (i.e. a population), geographers often need to analyse and compare the different groups within that population (for example the number of men versus women, or young people versus old people). They do this by representing population data visually on a population pyramid.

Although population pyramids are a type of bar graph, they are a little different. While standard bar graphs have one horizontal axis (or x-axis) and one vertical axis (y-axis), population pyramids have one y-axis and two x-axes, like graphs back to back. The y-axis runs vertically through the middle separating the data for males on the left and females on the right.

Rather than show the actual numbers of men and women at each age group, population pyramids show each of these groups as a percentage of the total population. This makes it easier for geographers to identify trends and changes in different areas of the population.

Population pyramids are created from a table of data. Source 2 is the data for the Northern Territory's Indigenous population and Source 3 is the population pyramid. For more information on population pyramids refer to page 29 of 'The geography toolkit'.

Source 2 The Northern Territory's Indigenous population

Age group (years)	Indigenous population %	
	Males	**Females**
0–4	6.2	5.9
5–9	6.1	5.7
10–14	5.7	5.4
15–19	5.3	5.0
20–24	4.7	4.8
25–29	4.0	4.3
30–34	3.9	4.1
35–39	3.5	3.7
40–44	2.9	3.0
45–49	2.3	2.5
50–54	1.7	2.0
55–59	1.1	1.4
60–64	0.8	1.1
65–69	0.5	0.7
70–74	0.3	0.5
75+	0.3	0.6

Source 3 Population pyramid for the Northern Territory's Indigenous population
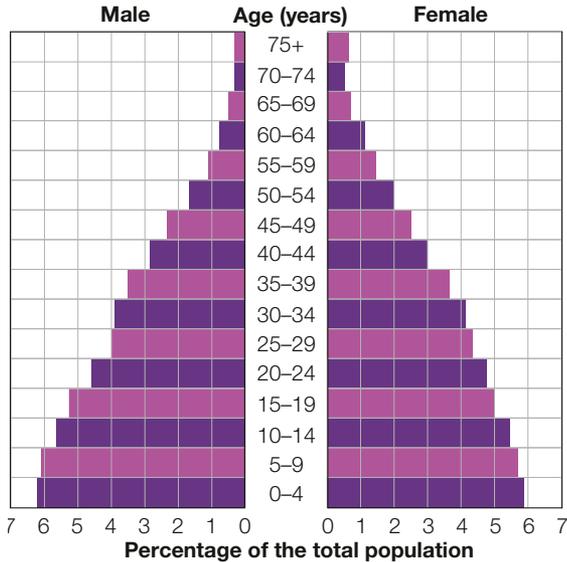
The steps to construct a population pyramid using the statistics in Source 2:

Step 1 Using 5 mm grid paper, rule your axes as follows:

Vertical *y*-axis: There are 16 age groups in our example. The age groups start at the bottom, with the 0–4 age group, and finishing at the top with the 75+ age group. Keep this in mind while completing your *y*-axis, because the table shows the age groups from lowest to highest going down the page. However, the population pyramid shows the age groups from lowest to highest going up the page.

Label the top of your *y*-axis, 'Age (years)'.

Horizontal *x*-axes (left and right): Find the highest percentage of both males and females. In our example, this is 6.2. Round this up to the nearest whole number, which is 7. Use two 5 mm grids per unit to create two 7 cm axes. Rule your *x*-axes with a scale from 0 to 7 from each side of the central *y*-axis to the left and right.

Label the left side 'Male' and the right side 'Female' and write 'Percentage of the total population' along the bottom.

Step 2 Using a sharp lead pencil, create your bar graphs for each gender – first males, then females. Be as accurate as you can, and use the millimetre marks on a clear plastic ruler. First draw 5 mm high vertical strokes to end each individual bar. You can rule up the horizontals of each bar later.

Step 3 Choose two different colours; alternate with one colour and then the other. This makes it easier to read the graph.

Step 4 Give your population pyramid a title.

Apply the skill

1 Construct a population pyramid using the second set of data (Source 4) on Northern Territory's non-Indigenous Population, following steps 1–4.

Source 4 The Northern Territory's non-Indigenous population

Age group (years)	Non-Indigenous population %	
	Males	**Females**
0–4	3.5	3.3
5–9	3.4	3.1
10–14	3.4	3.2
15–19	3.2	2.9
20–24	3.9	3.5
25–29	4.3	4.2
30–34	4.6	4.3
35–39	4.6	4.2
40–44	4.6	4.0
45–49	4.4	3.9
50–54	4.0	3.5
55–59	3.7	2.8
60–64	2.4	1.7
65–69	1.5	1.0
70–74	0.7	0.5
75+	0.8	0.8

Extend your understanding

1 Use your population pyramid to answer the following questions:

a Which age group has the largest percentage for both males and females?

b Which is the smallest age group for each gender?

c What is the total percentage for the 0–4 age group?

d What is the total percentage for the 35–39 age group?

e What is the total percentage for the 70–74 and 75+ age groups?

Mountain landscapes

A mountain is an elevated landform that rises above the surrounding landscape. Mountain landscapes appear on every continent on Earth. Mountains are created by the movement of the Earth's **tectonic plates**.

The imposing form of a mountain in a landscape has made mountains significant in the spiritual and cultural lives of many groups, including Indigenous Australians.

Weather conditions at high elevations are harsh and changeable. Humans and animals that live in the mountains have adapted their lifestyles to suit these extreme conditions. For those living close to mountains, there are also risks from volcanic eruptions, landslides and avalanches. In this chapter we will explore these mountain landscapes in detail.

3A

What processes shape mountain landscapes?

1 Yosemite National Park is one of the world's most popular rock-climbing destinations because of the type of rock found there. What features of the rock do you think might be important to the climber in Source 1?

3B

How are mountain landscapes used and managed?

1 This climber has no safety ropes. Do you think this type of climbing should be allowed?

2 What effect does the presence of Yosemite National Park have on the region in which it is located? Name some Australian national parks.

Source 1 A rock climber in Yosemite National Park, California, United States. This type of climbing — without ropes — is known as free solo climbing.

3C

Are mountain landscapes hazardous places?

1 Which natural hazards do you think might be common in mountainous regions?

2 Do you think some of the mountains in this region are likely to be active volcanoes? Give some reasons for your answer.

3.1 The world's mountains

Mountains are defined by most geographers as 'large natural elevations of the Earth's surface'. Although everyone generally agrees on this definition, there is some disagreement about exactly how elevated (high) the land must be in order for it to be classified as a mountain. In some countries, any land 1000 metres or more above sea level is classified as a mountain, while in other countries the minimum height is closer to 2500 metres. If we go by this second definition, Australia's highest mountain, Mount Kosciuszko, at 2228 metres, is not really a mountain at all.

Some countries, such as Nepal and Lesotho, are very mountainous, while others, such as Australia and Egypt, are relatively flat. Lesotho (in southern Africa) is the only country in the world that is entirely more than 1 kilometre above sea level.

The Transantarctic Mountains (in Antarctica) make up one of the world's longest mountain ranges. Due to the huge volume of ice covering the land, Antarctica holds the record for the greatest average height above sea level of any continent (as shown in Source 2).

WORLD: MAJOR MOUNTAINS AND MOUNTAIN RANGES

Source 2

Source 1   The Himalayas contains nine of the world's 10 highest mountains, including the highest, Mount Everest.

Source 3   Yosemite Valley, in the Sierra Nevada mountain range in the United States. Its sheer sides are a result of erosion during several periods of glaciation.

ARCTIC OCEAN

Mt McKinley 6194 m ▲

Mackenzie Mountains

Mt Logan 5951 m ▲

Rocky Mountains

NORTH AMERICA

Appalachian Mountains

ATLANTIC OCEAN

PACIFIC OCEAN

SOUTH AMERICA

Andes Mountains

Ojos del Salado 6891 m ▲
Mt Aconcagua 6962 m ▲

Kosciuszko 2228 m

LEGEND
▲ Mountain
Land over 2000 metres
Land 1000 to 2000 metres

SOUTHERN OCEAN

Mt Tyree 4852 m ▲ Vinson Massif 5140 m ▲

Transantarctic Mountains

Source: Oxford University Press

Check your learning 3.1

Remember and understand

1   Study Source 2. There are seven continents. Can you find the highest mountain in each? Which continent has the highest mountain of all? Which has the lowest?

2   What is the highest mountain in the world that is not part of a mountain range (a long line of mountains)? Where is it?

Apply and analyse

3   Mountains are often part of a mountain range. Why do you think this is the case?

4   Why do you think some places are mountainous and others are not?

5   Study Source 2. Select a continent other than South America or Antarctica. Describe the distribution of mountains on this continent using this description of South America as an example: 'Most of South America is relatively flat. However, a long, high mountain range – the Andes Mountains – extends along the western edge of the continent, from the very north to the very south.'

Source 5 Mount Kilimanjaro is Africa's highest mountain. It is also the highest mountain in the world that stands alone, rather than being part of a mountain range.

Source 4 The Blue Mountains in New South Wales are the worn away remains of a much larger and higher plateau. This plateau was lifted up by forces within the Earth's crust.

3.2 How mountains are formed

Mountains are formed where the surface of the Earth has been pushed upwards. Tremendous forces inside the Earth can crumple the surface into long mountain chains, such as the Andes or Himalayas, or punch right through the surface to create volcanoes, such as Kilauea on the island of Hawai'i and Mount Kilimanjaro in Tanzania. To understand how this happens you need to know about the world beneath your feet.

You may be used to thinking of the Earth as a solid ball like a giant shot-put, but this is far from the reality. The Earth is more like a giant peach with a thin skin and a core at the centre surrounded by soft flesh. Scientists believe that the Earth is made up of four layers (see Source 1).

Tectonic plates

The outer layer of the Earth's surface (known as the crust) is broken into large pieces called **tectonic plates**. These plates are around 100 kilometres thick and fit together like enormous pieces of a jigsaw puzzle. Currents in the red-hot molten material (**magma**) under these tectonic plates cause them to move about (see Source 1).

In some places, tectonic plates are being pushed into one another (converging). This process creates mountain ranges. The world's highest mountain ranges such as the Himalayas and the Andes are located along a converging plate boundary.

In other places, tectonic plates are being pulled apart from one another (diverging). This process creates rifts in the Earth's surface that allow hot magma to ooze to the surface and create new land. The world's longest mountain range, the mid-Atlantic Ridge, is an undersea mountain range formed along a diverging plate boundary.

The movement of tectonic plates is also responsible for many other features and natural events on the Earth's surface, such as volcanoes and earthquakes. Volcanoes are formed when magma is pushed through an opening in the Earth's crust. Earthquakes are caused when the edges of tectonic plates push and grind against one other.

At the centre of the Earth is the inner core. This is a place of extreme temperatures (up to 10 000°C) and pressure – as the rest of the Earth pushes down on it.

The outer core is mainly made up of liquid metals, such as iron. It is very hot (up to 6000°C).

Most of the Earth's interior is in the **mantle**. It is so hot in the mantle that rocks melt and move slowly in giant currents.

The crust is broken into large slabs, called plates. The movement of these tectonic plates creates mountains and valleys.

Source 1   The Earth's layers

Himalayas

plate boundary

land folded upwards

Indo-Australian Plate

Eurasian Plate

Source 2   The collision of tectonic plates caused the formation of the Himalayas.

Types of mountains

Mountains are classified according to how they were formed. There are three main types of mountains:

1 fold mountains
2 block mountains
3 volcanic mountains.

1 Fold mountains

Fold mountains are created by upward pressure where two tectonic plates collide. As the plates converge, layers of rock are buckled and pushed upwards creating fold mountains. Most of the world's highest mountain ranges are fold mountains.

The world's largest fold mountains are the Himalayas, which separate southern Asia from central Asia. They have been formed by the collision between the Indo-Australian Plate and the Eurasian Plate over the last 55 million years. Currents within the mantle are moving the Indo-Australian Plate northwards, and its front edge is bulldozing into the Eurasian Plate, folding the edges of both plates upwards.

2 Block mountains

Block mountains are created when cracks in the Earth's crust known as faults force blocks of land upwards. Rocks that are cooler because they are close to the surface tend to crack and break apart when compressed from the sides. Rather than folding, they are often lifted up in giant blocks along fault lines to create block mountains. Geologists refer to this mountain-building process as faulting.

Source 3   Creation of a fold mountain
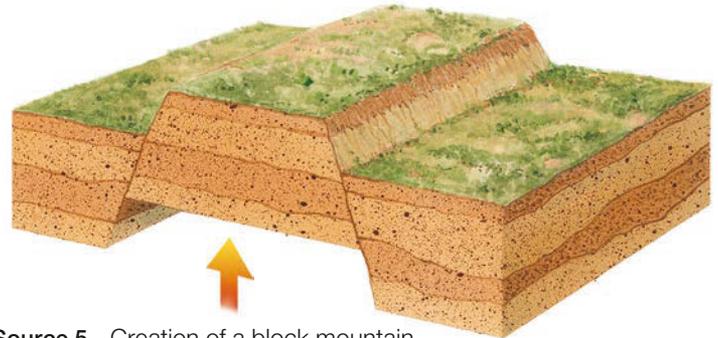
Source 5   Creation of a block mountain

Source 4   These mountains on the edge of the Zanskar Valley in Ladakh, India, are clearly distinguishable as fold mountains.
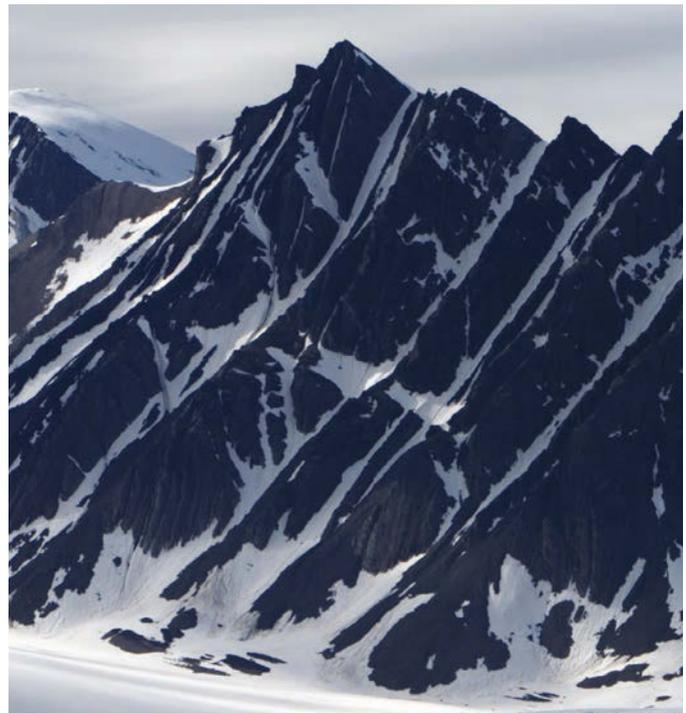
Source 6   Block mountains in the Arctic region of Norway

3 Volcanic mountains

Volcanic mountains are created by volcanoes, as the name suggests. They are created when magma pushes its way from beneath the Earth to the crust. The material that comes out of a volcano builds up the Earth's surface, creating new land and new landforms.

Each eruption brings new material to the surface, as ash or **lava** or both. As lava flows across the surface it covers the rocks from previous eruptions and builds up the height of the land in layers. Runny lava can travel many kilometres from the crater and leave behind a shallow layer of new rocks over a wide area. These types of volcanoes are known as **shield volcanoes** (see Source 8).

The Hawaiian volcanoes and Mount Kilimanjaro in Tanzania are examples of shield volcanoes. The more familiar steep-sided volcanic cones (see Source 7), such as New Zealand's Mount Taranaki and

Mount Fuji in Japan, are formed when lava and ash do not travel far from the crater. These materials are then left as a new layer on the sides of the cone, building it higher.

Most of the world's volcanoes are located on or near plate boundaries where plates collide and one plate is forced downwards into the mantle. This causes pressure to build up and molten rocks, called magma, to rise to the surface and force their way out through a weakness in the crust. This is what we see as an eruption. Other volcanoes are located in **hot spots**, which are areas that are often in the centre of a plate where the mantle is particularly hot. In these places molten rock from the mantle is forced upwards through the moving crust.

The Hawaiian Islands have been formed above a hot spot. As the Pacific Plate moves over the hot spot a line of volcanoes has been created. The oldest volcanoes have been eroded so that little remains above sea level. The newest island, Hawai'i, has many active volcanoes and is increasing in size every year.
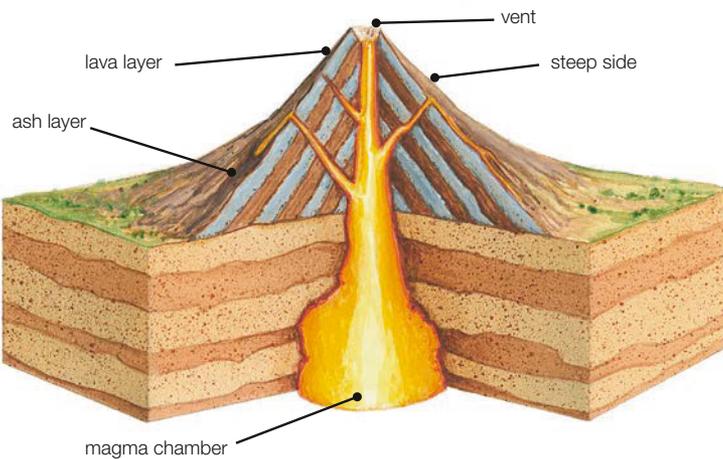
Source 7 A cutaway diagram of a volcanic cone

Source 9 Mount Fuji in Japan is an example of a volcanic cone.
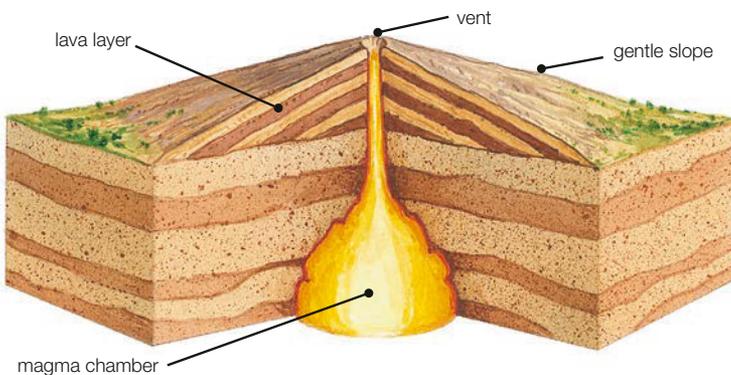
Source 8 A cutaway diagram of a shield volcano

Source 10 Rangitoto Island in Auckland, New Zealand, is an example of a shield volcano.
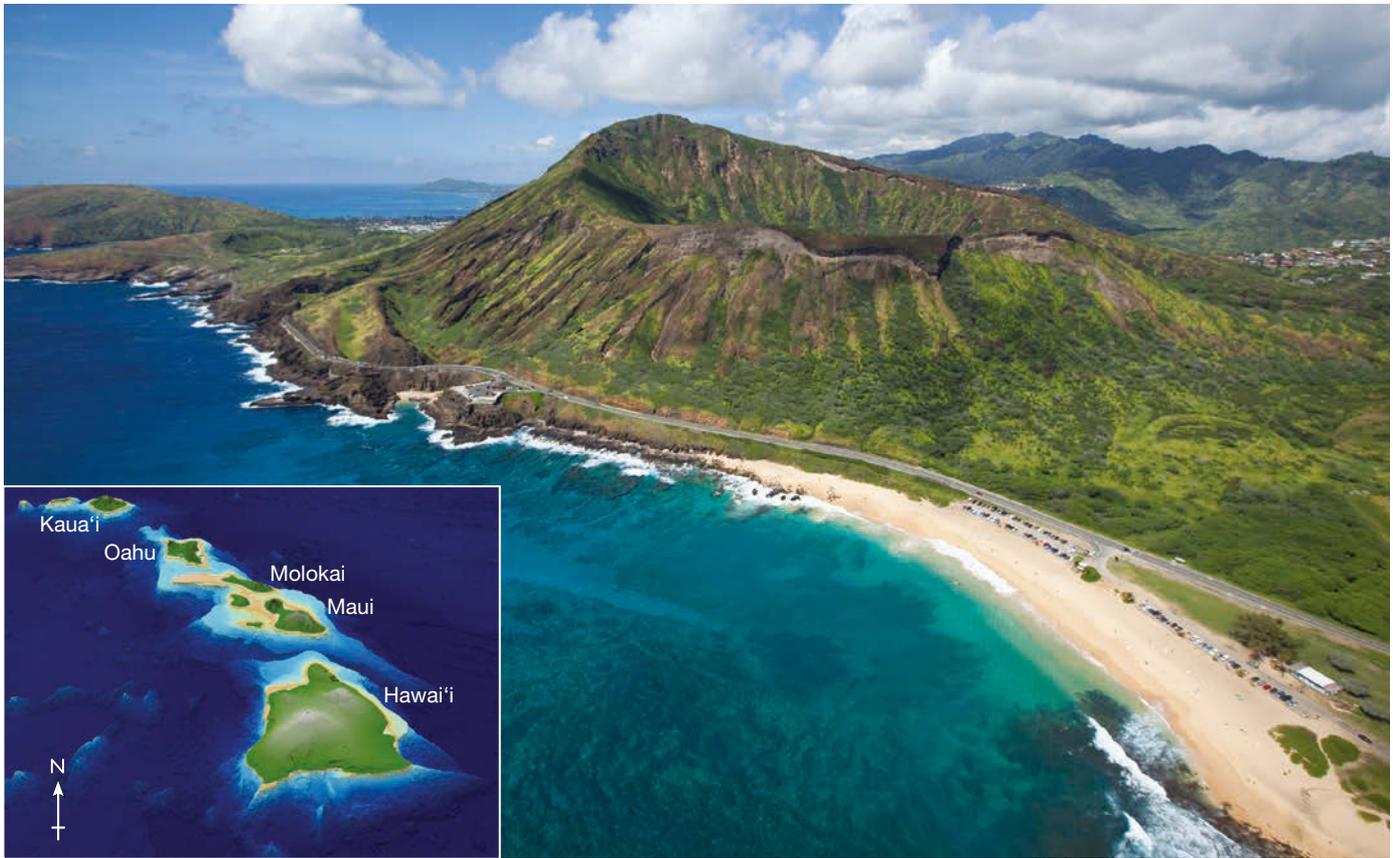
Source 11 The Koko Crater on Oahu (main) and a digital terrain model of the Hawaiian Islands showing them sitting on top of a chain of massive volcanoes (inset)

Check your learning 3.2

Remember and understand

1 What are the four layers of the Earth?

2 In this section, the Earth is described as being more like a peach than a shot-put. In what ways is the Earth like each of these objects: an inflated balloon, an apple and an egg?

3 How do the Earth's tectonic plates move?

4 Describe the process of folding.

5 How does a volcanic eruption change the shape of the land?

Apply and analyse

6 What are the similarities between folding and faulting? What are the important differences?

7 Sketch and label a diagram of the block mountains in Norway (Source 6) to show how they are formed.

8 Explain why some volcanoes are steep-sided cones and some are not.

9 Why is every volcano in the world a different shape?

Evaluate and create

10 Scientists have been able to work out the age of the lava flows on each of the Hawaiian Islands. Here is their data with the age of lava in millions of years.

Island name	Age of lava (million years)
Kaua'i	3.8–5.6
Oahu	2.2–3.4
Molokai	1.3–1.8
Maui	0.8–1.3
Hawai'i	0.7

a On which island is the oldest lava found?

b On which island is the newest lava found?

c How does this data support the theory that the islands formed as they passed north over a hot spot?

d Which of these islands is the smallest?

e Which of these islands is the largest?

f Suggest a possible reason for this difference.

3.3 Tectonic plate boundaries

Source 5 shows the Earth's tectonic plates. The plate boundaries are shown to be either pushing into each other, (converging), pulling apart (diverging) or sliding against one another (transform boundary). This activity on the boundaries has a number of effects on the Earth's surface.

Source 2   In South America, four plates are colliding with each other creating the Andes.

Source 3   In Africa, three plates are moving apart creating the Great Rift Valley.

continental crust

converging plates (oceanic and continental)

oceanic crust

earthquakes common

sliding plates (transform boundary)

converging plates (two continental plates)

diverging plates

subduction zone

hot spot

mantle
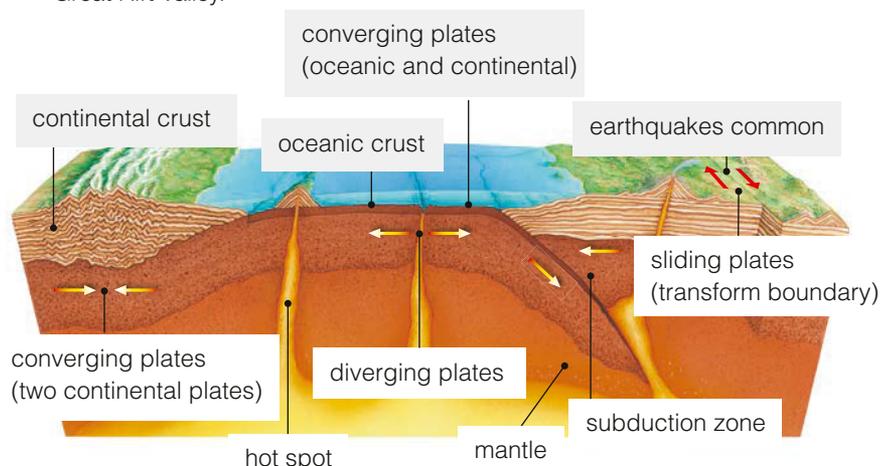
Source 4   Tectonic plate movement

Source 1   In North America, two plates are sliding past each other creating the San Andreas Fault.

Check your learning 3.3

Remember and understand

1   Look at Source 5. Which of these statements are true and which are false?
  a   Africa is moving away from Europe.
  b   Australia is moving closer to Antarctica.
  c   South America and Africa are moving further apart.

Apply and analyse

1   Carefully examine Source 5.
  a   On which plate is Australia located?
  b   In which direction is this plate moving?
  c   What is the main difference in terms of plate boundaries between the location of New Zealand and the location of Australia?
  d   Identify any possible links you notice between plate boundaries and:
    i   mountain ranges
    ii   volcanoes
    iii earthquakes.

Source: Oxford University Press

TECTONIC PLATES

LEGEND

Tectonic plates

Diverging boundary
Converging boundary
Uncertain boundary
Direction of plate movement

Cocos Plate Plate name

Volcanoes and earthquakes

Volcano
Mt Etna Volcano name, eruption
1669 year, deaths
20 000

Earthquake
Kobe Earthquake location, year,
1995 magnitude, deaths
7.2
5000

Earthquake zone

Height of the land and depth of the sea (metres)

Height of the land
5000
4000
2000
1000
500
200
100
0

Land below sea level
0
0
−200
−2000
−4000
−6000

Scale: 0 1000 2000 3000 km

Oceans / regions: ARCTIC OCEAN, ATLANTIC OCEAN, PACIFIC OCEAN, INDIAN OCEAN

Continents: NORTH AMERICA, SOUTH AMERICA, EUROPE, ASIA, AFRICA, AUSTRALIA

Plates: North American Plate, South American Plate, Pacific Plate, Nazca Plate, Cocos Plate, Caribbean Plate, Juan de Fuca Plate, Eurasian Plate, African Plate, Arabian Plate, Iranian Plate, Indo-Australian Plate, Philippine Plate, Antarctic Plate, Scotia Plate

Selected labels (volcanoes/earthquakes):
Kalaallit Nunaat (Greenland), Iceland, Great Britain, Ireland, Svalbard, Novaya Zemlya, Madagascar, Tasmania, New Caledonia, New Zealand

Lisbon 1755 8.7 70 000
Mt Etna 1669 20 000
Mt Stromboli 1991
Mt Vesuvius AD79 20 000
Messina 1908 7.5 100 000
Santorini 1950
Avezzano 1915 7.5 30 000
Erzincan 1939 8.0 30 000
Turkey/USSR 1988 7.0 25 000
North Iran 1997 7.5 1560
Quetta 1935 7.5 45 000
Muzaffarabad 2005 7.6 80 000
Bam 2003 6.6 26 000
India 2001 7.7 20 000
Sichuan 2008 7.9 70 000
Tangshan 1976 8.0 650 000
Kobe 1995 7.2 5000
Tokyo 1923 8.3 140 000
Tohoku 2011 9.0 18 000
Mt Pinatubo 1991 700
Mt Taal 1911 1335
Sumatra 2004 9.0 283 000
Mt Krakatoa 1883 36 500
Java 2006 6.3 5000+
Mt Tambora 1815 56 000
Mt Lamington 1951 3000
Mt Tavurvur-Vulcan 1994
Solomon Islands
Samoa 2009 8.1 192
Fiji
Tonga
Raoul Island 2006 1
Mt Ruapehu 1996
Napier 1931 7.9 256
Newcastle 1989 5.6 13
Christchurch 2011 6.3 185
Mt St Helens 1980 61
Anchorage 1964 8.4
San Francisco 1906 1989 8.3 7.1 452 62
Los Angeles 1994 6.6 57
Mexico City 1985 7.9 10 000
Mt Paricutin 1943 2800
El Chichon 1982 2000
Haiti 2010 7.0 150 000+
Soufrière Hills 1995–97
Mt Pelée 1902 29 998
Nevado del Ruiz 1985 22 000
Chimbote 1970 7.7 67 000
Concepcion 1960 2010 9.5 8.8 5000 497
Hawaiian Islands

Trenches: Japan Trench, Philippine Trench, Mariana Trench, Kermadec Trench

Reference lines: Arctic Circle, Tropic of Cancer, Equator, Tropic of Capricorn

3A rich task

The mountains of Antarctica

Antarctica is the world's highest continent. Its average height above sea level is 2500 metres whereas Australia's is about 340 metres. Antarctica's great height is largely due to the two enormous ice sheets that cover virtually the whole continent. Up to 4 kilometres thick, these ice sheets hold 90 per cent of the world's ice and 70 per cent of its fresh water. Antarctica is also home to vast mountain ranges. Most of its mountains lie hidden beneath the ice, but some are tall enough to poke through the ice. One range, the Transantarctic Mountains, is over 3000 kilometres long and tall enough to hold back the world's largest ice sheet.
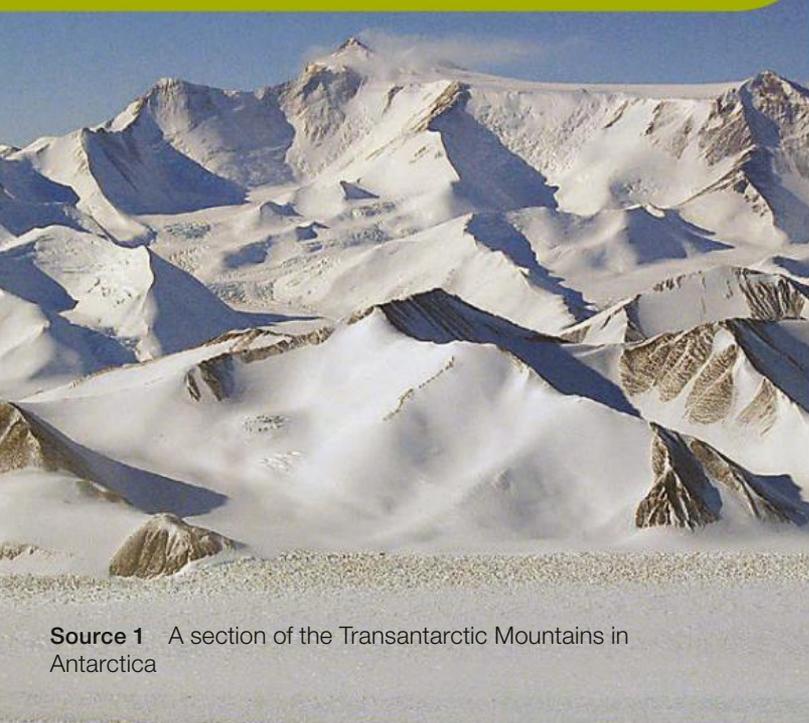
Source 1 A section of the Transantarctic Mountains in Antarctica

skill**drill**

Interpreting a cross-section

Maps are useful tools for showing where places are located, but they don't usually show the height of the land. This is because they show a view from above, rather than from the side. Some maps, such as Source 3, show the height of the land through contour lines. These lines help us to visualise the shape of the land. One of the most useful tools that geographers can use to see a landscape from the side is a cross-section.

- **Step 1**   Look at the map of Antarctica in Source 3. Find the line that runs from A to B on the map. This identifies the section of land to be shown as a cross-section.
- **Step 2**   Look at the cross-section of Antarctica shown in Source 2. This shows the section running A – B – C as a cross-section.
- **Step 3**   Use the cross-section to estimate the height of the mountains and the thickness of the ice that covers them.

Apply the skill

1   Why can't we see most of Antarctica's mountains?
2   Which of Antarctica's two ice sheets is higher?
3   Describe the shape of the landforms beneath Antarctica's ice sheet.
4   How high above sea level is the Ross Ice Shelf?
5   When explorers first began to try to reach the South Pole they used the Ross Ice Shelf as a way to access the interior of Antarctica. Use the cross-section to explain why this was both a good idea and a bad idea.

Extend your understanding

1   Use the map of Antarctica (Source 3) to describe the distribution of mountains on that continent.
2   How do you think the Transantarctic Mountains were formed? Give some reasons for your answer.
3   Mount Erebus, located on the edge of the Ross Ice Shelf, is an active volcano. Do you think it is located over a hot spot? Give some reasons for your answer.
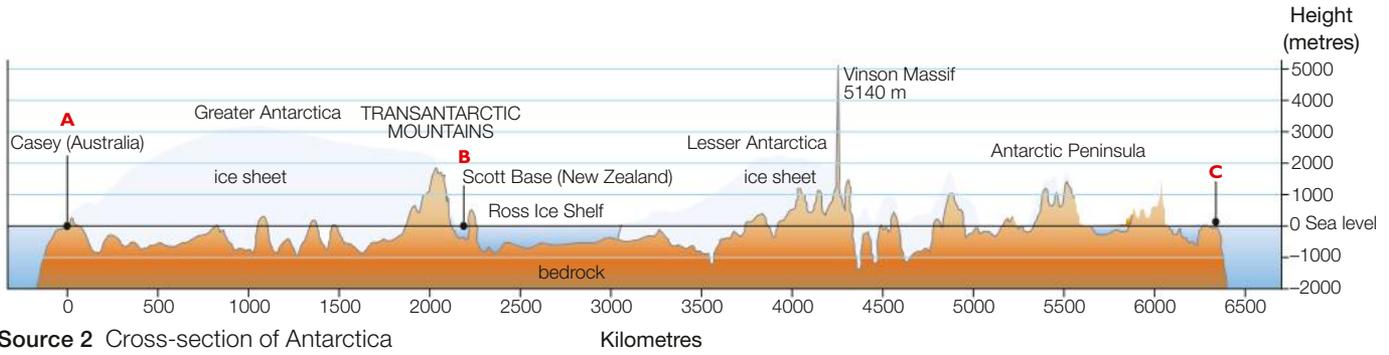
Source 2 Cross-section of Antarctica

ANTARCTICA

LEGEND

- Ice sheet
- Mountainous area
- Ice shelf
- ▲ Mountain peak
- • Scientific base
- 2000 Contour with values (intervals of 500 m)

Source 3

Source: Oxford University Press

3.4 Mountain landscapes have many uses

Like many of the world's landscapes, mountains are used by people as a resource. Billions of people rely on them to satisfy certain needs and wants. Some of the ways in which we use mountains do not change them at all, while others can affect them dramatically.

Mountain landscapes are often fragile. Small changes caused by human activities can greatly affect the plants and animals, soil and even the climate in these areas.

Depending on the society and culture into which people are born, and their personal circumstances, they will view and value different parts of the natural world in very different ways. For example, a tribesman from the highlands of Papua New Guinea may value mountains as a place to live and grow crops; an Indian farmer may value mountains as a source of fresh water for irrigation; and an Australian city-dweller may value mountains as a holiday destination for skiing and snowboarding.
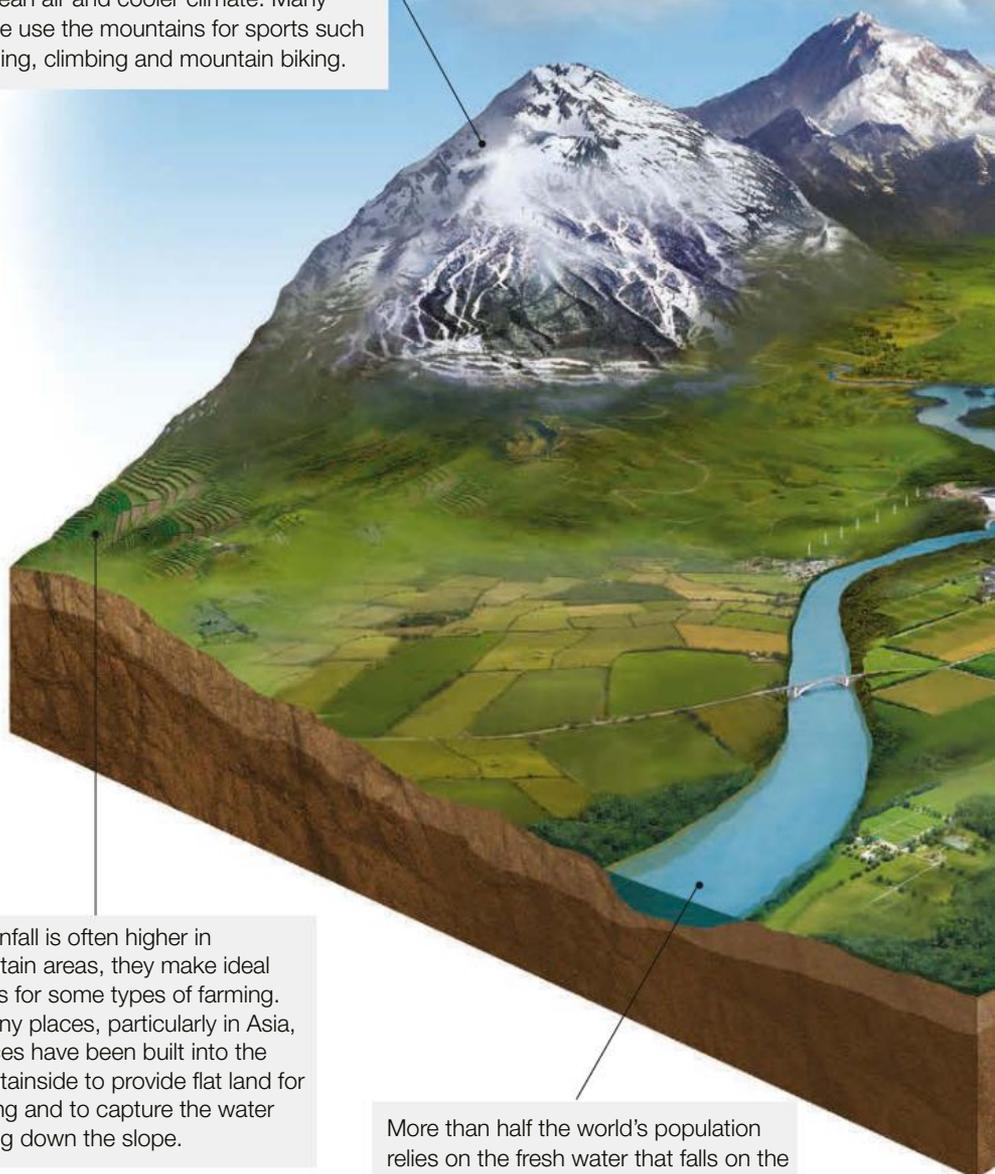
Mountains are popular tourist destinations and generate large incomes for many mountainous countries. Tourists enjoy the scenery, landscapes and wildlife as well as the clean air and cooler climate. Many people use the mountains for sports such as skiing, climbing and mountain biking.

As rainfall is often higher in mountain areas, they make ideal places for some types of farming. In many places, particularly in Asia, terraces have been built into the mountainside to provide flat land for farming and to capture the water flowing down the slope.

More than half the world's population relies on the fresh water that falls on the mountains and then flows into rivers such as the Nile, Yangtze, Amazon and Indus Rivers.

Source 1 Mountain landscapes provide many resources.

Mountains provide a range of habitats for plants and animals. One-quarter of the world's forests, including much of the remaining rainforest, exist in mountainous regions. Mountains are a storehouse of biodiversity.

About one-tenth of the world's population lives in mountainous areas, particularly in central Asia and Africa. They support their lifestyle by using the resources of the mountains, such as fertile soils and high rainfall.

Minerals and metals (such as coal, gold, silver and tin) are often found in mountain landscapes. As rock layers are folded upwards, to create mountains, minerals are carried closer to the surface and are easier to mine.

Fast-flowing mountain rivers provide a source of power. They are dammed to capture their energy and the water is fed through turbines in a power station to generate electricity.

Check your learning 3.4

Remember and understand

1 Which use of mountain landscapes shown in Source 1 do you think has the greatest impact on the natural environment? Justify your answer.

2 List three uses that have little or no impact on the natural environment.

3 In what ways do you use mountains as a resource?

4 Can you think of any other uses of the mountains not shown in Source 1?

Apply and analyse

5 In what ways does tourism change the natural environment?

6 How might tourism benefit people who live in mountainous places?

Evaluate and create

7 Select two uses of mountains that can co-exist without affecting each other. Explain why there is no conflict in these uses.

8 Select two uses that conflict or compete with each other. Explain why there is this conflict. Can you think of any real-life examples of this type of conflict?

9 In small groups, rank the uses of mountain landscapes shown from most to least harmful to the environment. When you have decided on the most harmful, brainstorm exactly what its impacts might be. Share your brainstorm with the rest of the class and be prepared to add to your list of potential impacts.

3.5 Traditional Aboriginal land use and mountains

Aboriginal people have a special connection with the land. They see themselves as being responsible for looking after the stories, places, resources and culture of their land. In this way, they seek to live sustainably. This concept is sometimes called Caring for Country and applies to all landscapes, including the forests, deserts, wetlands and mountains.

> The Mountains are very old and an ongoing life force that strengthens the ancestral link of our people. We have a living, spiritual connection with the mountains. We retain family stories and memories of the mountains, which makes them spiritually and culturally significant to us. Our traditional knowledge and cultural practices still exist and need to be maintained.
>
> Kosciuszko Aboriginal Working Group

The Bogong moth, a prized food source, can be found in great abundance in the Australian Alps. In early summer, tribes would travel great distances into neighbouring tribal areas to feast on the moth. Rich in fat content, moths also provide an important food source for alpine animals, such as the mountain pygmy possum, lizards, birds and fish. Each year millions of these brown moths migrate up to 1000 kilometres to the mountain tops of the Great Dividing Range. As the moths sleep in huge colonies during summer they are easy to catch. Thrown into

Source 2 A Bogong moth

the ashes of a fire to burn off their wings and legs, they were then roasted and eaten.

Important as food, the moths also served an important social purpose. As hundreds of people met at each nesting site, links between tribes and language groups were made and strengthened. Up to 1000 people may have converged at some sites, representing some of the largest gatherings of Aboriginal people. These feasts were an opportunity for people to share or swap food and other resources from their own Country and to learn more about the customs and languages of other tribal groups.

As well as providing food, the mountains provided traditional Indigenous people with other resources. Some alpine plants, for example, were used in medicine and others were used in important ceremonies. The Bangalow palm, which grows in the rainforests of the eastern Australian coastal mountains, was used for thatching roofs and making water carriers.

Source 1 Aboriginal rock art in the Kimberley region of Western Australia
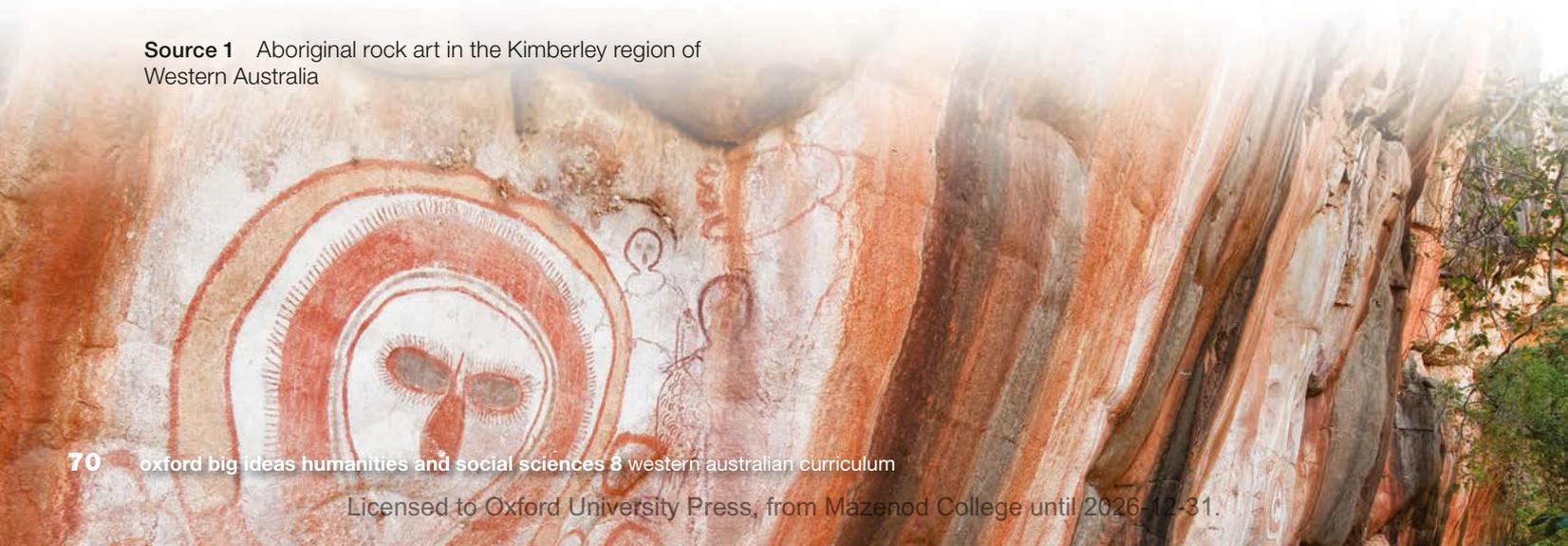
BOGONG MOTH MIGRATION ROUTES
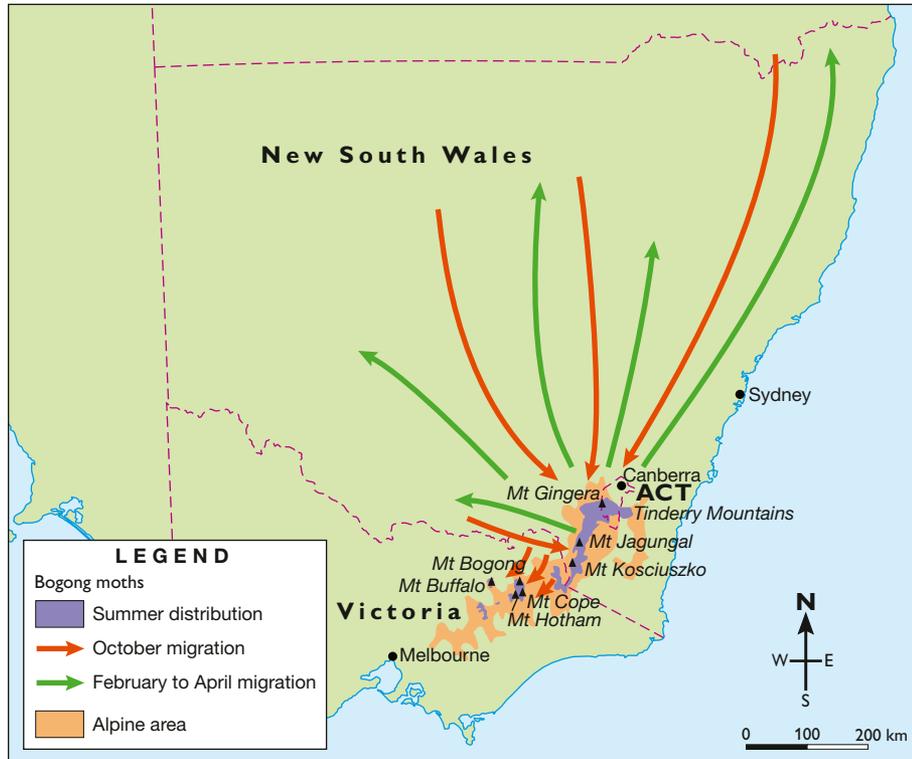
Source 3

Source: Oxford University Press

Source 4 Stone tools made using greenstone from Mount William in central Victoria

The rocks of the mountains also had their uses, and Indigenous tribes would travel to particular stone quarries to collect rocks for tools such as axes and hatchets. Often they would trade other goods for these rocks and this strengthened the ties between and within tribal groups. One of the most important of these quarries was Mount William in central Victoria, which was the source of greatly prized greenstone hatchet heads.

Check your learning 3.5

Remember and understand

1   Why was the Bogong moth an important resource for Indigenous Australians?
2   Why did people travel to Mount William?
3   How do you think the tools shown in Source 4 were used?

Apply and analyse

4   Examine Source 3.
    a   Describe the migration patterns of the Bogong moth. Include compass directions, distances and times of the year in your description.
    b   How did these migration patterns influence the movement of some Indigenous people?

5   Imagine that you are an Indigenous Australian and have travelled hundreds of kilometres to reach the nesting site of the Bogong moths. When you arrive the harvest is well under way.
    a   Describe what you see, smell and hear as you arrive.
    b   What would you bring with you?
    c   Explain why your trip is an important annual event for you and your tribe.

Evaluate and create

6   Was the harvesting of the Bogong moth a sustainable use of this resource?
7   What questions could you ask to help you decide if the quarrying of stone at Mount William was a sustainable use of this resource?

3.6 The impacts of living and farming on mountains

Source 1   Lhasa is located on a flat area in the bend of the Kyi River.

Liveable places

One of the world's highest cities is Lhasa in the region of China known as Tibet. Lhasa is located high up in the Himalayas at an altitude of 3.5 kilometres above sea level. This is more than 1 kilometre higher than the top of Mount Kosciuszko — Australia's highest mountain. The city is located in a small river basin and is surrounded by high mountains. This meant that for centuries the people who lived in the city had very little contact with people from other places. Due to their isolation, the people of Lhasa have developed a unique way of life.

Most people who live in Lhasa are ethnic Tibetans. Virtually all Tibetans are Buddhists and recognise the Dalai Lama as their spiritual leader. For hundreds of years the region of Tibet has been a 'disputed territory'. At times the Chinese have ruled the region, at other times the Tibetans have ruled the region under the leadership of the Dalai Lama. At present, Tibet is officially recognised as part of China.

Living in the mountains can have its advantages and disadvantages. Some cultures enjoy the lifestyle of mountain living, away from the busy cities. In Switzerland around 60 per cent of people live in mountainous areas, where people can take advantage of tourism and the possibility of snow and skiing. On the other hand, for some communities, living in the mountains can be isolating, especially in regions where there is less infrastructure, such as reliable roads to support their needs. It can also be much colder at higher altitudes and people are at risk in areas prone to landslides or avalanches.

One of the world's highest cities is Lhasa in the region of China known as Tibet. Lhasa is located high up in the Himalayas at an altitude of 3.5 kilometres above sea level. This is more than 1 kilometre higher than the top of Mt Kosciukszko, Australia's highest mountain. The city is located in a small river basin and is surrounded by high mountains. This meant that for centuries the people who lived in the city had very little contact with people from other places. Due to their isolation, the people of Lhasa have developed a unique way of life.

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Farming

Farming in mountainous areas has many advantages, such as reliable rainfall and fertile soils, but it also brings many challenges. These difficulties include accessing raw materials (such as grain for planting) and getting crops to market for sale. There are also many natural hazards to overcome, such as landslides and earthquakes. Despite all these obstacles, a lack of flat land is perhaps the greatest challenge for many mountain-dwelling farmers. Flat land allows farmers to irrigate their fields without water draining away and also makes it easier to use animals or tractors for tasks such as ploughing.

Herding

In mountainous areas there can be dramatic differences between summer and winter. In winter, snow blankets the grass on the ground and animals (including farm animals such as sheep, goats and cows) cannot feed. As temperatures rise in spring, the snow melts and grass recovers. The warmer temperatures also allow moss, lichens (fungi) and wildflowers to flourish, providing food for grazing animals. Farmers respond to these seasonal changes by moving their herds between summer pastures in mountain valleys and plains below.

In some parts of Asia and Europe, including the French Alps (see Sources 2 and 3), this type of farming is centuries old. An Australian equivalent is the summer movement of cattle into the Australian Alps in parts of Victoria and New South Wales, a practice that has now been largely stopped because of the damaging effects it can have on the landscape.

Source 2 A shepherd takes his flock of sheep into the French Alps for summer.

Month	Average low temperature (°C)	Rainfall (mm)
Jan	–3	164
Feb	–3	100
Mar	–2	84
Apr	0	125
May	5	127
Jun	8	72
Jul	10	42
Aug	11	52
Sep	7	153
Oct	4	232
Nov	–1	225
Dec	–3	167

Source 3 Climate data for the town of Mende in the French Alps

Check your learning 3.6

Remember and understand

1 What are some of the problems faced by people who live in mountainous regions?
2 What difficulties do people face in Lhasa?
3 Why do many farmers in Asia and Europe move their herds to live for some of the year in the mountains and some of the year on the plains below?

Apply and analyse

4 Look closely at Source 1.
   a Why do you think Lhasa was built in this place?
   b In what ways do you think the people of Lhasa use the river shown in the foreground?
   c How do you think these mountains were formed?
   d How are natural and human forces changing these mountains?

Evaluate and create

5 Study the climate date for the town of Mende in the French Alps in Source 3. This town is located near some of the summer pastures used by French farmers. Complete a climate graph for the town of Mende and answer the question that follow.
   a In which month do you think farmers bring their herds to the meadows near Mende?
   b In which month do you think they leave?
   c What would this mean for shop owners in Mende?

3.7 Sustainably managing mountains

In many places, mountain landscapes are under threat from human activities such as tourism, mining, river damming and wars and other conflicts. Some countries protect their mountains by declaring them to be national parks or nature reserves. Some of these are given further protection by being included on the United Nations World Heritage list. One of these special places is the Tasmanian Wilderness World Heritage Area in south-west Tasmania.

One-fifth of Tasmania is included in this World Heritage area. The Tasmanian Parks and Wildlife Service claims that the area 'protects one of the last true wilderness regions on Earth and encompasses a greater range of natural and cultural values than any other region on Earth'. While fold mountains dominate in the east of the Tasmanian Wilderness, rugged block mountains dominate the west. Much of the area has been eroded by glaciers and this has led to some spectacular landforms. Most of the area is blanketed by rainforest but there are also areas of mountain vegetation and wetlands. Nineteen endangered animal species are found in the World Heritage area, including the Tasmanian devil.

TASMANIA: TASMANIAN WILDERNESS WORLD HERITAGE AREA
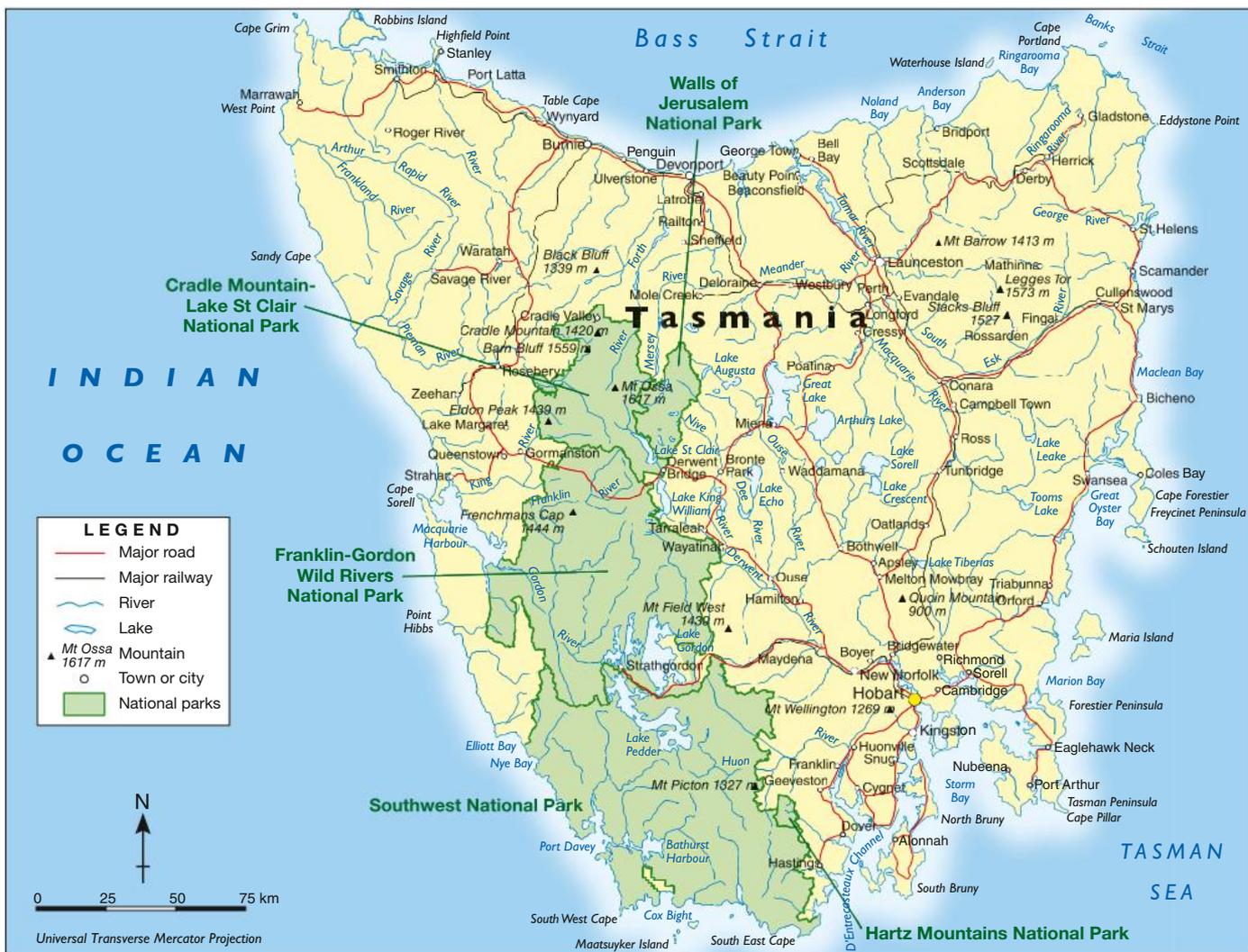
Source 1

Source: Oxford University Press

The World Heritage list

The World Heritage list is administered by the United Nations. It is a list of the world's most important natural and human features. Individual countries are able to nominate their most special places for inclusion on the list. If a nominated place meets certain criteria then it can be given World Heritage status. Once the site is listed, the nominating country then has the responsibility to protect and preserve that place for future generations. The United Nations seeks to help countries to protect and preserve their sites by providing technical and emergency assistance, particularly for conservation of the site. There are currently more than 960 World Heritage sites, 19 of which are in Australia.

Many of the world's mountain landscapes have been given this special status. They include the volcanoes of New Zealand, the Blue Mountains, Yosemite National Park and Mount Everest. The United Nations also has a list of World Heritage sites where the special features of the place are threatened by natural disasters or human activities, such as war or tourism. The home of the mountain gorillas, the Virunga Mountains, is on this list, as are rainforests in the mountains of Madagascar and Indonesia.

Source 2 Frenchmans Cap in the Tasmanian Wilderness World Heritage Area was carved by glaciers thousands of years ago.

Check your learning 3.7

Remember and understand

1 What is the World Heritage list?
2 Name some mountain areas that have been included on the World Heritage list.
3 Why do you think the Tasmanian Wilderness area has been included on the list?

Apply and analyse

4 Look carefully at Source 1.
    a How many national parks are shown on this map?
    b Using the scale provided in Source 1, estimate the total area of the Tasmanian Wilderness World Heritage Area.
    c Conduct some Internet research to determine the actual area of the Tasmanian Wilderness World Heritage Area. Is this figure more or less than your estimate? Give possible reasons for this difference.

Evaluate and create

5 Research the Virunga Mountains, the Atsinanana region of Madagascar or the rainforests of Sumatra to find out why these mountain areas are in danger. Do you think the Tasmanian Wilderness area faces the same threats as these places?

3B rich task

Wolong National Nature Reserve, China

Mountain landscapes are home to some of the world's most endangered animals, including one of the most well known – the giant panda. Once widespread throughout the mountains of southern China, they are now limited to a few bamboo forest reserves. The largest of these reserves is the Wolong National Nature Reserve in Sichuan Province, which is home to about 150 pandas as well as other endangered animals, such as the red panda and the golden monkey.

Source 1 A giant panda cub in the Wolong National Nature Reserve

Six-figure grid references (GR)

In order to communicate the location of different features on topographic maps with pin-point accuracy, geographers use a system known as six-figure grid referencing (GR).

The lines than run from top to bottom (i.e. vertically) across a map are known as **eastings**. The lines that run from left to right (i.e. horizontally) are known as **northings**. In order to create a six-figure grid reference, the area between each easting and the next is divided up into 10 equal parts (i.e. tenths). The area between each two adjacent northings is also divided up into tenths. This is just like adding a finer set of gridlines over the existing gridlines, allowing you to be very specific about where things are within each grid square.

In order to create a six-figure grid reference, follow these steps:

- **Step 1** Find any point on the map that you want to communicate the exact location of. Mark this point on the map.
- **Step 2** Run your finger from this point to the left until you hit the first easting. Record the number of that easting. This will be the first two numbers in your six-figure reference. Now work out how many tenths from the easting your point is. This will give you the third number in your six-figure grid reference.
- **Step 3** Now, run your finger from the same point down until you hit the first northing. Record the number of that northing. This will be the fourth and fifth numbers in your six-figure reference. Now work out how many tenths from the northing your point is. This will give you the final number in your six-figure grid reference.

Apply the skill

1 What is the name of the river at GR 992137?

2 Give the six-figure grid reference for the epicentre of the 2008 Sichuan earthquake.

3 Give the six-figure grid reference for the Wolong Panda Research Centre.

4 Complete the following table:

Grid reference	Name of village
072114	
	Xindianzi
	Dengsheng

WOLONG NATIONAL NATURE RESERVE, CHINA
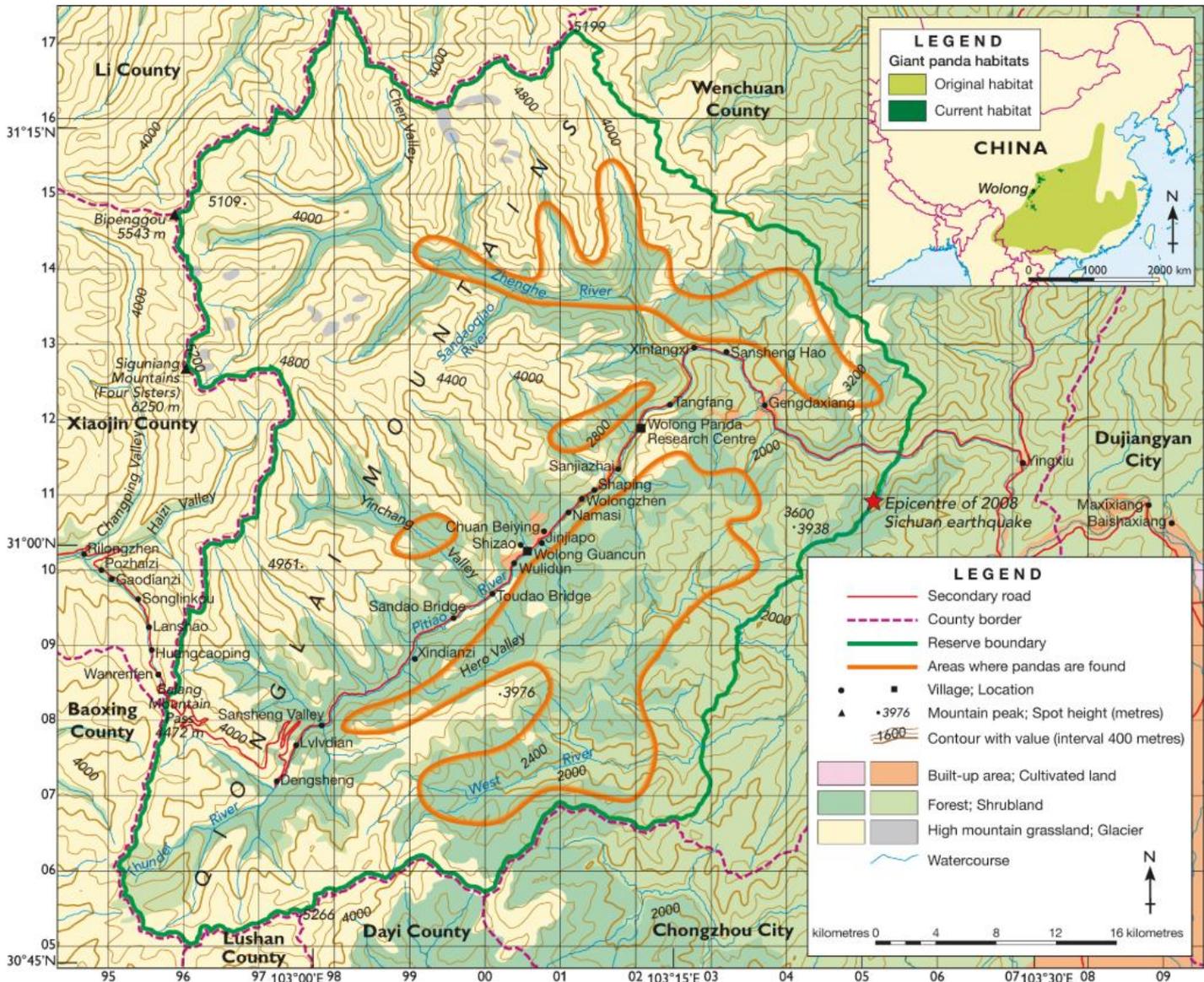
Source 2

CHANGE IN PANDA HABITAT IN CHINA OVER TIME
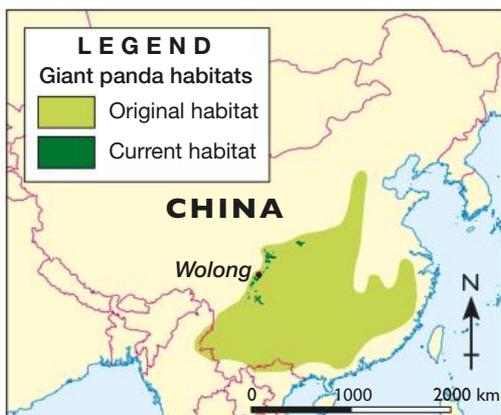
Source 3   Source: Oxford University Press

Extend your understanding

1 What is the main type of vegetation found inside the area where pandas are found?
2 How many towns are located in these areas?
3 How much cultivated land is found in the panda areas?
4 Study Source 3. Describe the change over time between the giant pandas' original and current habitats. Give a possible reason for it.
5 Do you think that reserves like Wolong will save the panda from extinction? Give some reasons for your answer.

3.8 Mountain hazards

Mountains can be hazardous places. The obvious danger in a volcanic area is an eruption, but there are other dangers too. The steep hillsides and unpredictable weather in mountainous regions can contribute to landslides and avalanches which can sweep with terrifying speed and force down the mountain slopes. Earthquakes are also a common hazard in mountainous places as sudden plate movements cause the ground to shake, dislodging rocks and even entire hillsides.

Volcanic eruptions

Volcanoes are dangerous natural features and can erupt without warning, devastating local environments. Lava can flow like a molten river or rain down like bombs many kilometres from the eruption site. Ash can cover the sky and blanket the landscape in a cloud that can kill people and animals alike. Humans are generally powerless in the face of such power and many thousands have died from hazards caused by eruptions. They include ash clouds, lava flows, mudslides, floods and **tsunamis**.

Perhaps the biggest danger in an eruption is the huge clouds of volcanic ash that can be produced. These clouds result from the sudden release of enormous pressure from within the Earth's mantle and crust. When Italy's Mount Vesuvius erupted in 79 CE it covered the nearby town of Pompeii in a thick layer of ash, killing 2000 people. The town lay forgotten beneath the ash for almost 1600 years before being discovered by workmen digging a canal.

The ash produced in an eruption can travel straight up (vertical) and then fall on the surrounding landscape, as in the case of Mount Vesuvius, or it can travel sideways (horizontal). Horizontal eruptions are perhaps the most dangerous as the ash – along with rocks, boulders and gases – can travel at speeds of 700 kilometres per hour and carry material heated to 1000 degrees Celsius. These are called **pyroclastic flows** and are responsible for many of the most devastating volcanic eruptions.

Another danger can be the sudden melting of the snow and ice on the sides of the volcano or the release of water from a crater lake in an eruption.

Source 1   Lava from Hawai'i's Kilauea volcano rolls downhill to the ocean.

These events can cause huge mudslides called **lahars** up to 50 metres thick to sweep down the sides of mountains. The eruption of Colombia's Nevado del Ruiz volcano in 1985 covered whole villages with thick mud and ash, killing 23 000 people. This makes it the deadliest volcanic eruption of the last 100 years.

Tambora: The world's deadliest eruption

The deadliest volcanic eruption in history took place in 1815 in Indonesia, when Mount Tambora erupted. About 92 000 people were killed by the pyroclastic flow from the eruption and the tsunami that was triggered by the eruption. More than 50 square kilometres of new material (ash and lava) was produced by the eruption and deposited on the Earth's surface.

Located where the Indo-Australian tectonic plate **subducts** (moves down) below the Eurasian plate, Indonesia has been home to more active volcanoes than any other nation over time. Vulcanologists estimate that Indonesia's 76 active volcanoes have produced more than 1000 eruptions.

Check your learning 3.8

Remember and understand

1   Make a list of the dangers faced by communities living close to volcanic eruptions.
2   Why is a sideways eruption more dangerous than a vertical one?
3   What is a volcanic bomb?
4   Name two countries close to Australia that experience many tectonic disasters.

Apply and analyse

5   Use Source 2 to explain how volcanic eruptions take place.
6   Almost every resident of Tambora died in the eruption of Mount Tambora. Why do you think that was the case?

Evaluate and create

7   Conduct some research on the Internet to find out what people who live near Mount Tambora today could do to protect themselves from the effects of another eruption.
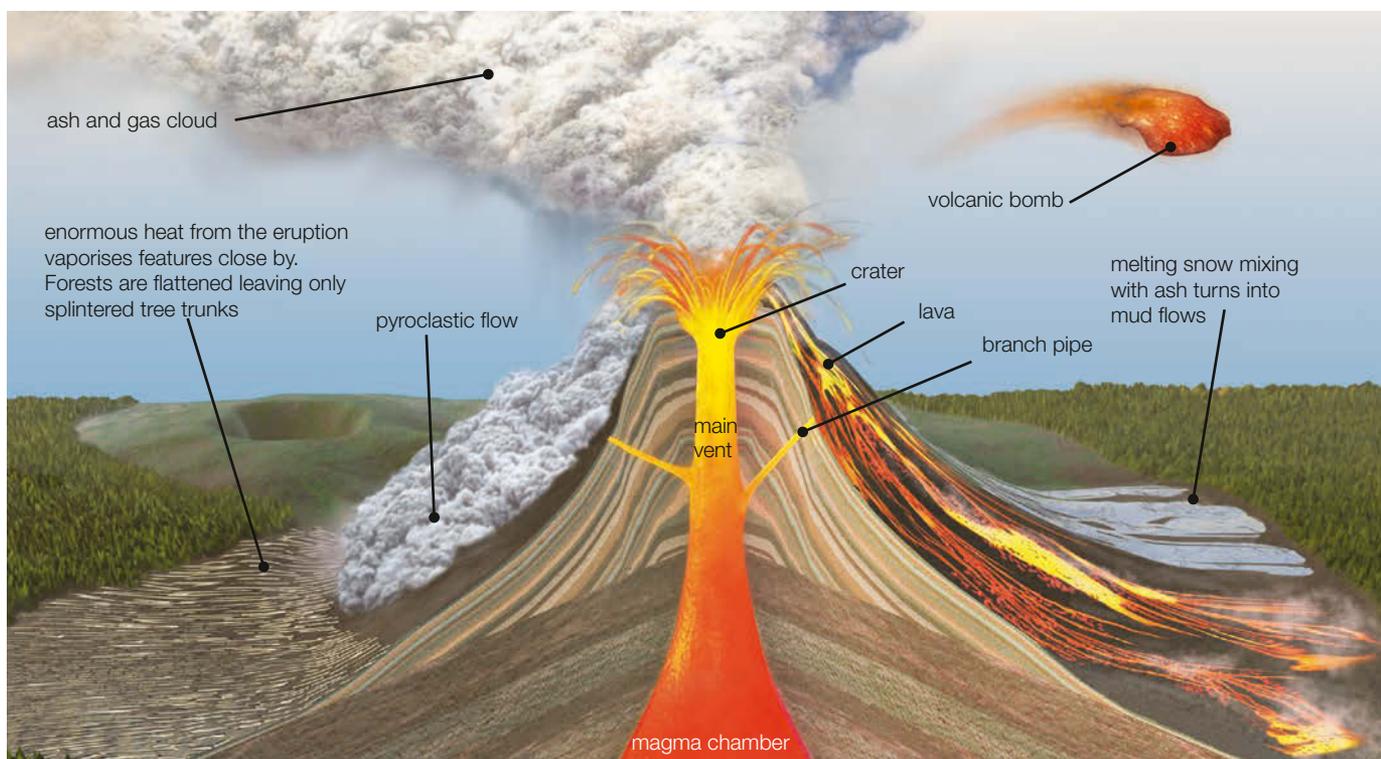
Source 2   Features of a volcano and the hazards caused by eruptions

3.9 Vesuvius: studying a killer volcano

Location

Mount Vesuvius, near the Italian port city of Naples, is one of the world's most dangerous volcanoes. Over the course of human history it has erupted many times, most notably in 79 CE when an eruption buried the Roman towns of Pompeii and Herculaneum.

Type and extent of damage

Mount Vesuvius erupted releasing a deadly cloud of stones, ash and fumes up to 33 kilometres into the air. With molten rock and pumice coming down at the rate of 1.5 million tonnes per second, the towns of Pompeii and Herculaneum were quickly buried and few in the towns managed to escape. An estimated 16 000 people died from the eruption, most being killed by the heat of the eruption and ash suffocation.

Living with volcanoes

Since this date, Mount Vesuvius has erupted more than 30 times, with the last eruption taking place in 1944. This eruption destroyed the surrounding villages of San Sebastiano al Vesuvio, Massa di Somma, Ottaviano and part of San Giorgio a Cremano. For the last 70 years it has lain quiet but many experts believe that it is once again due to erupt.

Over time, the city of Naples has grown at the foot of Vesuvius. There are also many other **urban** centres in the area surrounding Vesuvius. Some of these areas have a **population density** greater than 15 000 people per square kilometre, making them some of the most densely populated places on Earth. With more than 4 million people living near Vesuvius, it has the greatest population density of any volcanic region in the world.

Source 1 A sensor on the slopes of Mount Vesuvius

Source 2 Mount Vesuvius erupting in 1944: the ash cloud viewed from the nearby city of Naples
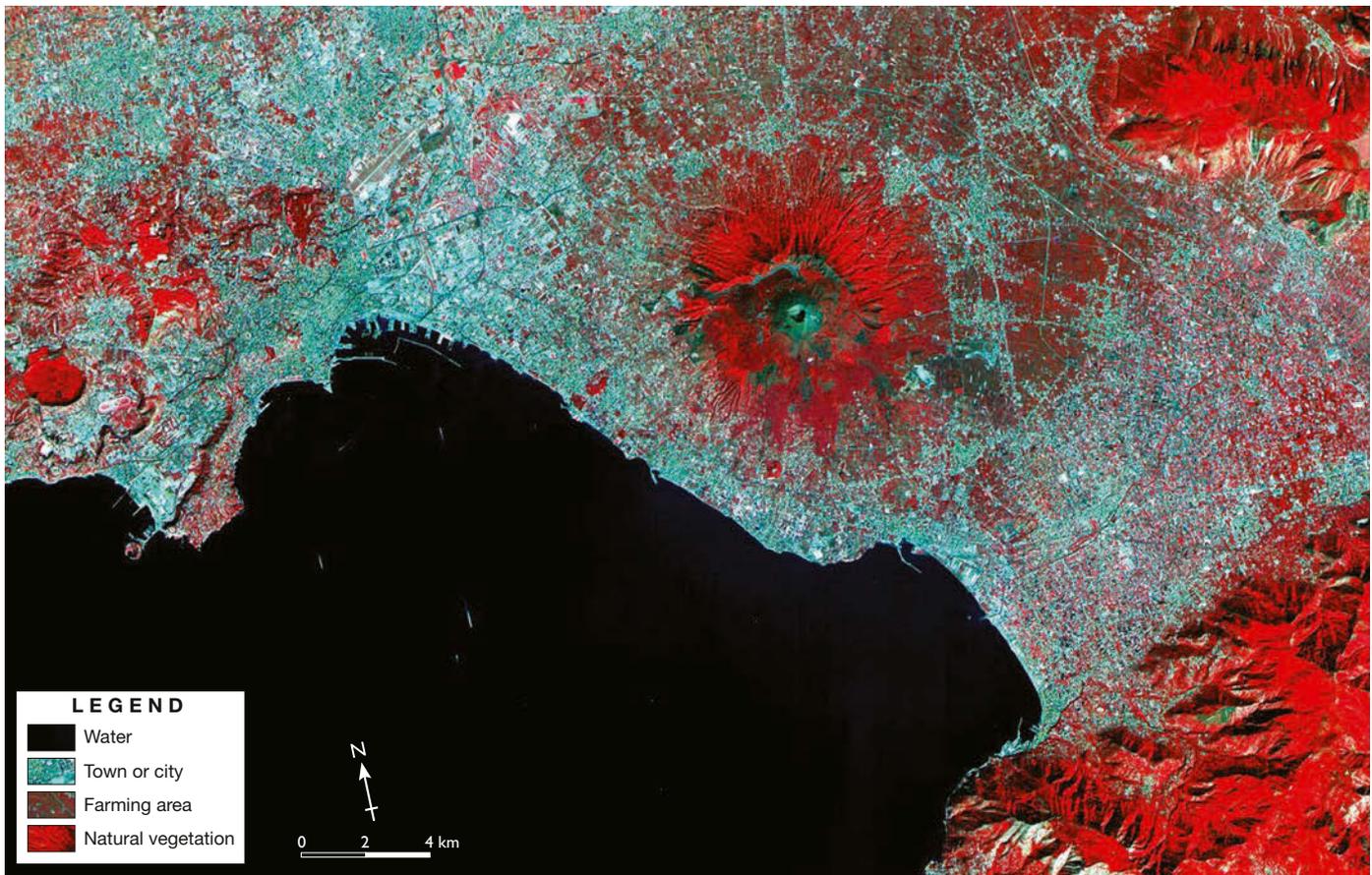
Source 3 A false colour satellite image of Mount Vesuvius and the Italian city of Naples highlights the key features of the region.

Like many volcanoes around the world, Vesuvius is being carefully monitored. It is studied from the ground, from underground, and even from space. **Vulcanologists** are watching for changes in the shape and internal chemistry of the volcano that will reveal when an eruption is about to happen so they can warn people to leave the area.

Preparing for an eruption

A number of measures have been implemented to help reduce the effects of another eruption of Vesuvius:

- An evacuation plan has been developed so that residents can more easily understand the risks faced in the region where they live (see Source 4). This will also help authorities to evacuate the area. Experts estimate that 600 000 people now live in the red evacuation zone.
- People living on the side of the mountain have been offered up to 30 000 Euros to move to safer areas. Their houses will be demolished and no new ones can be built in the same area.

- A national park has been established on the upper slopes so that authorities can stop any further building of homes and other structures. Authorities estimate that 800 structures have been illegally built in the park and will need to be demolished.
- On the side of Vesuvius there are dozens of sensors, such as the one shown in Source 1. These record earthquakes, gas temperatures and changes in the shape of the volcano. All these measurements can help vulcanologists predict an eruption. Monitoring the changing shape of a volcano, for example, can tell scientists if the mountain is bulging outwards. A bulge is a clue that lava is rising and may erupt. Signals from these sensors are sent automatically to a volcano observatory in Naples where there are always at least two scientists on duty to analyse the data.
- A satellite from the European Space Agency measures the temperature and shape of the crater and mountain slopes as it passes overhead. Analysis of data showed that an area south-west of Vesuvius had risen by more than 2 centimetres in a year. Satellites are also useful in tracking the movement of ash clouds following an eruption.

LEGEND

Red evacuation zone: Pyroclastic streams of hot pumice or ash pose a direct threat to the 550 000 inhabitants in the immediate vicinity of the volcano.

Yellow evacuation zone: Volcanic ash from Vesuvius could cause roofs to collapse, especially to the east given normal wind patterns.

Blue evacuation zone: Danger of mud slides.

Major urban centre
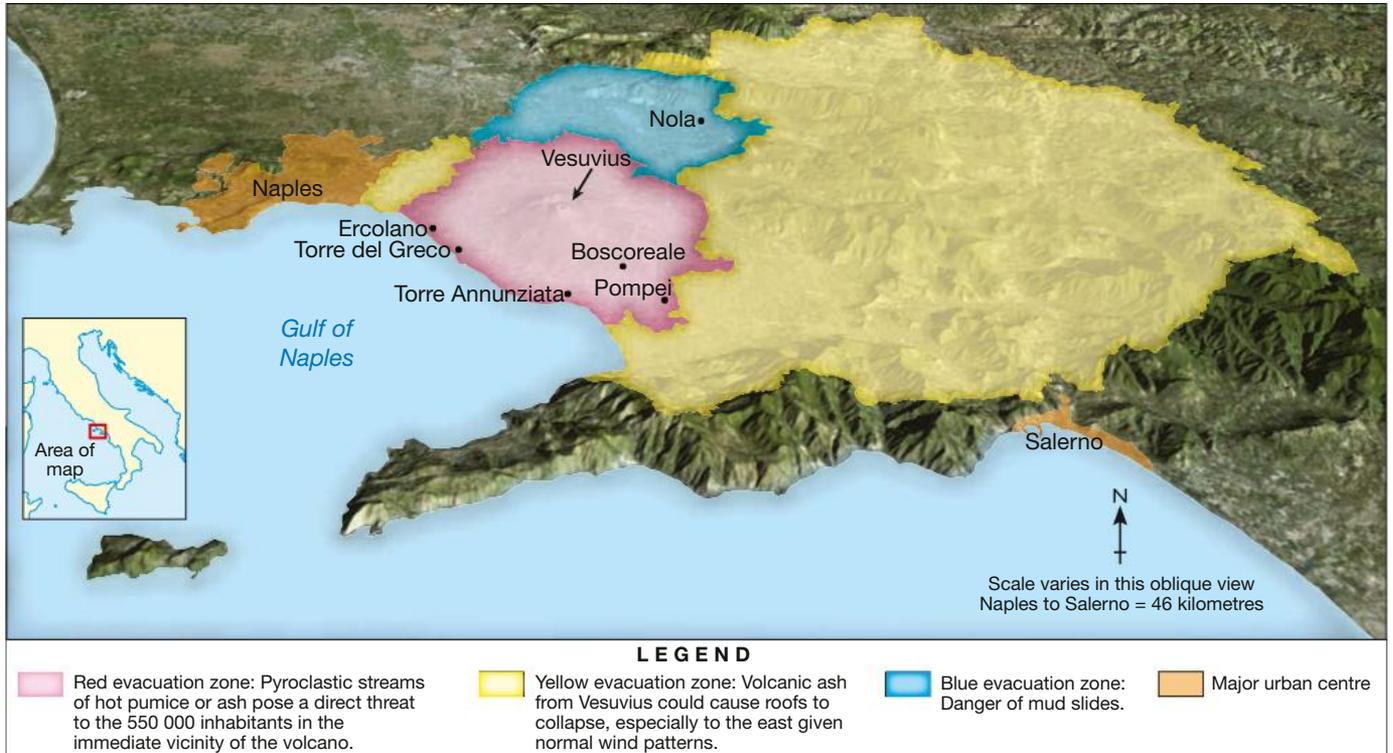
Source 4   Source: Oxford University Press

Check your learning 3.9

Remember and understand

1 Examine Source 4.
   a List the dangers that people could face in the event of a volcanic eruption.
   b How would the wind direction affect ash movement?
   c What would happen if the wind was blowing to the west during an eruption?

2 Why has a national park been established on Mount Vesuvius?

3 Why do vulcanologists monitor the shape of the volcano?

Apply and analyse

4 Describe the pattern of human settlement around this volcano.

5 What makes this mountain so dangerous? Consider both natural and human factors in your answer.

6 Study Source 1. What do you think the object sticking out from the side of the white box is used for?

Evaluate and create

7 Despite authorities offering up to 30 000 Euros to thousands of residents in order to move, only a few have done so. Why do you think this is the case?

8 Surveys have shown that residents of Naples are largely unaware of the danger posed by Mount Vesuvius and most have never heard of the evacuation plan.
   a Why do you think this is the case?
   b What is the greatest natural hazard you face?
   c What preparations have you made in the event of a natural disaster?

9 Design a pamphlet that will be distributed to all Naples residents outlining the risks posed by a volcanic eruption. Your pamphlet must include some of the actions that individuals can take to prepare for an eruption, including having an evacuation plan.

3.10 Landslides

Landslides are one of the most common types of hazard affecting mountain landscapes. The term landslide is used to describe any type of large-scale movement of soil, mud, rocks or snow carried by the force of gravity downhill. The movement can be as slow as a few centimetres a year or very rapid. Large, rapid landslides have the potential to destroy towns, roads and bridges, block rivers and take human lives. They are among the most dangerous of all hazards in mountain landscapes.

Landslides are often caused by a combination of natural processes and human factors. Natural factors include heavy rain, unstable slopes, an earthquake or volcanic eruption, and erosion by rivers or waves. The likelihood of a landslide happening is often increased by human activities, such as vegetation clearing, road or mine construction that requires cutting into a slope, leaking pipes and vibrations caused by rock blasting or heavy traffic.

Types of landslides

There are many different types of landslides but four of the most common types are:

Soil creep

Soil creep is the gradual movement of soil, rocks and earth down a gentle slope. This is the slowest moving type of landslide and can take place over many years. As a result, it is often unnoticeable to people living in the area. Areas affected by soil creep can be identified by features such as leaning telegraph poles and fences, cracked walls and bowed trees.

Slumping

Slumping is the movement of larger sections of soil and rocks down a steep, curved slope. These sections slip down the surface of the slope to different degrees, often creating a number of different levels (called scarps). Slumping is usually triggered by earthquakes, excessive rain, or freezing or thawing of the land.

Mudslides

Mudslides (also known as lahars) are often triggered by heavy rain, quick thawing earth, earthquakes or volcanic activity. For example, snow on the sides of active volcanoes is caused to melt quickly and combine with soil and rocks to create mud slurry that travels downhill. The mud can be up to 50 metres thick and travel at speeds of up to 80 kilometres an hour, burying entire villages and killing many people.

Avalanches

Avalanches are the rapid movement of snow down steep mountain slopes. They are the fastest moving type of landslide. Avalanches are triggered by natural movements of the Earth (such as earthquakes and weather events) and human movements (such as skiers and snowboarders).

When landslides strike: Venezuela

As with many natural disasters, people in poorer countries are more at risk. There, homes and other buildings are often poorly made and hillsides are often cleared of trees as timber is needed for fuel and building. With few planning restrictions in place people often live in landslide danger zones, with devastating results.

When heavy rains hit the South American country of Venezuela in late December 1999 they triggered the world's deadliest landslide. The rains were heaviest in the mountainous area in the north of the country. As the swollen rivers swept down from the mountains, they eroded their banks, turning the rivers into raging torrents of mud. Charging towards the coast, the rivers swept through towns and cities perched between the mountains and the ocean, covering them in a sea of mud. Hardest hit were the poorer residents of the country who had built their homes in shanty towns on cheap land on the steep mountain slopes. The mud quickly engulfed the streets and homes of these shanty towns, sweeping them away or burying them.

To try to avoid the danger of disease the dead were quickly buried and so the scale of the disaster will never be fully known. It is believed that more than 30 000 people lost their lives in these floods, but some estimates have placed the final figure closer to 50 000.

mudslide

Growth of cities means that people are living in unsafe areas.

Clearing of forests in the mountains makes river banks unstable.

Hard surfaces, such as roads, prevent water from soaking into the soil, increasing run-off.

Housing standards in shanty towns are generally poor.

Source 1 An oblique aerial image of a mudslide in Vargas, Venezuela, 1999

mudslide

Growth of cities means that people are living in unsafe areas.

Clearing of forests in the mountains makes river banks unstable.

Hard surfaces such as roads prevent water from soaking into the soil increasing run-off.

Housing standards in shanty towns are generally poor.

VENEZUELA FLOOD AND MUDSLIDE, 1999

Source 2 An annotated sketch of Source 1

Managing landslide risk

Although landslides can strike with great speed and little warning there are some measures that communities can implement to prepare for them and reduce their effects. Perhaps most importantly, they can recognise that some human activities make landslides more likely. Careful planning is needed before cutting a road into the side of a hill, for example, as it makes the slope less stable.

Prevention and mitigation

There are a number of ways a community can prevent or mitigate (reduce) the damage caused by a natural disaster before it happens. In the case of a mountain hazard such as a landslide this might include:

- improving the drainage of the slope or redirecting water, so that heavy rainfall does not trigger a landslide.
- constructing retaining walls and piles (beams deep into the ground) to hold the soil together or resist landslide movement.
- planting or maintaining plants and trees. Removing vegetation can start a landslide, while more vegetation can hold the soil together through root systems.

Preparedness

In order for a community to be prepared for a natural hazard such as a landslide, they need to be ready before the disaster happens. Communities can do this a number of ways, but it is most important for them to be aware of the potential hazard so they can plan for it. In a case like the Vargas mudslide, residents of the community could have prepared for the disaster by having warning systems and plans of action in place.

key**concept:** Scale

Landslide prediction

There are landslides in many mountainous areas around the world but the reasons for them differ from place to place. Geographers who try to predict where there will be a landslide need to study factors at a range of scales:

- At the local scale they need to consider steepness of the slope, soil type and changes made by people.
- At the regional scale they need to consider rainfall patterns and the likelihood of storms.
- At the global scale they need to consider the location of plate boundaries and tectonic movement.

   For more information on the key concept of scale, refer to page 11 of 'The geography toolkit'.
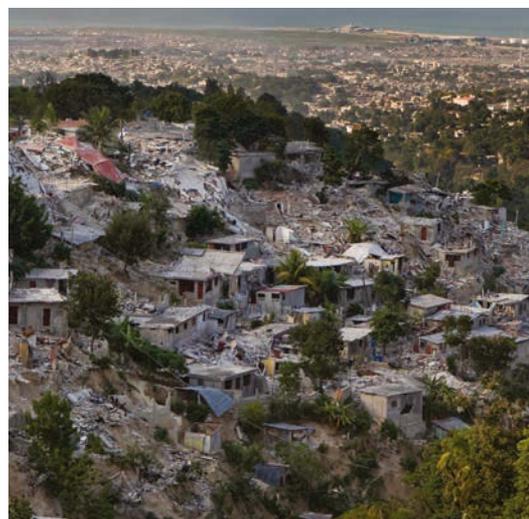
Source 3 A landslide in Haiti, triggered by an earthquake, killed thousands in 2010.

Check your learning 3.10

Remember and understand

1 What is a landslide?
2 Why are landslides more of a hazard in mountainous areas than in flatter places?
3 What can people do to reduce the likelihood of landslides?

Apply and analyse

4 Some landslides are so slow they are known as soil creep. How might a very slow landslide affect human activities and structures?
5 Which natural processes contributed to the landslides in Venezuela? Which human activities contributed?
6 Use a series of sketches to explain why digging into a hillside for mining or road building can lead to a landslide.

Evaluate and create

7 Use Source 2 as a guide to create a geographical sketch of Source 3. Label your sketch with those factors that contributed to the landslide.
8 Do you think that natural factors or human factors were most responsible for the Venezuelan landslides? Give some reasons for your answer

3.11 The Tumbi landslide, Papua New Guinea

On the night of 24 January 2012 there was a massive landslide in the Southern Highlands of Papua New Guinea. The landslide buried whole villages and killed dozens of people. It was triggered by the collapse of a 150-metre wide section of hillside, and carved a 560-metre long path of destruction through the forests and villages below. More than 3 million cubic metres of rubble thundered downhill in the disaster. The Highland Highway, which runs through the area, was destroyed. Quarry workers and machinery were buried in debris up to 15 metres thick. Rescue efforts were hampered by heavy rain in the hours and days following the landslide. Landslides are a hazard in Papua New Guinea, particularly during the wet season from December to May.

keyconcept: Environment

Possible causes of the Tumbi landslide

The ways in which humans use and change the natural world is an important part of the key concept of environment. By examining the possible causes of this landslide you will learn how environments are changed by a complex series of human activities and natural processes. As with many disasters such as this, the exact causes are unclear. Initial newspaper reports focused on a nearby natural gas plant under construction and some associated quarrying near the slip site, but the gas company denied any connection. Here are some of the possibilities and some of the evidence.

WAS IT HEAVY RAINFALL?

PNG is experiencing one of the worst wet seasons, which traditionally runs from December to May, ever, local authorities say.

> United Nations report

The ground water level rose significantly above its historical levels … This caused the two minor, and one major, streams to combine, forcing water levels to rise beneath the limestone substructure of the hillside.

> Papua New Guinea Government report

WAS IT THE TUMBI QUARRY?

Local people have blamed blasting from nearby quarries, which sent hundreds of tonnes of earth crashing down on the village of Tumbi.

> Newspaper report, *Mail Online*,
> 26 January 2012

WAS IT THE SHAPE OF THE LAND?

[The land where the slip occurred is] characterised by high terrain and precipitous [steep] slopes.

> United Nations report on the disaster

WAS IT AN EARTHQUAKE?

The Geophysical Observatory (PMGO) reported no seismic activity within the area in the past two weeks.

> Papua New Guinea Government report

WAS IT THE FARMERS?

Intensive cultivation of the surrounding land may have also been a contributing factor by denying the ground of its natural vegetation.

> Papua New Guinea Government report

For more information on the key concept of environment, refer to page 8 of 'The geography toolkit'.

Source 1 The landslide that engulfed the village of Tumbi in Papua New Guinea
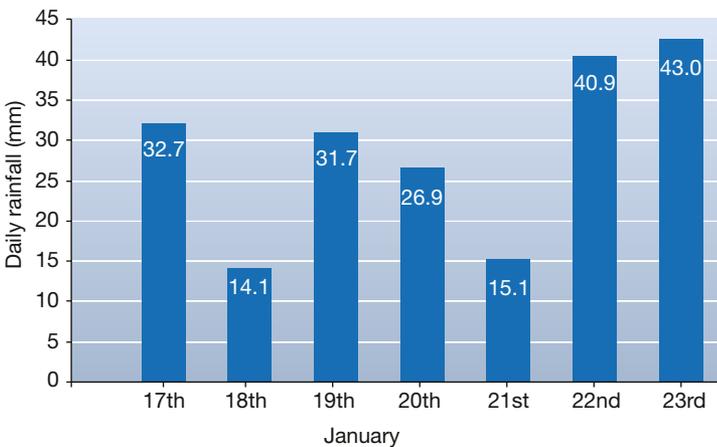
Source 2 Daily rainfall totals from 17 to 23 January 2012 in Komo, a town near the Tumbi landslide site
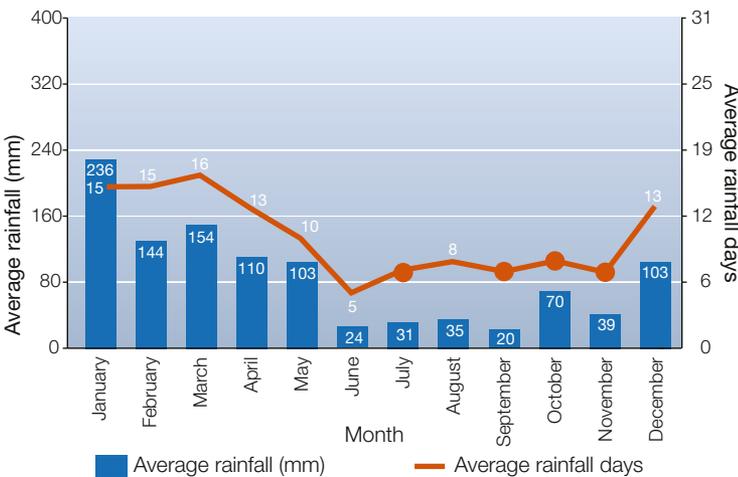
Source 3 Average rainfall graph for Komo

Check your learning 3.11

Remember and understand

1 Describe the scene in Source 1.
2 On what date was there a landslide? Is this during the wet season?
3 Describe the shape of the land at the site of the landslide.

Apply and analyse

4 Study Source 2. How much rainfall was recorded in Komo in the seven days before the landslide?
   Compare this with the weekly average in January of 53.9 millimetres.
5 How does a quarry change the shape of a hillside? How might this contribute to a landslide?
6 Divide the possible causes of this landslide into
   two lists: natural processes and human activities.

Evaluate and create

7 Rank the possible causes from those that you consider most responsible for the landslide to those that you consider had no influence. Write a few sentences explaining your choice of the top contributor.
8 Compare your ranked list with those of your classmates. Is there some general agreement about the leading cause? Why or why not?
9 What further questions could you ask to help you work out the causes of this disaster?

Avalanches

More than 150 people a year, mostly skiers and snowboarders, are killed by avalanches. Avalanches are a type of landslide. They involve the rapid movement of snow down mountain slopes. Some slopes are more likely to produce an avalanche than others, mainly due to their steepness. Snow resting on a layer of slippery ice on a steep slope can easily collapse. The resulting avalanche can reach speeds of up to 130 kilometres per hour. In 2010, a lone snowboarder was killed by an avalanche in Glacier National Park in Montana in the United States. The site of the avalanche is shown in Source 2.

Source 1   A skier in the path of an avalanche

skill**drill**

Constructing a cross-section

Step 1 Identify the cross-section. Find the two points on the map that form the outer edges of your cross-section. In this case, these points are labelled A and B.

Step 2 Mark the outer edges. Place a straight-edged piece of paper across the map so that it crosses both points A and B. Mark these two points on your piece of paper. Be careful not to draw on the map.

Step 3 Mark the contour lines. Working from left to right, put a small mark on your piece of paper at every point that it crosses a contour line. You need to know the height of each of these lines so jot this down on the piece of paper as well.

Step 4 Draw the axes. On another piece of paper draw a set of axes for your cross-section. The horizontal axis is the same width as the distance between points A and B on the map. The vertical scale must begin below the lowest height on your cross-section and extend above your highest point.

Put a vertical scale on both the left-hand side and right-hand side of your cross-section.

Step 5 Transfer the contour line heights. Lay your straight-edged piece of paper along your horizontal axis. For each contour height shown on your piece of paper, you must place a dot on your cross-section at the correct height according to your vertical scale.

Step 6 Join the dots. Join the points with a smooth line. Use a graphite pencil and take care to make your sketched line as 'natural' as possible. It should not be a series of short, straight lines but one long, smooth line.

Step 7 Add the finishing touches. Lightly shade the area below your line to show that this is solid land. Label both axes with their correct scales and give your cross-section a title.

Apply the skill

1   Construct a cross-section of the avalanche site along the line A–B marked on Source 2

GLACIER NATIONAL PARK, UNITED STATES: SITE OF AVALANCHE IN 2010

Source 2

Source: Oxford University Press
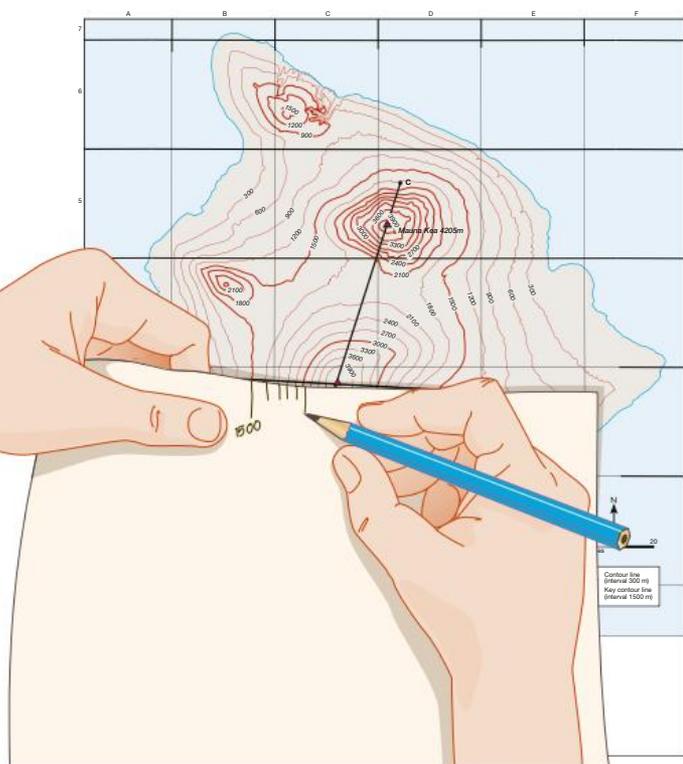
Source 3 Marking contour lines

Extend your understanding

1 Study Source 2.
   a In which direction did the avalanche travel?
   b How far was the snowboarder carried?
   c Using your cross-section as a guide, describe the steepness of the slope at this place.
   d Did the avalanche travel down a gully or a ridge?

2 Rangers at Glacier National Park monitor snow conditions carefully and sometimes close dangerous areas such as this to skiers and snowboarders. What do you think they look for when they examine the snow conditions?

3 Study Source 2. On this map the beginning of the avalanche is labelled as A and the point at which it stopped is B.
   a How do you think the boarder accessed this slope?
   b What could the snowboarder have done to minimise the risks of an avalanche?
   c What could he have done to increase his chances of surviving an avalanche?

Coastal landscapes

Coasts are very dynamic places – they are constantly changing. Crashing waves, strong currents, tidal waters and hazards (such as **tsunamis**) all transform coastal landscapes. Along the east coast of England and Scotland the coast is under constant attack from the sea. In some places large waves wear away the coast at the rate of about 2 metres every year. Roads, buildings and farms tumble slowly into the sea and many villages dating as far back as ancient Roman times have disappeared.

People, too, bring about changes to coastal landscapes. These changes range from small human activities, such as walking across a sand dune, to large activities, such as building ports and sea walls.

4A

What processes shape coastal landscapes?

1   What evidence is there in Source 1 that this coast is changing?
2   What changes do you think will take place here over the next 20 years?

4B

How are coastal landscapes used and managed?

1   How is this coast being used by people?
2   What could be done to control this erosion to protect these homes?

Source 1 A section of road on the Holderness coast in Yorkshire, England, shows the devastating effect that coastal erosion can have on communities. Many villages in this region have already been lost to the sea.

4C

Are coastal landscapes hazardous places?

1 How could people be injured or killed by coastal erosion in this place?

2 What other natural hazards are present in coastal areas?

4.1 Coastal landforms

Constant movements of water and wind carve coastal landscapes into an amazing variety of shapes. Geographers, who refer to these shapes as **landforms**, are particularly interested in exploring the forces that create them. To begin your own investigation into coastal landscapes, you should start by finding out the names of the most common landforms, shown in Source 3. Some of them you may have heard before but others may be new to you.

Coastal landforms can be formed in two different ways, either by **erosion** (the wearing away of land by waves and wind) or by **deposition** (the building up of land through deposits of sand and other materials). Because of these processes, there is no 'typical' or 'average' coastal landform: every **arch**, **stack**, **cave** or **headland** will be unique. There are, however, common features for each type of landform. Geographers examine and describe the similarities and differences of these features and use them to explain how they were formed. For example, Sources 1 and 2 show two Australian coastal landforms. Geographers would describe both of these landforms as headlands, despite the fact that they look quite different.

Source 1 A headland at Esperance, Western Australia

Source 2 Headlands at Port Campbell, Victoria
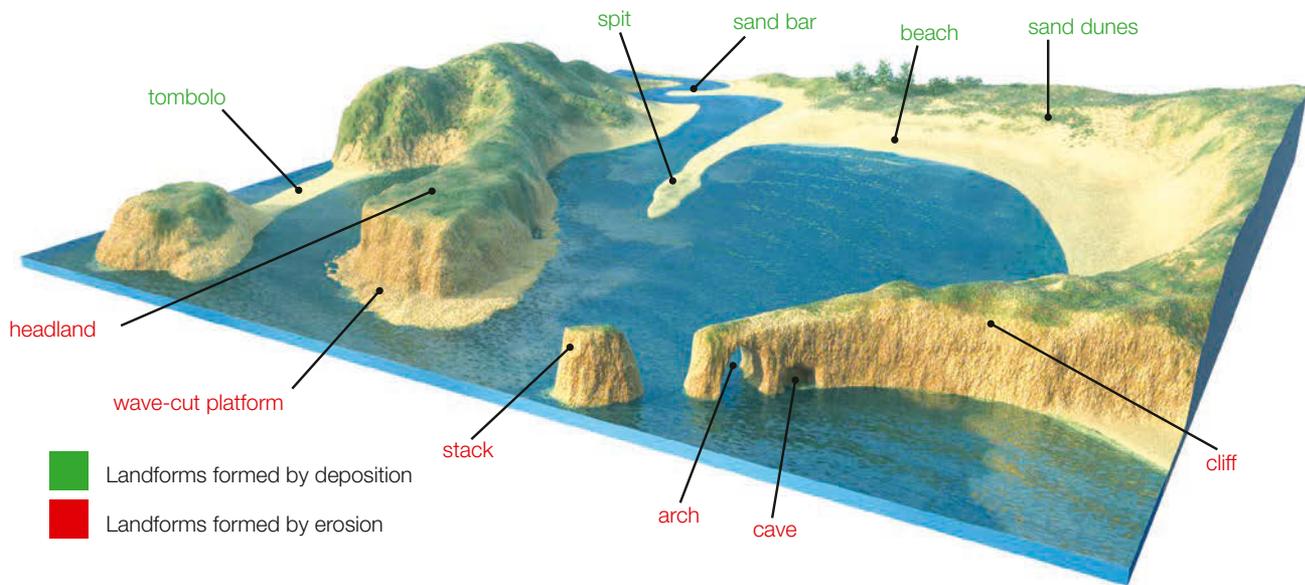
Source 3 Some common coastal landforms

keyconcept: Change

A day at the beach at Point Peron

Like all landscapes, coasts are constantly changing. During a five-hour visit to a beach, about 2500 waves hit the shore. Each wave picked up millions of grains of sand and moved them. Some grains were moved further inland,

Source 4 Point Peron headlands

some along the beach, some out to sea, and some were picked up and put back in the same place. The wind picked up millions of particles of dry sand and blew them onto the dunes. People walked through the dunes, trampling the plants and creating a wind tunnel that sped up erosion. In the course of the day, the sea level rose and fell about 2 metres as the Moon's gravity pulled the oceans towards the shore and away from it, creating tides.

What makes beaches perfect for geographers to study is the rapid rate of change that takes place there. This is mainly because:

- one wave crashes about every 8 to 10 seconds and each of them changes the coast
- sand is easily eroded and deposited
- people use the coast in many ways, constantly changing it.

For more information on the key concept of change, refer to page 10 of 'The geography toolkit'.

Check your learning 4.1

Remember and understand

1   How do beaches change?
2   What natural forces are working continuously on the coast carving new landforms?

Apply and analyse

3   Describe a stack. How do you think stacks are formed?
4   Sketch the image in Source 2 and label four landforms.

Evaluate and create

5   How have people used the headland in the foreground of Source 4? Why might this be a hazardous place to live?
6   Each of the three photographs in this section shows headlands. Examine each of these photographs.
    a   Based on these photographs, give a definition of a headland.
    b   What features does each share?
    c   In what ways is each unique?
    d   In pairs, discuss some geographical questions you would ask to explore why the headlands are different.
    e   Where would you find some answers to the geographical questions you have discussed?

4.2 The power of waves

Waves are the main force that shape coastal landscapes. Waves begin at sea when the wind blows across the surface of the water. The water surface rises along with the wind, but then is pulled back down by the power of gravity. This tug-of-war between the drag of the wind and the pull of gravity creates an **orbit** – a circular movement of water (see Source 4) beneath the surface. This orbit creates what we see as a wave.

Spilling waves	
These are sometimes called 'surf breaks' and are generally found where there is a gently sloping beach. These are categorised as constructive waves because they carry sand or sediment to the shore.	foam → nearly horizontal beach
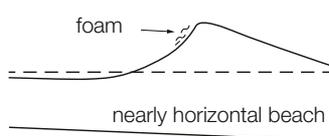
Plunging waves	
These are found where the shore is steep and are known for curling over as they break.	steep beach

Surging waves	
There are sometimes called 'dumpers' and are generally found where the bottom slope is so steep that the wave doesn't break until it is right at the shoreline. These are categorised as destructive waves because their strength can cause erosion.	foam ↓ very steep beach
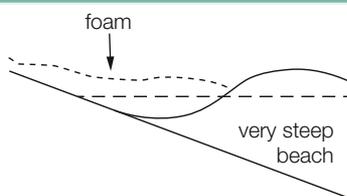
Source 1 Types of breaking waves

As waves move into the shallower waters near the coast, the bottom of the orbit comes into contact with the sea bed. Friction generated on the sea bed slows the bottom of the wave more quickly than the top. The top (or crest) of the wave continues moving and finally falls forward onto the shore (much as a person can stumble and fall over, head first). The water that falls forward and moves up the shore is called the **swash**. The **backwash** is the water that runs back to the ocean.

The impact of waves on coastal landscapes

The energy in waves can travel thousands of kilometres before it is released on the coast. This energy then changes the coast in three important ways. Firstly, it erodes the coast by breaking down the rocks of cliffs and headlands into small pieces of stone or sand, eventually forming a beach. Secondly, along with tides and currents, the wave energy transports the sand out to sea and along the coast. Thirdly, the waves deposit the sand in new places, forming new beaches, spits and sand bars.
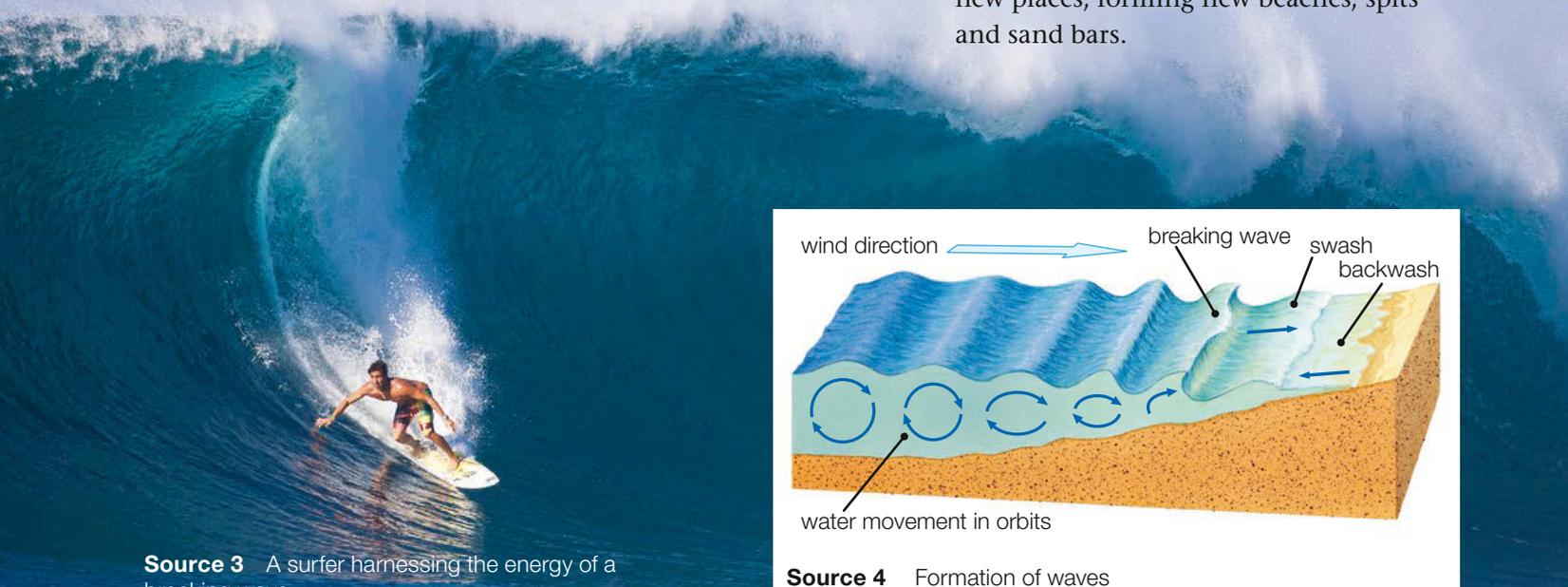
Source 3 A surfer harnessing the energy of a breaking wave

wind direction · breaking wave · swash · backwash · water movement in orbits
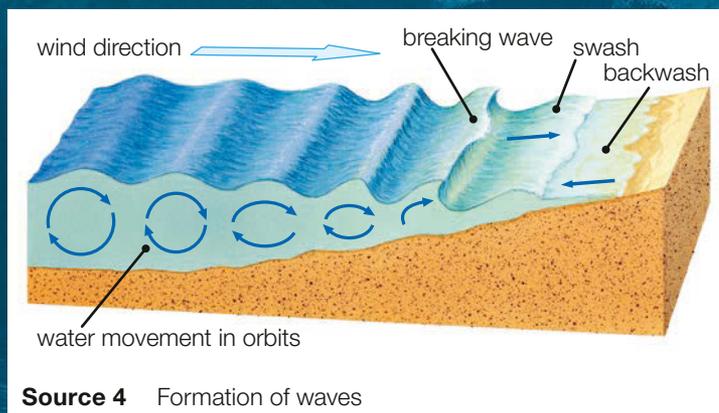
Source 4 Formation of waves

Longshore drift

Although some waves can hit directly onto a shoreline, most waves hit the coast at an angle. This occurs because of the varied shape of the land and the varying direction of the wind that produces the waves. When the waves hit the coast at an angle, the swash picks up the sand and carries it along the beach rather than just dumping it directly forward onto the shore. The next wave that comes along will also move the sand along the beach until eventually, after hundreds of small zigzags, many grains of sand are moved to one end of the beach. They may pile up to form long deposits of material, such as **spits** and **tombolos** (see Source 3 on page 93), or the wind may change direction, causing new waves to carry sand back in the opposite direction. This movement of sand along a coast is called **longshore drift**. It is a major contributor to the shape of the coastline.

Longshore drift is also responsible for many problems faced by those people who live along the coast. The movement of sand can clog harbours and river mouths. Many coastal communities in Australia spend millions of dollars a year digging up the sand moved by longshore drift and putting it back on the beaches where local residents want it.

One of the most dramatic examples of problems caused by longshore drift can be found on England's south-eastern tip, in a town called Dungeness. Here, a nuclear power station has been built near the coast on an ancient and very large spit made of small stones called shingle. For centuries, this shingle has been shifting back and forth along the southern coast. Currently, huge amounts of the small shingle stones have to be moved to prevent the shingle from eroding. Erosion would threaten the station itself, potentially causing sea water to enter the reactor and bring about a nuclear meltdown. A meltdown would result in radioactive contamination – a disaster with devastating effects that could last thousands and thousands of years.

Source 5 Longshore drift is threatening Dungeness Nuclear Power Station.
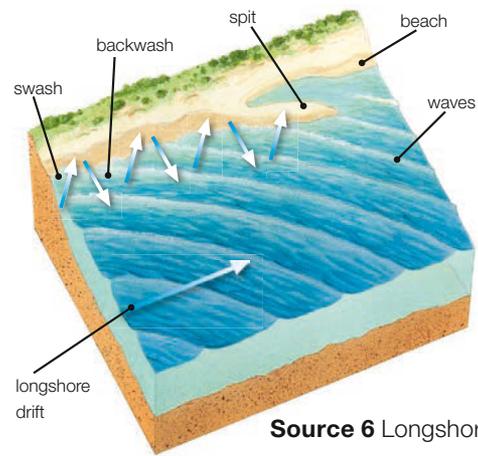
Source 6 Longshore drift

Check your learning 4.2

Remember and understand

1 What is the difference between swash and backwash?
2 How do waves begin?
3 Why do waves break?

Apply and analyse

4 How do waves change the coast?
5 What do you think happens to sand on a beach where the waves strike directly onto the beach rather than on an angle?

Evaluate and create

6 Describe the journey of a grain of sand on a beach where the waves strike at an angle.
7 Like many beaches around the world, Dungeness is being changed by longshore drift.
  a What are the local authorities doing about this?
  b Why is this particularly serious at Dungeness?
  c Discuss with a partner some other possible solutions. Decide on your best solution and then sketch it so that you can present it to the class.
  d When you have heard all the possible solutions from your classmates, decide on the one you consider to be the most likely to succeed. Explain why you think this would work.

4.3
Erosional landforms

Coastal landforms are created in two main ways. This is due to the fact that when waves hit the shoreline their effects can be varied. They can help to create landforms that allow plants and animals to live and thrive, or they can destroy landforms, killing plants and animals or driving them away.

The types of waves that erode and destroy sections of coast are known as **destructive waves**. Destructive waves are tall and frequent, which means they crash into the shoreline, digging out large chunks of land and eroding the beach. Their swash is weaker than their backwash, causing soil and nutrients to be drawn back into the sea rather than deposited on land.

Destructive waves begin in a large, stormy ocean. The waves travel thousands of kilometres, building up energy that is unleashed onto the rocks and sands of the coast. These waves carve the coastline into amazing shapes in much the same way that a sculptor carves shapes from a piece of marble. This process of wearing away is known as erosion, and the landforms created this way are known as erosional landforms.

A stretch of coastline close to the town of Port Campbell in southern Victoria (Source 1) provides a good example of erosional landforms. This part of Australia's coast is constantly being battered by waves from the Southern Ocean. As a result, the limestone cliffs in the area are being slowly chipped away, creating an ever-changing coast.

1 Cliff

Cliffs along coasts are formed by the action of waves on rock. The power of the waves erodes softer rock, leaving the more durable rock behind.

3 Gorge

Some caves can be hundreds of metres long. Waves entering long caves can wear away the roof, causing it to collapse and forming a deep gorge.

Source 1 A section of coastline near the town of Port Campbell in Victoria

2 Cave

As waves approach the coast they tend to bend around headlands and islands and attack them from the side in a process known as **refraction**. When waves encounter a weak spot in the cliff (such as a section of soft limestone) they wear away the rock. They create a small opening, which is soon enlarged into a cave. The waves can now enter the cave and erode the sides and top.

4 Arch

As waves erode the back of a cave they may penetrate right through the headland and produce an arch. Waves may pass through the arch, eroding the sides and top. The arch here (inset) has recently eroded and fallen into the sea creating two stacks (main image).

5 Headland

Some sections of the coastline are made up of harder rock than other sections. These can resist the energy of the destructive waves longer than the softer parts and remain as headlands – high, rocky outcrops of land.

Check your learning 4.3

Remember and understand

1 Describe what a destructive wave is in your own words.

2 Why do some rocks erode more quickly than others?

Apply and analyse

3 Study Source 1.
a How many caves, arches and stacks can you identify?
b Describe the waves in this landscape. What evidence is there that they are destructive waves?

Evaluate and create

4 Predict what changes might occur in the next few thousand years in the landscape shown in Source 1. On a sketch or copy of the photograph, sketch and label the following features of a future landscape:
- a collapsed stack
- a new arch
- a new stack
- the shape of the new coastline
- a new gorge.

5 This coastline is moving inland at the rate of about 2 centimetres a year. The Great Ocean Road, which you can see in the background, is about 200 metres from the coast at present.
a Estimate the date at which it will fall into the sea.
b What other features of the human environment in this region will also change by then?

6 Bay

The softer parts of a coastline wear away more quickly than headlands and become bays.

7 Stack

As the soft rock of arches is eroded by the destructive waves, the rock above the arches eventually falls into the sea leaving behind stacks – vertical columns – of rock.

4.4 Depositional landforms

Unlike destructive waves, **constructive waves** have characteristics that help to create landforms that allow plants and animals to live and thrive. Constructive waves are long and low which means they begin far out at sea and gently roll onto the shore, allowing for a smooth and gentle landing. In this way, soil and plants are deposited onto the shore. The swash of these waves is slow and strong, which means that materials from the sea can be brought further inland. The backwash, in contrast, is very weak, which means materials are not dragged back into the sea. In this way, a wide, gently sloping beach is formed. Plants can grow and thrive, and the animals that feed on them will settle there.

When waves are small and gentle, they do not generate enough energy to erode the land or cause great and sudden destruction. This is generally the case in bays and harbours that are sheltered from strong winds, such as Sorrento Quay in Hillarys and the sheltered beaches around Shark Bay. Sandy soil is moved from the base of cliffs and from the mouths of rivers by the action of the water. It is carried by constructive waves to new sites along the shore and gently deposited there. Whereas erosional landforms are the result of the removal of material from the shoreline, depositional landforms are the result of this addition of material.

The most common depositional landforms are beaches. A beach is formed when constructive waves carry sand, pebbles and broken coral or shells in their swash and deposit them on the shore (see Source 2). These small waves do not have enough energy in their backwash to take the sand back to sea, so it remains as a beach. Storms may bring destructive waves several times a year and wash away parts of the beach, but the slow, gradual process of beach building repairs this damage.

As the tide goes out, the sand dries out and the wind can then pick up individual grains and blow them inland. As the grains move, they may be trapped by an obstruction, such as plants, or they may collect in areas sheltered from the wind. As the sand piles higher it forms **sand dunes** (see Source 3). Plants grow on these dunes and hold them together, which allows even larger plants to take root and grow. But if the plants are removed, entire dunes can gradually move further inland, covering

Source 1   Shark Bay in Western Australia, is an example of a depositional landform.

ridge
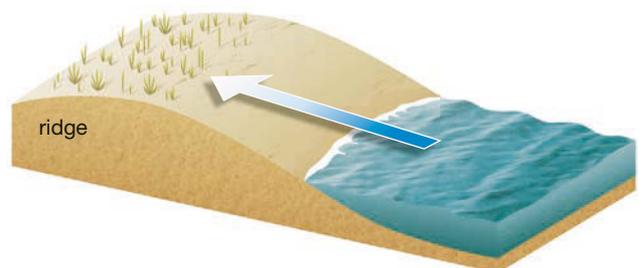
Source 2   Constructive waves carry sand onto the shore where it collects and forms a beach. Wind picks up dry sand and blows it inland.

secondary dune   primary dune   ridge
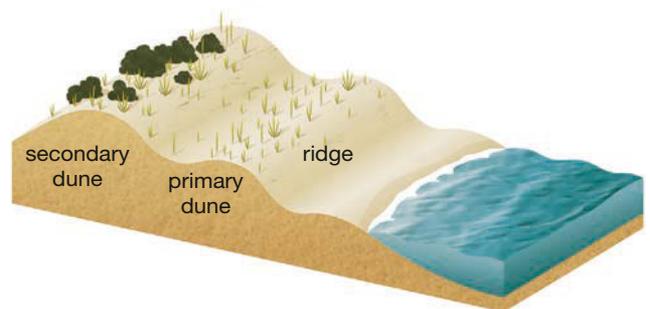
Source 3   Sand is trapped by plants and collects in dunes. Over time larger plants grow over the dunes, holding them together and making them stable.

Waves cannot get behind spit and a sheltered area develops; water enclosed behind the spit forms a lagoon

Spit stopped from growing further as river carries away deposited material

backwash

original coastline

swash

Headland: change in shape of land (deposition first occurs here)

longshore drift

Prevailing wind direction

Short-term change in wind direction

Spit forms when material is deposited

Over time, the spit grows longer and may develop a 'hook' shape if the wind direction changes

Source 4 How spits form

Source 5 A massive blowout dune inches its way across Fraser Island away from the beach.

roads, car parks, paddocks and plants. These are called **blowout dunes** (see Source 5).

As well as moving inland, sand moves along the coast as a result of longshore drift. As sand is deposited along coasts, other landforms can be created by the forces of water and wind.

A spit is a long, curved landform that is built up at the mouth of a river, which is where the river widens and ends. A river carries soil and rocks from upstream in its swiftly moving water. This material is dumped at the river mouth, forming a spit. Over time further soil and rocks collect at the river mouth, making the spit larger and more secure. This more stable environment encourages the growth of plants, which, in turn, provide habitats for animals.

Some spits grow so large that a river may be forced to change its course to reach the sea. Over thousands of years, the river mouth may move hundreds of metres along the coast and a stretch of calm water behind the spit, known as a **lagoon**, is formed. These are often home to communities of plants and wading birds, such as herons and egrets.

A tombolo is formed when waves curve around an island close to shore and deposit a bar of sand or other sediment on the lee side of the island (the side closest to the mainland). Eventually, enough material builds up on the leeward side that a permanent connection, or tombolo, is made between the island and the mainland (see Source 3 on page 93).

Check your learning 4.4

Remember and understand

1 Why do constructive waves tend to add sand to a beach rather than take it away?

2 What role does the wind play in the formation of sand dunes?

3 What is a lagoon and how does it form?

Apply and analyse

4 Why are waves important to the formation of a tombolo?

5 Is the dune in the photograph of Fraser Island (Source 5) advancing towards the camera or away from it? How can you tell?

6 Describe three key steps in the formation of a spit.

Evaluate and create

7 Draw a sketch map of Shark Bay (Source 1) showing the locations of sand, sea, rivers and forest. (For more information on sketch maps refer to 4B Rich task on pages 108–9.) Remember that a map is a view from above, not on an angle as in the photograph. On your sketch map, use arrows to show the movement of sand.

Mandurah, Western Australia

The city of Mandurah, south of Perth in Western Australia, is typical of many Australian coastal communities; it has a growing population, with thousands of people flocking to its beach in summer. However, the beaches at Mandurah have a problem – the sand there just will not stay put! For much of the year, winds approaching the coast from the south-west cause waves to strike the coast at an angle. These waves move sand northwards along the beach in the process known as longshore drift. At other times, winds from the north-west move sand away from Mandurah in a southwards direction.

Source 1   The fieldwork site at Silver Sands beach, Mandurah

Measuring longshore drift

The coast is a popular place for geography field trips because it is possible to see and measure many of the changes that are taking place there. There are several ways to measure the forces responsible for longshore drift. You will need some equipment to do this and you will need to record your findings carefully so you can process the data back in the classroom and present your findings.

Step 1 Measuring wind direction. Stand on the beach and feel the wind. Use a magnetic compass oriented to north (see Source 2) to determine the direction from which the wind is blowing. You may need to drop a few grains of dry sand to help you establish the wind direction. Try to establish the wind's 'average' direction. Draw a line in the sand showing this direction.

Source 2   A magnetic compass oriented to north

Source 3   This boy is measuring wind speed with a hand-held anemometer.

Step 2 Measuring wind speed. The device for measuring wind speed is called an anemometer. Your school's sports department may have an anemometer, as they are sometimes used to measure wind speed at athletic events. Set up the anemometer and take regular readings of the wind speed every 5 minutes over a 20-minute period. This will allow you to work out the average wind speed.

Step 3 Measuring longshore drift. Measure and mark out a set distance of 10 metres on the beach near the water's edge. Stand at the upwind end of your marked-out area and throw an orange out into the water directly from that point. Record the time taken in seconds for the orange to move 10 metres along the coast. Divide this number by 10 to find out the rate of longshore drift in metres per second. Try this at a few different places along the beach and a few different distances from the shoreline in order to work out the average speed of longshore drift. Use your magnetic compass to work out the direction of this drift. Retrieve the orange.

Apply the skill

1 List the equipment you would need to complete the fieldwork activities described.

2 Why is measuring wind direction important in understanding longshore drift?

3 Source 5 shows a student's notes from a field trip to Silver Sands beach at Mandurah (Source 1). Read them carefully and answer the questions that follow.

 a Calculate the average wind speed by adding together all the recorded speeds and dividing the total by four.

 b What other evidence was provided that it was windy on the day of the field trip?

 c Calculate the average rate of longshore drift. Add together the five observations and then divide the total by five.

 d Why was the sand moving northwards on the day of the field trip?

 e What other trend is apparent in the measurements of the longshore drift?

Year 8 Fieldwork: Silver Sands beach, Mandurah

Date: 7 September 2012
Location: Silver Sands beach, Mandurah
Weather: Fine (no rain) a bit windy
Waves: Medium (about 1–2 metres high) and choppy
Wind Direction: South–westerly

Wind speed observation

Time	Wind speed
10.00	22 km/hr
10.15	18 km/hr
10.30	26 km/hr
10.45	14 km/hr

Longshore drift observation

Test no.	Approximate distance from shore line	Time (in seconds) taken to travel 10 metres
1	5 metres	182
2	4 metres	190
3	12 metres	228
4	20 metres	425
5	10 metres	212

Direction of movement:
 Northwards

Evidence of sand movement:
I noticed that sand has banked up beside a stone wall that has been built into the sea. There was a lot of sand on one side of the wall but hardly any on the other side. When the wind blew strongly, sand was being blown along and across the beach. Some of this was blowing as far as the car park.

Source 5 Student fieldwork recorded at the fieldwork site at Silver Sands beach, Mandurah (Source 1)

Estuary

North

Source 4 Mandurah, Western Australia

Extend your understanding

1 Is Silver Sands beach being changed mainly by constructive waves or destructive waves? Give two reasons for your answer.

2 Look carefully at the oblique aerial photograph in Source 4.

 a In which direction is longshore drift moving sand at Mandurah beaches in this photograph? Give some evidence from the photograph for your answer.

 b How might longshore drift affect the opening of the river in the centre of the photograph?

 c What evidence is there of measures taken to try to limit and control longshore drift?

4.5 Coastal landscapes have many uses

Coastal landscapes are some of the most highly populated areas on Earth. About 3.5 billion people – more than 50 per cent of the world's population – live on or near a coast. Some geographers estimate that this number will double over the next 15 years.

In Australia, this figure is already much higher – 85 per cent of us live within 50 kilometres of the sea. Many coastal towns and cities are currently experiencing rapid population growth, increasing this figure even more.

Coastal areas are used for much more than places to live. Source 1 shows some of these uses and their impacts on the environment.

Gas and oil for personal and industrial use are piped onshore from wells at sea.

Goods are shipped to sites throughout the world.

Defence forces monitor coastal regions for national security.

Lighthouses are important landmarks that help ships navigate their way safely along dangerous stretches of coastline.

Desalination plants take in sea water and turn it into drinkable water.

Farmed oyster beds can provide pearls for jewellery and oyster meat for food.

People fish for both work and pleasure.

Tours for watching dolphins, whales and birds are popular with visitors to coastal areas.

Treated sewage is disposed of in the ocean. Stormwater is collected and diverted into the sea, often carrying with it pollutants (such as cigarette butts).

Source 1 How and why people use coastlines

Coasts are home to billions of people and some of the world's largest cities.

Coastal winds can be harnessed with wind turbines to produce clean energy.

Fertile land near coastal areas is often used for agriculture.

HOTEL

Holiday resorts are built to accommodate tourists.

Swimming, surfing, jetskiing, snorkelling, windsurfing, paragliding, kayaking and waterskiing are some popular coastal activities.

Beaches are used for recreation and are an important tourist drawcard.

Check your learning 4.5

Remember and understand

1 Name two ways in which ships and boats are used in a coastal landscape.

2 Which parts of the coastal landscape in Source 1 have attracted the most people? What are these people doing?

Apply and analyse

3 How do you use the coast? Which of the labels on Source 1 describe ways you use the coast?

4 Has the artist chosen to show a coast shaped by destructive or constructive waves? How can you tell?

5 How does tourism change coastal areas?

6 Why do you think so many people live near the coast?

Evaluate and create

7 Can you think of any uses of the coast not shown in Source 1?

8 Which activities shown in Source 1 would have no or very little impact on the natural environment? Which three would have the greatest impact?

9 Identify one activity shown in Source 1 that you believe has the greatest impact on the environment. Work with a partner to discuss some ways in which people could reduce the impact of this activity on the environment.

10 Use a street directory (or Google Maps) to examine a coastal city in Australia. Carefully examine the coastline of this city and list all the ways in which the people of the city have changed the coast or used it in some way. What are some common changes or uses and what are some surprising ones?

4.6 Managing coastal landscapes

The forces of nature are constantly changing coastal landscapes around the world. The shapes of beaches are changed; spits are formed; harbours fill with sand; and waves erode the coast, causing houses, roads and other structures to collapse into the sea. Cities and towns built in coastal areas are often affected by these natural processes.

The residents of coastal cities and towns around the world have responded by trying to control or manage the natural processes. Their responses differ depending on the types of forces being dealt with. For example, along depositional coastlines responses are designed to combat the presence of too much sand, while along erosional coastlines the responses are designed to combat the wearing away of the land.

Coastal management for depositional coasts

The main issue confronting communities along depositional coasts is sand movement. For example, the sand that makes up Adelaide's beaches is gradually moving northwards under the influence of longshore drift. This is causing the beaches in some areas to become narrower, leading to waves eroding land close to roads and houses. In other areas, sand is being deposited in river mouths, blocking boat access to the sea. In Australia, the Department of Sustainability, Environment, Water, Population and Communities is trying a number of measures to address this problem.

Constructing seawalls from large rocks, concrete blocks or sandbags can slow or even stop the movement of sand along the coast. **Groynes** – walls that jut out from a beach into the sea – prevent erosion of a beach by stopping waves from pounding onto the shore, and by directing them away from specific areas of the beach (see Source 1). **Training walls** – walls on either side of the mouth of a river – are built to prevent sand from blocking a harbour or river mouth (see Source 2).

Source 1 These groynes near Brighton Beach in Adelaide were built to protect the millions of cubic metres of sand pumped onto this beach in the 1990s.

Source 2 Two training walls and a breakwater have helped to trap sand at the mouth of Glenelg Harbour in Adelaide.

Another method to prevent the erosion of beaches is to move sand from one place to another. This method, known as beach nourishment (or beach replenishment), may involve moving thousands of truckloads of sand every year to reverse the effects of longshore drift. In Adelaide, millions of cubic metres of sand have been dredged from the sea floor or taken from dunes in other places and trucked onto the eroding beaches.

Coastal management for erosional coasts

In places where destructive waves are eroding the coast, communities have responded by building barriers, parallel to the coast, to prevent waves from reaching the coastline. These barriers are usually made of concrete or piles of rocks or rubble. Walls that are built out in the sea are called **breakwaters**. Walls that are built close to the coast are called **seawalls**. These barriers are designed to direct the water's force at the solid walls made of hard materials rather than the soft and easily moved sands and dunes.

While these walls may help in the short term, they can often create new problems. The energy of the wave may be deflected downwards, for example, eroding the front of the wall, weakening it until it eventually collapses into the sea. The shoreline is then left unprotected.

Source 3 Lakes Entrance on Victoria's east coast

Check your learning 4.6

Remember and understand

1 What are groynes and why have they been built in Adelaide?

2 Have the structures built at Glenelg Harbour (see Source 2) been successful in controlling the movement of sand? Give some evidence for your answer.

Apply and analyse

3 Examine Source 3 carefully.
   a Is this an erosional or depositional coast? What is your evidence for your answer?
   b What is the groyne designed to do? Is it working?
   c What is the training wall designed to do? Is it working?

Evaluate and create

4 There is a large build-up of sand in the river channel at Site A in Source 3. Over time it may build up further and become a danger to small boats using the river.
   a What does this build-up of sand tell you about the river?
   b What would you do to try to control this sand build-up? You may like to sketch your solution onto a copy of the photograph.

5 Draw a sketch map of a coastline that includes a groyne, training walls, seawalls and a breakwater. (For information on drawing sketch maps refer to 4B Rich task on pages 108–9.) Show these features in your map legend.

4.7 Caring for coastal landscapes

Many human activities are changing coastal landscapes in negative ways. Some of these changes (such as the building of new ports or holiday resorts) are deliberate, but many are accidental. A line of litter (such as fishing nets, plastic bottles and household rubbish) can be seen along the high tide mark of some beaches. The fragile vegetation on sand dunes is sometimes trampled and destroyed by thoughtless beach-goers; without the small bushes and trees that hold the dunes together, the wind blows sand further inland. Beaches are eroding, water quality is declining because of pollution and, in many places, coastal animals and plants are endangered by human activities.

Recognising that these threats exist, many people and organisations are working to preserve and protect our coastlines: from large global programs to individual volunteers who donate their time and energy. One such organisation is Coastcare, whose 60 000 volunteer members identify environmental problems in local coastal regions and work to solve those problems. Coastcare volunteers remove invasive weeds, litter and trampled plants from dune areas, and they plant new vegetation to anchor the dunes and keep the sand from blowing away.

Source 1   Years 9 and 10 students turn a beach into an open-air laboratory as part of the Teach Wild program

Source 2   Coastcare volunteers planting native vegetation on dunes near Darwin

Another organisation, Ocean Care Australia, is part of a global network that helps school and community groups to clean litter from coasts as part of an 'adopt-a-beach' program. Many schools, particularly those in coastal areas, have become involved in initiatives such as this.

Governments and large organisations have recognised the vital role that schools can play in educating young people about coastal issues. The Teach Wild program is just one of these. A partnership between the Australian Government (through **CSIRO**), Shell and Earthwatch Australia, this program enlists the help of school students to monitor the health of coastal ecosystems. As part of this program, school students collect and map debris (such as bottles, nets and other litter) found along the coast.

Case study: saving the Fairy Tern

Many plants and animals that live in the coastal environment are under threat from human activities. One bird that is considered to be at risk of extinction in Australia, New Zealand and New Caledonia is the Fairy Tern. There are about 5000 Fairy Terns in Australia. About half of these live in Western Australia; the rest are found in a few smaller colonies, primarily in South Australia, Victoria and southern New South Wales. Fairy Terns lay their eggs and raise their chicks in open nests in sand dunes, without cover from grasses and bushes. This makes them especially vulnerable to attack from introduced predators, such as wild foxes and domestic cats and dogs. The other major threat comes from four-wheel-drive vehicles, which disturb nesting pairs and destroy nests by driving straight over them.

Those terns that nest in national parks, however, have a helping hand. The managers of national parks can make and enforce clear rules about visitor behaviour. Restrictions on where people can go, and what they can and cannot do, are designed to protect the environment and to make the area safe for terns. In Coffin Bay National Park in South Australia, for example, Fairy Tern nesting sites have been fenced off and all vehicles are banned from these areas. Dogs are forbidden and fox numbers are kept under control through the use of poison baits. The numbers of birds are monitored by park rangers and by volunteer groups, such as Friends of Parks. These measures have seen the numbers of Fairy Terns in Coffin Bay stabilise. Rangers hope they will soon increase.

Source 3 A Fairy Tern nesting on an open beach

Check your learning 4.7

Remember and understand

1   What are some of the problems caused by people in coastal environments?
2   How are the individuals and groups in Sources 1 and 2 responding to these problems?
3   Why are the Fairy Terns so vulnerable to attack from predators?

Apply and analyse

4   While Coastcare is a national organisation, each local group can respond differently to issues at the coast. Explain why it is important that responses differ from place to place.
5   What could a Coastcare group at Coffin Bay do to help protect the Fairy Tern?
6   What could visitors to the coast do to reduce their impact on the natural environment?

Evaluate and create

7   Parts of Coffin Bay National Park are remote and wild places where access is only possible with a high-clearance four-wheel-drive vehicle.
    a   Why do people visit wild places such as Coffin Bay?
    b   What impacts might human activities have on the natural environment?
8   Create a leaflet that encourages people in coastal areas to join their local Coastcare group.

4B rich task

Gold Coast Seaway, Queensland

A good example of coastal management in action can be seen on Queensland's Gold Coast. Northward sand movement over centuries has caused the mouth of the Nerang River to be pushed north along the coast. This created a long spit sheltering a lagoon (known as the Broadwater). Although this is a natural process, it created several problems in the region. The southern tip of South Stradbroke Island was being eroded by the waters emerging from the mouth of the Nerang River, the spit was unstable and large amounts of moving sand in the mouth of the Nerang River made boating hazardous.

The solution was to build training walls at the mouth of the Nerang River to stabilise the sand and to direct the river flow away from the southern end of South Stradbroke Island. This structure became known as the Gold Coast Seaway. To move the drifting sand from one side of the seaway to the other, a 490-metre-long sand-collection jetty was built. Beneath the jetty are 10 pumps that collect the sand and pipe it to South Stradbroke Island. This sand-bypass system, which can move 500 cubic metres of sand an hour, was the only one in the world when it was completed in 1986.

skill**drill**

Drawing sketch maps

One of the most useful skills a geographer can master is the drawing of sketch maps. Sketch maps show the main features of the landscape that you are studying, but do not contain the details you would be expected to include on a formal map. While conducting fieldwork you will probably start with a basic outline map of the main features of the location you are studying, such as a coastline. The steps listed here are for a sketch map that you would complete as part of your fieldwork.

Source 1 Aerial photograph of the Nerang River entrance, 1984. You can see how the southern tip of South Stradbroke Island has been eroded by the waters flowing out of the river.

Source 2 An aerial photograph of the Nerang River entrance, 1985, at the beginning of the construction of the Gold Coast Seaway

Step 1 Look closely at the outline map you have been given to see if you can recognise some of the features around you. Orient your map by turning it around so that it is facing the right way.

Step 2 Decide on the focus of your fieldwork. If you are studying the ways in which people have managed a coastal landscape, for example, you will mark on your map features such as training walls and a sand collection jetty.

Step 3 Label the features that you recognise. Keep your writing neat and level across the page.

Step 4 Look around the area you are studying in your fieldwork and find other examples of ways in which people have managed the coast. Locate and label these on your sketch map. You may find it best to shade large areas, such as the training walls, and to add a legend to show the shading and any other symbols you use.

Step 5 Add carefully labelled arrows to show examples of movement. For example, in the sketch map of the Gold Coast Seaway (Source 4), an arrow shows the direction in which sand is moving. Other examples may include the movement of people, cars and water.

Step 6 Add any examples you can find of change over time. A build-up of sand on one side of a groyne, for example, shows that sand is moving along a beach.

A collapsed stack or a pile of rocks at the base of a cliff is evidence of erosion.

Step 7 Add a title that includes the date, and a north arrow. (You may need to use a compass.)

Apply the skill

1 Create a sketch map of the area shown in Source 1. Remember that all maps show a view from directly above. On your sketch map, show how people have managed this coast.

Extend your understanding

1 Why were training walls built at the mouth of the Nerang River?

2 What effect did the training walls have on the direction of water from the Nerang River?

3 Name the coastal process that the training walls are designed to manage.

4 How successful have the structures been? Give some evidence from the vertical aerial photograph (Source 3) for your answer.

5 What evidence is there in the photograph (Source 2) that sand is moving down the Nerang River?

Source 3 An aerial photograph of the Gold Coast Seaway, 2002. You can see how South Stradbroke Island has built up and become stabilised with natural vegetation.
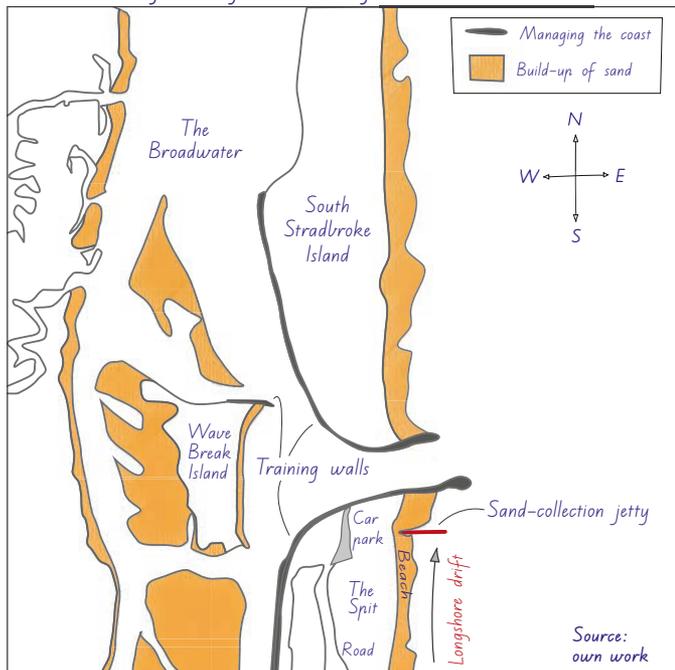
Source 4 A sketch map

4.8 Coastal erosion

Waves and currents are constantly changing coastal landscapes. In some places, wave action erodes beaches and cliffs, which can create many problems for people who live in coastal communities. Many built features (such as caravan park facilities, roads, houses, walls and playgrounds) on or near an eroding coastline face the constant threat of collapsing into the sea. Most at risk are communities built on sandy coastlines, as these landforms can change very rapidly – with devastating consequences.

Case study: Seabird, Western Australia

Location

Seabird is a community in Western Australia affected by coastal erosion. In Seabird, located about 100 kilometres north of Perth, structures such as houses have been built beside the beach and are threatened by the eroding coastline. Roads, paths and even the local power and phone lines are close to the beach and are in danger from coastal erosion.

Type and extent of damage

Researchers at Curtin University believe that one of the main causes of the erosion along Seabird's coast is the increasing number and strength of storms in recent years. In Seabird, storm waves batter the beach and scour out huge quantities of sand.

Since 2002 the foreshore has eroded by around 20 metres and in 2015 it became so bad that a road running alongside the beach crumbled into the ocean. As a result of the erosion, the town's fishing and tourism industries have declined, forcing people to relocate elsewhere.

Source 1   Coastal erosion has caused a road to collapse in Seabird, Western Australia.

Planning for erosion

The residents of the Seabird community joined together to mitigate (or reduce) the impact of coastal erosion on their town. The local council at Seabird have built a $2 million sea wall (see Source 2) in front of the threatened structures. This will reduce the strength and impact of waves that break on the shore. However, this solution is only temporary and is expected to last 10 years. In the meantime, the residents constructed another short-term solution by laying down concrete matting to hold the beach together. This has not been able to prevent erosion entirely though, with front lawns of some houses still being washed away.

Source 2   The seawall in Seabird during construction

keyconcept: Change

Future changes at Kingscliff

A study of the Kingscliff coastline in northern New South Wales has found that a strip of land 40 metres wide is vulnerable to strong storms and could be eroded to the point where it disappears entirely. This includes much of the caravan park and surf club and the entire bowling club. More alarmingly, the study found that a combination of rising sea levels due to climate change and the natural process of erosion will threaten much greater areas around Kingscliff in the future. The authors of the study estimated the rate of erosion in this area as about 20 centimetres a year. On the satellite image (Source 3), lines have been drawn that show areas at immediate risk in a storm, areas at risk by 2050 and areas at risk by 2100.

For more information on the key concept of change, refer to page 10 of 'The geography toolkit'.

LEGEND
— Line of immediate erosion risk
— Line of estimated 2050 erosion risk
— Line of estimated 2100 erosion risk
1 Kingscliff Beach Bowls Club
2 Kingscliff Beach Holiday Park
3 Cudgen Headland Surf Life Saving Club

0   150   300 m
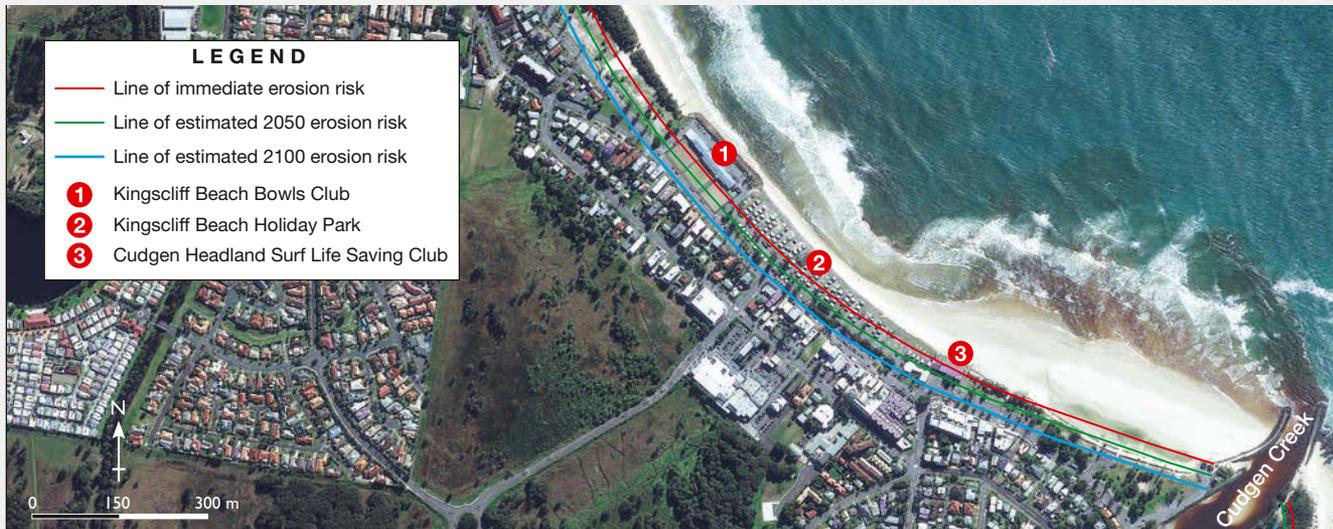
Source 3   A satellite image of Kingscliff showing areas at risk of coastal erosion

Check your learning 4.8

Remember and understand

1 Why are some coastal communities more at risk from coastal erosion than others?

2 How has the Seabird community responded to coastal erosion?

Apply and analyse

3 Examine Sources 1 and 2 showing Seabird severely affected by erosion.

   a List any changes as a result of erosion that you can identify in these sources.

   b Use your understanding of the way in which sand moves to explain these changes.

   c How might these changes affect local residents and holiday-makers in the region?

4 The community of Seabird has come up with a number of solutions to mitigate the damage of coastal erosion.

   a How could they have been more prepared for coastal erosion?

   b Could the community have prevented coastal erosion?

Evaluate and create

5 Examine Source 3 showing predicted changes in Kingscliff between now and 2100.

   a Describe the area at immediate risk from coastal erosion.

   b Use the scale to estimate the distance the coastline is predicted to move inland by 2100.

   c Describe the changes to this area if this prediction is correct.

   d What natural processes may occur between now and 2100 that will make this prediction incorrect?

6 Imagine that you have been asked by the Seabird community to help protect their coast from further erosion by storms. They also want their beach to be attractive to tourists. What advice would you give them?

4.9 Rip currents

On Australian beaches the biggest threat to people enjoying the sea is being swept away by a **rip current** while swimming, and then drowning.

At least one-half of all beach drowning deaths in Australia involve rip currents (more commonly known in Australia as 'rips'). During the summer, on average, there is a death related to rip currents every two or three days. Rip currents account for more deaths in Australia than bushfires, floods, cyclones, shark attacks and tsunamis combined in an average summer. So what is a rip current, and how can you avoid being caught in one?

A rip current is a channel of water (like a river within the sea) that moves swiftly from the beach out towards open water. This kind of current can develop on any shoreline affected by wave action. When waves are small their swash is slow and gentle, but in rougher water waves coming into shore will push water towards the shoreline. This water needs a place to go, and will move sideways along the shore and then shoot back out to sea at the first opportunity. If there is an opening in a sand bar offshore, the water will head quickly in that direction. The resulting 'river within a sea' will usually travel at about half a metre per second, but can also be several times that speed. Because this quickly moving water appears to be quite smooth on the surface, swimmers frequently mistake these patches of water for safe, calm waters – and that is when they find themselves in great danger.

In some places, such as at Bondi Beach, rip currents are almost constant features. The rip current at Bondi Beach even has a name – the Backpackers' Express – after the many inexperienced foreign backpackers who are caught in it each year. In other places, rip currents can suddenly appear and disappear. They may stay in place for a few hours or for only a few minutes. On one day they may be at one end of the beach and the following day appear at the other end. Popular surfing beaches around Margaret River and metropolitan Perth also develop hazardous rip currents. These temporary rip currents are generally more dangerous, as beachgoers can be caught by surprise.

Source 1 The 'Backpackers' Express' rip current at Bondi Beach, Sydney, can make this popular beach a dangerous place to swim.

Source 2 A surf life saver pulls a swimmer from a rip current. Surf life savers have patrolled Australian beaches for over 100 years and in that time they have saved more than 600 000 lives.

Source 3 A poster released by Surf Life Saving Australia with advice about avoiding and escaping a rip current

Staying safe

The best way to stay safe at the beach is to avoid rip currents in the first place. Before you enter the water, watch the surf for a few minutes. Areas of calm, darker or murky water may indicate that a rip current is present. You should always swim between the flags at beaches that are patrolled by surf life savers. Surf life savers carefully inspect the beach and find a safer swimming area away from rip currents. Red and yellow flags indicate where this section of the beach is located and also show that life savers are on duty, watching swimmers and helping when needed.

Check your learning 4.9

Remember and understand

1   What is a rip current?
2   What is the best way to avoid being caught in a rip current?

Apply and analyse

3   Why do you think people swim where there is a rip current rather than on a sandbank which is relatively safer?
4   Why do you think the Bondi Beach rip current is called the Backpackers' Express?
5   There are no flags on the beach shown in Source 1. What does this tell you about this beach? What does it tell you about the people who are swimming?

Evaluate and create

6   Design a sign that could be used to warn swimmers about rip currents. Use a symbol or picture rather than words on your sign to explain the danger.

4.10 Tsunamis

Giant waves called tsunamis (a Japanese word meaning 'harbour wave') are perhaps the most terrifying coastal hazard. A tsunami is created when natural events move a huge amount of water in a short period of time. The largest and most common tsunamis are created when the sea floor moves upwards during an earthquake. This causes a series of high, very broad waves to be generated. Other events that can cause tsunamis include underwater volcanic eruptions and landslides. Smaller tsunamis can be created when a large landslide reaches the sea or when large sheets of ice break off glaciers.

Indian Ocean earthquake and tsunami (2004)

On Boxing Day 2004, a natural disaster of epic scale and force struck many of the countries surrounding the Indian Ocean. A huge earthquake near the southern coast of the Indonesian island of Sumatra triggered massive, broad waves of water that slammed into nearby coastal towns and cities, such as Banda Aceh in Indonesia. The tsunami then travelled across the Indian Ocean, sending huge amounts of water inland with tremendous force wherever it encountered low-lying coastal areas. Indonesia, Sri Lanka, India and Thailand were most affected, but deaths were recorded as far away as Somalia, Tanzania and even South Africa. By the time the tsunami had run its course, much of coastal Asia lay in ruins.

Source 2 Banda Aceh, Indonesia, before and after the tsunami struck – 23 June 2004 (top) and 28 December 2004 (bottom)

❷ Build
The energy from the movement of the sea floor causes ripples in the ocean to move outwards at speeds of up to 800 kilometres per hour.

❶ Origin
The movement of the sea bed causes the water above to be displaced (moved), generating massive amounts of energy.

❸ Travel
As the waves travel across the ocean, they increase in length.

❹ Approach
As the waves approach the coast, they slow dramatically but they grow in height. Waves that were barely noticeable at sea may suddenly become 5 or 10 metres high.

❺ Impact
The giant waves collide with the shore, causing massive damage. In low-lying areas and river estuaries they may run several kilometres inland. As the water flows back to the sea the destruction continues as people and properties are washed away.

Source 1 The life cycle of a tsunami

keyconcept: Space

Where do tsunamis occur?

Geographers have noticed that some coastal areas are much more at risk from tsunamis than others. By comparing the distribution of tectonic plate boundaries, earthquakes and tsunamis, they found that coastal areas facing a region where undersea earthquakes occur are most at risk from tsunamis. Japan is the world's most earthquake-prone country, as its east coast lies within 100 kilometres of a very active plate boundary.

For more information on the key concept of space, refer to page 7 of 'The geography toolkit'.

WORLD: TSUNAMI THREAT AND OCCURRENCE
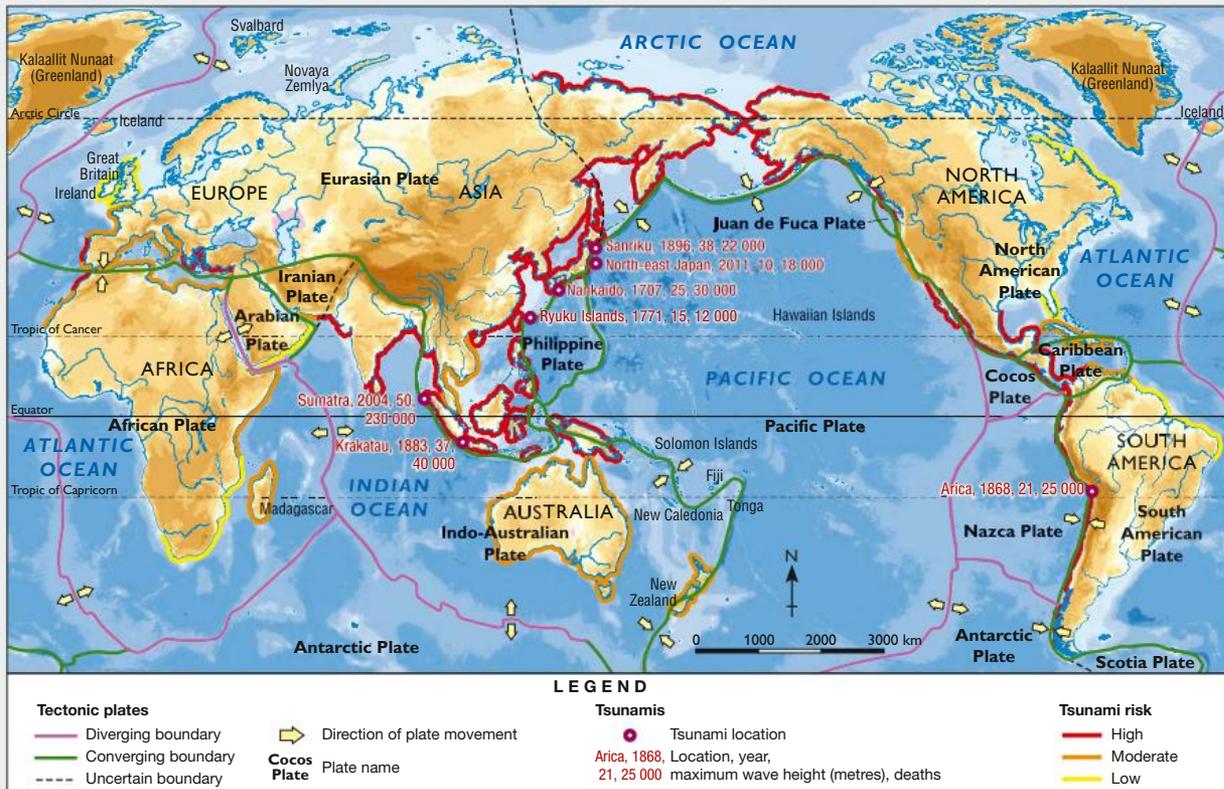
Source 3

Source: Oxford University Press

Check your learning 4.10

Remember and understand

1   What are some of the causes of tsunamis?

2   In 2004, which countries were worst hit by the Indian Ocean earthquake and tsunami?

3   Describe how a tsunami wave changes as it approaches the coast. How do these changes make it more dangerous?

Apply and analyse

4   Study the map (Source 3). Describe the distribution of the most tsunami-prone regions of the world.

5   Describe the relationship between plate boundaries and the level of tsunami threat as shown on the map. Give the names of specific places and plates in your answer.

Evaluate and create

6   Sketch the outline of the Banda Aceh coast as shown in the June 2004 satellite image (Source 2, top). On your sketch label five changes caused by the 2004 tsunami.

7   While the 2004 tsunami caused immediate damage to Banda Aceh, some of its effects will be felt for years. In a small group, discuss how tsunamis affect people and places, and classify the effects as either short-term or long-term.

4.11 Japan earthquake and tsunami (2011)

The world's largest **tectonic plate**, the Pacific Plate, is moving slowly westwards towards Japan at the rate of about 80 millimetres a year (see Source 3 on page 115). This movement causes many earthquakes and makes Japan the 'tsunami capital' of the world. Because of the danger, many Japanese towns and cities are protected from tsunamis by high seawalls. There are also many tsunami evacuation centres built on higher ground across Japan. Japanese people, aware of the threat, are educated about ways to prepare for a tsunami event.

On 11 March 2011, all these preparations were put to the test when one of the largest earthquakes ever recorded sent massive tsunami waves racing towards Japan and eastward across the Pacific Ocean. Within an hour, tsunami waves up to 7 metres high reached Japan's east coast and caused immediate devastation.

The waves in some places pushed several kilometres inland. The water cascaded over the tsunami walls and washed away buildings, cars, roads and people. The damage was worst in areas close to the epicentre of the earthquake; in these areas entire towns were destroyed or completely washed away. The movement of the tsunami waves was strongly influenced by the shape of the land, as the water tended to be funnelled into estuaries and bays. In one location, researchers found fishing equipment that had been carried 30 metres up a cliff face, making these waves among the highest ever recorded in Japan.

In some places, the earthquake caused land to sink (subside) and this allowed the waves to travel even further inland. Almost 300 000 buildings were completely destroyed and more than 1 million were damaged. Four large shipping ports were destroyed and a further 300 fishing ports were damaged. Damage to power stations and electricity lines left more than 4 million homes without electricity. An estimated 25 million tonnes of debris was created in the earthquake and tsunami, 5 million tonnes of which was washed into the Pacific Ocean. Items such as boats and soccer balls began washing onto the west coast of North America about a year after the disaster.

JAPAN: 2011 EARTHQUAKE AND TSUNAMI

LEGEND
- ★ Earthquake epicentre
- Tectonic plate boundary
- Worst affected area
- ● Tokyo Capital city
- Pacific Plate Plate name

RUSSIA
North American Plate
Hokkaido
Tsugaru Strait
PACIFIC OCEAN
Japan Trench
Pacific Plate
NORTH KOREA
Pyongyang
SEA OF JAPAN
Eurasian Plate
Fukushima Daiichi Power Plant
YELLOW SEA
Seoul
Honshu
SOUTH KOREA
Tokyo
Plate moving west at approximately 83 mm/year
Cheju Strait
Korea Strait
Cheju Island
Shikoku
EAST CHINA SEA
Kyushu
Philippine Plate
N
0 200 400 km

Source 1

Source: Oxford University Press

Source 2 The 2011 Japanese tsunami destroyed everything in its path as it moved inland (from left to right)

Eleven nuclear reactors that supplied electricity in Japan were immediately shut down after the initial earthquake, but the safety systems of several of these plants were destroyed in the tsunami that followed.

This caused three of the nuclear reactors at the Fukushima Daiichi Power Plant to overheat and go into meltdown, releasing high levels of radiation into the atmosphere. In response to the disaster, all people living within 20 kilometres of the damaged power plant were ordered to evacuate their homes.

The final death toll may never be known but authorities estimate that nearly 16 000 people were killed by the earthquake and tsunami and more than 6000 were seriously injured. More than 12 months after the disaster, more than 3000 people were still listed as missing.

Check your learning 4.11

Remember and understand

1 What event triggered the Japanese tsunami in March 2011?

2 What were some of the effects of the tsunami on people within an hour of the waves striking the coast? What were some of the effects that would still be felt a year later?

Apply and analyse

3 Examine Source 1. Describe the location of Japan relative to tectonic plate boundaries. How does this location make the country the 'tsunami capital of the world'?

4 The epicentre of the earthquake was about 70 kilometres from the coast of Japan. How soon did the tsunami waves reach Japan's east coast? How fast were they travelling? At this speed, how long would they take to reach California, 7800 kilometres away?

Evaluate and create

5 In the photograph (Source 2), the first tsunami wave can be seen as it moves from left to right. Describe what you think will happen in this place in the 15 minutes after this photograph was taken.

6 Japanese children are taught what to do if a tsunami wave is approaching. What do you think they are told to do?

The Twelve Apostles

Victoria's south-western coastline is under constant attack from the water. Large, destructive waves from the Southern Ocean are eroding the soft limestone. Softer rocks are being eroded more quickly, while harder rocks are withstanding the attack a little longer. These harder rocks remain as stacks, arches and headlands, producing one of the world's most spectacular coasts. More than 1 million visitors a year are drawn to the Port Campbell coast, many of whom are secondary-school students who come to see and study coastal erosion in action.

skill**drill**

Creating a field sketch

Field sketching is an important skill for all geographers. Field sketching is used to show the different geographic features of a landscape in a simple visual form. Being able to sketch the features of an environment is useful as it can provide the geographer with a visual record of their observations while in the field. Outlines, shading and annotations and labels are all used by the geographer to capture all relevant details of the environment being observed in their sketch.

For example, imagine that you are standing on the viewing platform looking at the Twelve Apostles while on a geography field trip. You have been asked to complete a field sketch with a focus on the ways in which this coast is changing. Sources 2 to 4 demonstrate how to build up a field sketch. Here are the steps to take when completing a field sketch.

Source 1 The Twelve Apostles seen from the visitor's viewing platform

Step 1 Establish the boundaries of your landscape and draw a border of the correct shape.

Step 2 With a pencil, lightly sketch the main landscape lines. If there is a horizon in the scene put this about one-third from the top of the frame.

Step 3 Keeping in mind the features that you want to focus on, add detail to your sketch.

Step 4 Add shading. Shading helps to establish depth in your sketch and also helps to show the shape of objects.

Step 5 Add some colour if you wish. Don't try to copy every subtle colour of nature; just give a hint of the right colour. Label those parts of the scene that you consider most important.

Step 6 Label your sketch with the location and date.

Apply the skill

1 Complete a field sketch of Bondi Beach using Source 1 on page 112. On your sketch label the following features:

- rocks
- beach
- swimmers
- rip currents.

Use arrows to show the movement of water towards and away from the beach.

Source 2 Stage 1 in completing a field sketch of the Twelve Apostles

Source 3 Stage 2 in completing a field sketch of the Twelve Apostles

Extend your understanding

1 What evidence is there in the photograph that this coast is changing over time? Give some reasons for your answer.

2 What natural forces are bringing about these changes?

3 What hazards exist in this place for visitors?

4 How could these hazards be minimised?

5 If you were visiting a depositional coast on a field trip what could you sketch to show how the coast is changing?
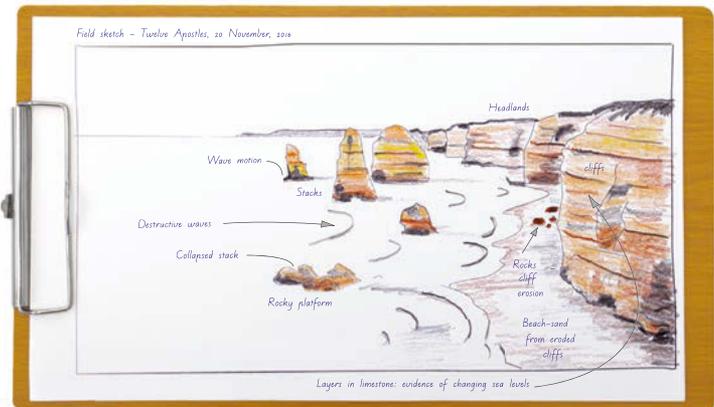
Source 4 Stage 3 in completing a field sketch of the Twelve Apostles

Life in different cities

Australia's original coastal settlements were established near sources of fresh water and deep harbours. Over time these settlements grew into cities, and Australia is now one of the most urbanised countries in the world, with nine out of 10 Australians living in an urban area. Around the world, cities keep getting bigger. Growing cities put pressure on land resources and require investment in **infrastructure** such as housing, roads, schools and other services. **Megacities**, many of which are located in Asia, can become swamped with so many people that even the basic supply of housing, clean water and sanitation is difficult.

5A

Why do people live in cities?

1   Why might the settlers who arrived in Western Australia in 1827 have chosen Perth (Source 1) to begin a colony?

2   Some of the world's cities are growing rapidly. What types of things attract people to cities?

3   What are some of the disadvantages of living in cities?

5B

Where do people in different countries live?

1   In which areas of Australia do most people live today?

2   Why do you think Australians live in these areas and not in other parts of the continent?

3   Where do you think most people live in Asia?

Source 1 A view of Perth's CBD

5C

How can we plan for Australia's urban future?

1 Look carefully at Source 1. How can you tell that Perth has grown into a city over a long period of time?

2 What problems do you think city planners might have to deal with?

5.1 The urban explosion

On an ordinary day in 2007, something extraordinary happened. For the first time in human history, the number of people living in urban areas (cities) was greater than the number of people living in **rural** areas. Since that day, the world's cities have continued to grow at a faster rate than rural areas. **Urbanisation** – the increase in the proportion of people living in urban areas – is one of the most significant changes in human population trends ever recorded.

For thousands of years of human history, cities have been the exception rather than the rule. In fact, billions of people have lived and died without ever seeing – let alone living in – a large city.

This all changed about 200 years ago with the arrival of the industrial age. New, improved farming methods and farm machinery meant that fewer people were needed to produce larger amounts of food. In the cities, new inventions, such as the steam engine and the knitting mill, created new jobs for many people. Less work in rural areas caused people to flood into cities looking for work and new opportunities. This trend quickly changed the economies of many countries, and cities became centres of industry and commerce.

Cities around the world have grown rapidly in the last 70 years. By around 1950, the world's population was 2.5 billion and there were seven cities with more than 5 million inhabitants. The largest of these cities was New York, with a population of around 12 million. Today, there are more than 7 billion people
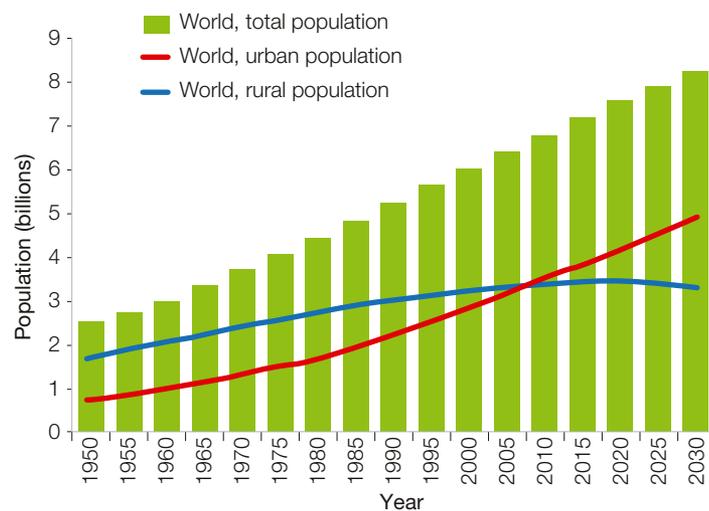
Source 1 The urban and rural population of the world, 1950–2030

on Earth and just over half of them live in cities. While many of these cities have populations under 1 million, there has been an explosion in the number and size of the world's very large cities. These cities, with a population greater than 10 million, have become known as megacities. As of 2012, there are 27 megacities around the world. Eleven of these have populations greater than 20 million. Geographers refer to the rapid growth of the world's cities in the last 20 years as an urban explosion.

Urbanisation in Australia

Australia is an urbanised country. At the moment, around 85 per cent of our population lives along the coast in major cities such as Perth, Sydney and Melbourne.

Source 2 1950 – New York was the world's largest city, with a population of just over 12 million people.

Source 3 2030 – Based on current trends, New Delhi is expected to be the world's largest city by 2030 with a population of over 40 million.

As our population grows, the area our cities take up increases. Perth's population alone is expected to more than double by 2056, reaching 4.3 million people. This has caused concern for some people who fear the environmental impact of urbanisation.

Perth, like many of Australia's cities, is spreading onto existing farmland or wilderness, a problem known as **urban sprawl**. By clearing land for new buildings and infrastructure, we increase the number of homes and services we have access to on the fringes of the city. However, in doing so, we destroy the habitats of local wildlife and increase the pollution in that area.

skill**drill**

Generating questions for a geographical inquiry

Geographers look carefully at the world around them and ask questions about what they see. The questions they ask often come from natural curiosity and may start a major investigation. When developing questions of your own for a geographical inquiry, follow these steps:

Step 1 Think about a topic or problem you would like to investigate. Conduct some research online or in the field in order to identify an exciting area to explore.

Step 2 Think about the types of patterns or exceptions that are linked to the topic you are investigating. Write a series of open-ended questions that help you to explore them. Open-ended questions can have more than one correct answer and cannot simply be answered with 'yes' or 'no'. An example might be 'Why are cities sometimes abandoned?'

For example, when investigating the image of the ancient ruins of the city of Uruk in Iraq (Source 4), a geographer would ask why this city was built in such a barren, dry place. This would then lead them onto other questions such as:

- Was this place wetter in the past?
- How did the people who lived here grow their food?
- Where did their water come from?

Apply the skill

1   Look carefully at Source 4 showing the ruins of part of one of the world's oldest cities.
    a   What looks out of place in this image?
    b   Generate an open-ended question that may help you investigate why this feature appears in this place.
    c   Generate another open-ended question about the people who once lived in this place.

2   Can you think of some more questions to ask about the city of Uruk, based on Source 4?

Source 4 Excavations in Iraq have revealed the ruins of the ancient city of Uruk.

Check your learning 5.1

Remember and understand

1   Do most people in the world today live in cities or in the countryside?
2   What is a megacity? Name three megacities.
3   Why has most of the world's population growth occurred in cities rather than in rural areas?
4   Study Source 1. Describe the growth of the world's population since 1950. Give two reasons for the trends you have described.

Apply and analyse

5   Why do you think many people in poorer countries move from rural areas to urban areas?

Evaluate and create

6   Compare the photos of New York and New Delhi (Sources 2 and 3). What are some features common to both cities? In what ways have large cities changed between 1950 and today?

5.2 How cities are organised

Like a jigsaw puzzle, cities are made up of individual pieces that, together, make up a distinctive **landscape** (see Source 1).

The sections that make up cities are sometimes called 'land use zones'. Each land use zone has a major purpose or function. For example, areas that are made up mainly of houses are called residential zones and their function is to provide places for people to sleep and live in. On the other hand, sectors that contain lots of factories and large warehouses are called industrial zones. Their function is to provide areas where businesses can work, construct, and store items without disturbing residential areas.

PERTH LAND USE, 2016

Source 1
Source: Oxford University Press

Check your learning 5.2

Remember and understand

1 Why are there often tall buildings near the city centre?

2 Look closely at the photograph of Lakeside Joondalup on page 125. Which features suggest that most customers arrive by car?

Apply and analyse

3 Study Source 1. How has the Swan River influenced the way land is used in Perth?

4 Why are industrial areas usually located near major transport links?

Evaluate and create

5 Work in groups to identify land use patterns in Source 1 and record possible reasons for this pattern.

New growth zone

New growth zones include newly developed housing estates, such as Alkimos, Baldivis and Ellenbrook. These areas are dedicated to rapidly developing infrastructure as population in these zones increases.

Outer business district

Commercial areas called outer business districts are usually located on major roads. Large shopping centres, including Lakeside Joondalup Shopping City, are now a feature of many suburbs in Australian cities.

Central business district (CBD)

The central business district (CBD) is generally the oldest and most accessible part of any city. Because lots of people and businesses compete to have offices there, developers build tall buildings to maximise the available land.

Industrial areas

Factories, mills and warehouses are important parts of most cities. Industrial areas are often located near important transport links (such as ports, freeways and rail lines) but as far away as possible from residential areas. Kwinana is a major industrial area in Perth.

Inner mixed zone

This zone is located next to the CBD and includes a mixture of functions such as commercial offices, residential buildings, restaurants, entertainment centres and small factories. In Perth, Northbridge, East Perth and West Perth are examples of inner mixed zones.

Parkland and nature areas

Parkland and nature areas, such as Kings Park, are important as they offer people living in cities sporting and recreation opportunities. They are also essential for ensuring that native plant and animal populations remain healthy.

Residential areas

The largest area of any city is used for housing and to provide facilities, such as hospitals and schools, for the people who live there. Australian cities are renowned for their sprawling residential areas.

Rural–urban fringe

This zone is located on the edge of the city and is where the urban land use and rural land use meet. Examples include Mundaring, Upper Swan and Cardup.

5.3 The advantages of cities

Australia's high level of urbanisation can have advantages, not only to the people who live in cities, but also to the nation as a whole. These advantages can roughly be divided into two categories – economic and social.

Economic advantages

Among the economic advantages offered by cities are access to work, industry, trade and, of course, income. Because cities are home to so many people, they are an obvious location for businesses and large companies to base their offices. Cities also provide companies with huge numbers of customers in a relatively small space, making it easier for them to sell their goods and services there. In addition, cities offer the best access to transport links, such as major highways, ports, railway lines and airports. These services (known as infrastructure) are vital for factories and businesses to manufacture and trade efficiently.

Probably the most obvious economic advantage offered by cities is the wide range of jobs available to those who live there. These range from jobs that involve little training and education through to highly skilled jobs requiring years of university study

and training. Three-quarters of all jobs in Australia are based in our major cities and the income generated in those cities accounts for around 80 per cent of the total economy.

Source 1 Cities, such as Perth (shown here), provide a range of travel and transport options for the people who live there.

Source 2 Cities, such as Sydney (shown here), offer a wide range of world-class hospitals and health care options for the residents there.

Source 3 Cities, such as Brisbane (shown here), are obvious locations for both small and large companies to base their offices because they offer access to a large number of potential customers.

Throughout history, cities have been the birthplace of new ideas and inventions that have changed the world. Some of these (such as skyscrapers, subways, elevators and sewerage systems) were invented in response to the challenges of city living. Other great inventions (including telephones, computers, cameras, the iPod and the internet) all began in cities. Many of history's greatest thinkers, including William Shakespeare and Albert Einstein, lived in cities. Cities continue to be places of innovation and change as they allow individuals and organisations to share ideas and resources effectively.

Social advantages

There are a range of social advantages of city life, including access to schools, hospitals and other services, and activities such as entertainment, sporting and cultural events.

Cities generally offer more social advantages than rural areas because there is a higher concentration of people in a smaller area. It is usually easier and cheaper to supply services to people who live closer together than to those who live far apart. As a result, city-dwellers have access to an enormous range of goods and services. Cities provide their residents with essential services, including water, electricity, supermarkets, public transport, health care, communication services (such as Internet access and wi-fi), schools and universities. In addition to these services, cities offer access to a range of non-essential products and services, including specialty boutiques, movie theatres, art galleries, casinos, aquariums, and major sporting and entertainment events.

One of the main ways in which the populations of Australian cities grow is through the arrival of people from overseas. For many newly arrived immigrants, the first experience of Australia will be a new home in a large city. Cities are obvious choices for new arrivals because they offer the best opportunities for employment, good access to government and support services (such as translators and community workers), and the best possibility of making links with people from their own cultural and language backgrounds. Immigration results in cultural diversity, which can often be seen in the range of shops, social and cultural organisations, restaurants and religious buildings (such as churches, mosques and temples). Over time, these new arrivals contribute to Australian cities and customs in many subtle ways. These changes help to make our cities dynamic and vibrant places.

Source 4 Constable Amitoj Singh, a member of the Sikh religion, is an example of how cultural and religious diversity can be seen across Australian cities. He is the first member of the Victoria Police to wear an official police-issue turban.

Check your learning 5.3

Remember and understand

1 Why do city-dwellers usually have access to a wide range of goods and services?

2 Why are cities often places of innovation and invention?

Apply and analyse

3 People in cities usually live longer than people in rural areas, particularly in poorer countries. Why do you think this is the case?

4 Examine Sources 1 to 3. What advantages of city living are shown in each of these images?

5 Why do you think young people in country towns often move to a city after they finish their high school education?

Evaluate and create

6 List a number of advantages of life in cities and then rank them from most to least important. How did you decide on your ranking? Did any of your classmates have a list similar to yours? Why/why not?

7 Australian inventions include the black box flight recorder, Google Maps, spray-on skin, the bionic ear, wi-fi and plastic banknotes. Select one of these (or another Australian invention) and research its inventor and the place where the invention was developed.

5.4 The disadvantages of cities

Although there are many advantages to city life, there are also a number of disadvantages. Cities house a large number of people in a relatively small space, and this can create a number of unwanted problems and disadvantages. These disadvantages can roughly be divided into two categories – environmental and social.

Environmental disadvantages

Cities change the natural environment in many ways. The people, factories, cars and industries based in cities often pollute the air, water and soil. The goods and services needed by the residents of cities include food, water, electricity, petrol and gas, and these often have to be transported long distances, creating even more pollution. As Australian cities grow in size they place an enormous amount of stress on the natural environment around them.

The locations we have chosen for our cities are also home to native plants and animals. As our cities and suburbs grow, forests and grasslands are cleared, lakes and wetlands are drained, and rivers are diverted or dammed. Soft earth is replaced with hard surfaces, such as concrete and roads. This often has disastrous
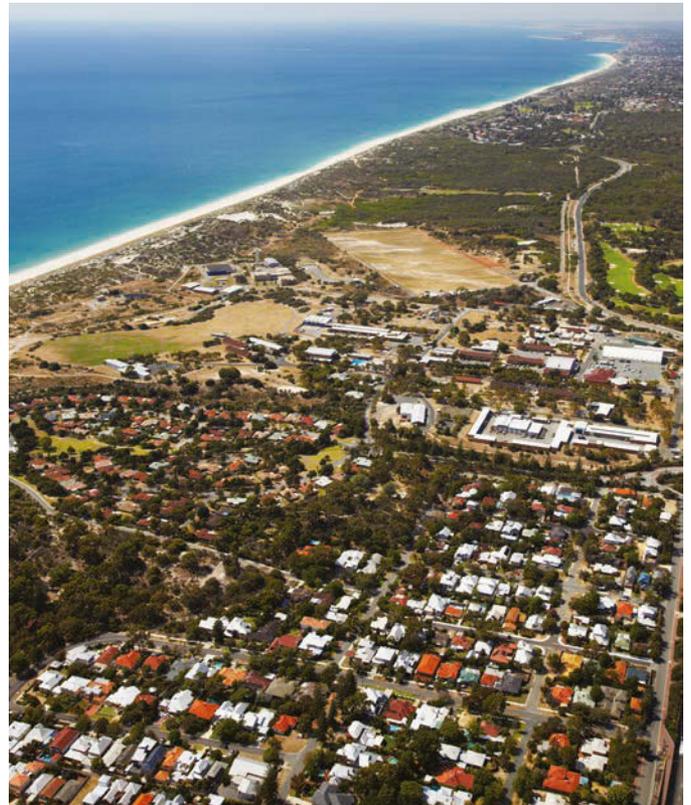
Source 2 New suburbs on the city fringes of Perth expanding into areas of native bushland

consequences for native animal and bird populations. A recent study found that more than half of Australia's rare or threatened plants, mammals, birds, reptiles and fish live in or near our cities.

Social disadvantages

The social disadvantages faced by city-dwellers can vary widely from suburb to suburb, so one person's experience may be very different from another's. Overcrowding and rising house prices might be a disadvantage for those living in the inner city, while lack of schools and hospitals might be a disadvantage for those living in new housing estates on the edge of the city.

As the populations of Australian cities grow, land on the edges of cities is often converted from farmland and green spaces into residential areas. This urban sprawl comes at a cost both to the environment and to people.

Source 1 The western swamp tortoise, native to the Swan Valley in Western Australia, is Australia's most endangered reptile, threatened by the loss of habitat due to land clearing for new houses.

Source 3 Traffic congestion is now a common problem in all major cities in Australia.

Regardless of where the residents of a city live, many will experience some form of disadvantage that impacts on their quality of life. Most of these disadvantages are linked to competition for services and resources. Because cities are home to large numbers of people concentrated in relatively small areas, these services and resources can be stretched beyond their limits. Some of the problems most commonly experienced by people living in cities include:

- traffic congestion – the result of too many people trying to use the roads at the same time
- rises in the cost of housing, food and utilities – the result of greater numbers of people competing for resources than can be supplied
- waiting times for schools, public transport and medical care – the result of more people trying to access these services than they were originally designed to accommodate
- rates of crime – the result of a complex combination of factors including unemployment, cultural and economic background, age and gender.

Check your learning 5.4

Remember and understand

1 Why is traffic congestion a common problem in many Australian cities?

2 How are western swamp tortoises (Source 1) being impacted by urban sprawl in Western Australia?

Apply and analyse

3 Describe the changes taking place in Source 2. How will these changes impact on the people who already live in this place? How will they impact on the natural environment?

Evaluate and create

4 With a partner, choose a large city in a developing country, such as Lagos (in Nigeria) or Mumbai (in India), and conduct a brief Internet search into the disadvantages of city life for people living there.

  a How might the problems experienced by people living in your chosen city be different from those experienced by city-dwellers in developed countries such as Australia and the United States?

  b Make a list of the disadvantages experienced by people living in your chosen city and another list of disadvantages experienced by people living in a large city close to you.

  c Which problems are the same and which are different?

5 What strategies do you think could be put into place to protect endangered species whose natural habitat is threatened by urban sprawl, such as the western swamp tortoise in Source 1?

5.5 The rise of the megacity in Asia

Today, more people around the world are living in cities than ever before. A century ago, only about 15 in every 100 people lived in cities. Today, that number is more than 50 in every 100 people. This increase has resulted in the creation and growth of many cities worldwide, and an explosion in the number of very large cities, known as megacities. Megacities are urban areas with populations of more than 10 million people.

In addition to the increase in the number of megacities over the last century, there has been a change in where these cities are found. No longer do the megacities of Europe and North America dominate – instead, the megacities of Asia, South America and Africa are becoming the world's largest.

Four of the world's megacities are explored briefly below. Although they are located in different parts of Asia and have many unique characteristics, they also face many of the same challenges and have more in common than you might at first think.

WORLD: MEGACITIES
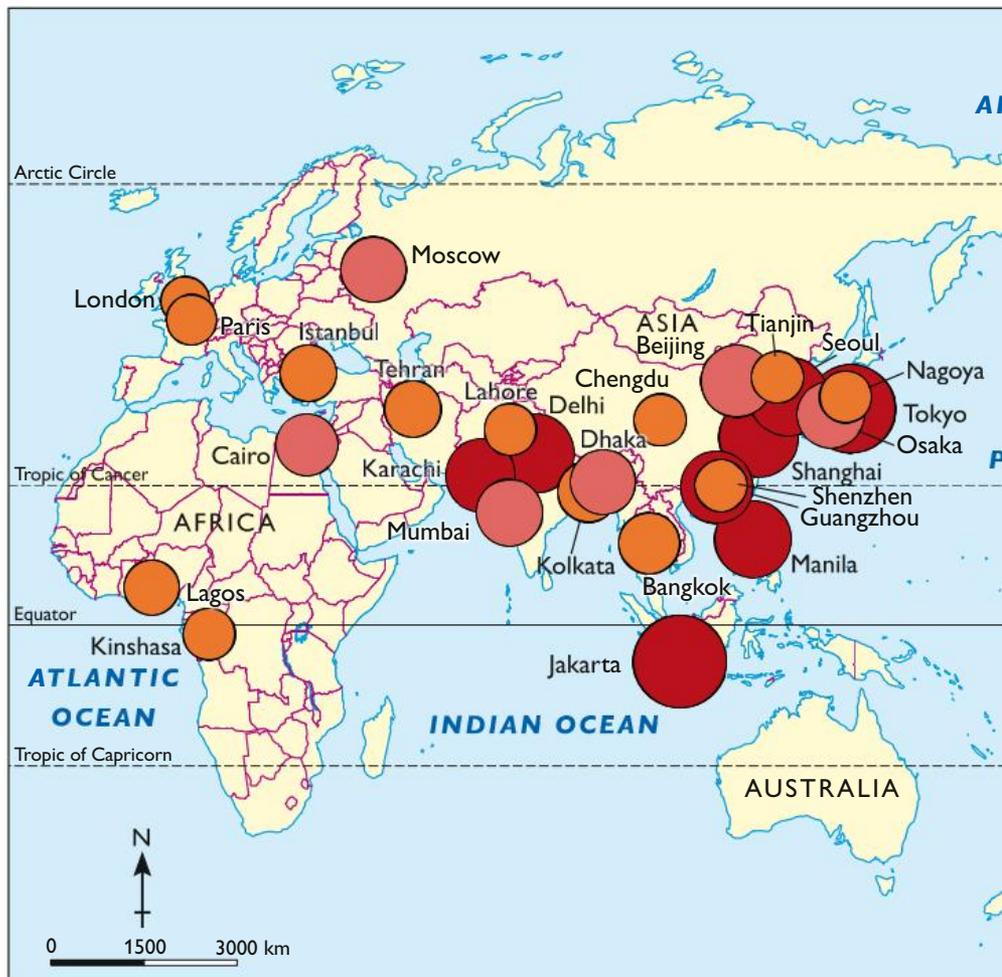
Source 1

Seoul

Seoul is the capital of South Korea and has a population of just over 25 million people. To the south of Seoul is the Han River and to the north are the Bukhan and Namsan mountains. Over half of the people living in South Korea live in Seoul, where they have access to one of the world's most advanced transport systems which includes buses, trains, subways and airports.

New Delhi

New Delhi in India has doubled its population to 25 million people since 1990. The megacity is located in the north of India and is the country's capital, established during British occupancy. New Delhi is ranked among the worst cities for air quality and pollution as a result of industry and a lack of infrastructure to cope with the many people living there.

Source: Oxford University Press

LEGEND

Urban population (millions)

■	Over 20
■	15 to 20
■	10 to 15

## Check your learning 5.5

Remember and understand

1   How many megacities are there in the world? How many of these megacities could you have named before reading the information given here?

2   Which continent is home to the most megacities?

3   Do you think the number of megacities will increase or decrease over the next 20 years? Give some possible reasons for your answer.

4   What are some of the problems faced by people living in megacities? Which of these problems will become worse as each of these cities grows in size?

Apply and analyse

5   Examine the location and distribution of the world's megacities. In what ways are many of their locations similar? What cities do not share all of these similar location features?

6   The images of these megacities show that tall buildings are common in many city centres. Why do you think this is the case? Why are there usually very few tall buildings on the edges of cities?

Evaluate and create

7   Select one of the megacities shown on the map (Source 1) that is not described in detail. Conduct some Internet research on this city. Find out about its location, history and any issues faced by the people who live there. Write a short paragraph about this city, similar to those shown here.
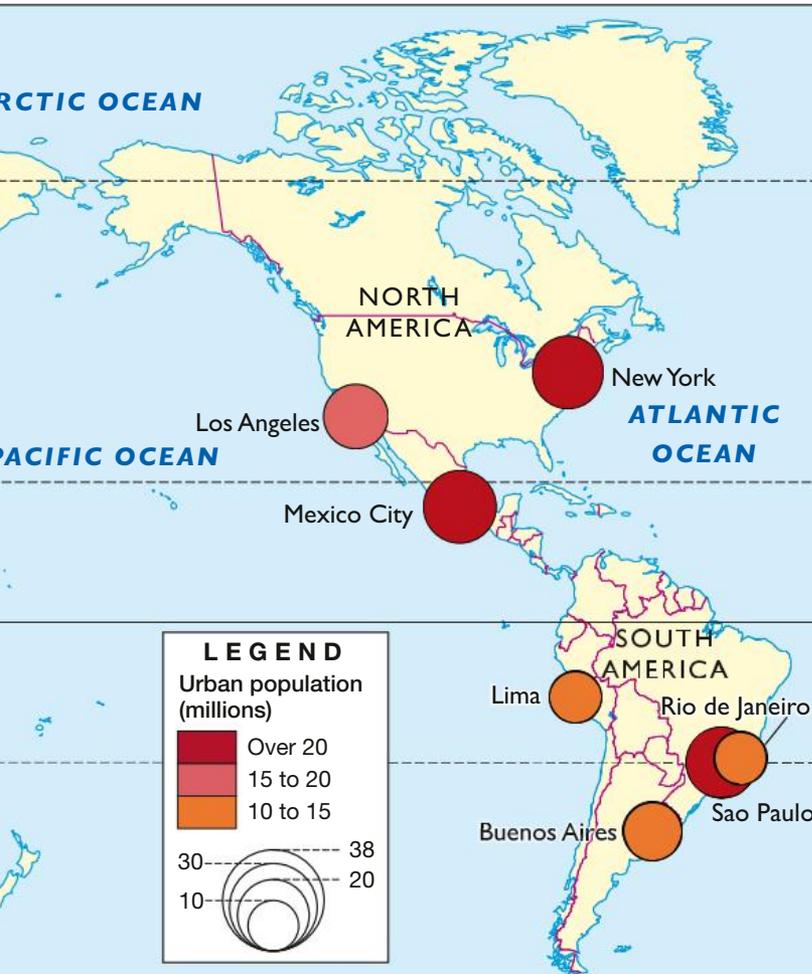
Jakarta

Current estimates put the population of Jakarta at about 30 million people. Up to half the population lives in slums, called kampongs, where temporary homes are built on land considered unsuitable for housing. One of the city's biggest problems is the fresh water supply. Most residents use bores (deep wells) to obtain their fresh water. In North Jakarta so much water has been drawn from the ground that the land has begun to subside (sink) in places, leading to a greater risk of flooding.

Tokyo

Tokyo is one of the most densely populated cities in the world with a population of some 37 million people. Tokyo is home to the world's busiest intersection in a district called Shibuya. It is the capital of Japan and is located just north west of Tokyo Bay. In spite of its many people, Tokyo is famous for the efficiency of its subway trains, very low crime rates and very little pollution.

5.6 Urbanisation in Asia

Asia is home to some of the world's largest and fastest growing cities. Of the 50 cities around the world with a population of over 5 million, half of them are located in Asia. Many of these cities are growing so quickly that they are unable to meet the demands of new residents, large numbers of whom are escaping rural poverty and looking for opportunities to improve their lives.

Urban growth in Indonesia

In 1950, Jakarta was the only Indonesian city with a population in excess of 1 million and only 15 per cent of Indonesia's population lived in urban areas. By 2010, a total of 10 cities had grown to have 1 million people.

INDONESIA: POPULATION DENSITY
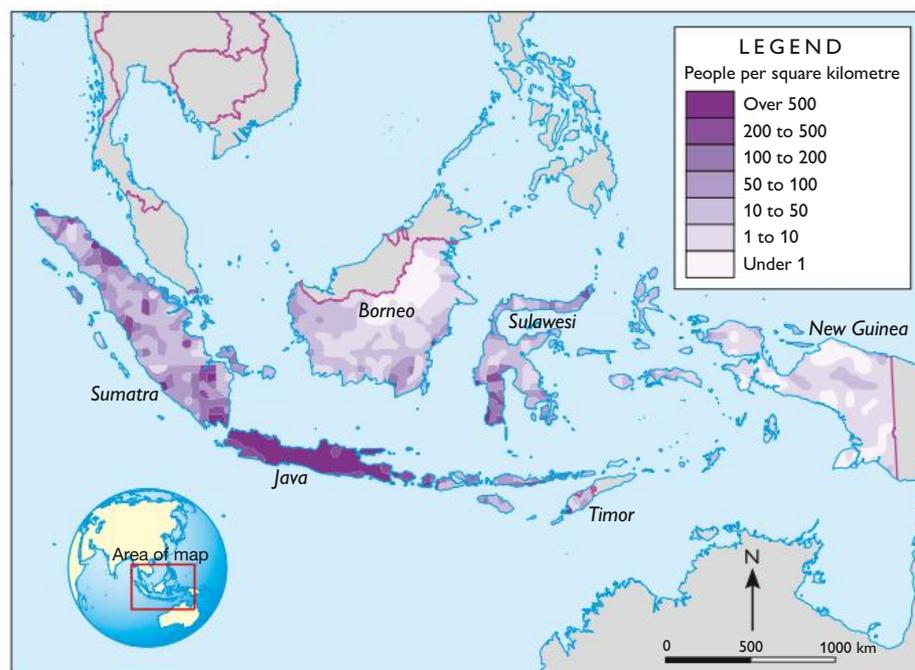
Source 1   Source: Oxford University Press

Between 2000 and 2010 Indonesia's population increased from 204 to 238 million. The proportion of the population living in urban centres also increased significantly during this period, from 42 per cent to 50 per cent. About 68 per cent of Indonesia's urban population lives in cities on the island of Java which has 20 cities with a population of 100 000 plus and seven cities with populations of over 1 million.

The **migration** of people from rural areas to large cities is a major factor in Indonesia's urban growth. Often, people living in rural areas lack employment and education opportunities so the younger people move to cities for work, entertainment, education and health services. They leave behind an ageing rural workforce. Of the 140 million farmers in Indonesia, 80 per cent are aged 45 and above.

Jakarta: Indonesia's megacity

Jakarta, the capital city of Indonesia, is located on the island of Java. In late 2011, the population of the official metropolitan area of Jakarta was recorded at 10.1 million, qualifying it as a megacity. In reality, however, the population of greater Jakarta (that is, the suburbs surrounding the metropolitan area) brings the total population closer to 30 million. Jakarta is a very old city, having been settled as a trading settlement over 1500 years ago. Jakarta is located on the north-western coast of Java. A range of volcanoes and hilly slopes south of the city feed a series of rivers that have built up a fertile floodplain leading to the Java Sea. The combination of the flat, low-lying plain and the tropical climate means that flooding is a frequent problem for the residents of Jakarta.

Like many other cities across Asia, Jakarta is a place of contrasts. Slums sit alongside skyscrapers, modern homes and luxury hotels. Half of the population of Jakarta lives in these slums. The homes there are often built from temporary materials on land considered unsuitable for regular housing. In the slums, running water, electricity and sanitation are difficult to obtain.

One of the biggest problems in Jakarta is the freshwater supply. The current piped system is largely ineffective, so most residents use **bores** to obtain their fresh water. In North Jakarta so much water has been drawn from the ground that the land has begun to sink in places, leading to a greater risk of flooding. A limited sewerage system due to the lack of running water makes the threat of disease a constant concern.

Source 2 A slum located in the metroplitan area of Jakarta, Indonesia

Source 3 Satellite images of Jakarta taken in 1976, 1989 and 2004. Urban areas appear as blue-green and vegetation appears as orange-red.

Check your learning 5.6

Remember and understand

1   What percentage of Indonesians live in urban areas? How did this change between 2000 and 2010?
2   In Indonesia, why are young people moving from rural areas to the cities?

Apply and analyse

3   How does Source 2 show the contrasting living conditions in Indonesia?
4   What health issues do you think the children in Source 2 might face?
5   How have residents in Java helped solve their freshwater supply problem? What additional problem has this caused?

Evaluate and create

6   Trace an outline of the city boundary of Jakarta in 1976 shown in Source 3. Mark the coastline and shade in areas of vegetation. Mark in any rivers or lakes that you can see. Now add an overlay sheet showing the city boundary in 2004. Describe the spatial change over time as shown on your overlay map.

5.7 Urban slums

As people pour into the world's cities they bring about great change. Many cities in Asia and around the world are struggling to cope with this urban explosion. Providing new arrivals with the basic services they need (such as water, food, housing and sanitation) is becoming difficult in many cities. As a result, many people moving to cities in the developing world find themselves living in **slums**. Every slum is different, but they share some basic features: poor housing standards and very little assistance from city authorities for the people who live there.

Virtually every city in the developing world has at least one slum. Some have grown to become cities in their own right as people continue to flood into the city. Most of the world's slum dwellers live in Africa and Asia but the world's largest slum, at about 4 million people, is in Mexico City. It is impossible to know exactly how many people live in slums but the United Nations estimates that the figure is more than 1 billion people; that is one-seventh of all humanity! Even more alarmingly, this number is expected to double to 2 billion over the next 20 years.

Case study: life in Dharavi slum, Mumbai, India

India has experience rapid urbanisation since gaining its independence in 1947. Unable to keep up with the demands of quickly growing industry and population, India is now home to many slums.

One such slum is located in India's largest megacity, Mumbai. It is known as Dharavi and was the setting for the Oscar-winning 2008 film *Slumdog Millionaire*. For hundreds of years, Dharavi was home to fishers who fished in the mangrove swamps and rivers surrounding the village. As the population of the nearby city of Mumbai grew, the city expanded outwards. By 1900 it had completely surrounded Dharavi. The swamps on which Dharavi had been built dried out and were filled in. With nowhere to fish, the traditional economy of the area collapsed, but a new economy was about to begin. The newly reclaimed swampland provided space for migrant communities arriving from the countryside. The former fishing village was soon transformed into a bustling suburb, which became home to people such as leather tanners, potters and garment workers.

Source 1 Dharavi slum in Mumbai, India
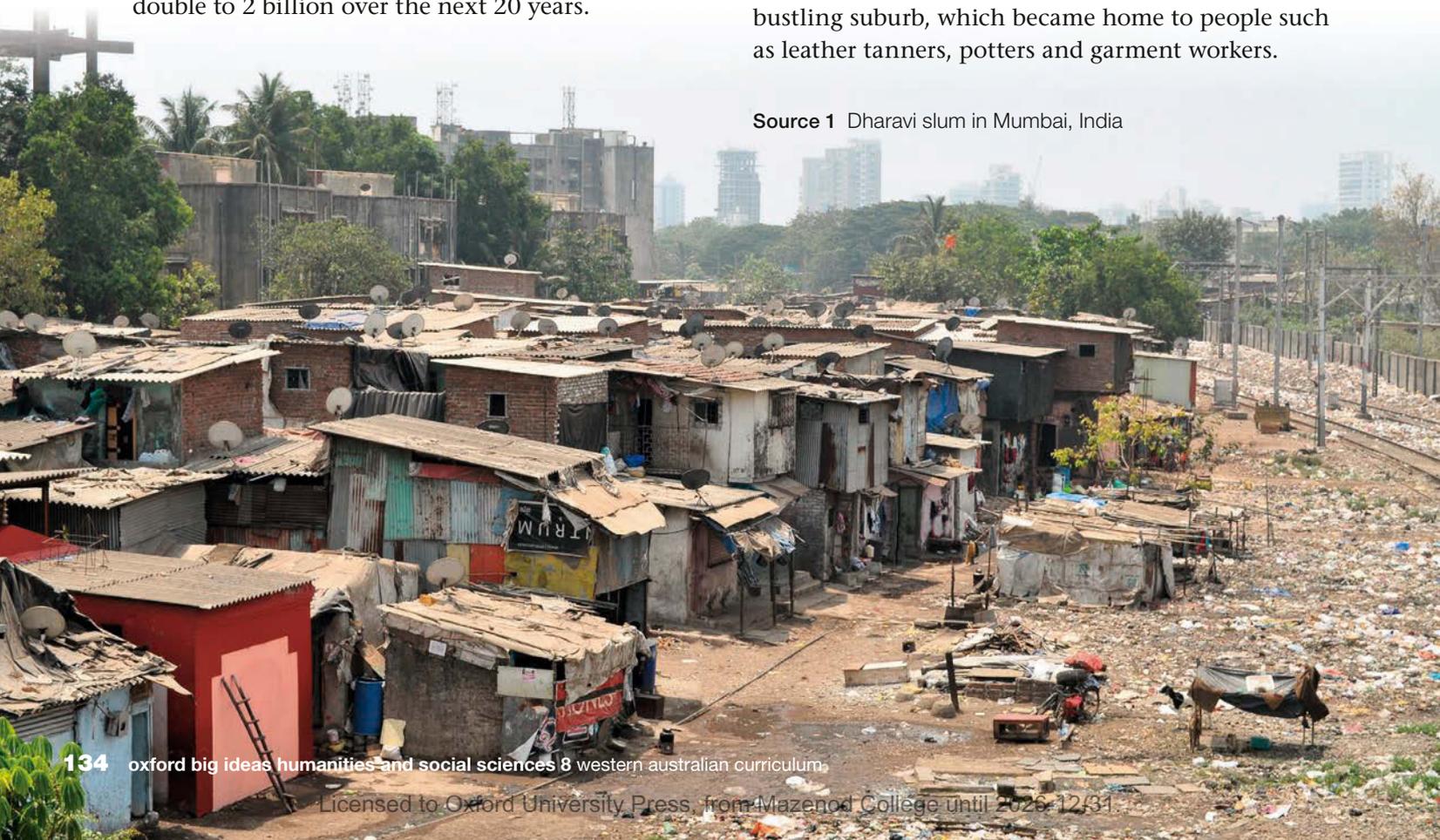
Source 2 This boy is employed to sort through rubbish and separate materials for recycling.

Attracted by the bright lights of Mumbai with its Bollywood film industry, cinemas, trains, buses, schools and jobs, thousands of rural migrants continue to pour into the city every day. Most of them arrive with no money and few possessions. They take up residence wherever they can, building crude homes from whatever materials they can salvage; no open space in the city is considered off limits.

While many new arrivals find space on the edges of Mumbai, some make their way to Dharavi, near the city centre. More people arrive daily. This tiny area of about 2 square kilometres has one of the world's highest population densities – 500 000 per square kilometre. This gives each person about 2 square metres of living space. The size of the total population is difficult to gauge but is thought to be more than 1 million. Most live in cramped, dirty conditions with only one toilet for every 1440 people. Canals and streams are heavily polluted with human waste. Water pipes are installed illegally by tapping into the city water mains that run past the slum. Electricity is connected in the same way.

Toxic black smoke spews from the oil drums that are used as furnaces all day. These furnaces power some of the heavy industries inside Dharavi, such as large-scale recycling, leather tanneries, metalwork and machinery manufacturing.

There is virtually no health care available inside Dharavi. Diseases from drinking contaminated water are particularly common.

Despite all these problems, there is a less gloomy side to Dharavi. Rather than a slum full of despair, many people consider it to be a slum of hope. While it is one of the world's largest slums, it is also one of the world's most prosperous. There are estimated to be about 15 000 single-room factories in the slum, most of them recycling items from the waste produced by Mumbai's 19 million people.

As Mumbai has increased in size and population, this tiny slum with 1 million residents has become some of the most valuable real estate in the city. Property developers, keen to take advantage of its good location close to the city, are pressuring the government to redevelop the area as housing for India's growing middle class. The current plan is to demolish Dharavi and build new high-rise apartments for the slum dwellers.

However, this plan is viewed with suspicion by many Dharavi residents. They prefer their do-it-yourself suburb to the proposed 'concrete jungle' of high-rise apartments. With India's population increasing by around 17 million a year, the pressures on India's planners and its people, including the slum dwellers of Dharavi, will intensify in the future.

Check your learning 5.7

Remember and understand

1   What is a slum?
2   Why has the number of people living in slums increased in recent years?
3   How has the suburb of Dharavi changed over time?
4   Why do some people refer to Dharavi as a 'slum of hope'?

Evaluate and create

5   Imagine that you were able to spend one day at Dharavi. Describe the sights, sounds, smells and tastes that you think you would experience.
6   Some people feel that slums such as Dharavi should be bulldozed and the residents forced to move into high-rise apartments. How do you feel about this? What points would you use to try to convince a person with the opposite point of view? Join a class discussion about the future of slums, such as Dharavi.
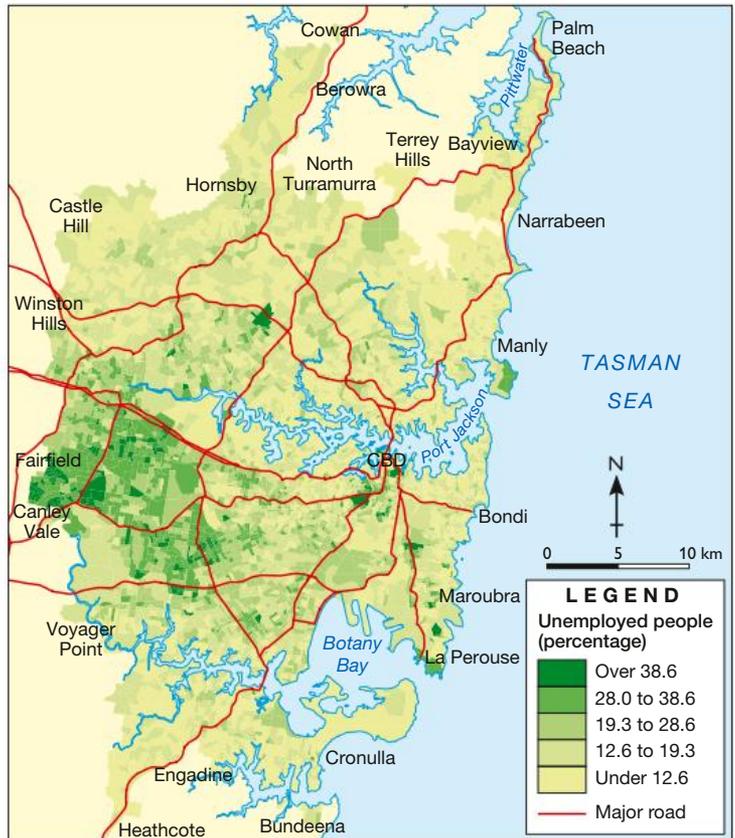
Sydney – our biggest city

In 1901, both Sydney and Melbourne were home to about half a million people. Within a few years, though, Sydney had outgrown Melbourne, and by the year 2000 Sydney was the only Australian city with a population over 4 million people. One in five Australians now live in Sydney and it continues to grow by over 35 000 people a year.

By studying the rate at which Sydney grows and by analysing the ways in which the population there is changing, geographers can learn a lot about the causes and effects of urbanisation in Australia.

SYDNEY: UNEMPLOYED PEOPLE, 2016

LEGEND
Unemployed people (percentage)

- Over 38.6
- 28.0 to 38.6
- 19.3 to 28.6
- 12.6 to 19.3
- Under 12.6
- Major road

Source 1   Source: Oxford University Press

skilldrill

Interpreting choropleth maps

Sources 1, 3 and 4 are known as choropleth maps. These maps give a quick impression of spatial patterns by using dark and light shades of the same or similar colours. Darker shades usually show 'the most' and lighter shades show 'the least'. To interpret a choropleth map, follow these steps:

Step 1 Read the title carefully so you understand what is being shown on the map.

Step 2 Look carefully at the legend so that you understand what the various shades and colours represent.

Step 3 Look for large areas of similar shades and for other patterns (such as lighter colours near the edges of the city and darker colours near the centre of the city in Sources 1, 3 and 4).

Step 4 Look for any exceptions to the general pattern.

Apply the skill

1 Study Source 4. Why do you think the areas with the highest percentage public transport users make linear patterns (i.e. form lines)?

2 Study Source 1.
   a Use direction (north, south, east or west) to describe the area of Sydney where the highest percentage of unemployed people live.
   b What might be some of the advantages of living in this region for people who are unemployed?
   c What might be some of the disadvantages of living in this region for people who are unemployed?

3 Study Source 3.
   a Which regions have the lowest percentage of people born overseas?
   b Which regions have the highest percentage of people born overseas?
   c What special services might the government offer in areas with larger numbers of immigrants?
   d In what ways can ethnicity change an area?

Extend your understanding

1   **a**   What resources do you think early settlers looked for when selecting a place to live in Australia?

b   How do you think this compared to the resources required by the Aboriginal people of Australia?

2   Study Source 2.

a   The city of Sydney was established on the southern shore of Port Jackson. How far south did Sydney grow by 1917?

b   In 1932 the Sydney Harbour Bridge was opened, linking the south to the north of Sydney over Port Jackson. How did this help the population to spread to Sydney's north shore?

c   Use direction and distance to explain the most recent pattern of growth in Sydney.

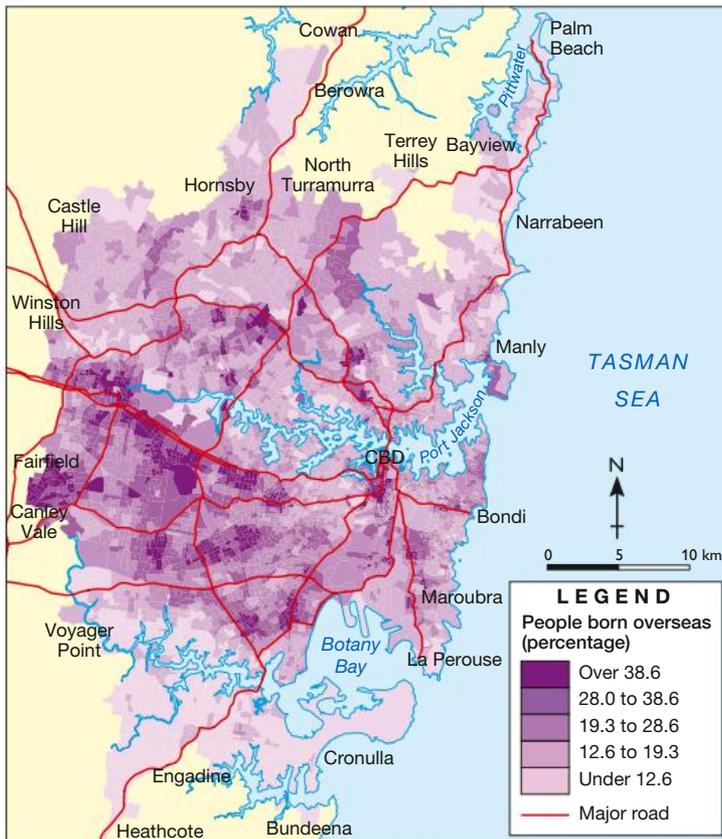SYDNEY: URBAN GROWTH
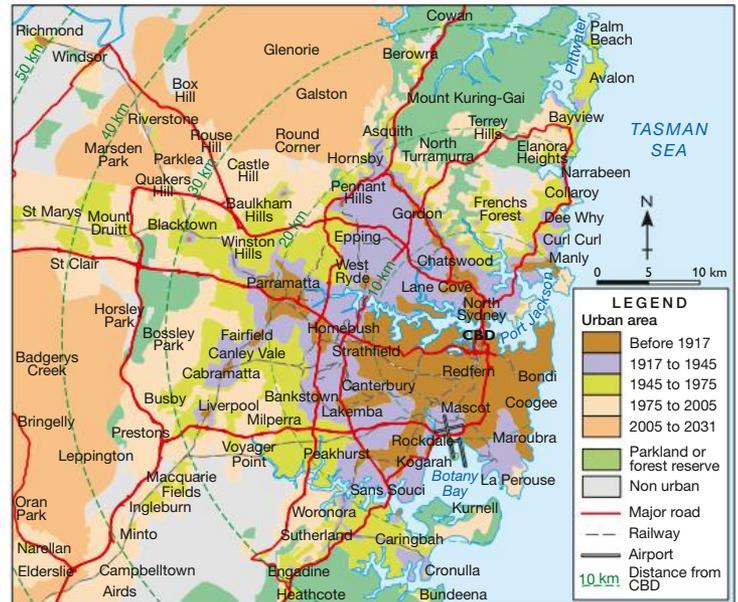
Source 2   Source: Oxford University Press

SYDNEY: PEOPLE BORN OVERSEAS, 2016

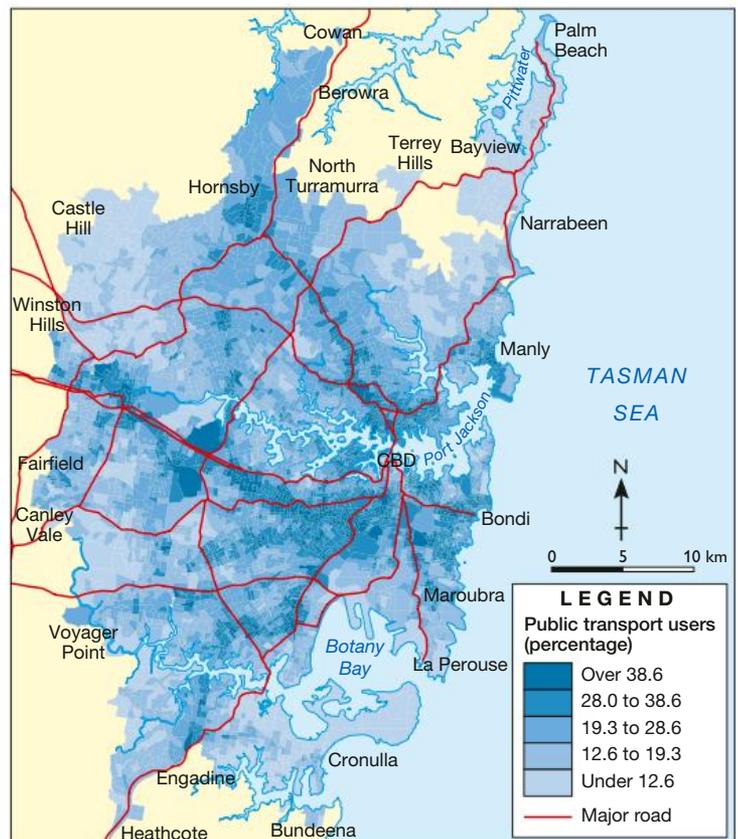**Source 3**   Source: Oxford University Press

SYDNEY: PUBLIC TRANSPORT USERS, 2016

Source 4   Source: Oxford University Press

5.8 Where Australians live

Australia's population is more unevenly spread than that of virtually any other country on Earth. Of the 23 million people who live in Australia, more than 12 million live in just five cities. All these cities are state capitals and all are located on the coast. Nearly 90 per cent of all Australians live in a town or city, and 85 per cent of us live within 50 kilometres of the coast.

Where do Australians live?

The best way to show the places where Australians live is to map the distribution of the population and study the **population density**. This not only shows the locations where people live but also the number of people who live in each square kilometre. Regions where there are lots of people per square kilometre are said to have a high population density. For example, Sydney's 10 most populated suburbs all have more than 10 000 people living in each square kilometre. Regions where there are very few people per square kilometre are said to have a low population density. Across Western Australia, the population density is one person per kilometre, but 315 people per square kilometre in Perth.

Australian cities

Cities in Australia are located close to the natural and/or built features that humans need most. These features include fresh water and fertile soil as well as transport links, such as harbours, railways and roads.

Most of Australia's earliest towns were settled on bays, harbours and at river mouths on the coast. These towns were able to trade and communicate with each other. Rivers not only provided clean drinking water but also water for growing food, cleaning, manufacturing and transport. Many of these early towns have grown into our largest cities – Sydney, Melbourne, Brisbane, Adelaide and Perth.

As farming spread and important minerals such as gold were discovered, inland cities such as Bendigo, Bathurst, Castlemaine, Ararat, Kalgoorlie and Rockhampton began to develop. Industrial towns such as Kwinana grew near transport hubs where goods could be sent to markets in Australia and overseas.

Source 1 Australia has one of the lowest population densities of any country on Earth. Ninety-seven per cent of Western Australia has a population density of less than 1 people per square kilometre.
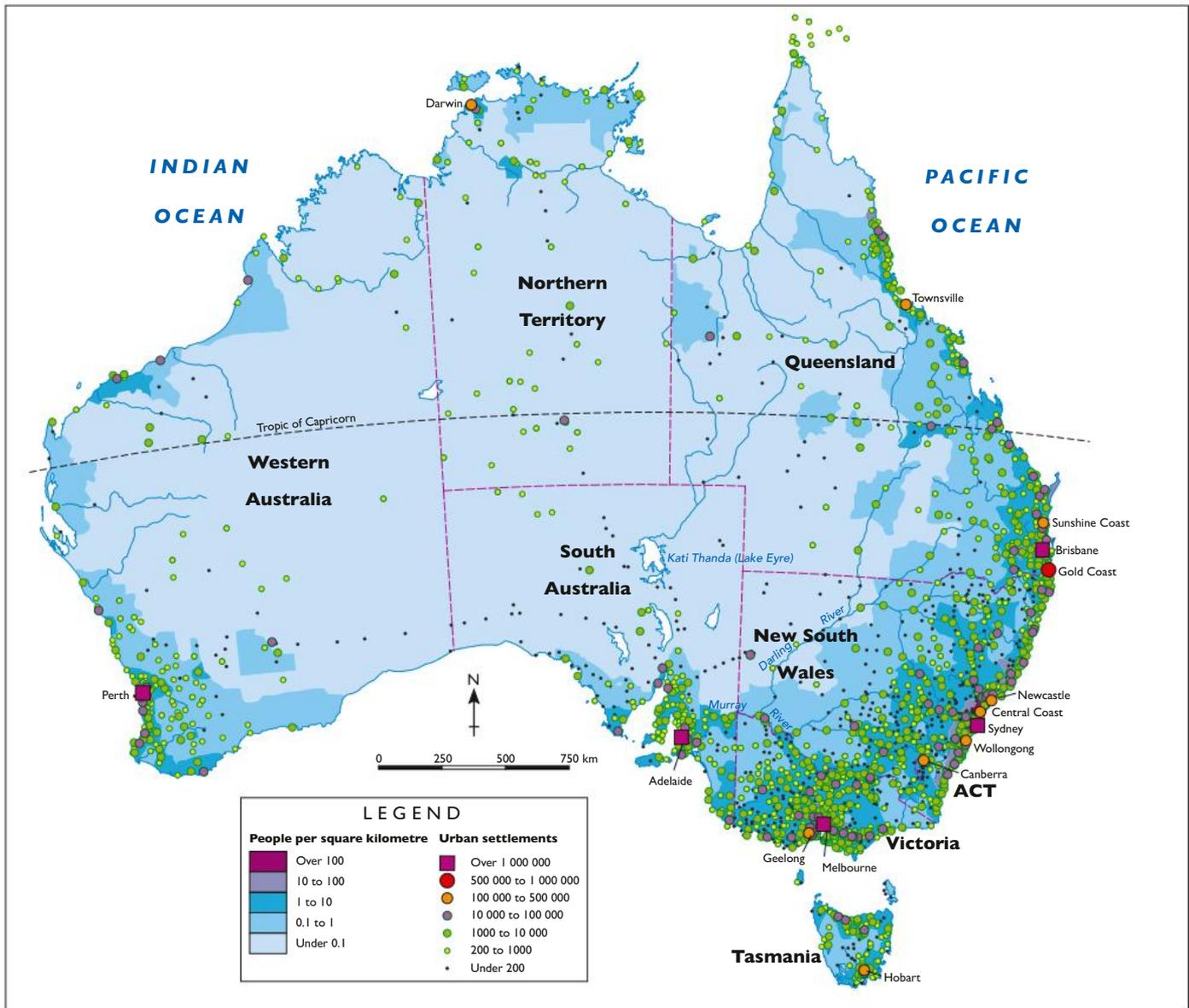

Source 2 South Australia's Barossa Valley has a medium population density as it includes a mix of towns and farming regions.

Source 3 The Sydney suburb of Elizabeth Bay is the most densely populated place in Australia with just over 20 000 people per square kilometre.

AUSTRALIA: POPULATION DENSITY AND DISTRIBUTION, 2016

Source 4

Check your learning 5.8

Remember and understand

1   Why are most cities located near a source of fresh water?

2   Which parts of Australia are densely populated?

3   Which parts of Australia are sparsely populated?

4   How many Australian cities have more than 1 million people? In what ways are their locations all the same?
    Why do you think this is the case?

Apply and analyse

5   Study Source 1. Why do you think so few people live in parts of Western Australia?

6   Compare Elizabeth Bay (Source 3) with the Barossa Valley (Source 2).

    a   In what ways are they similar and in what ways are they different?

    b   In which of these two places would you prefer to live and why?

7   Study Source 4 and describe the distribution of Australia's population using the PQE method. (See page 26 of 'The geography toolkit'.)

5.9 Why Australians live where they do

There are many reasons why people live where they do. In Australia, some of the most important factors relate to the natural environment. Much of the continent has low rainfall and poor soil fertility, making it very difficult for people to live and grow crops there. As a result, Australians tend to live in the parts of the country that receive the most rainfall.

The role of landscapes and climate

Australia's physical environments and different climate zones play a major role in where Australians choose to live. Places that receive the highest and most reliable rainfall are often the most populated. These regions are found in the south-east of the country, to the east of a mountain range known as the Great Dividing Range. This mountain range stretches from Cape York Peninsula in the north of Queensland to the Grampians in western Victoria. The Great Dividing Range has a great impact on the climate along the east coast of Australia, which in turn influences where people choose to settle (see Source 2). It also influences the kinds of vegetation that grow there and the kinds of animals that live there.

Winds from the south-east push warm, moist air over the land. This air is forced to rise over the Great Dividing Range. As the air rises, it cools. Cool air cannot hold as much moisture as warm air, so the moisture condenses into water droplets that fall as rain on the eastern side of the Great Dividing Range (see Source 1). The rain fills hundreds of rivers that run eastward to the coast. These rivers supply fresh water for drinking, food production, hydroelectricity, industry and transport. Most Australians live in coastal towns and cities near the mouths of these rivers. On the western side of the range, most of the land is dry and flat. The once moist air that passes over the range is now dry. As the air descends to the west of the Great Dividing Range it becomes warmer but remains dry, so little rain falls there. As a result, very few people live there.
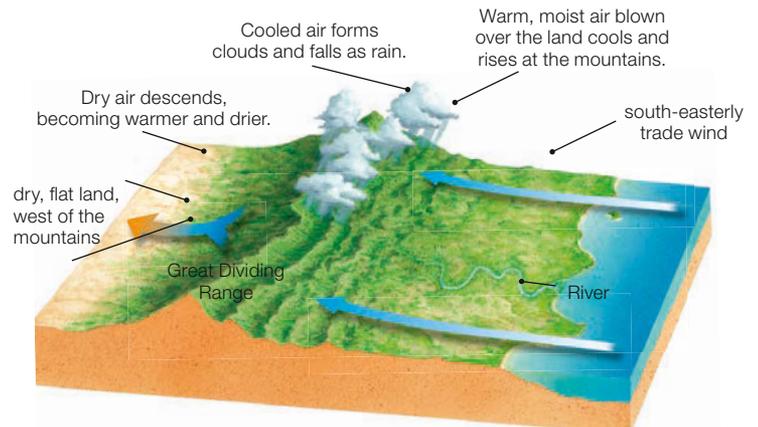
Source 1 The influence of the Great Dividing Range on Australia's climate

The pull of the city

As in other countries around the world, in Australia the economic pull of the large cities is attracting more people to them. Between 2001 and 2011, the population of Australia increased by 2.9 million. The cities of Sydney and Melbourne became home to 40 per cent of these people (around 1.16 million).

The key attractions of living in a large Australian city are the opportunities for jobs and education. Australia's major cities generate 80 per cent of the country's wealth and employ 75 per cent of our workforce.

Check your learning 5.9

Remember and understand

1 Why do so few people live in inland Australia?
2 What is an important economic factor that helps to explain why people live where they do?
3 How does the Great Dividing Range influence where people in Australia live?
4 List three ways in which water has influenced where people in Australia live.

Apply and analyse

5 Study Source 2. Which features of the natural environment do you think were important when deciding on the locations of Hobart, Gympie and Kalgoorlie?

AUSTRALIA: ENVIRONMENTS

Much of inland Australia is desert and too dry to support large populations. The soil is generally very poor and cannot be used to grow crops or farm large numbers of grazing animals.

The Great Dividing Range has a significant impact on where Australians live. Areas to its east are the most fertile and the weather is generally able to support large populations.
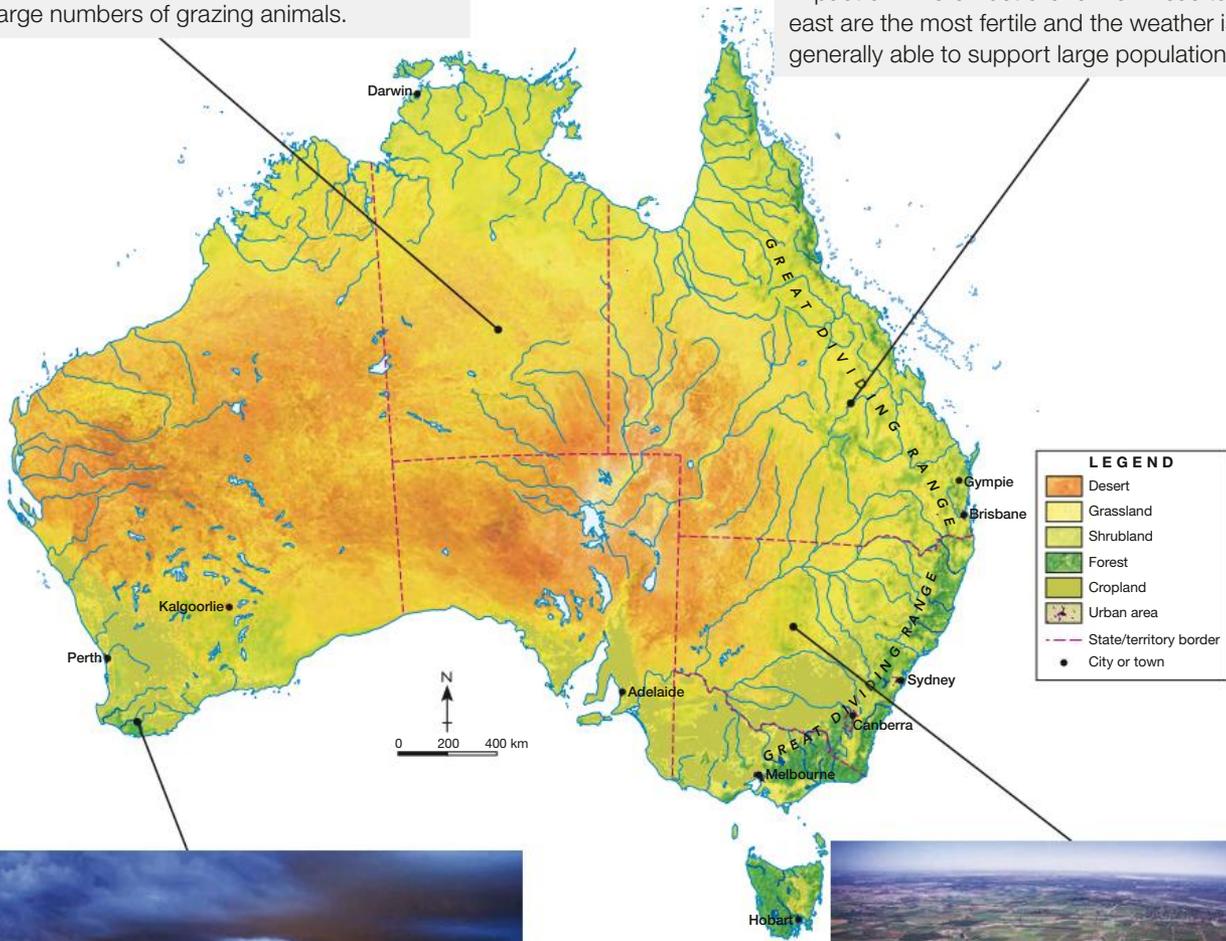
LEGEND
- Desert
- Grassland
- Shrubland
- Forest
- Cropland
- Urban area
- State/territory border
- City or town

The south-west of Western Australia receives regular rainfall from passing storms and cold fronts. The region also has a temperate climate and fertile soil, making it an excellent food and wine producing area.

Two major rivers along with fertile soil attracted farmers to the region now known as the Murray–Darling Basin. It has since become Australia's most important agricultural region. One-third of Australia's food supply comes from here.

Source 2

Source: Oxford University Press

The growth of Las Vegas

Cities grow for many different reasons. Some cities grow because they are located on major roads, railway lines or coastal ports. Some cities grow because large numbers of people come in search of work and new opportunities. Other cities grow because they are near reserves of important minerals, metals and natural resources.

Las Vegas in the US state of Nevada is an unusual city for a number of reasons. It is located in a desert region with little rainfall, yet despite this it is one of the fastest growing cities in the United States. This is due almost entirely to its role as a centre for gambling and entertainment. The state of Nevada has more casinos than any other state in the USA; around 361 in total. The city of Las Vegas alone is currently home to more than 120 casinos and about 200 000 slot machines.

Las Vegas attracts millions of visitors a year. This tourism creates jobs for skilled and unskilled workers who flood into the city. This, in turn, creates jobs for builders, road engineers and many other residents.

Source 1 Population of Las Vegas, 1910–2010

Year	Population
1910	3 321
1920	4 859
1930	8 532
1940	16 414
1950	48 289
1960	127 016
1970	273 288
1980	463 087
1990	741 459
2000	1 375 765
2010	1 951 269

Source 2 The US states with the most casinos and the number of casinos in each of these states

State	Number of casinos
Nevada	361
California	184
Florida	150
Montana	146
Washington	125
Oklahoma	115

skill**drill**

Creating column and line graphs

Graphs are used in geography to display data and make it easier to understand. Raw data often appears as a confusing table of numbers; turning data into graphs makes it easier to recognise and analyse trends and patterns. Some commonly used graphs in geography are:
- column graphs – used to compare data (for example, to compare the sizes of several cities)
- line graphs – used to show trends over time (for example, the growth of a city's population).

To draw a graph you should follow these steps:

Step 1 Decide whether a column graph or line graph will best suit your purpose.

Step 2 Examine the data carefully to decide on the axes and the scale you should use so that all the data fits. It is important that the scale on each axis is an even scale; for example, 1 centimetre equals 1 million people.

Step 3 Construct your axes and your scale using a ruler.

Step 4 Plot the data carefully. Use a straight, horizontal line for a column graph. Use a small, neat dot for a line graph.

Step 5 On a column graph, draw a series of columns that extend to the horizontal axis. Lightly shade each column with a coloured pencil. On a line graph join the dots with a smooth, freehand line.

Step 6 Label each axis with a description of the data and give your completed graph a title.

Apply the skill

1 Using the data provided in Sources 1 and 2, create two different types of graphs:
   a a line graph showing the growth of the population of Las Vegas from 1910 to 2010 (see Source 1)
   b a column graph showing the numbers of casinos in selected states (see Source 2).

Extend your understanding

1 Study Source 1.

   a Describe the changes in the population of Las Vegas between 1910 and 2010.

   b Why did the population change over this time?

2 Examine the satellite images of Las Vegas taken in 1984 and 2011 (Source 4). In these images, urban areas appear green and the surrounding desert is brown. How has the centre of the city changed over time? How have the edges of the city changed?

3 Examine Source 3. Use the steps described in 4C Rich task to construct a field sketch of this scene. On your sketch label five ways in which this suburb has changed the natural environment.

**Source 3** A new suburb pushes out into the desert on the edge of Las Vegas.
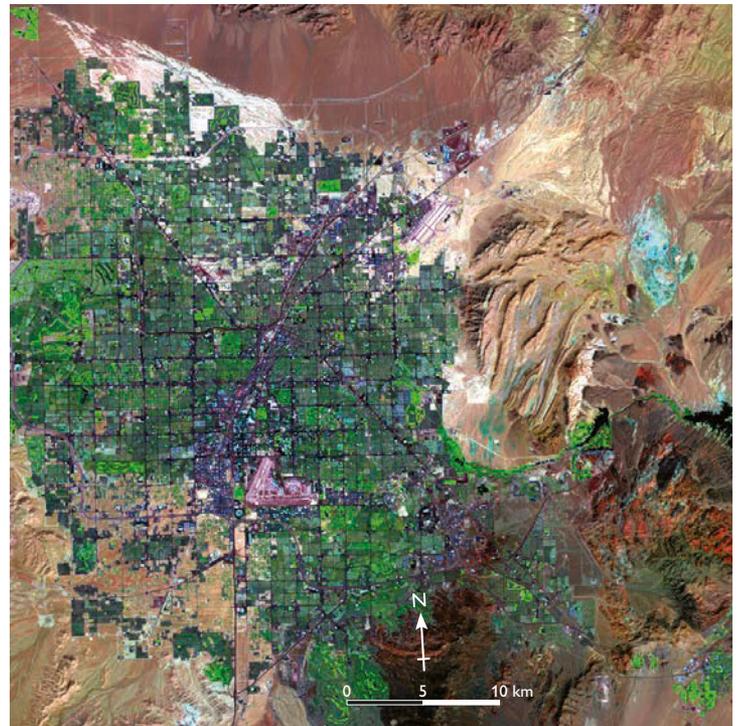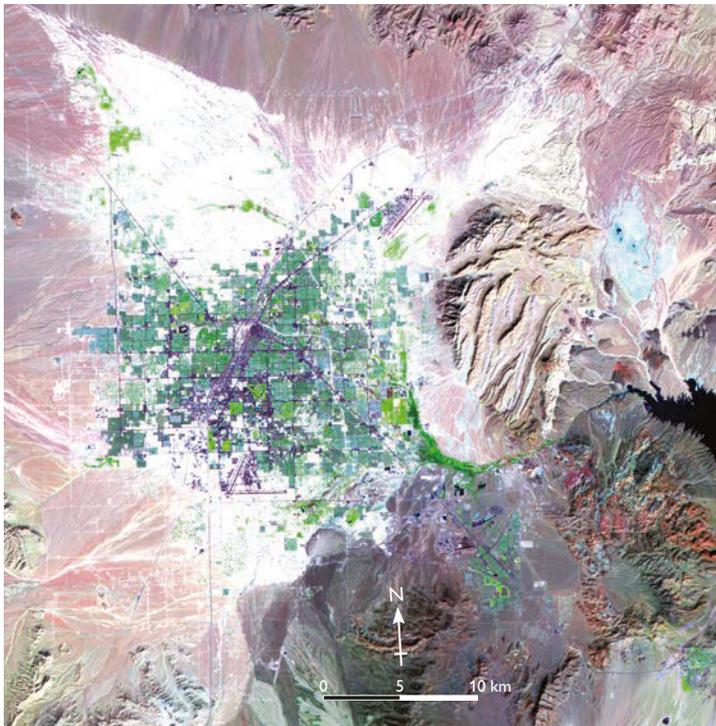
Source 4 Satellite images of Las Vegas, 1984 (left) and 2011 (right)

5.10 Managing the growth of Australian cities

Around Australia today, about 75 per cent of the total population lives in just 18 cities (see Source 2). Because this percentage is so large, it is vital that the growth of these cities be carefully planned and managed – both now and into the future. In 2016, the population of Australia reached 24 million, but by 2056 it is estimated that the population will reach 36 million. It is also estimated that around 72 per cent of this growth will take place in our major cities (see Source 1).

Planning for future cities

Growing urban populations place many pressures on governments and councils who need to plan and build new houses and **infrastructure**, such as schools, hospitals, roads, sewerage systems, power and gas lines, phone and Internet cables, public transport links and shopping centres. By 2050, it has been estimated that Australia will need a further:
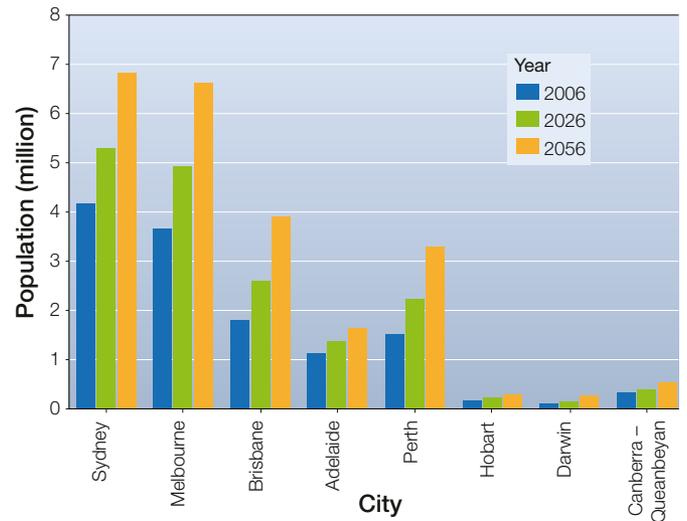
Source 1 Population projections for Australia's capital cities to the year 2056

- 6.9 million homes (an 82 per cent increase)
- 173 348 kilometres of new roads (a 51 per cent increase)
- 3254 new schools, 1370 new supermarkets and 1370 new cinema screens.

These services take time to build and are extremely expensive, so they need to be budgeted for in advance. There are also serious environmental issues to consider. The construction of new homes and suburbs can damage or pollute the natural environment and have a negative effect on plant and animal populations.

When planning and managing the future growth of Australia's cities, governments and local councils often rely on the following three strategies.

1 Suburbanisation

Making more land on the outskirts (fringes) of cities available for new suburbs to be built.

AUSTRALIA: MAJOR CITIES WITH POPULATIONS OVER 100 000
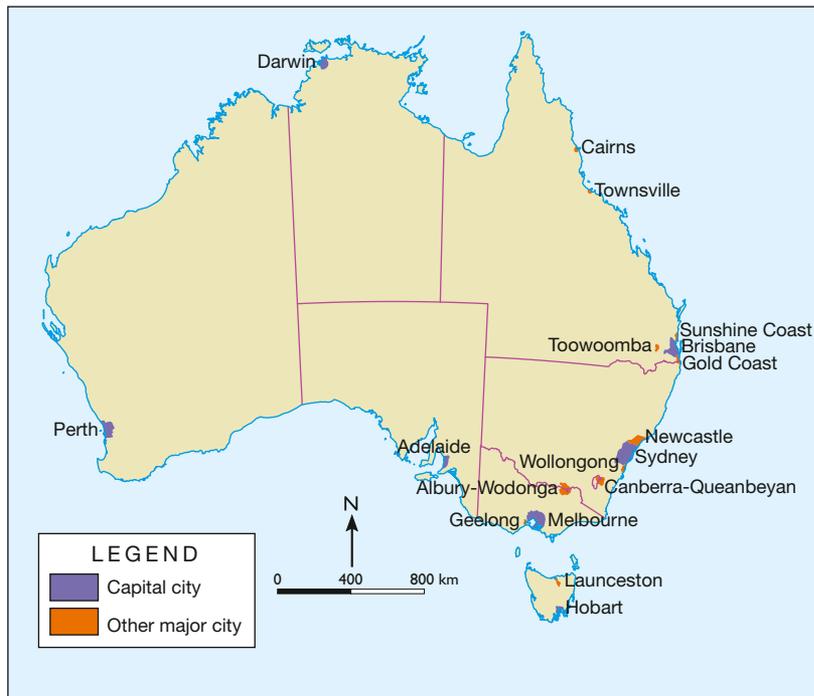
Source 2   Source: Oxford University Press

2 Urban renewal

Redeveloping existing areas of unused land or buildings within cities to provide housing for new communities.

Source 3 Population growth in Australia's largest cities 2001–14

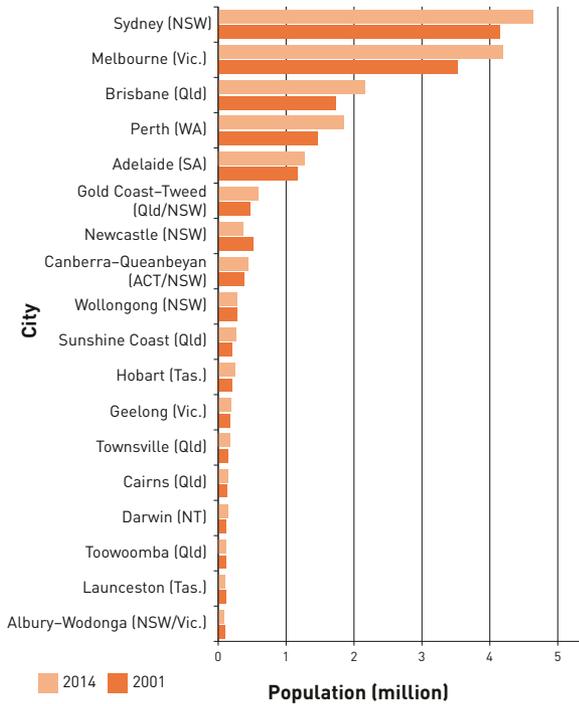**Source 4** One of Melbourne's newest suburbs, Docklands, is an example of urban renewal. The old docks have been redeveloped with apartments, businesses and restaurants.

3 Decentralisation

Encouraging the growth of regional and suburban areas by moving jobs and businesses there, rather than keeping these things concentrated in the central business districts of major cities. These strategies will be explored in more detail in the remainder of this section.

Check your learning 5.10

Remember and understand

1   How many more people are expected to be living in Australia by 2056?

Apply and analyse

2   Look carefully at Source 3.
    a   Which city added the most people between 2004 and 2014?
    b   As a percentage, Perth had the greatest population growth between 2004 and 2014. Approximately how many new residents were added to Perth's population?

3   Look carefully at Source 1.
    a   Which city is expected to add the most people between 2006 and 2056?
    b   What services and infrastructure will this city need to meet the needs of its growing population?

4   Name the three management strategies used by governments to plan for future growth in cities. Can you give an example of each of these strategies in a major city near you?
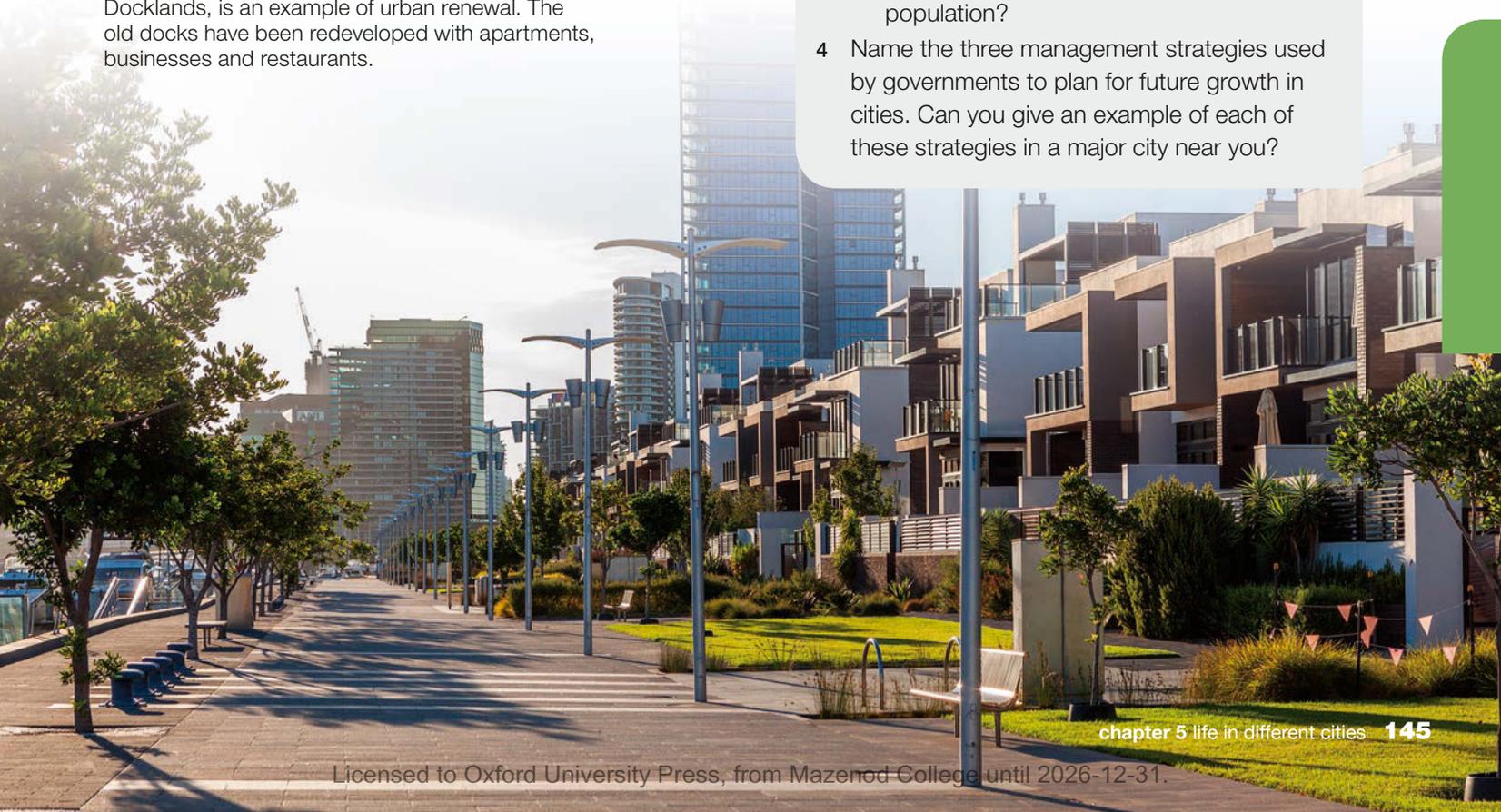
5.11 Suburbanisation

Suburbanisation is the process of growing cities outwards by building new housing estates away from the central business district. New suburbs are often built on what was once farmland or bushland on the rural–urban fringe. Services are then attracted to these new suburbs to meet the needs of the growing population. Schools, shopping centres, medical centres and sporting facilities are built and the area becomes urbanised. Industries can also be attracted by the cheaper land and rents of the outer suburbs.

Causes of suburbanisation

Perth is Australia's fastest growing capital city and in 2014 became the fourth Australian city to have a population greater than 2 million. Each year about 80 000 people are added to Perth's population and many of these new residents move to new housing estates on the fringes, contributing to the expansion of Perth's urban boundaries. The Perth metropolitan area now stretches from Two Rocks in the north to Singleton in the south, a distance of 150 kilometres.

By 2050 it is estimated that Perth's population will exceed 3.5 million people. To accommodate this growth in population about 800 000 extra homes will need to be built. Much of this growth will take place in the outer suburbs on the city's northern and southern fringes. This process is known as suburbanisation and the spread of the city onto existing farmland or wilderness areas is called urban sprawl.

Impacts of suburbanisation

A major advantage of suburbanisation is that housing estates are relatively quick and inexpensive to establish on already cleared farmland on the fringes of many Australian cities. The housing estates built there also provide an affordable option for new residents and can be designed to meet the needs of modern populations. New housing can also be built

Source 1 Urban sprawl is a problem for Perth, as it is for many other cities in Australia.

to be more energy-efficient and sustainable than older housing in established suburbs.

Disadvantages of suburbanisation are that new infrastructure to service housing developments can be very expensive to supply and local services can be slow to arrive, leaving new residents isolated. Residents in new outer suburbs end up relying on the use of motor vehicles because of infrequent or unreliable public transport. This leads to further congestion of major roads to the CBD. Perth already has one of the highest rates of car ownership in the world with three-quarters of workers driving to work rather than taking public transport.

PERTH: GROWTH 2025-2050
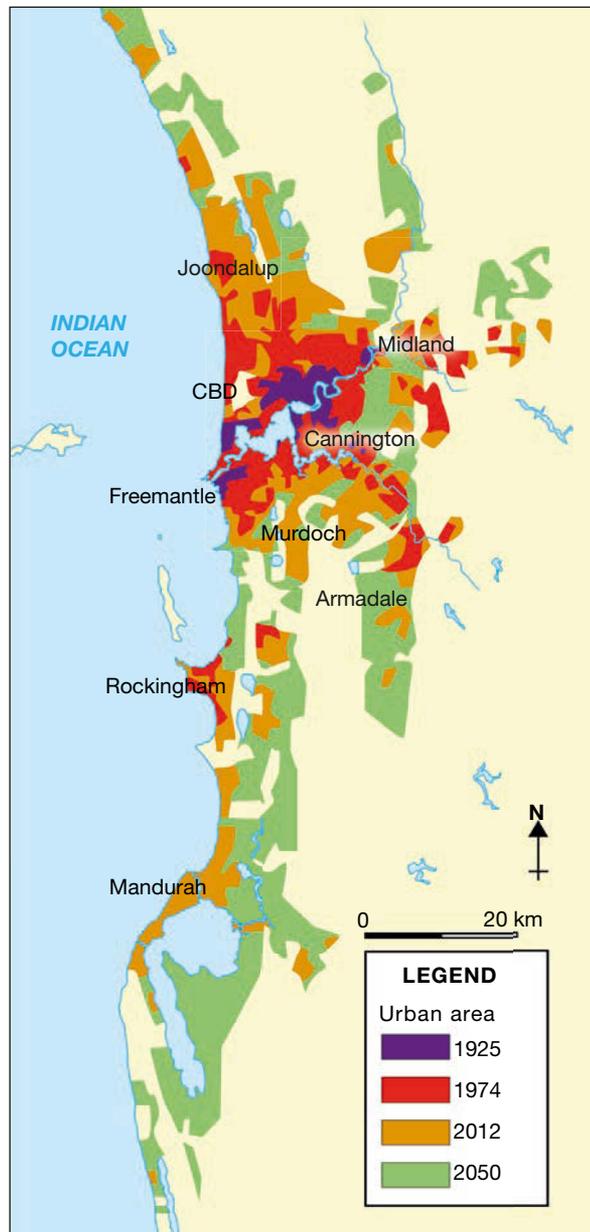
Source 2   Source: Oxford University Press

Case study: Carnaby's cockatoo

Urban sprawl also eats into productive farmland and natural areas on the edges of cities, impacting on native wildlife. Carnaby's cockatoo is an endangered native bird that lives in the area of Perth's metropolitan area. It is estimated that less than 6000 of these cockatoos remain on the Perth coastal region and that clearing habitat to make way for new urban developments could reduce this number by 50 per cent.

To help Carnaby's cockatoo survive, important habitat and nesting trees are being identified and protected as part of the urban expansion plan. In addition, new trees are being planted, some of them grown from seeds collected by local primary school students.

Source 3 Carnaby's cockatoo is under threat from Perth's suburbanisation.

Check your learning 5.11

Remember and understand

1 What is suburbanisation?
2 What problems has Perth's suburbanisation caused for Carnaby's cockatoo?
3 What plans are in place to help protect this endangered species?

Apply and analyse

4 Look carefully at Source 2.
   a Describe Perth's patterns of growth from 1925 to 2012.
   b Compare this to the predicted growth between 2012 and 2050. What similarities and what differences are there between these two periods?
5 What disadvantages of suburbanisation does Source 1 clearly illustrate? Name two examples.

Evaluate and create

6 What do you think are some alternatives to urban sprawl for Perth in the next 30 years? Discuss these with your classmates.

5.12 Urban renewal

Urban renewal is the process of taking existing areas no longer in use within a city's boundaries and redeveloping them. Often the areas selected are places that have become run-down or disused over time (a process referred to as urban decay). For example, old warehouses and docks that are no longer used because the city's port has closed down or been moved are often redeveloped to provide new houses for residents and offices for businesses. Green spaces can also be created for entertainment and leisure.

Urban renewal allows townhouses and apartment blocks to be built in existing urban areas so that more people can be housed within established suburbs rather than needing to build new ones.

Advantages

Urban renewal can help a city cope with population growth without the need for urban sprawl. By building in established suburbs, developers can make use of the existing infrastructure such as transport routes, energy supply and telecommunications. New residents are able to share in the advantages of inner-city living.

Disadvantages

Historic areas can have special significance for a city but the preservation and refurbishment of old buildings can be expensive. Developers also need to ensure that any new building blends in with existing buildings which can also put limits on the use of the site. A sharp increase in population numbers in a small area can put pressure on established services, and even decrease the liveability of the area for existing residents.

Source 1 Pyrmont-Ultimo in 1980

Source 2 Pyrmont-Ultimo in 2012

For example, public transport may not be able to meet the increased demand, leading to overcrowding on the routes servicing the areas being redeveloped.

Case study: Pyrmont-Ultimo, Sydney

Since 1992, the peninsula of Pyrmont in Sydney has been part of a large urban renewal project that is expected to see the residential population grow to 20 000 and the number of jobs in the area grow to 26 000 by 2021 (see Sources 1 and 2).

Pyrmont was once the location of shipyards, wool stores, mills, iron foundries and a coal power station. By the 1950s, the heavy industries had shut down and moved away from the area. In the 1970s, shipyards moved to Port Botany and the facilities at Pyrmont became obsolete. The area fell into a state of urban decay. Warehouses were empty, wharves were demolished and the train service ceased. By 1981, the local population had fallen to just 1590 people.

Today, the Pyrmont-Ultimo area has undergone a process of urban renewal. It is now home to a young, wealthy, professional community. More than 13 000 residents now live in medium-density housing there. Train services have restarted and over 30 per cent of households do not own cars. Retail shops, cafes and restaurants have opened and the peninsula now has more than 8 hectares of new parks.

Once known for its old industrial buildings and smokestacks, the peninsula is now home to e-commerce and electronic media companies such as Network 10, ABC and Foxtel, and radio stations Nova and 2SM.

Check your learning 5.12

Remember and understand

1 Give an example of urban decay from your own local area or somewhere you know.
2 What is urban renewal?

Apply and analyse

3 Look carefully at the oblique aerial views of Pyrmont-Ultimo in Sources 1 and 2.
   a Which parts of the area have remained the same?
   b List three changes that have taken place from 1980 to 2012.
4 What do you think are the advantages and disadvantages of the medium-density housing shown in Source 3?
5 People aged 20–29 make up 55 per cent of the population in Pyrmont-Ultimo. Why do you think people in this age group are attracted to the area?
6 What percentage of residents in Pyrmont-Ultimo don't own cars? Why do you think this is the case? How does this help urban planners in inner Sydney?

Source 3 Pyrmont wharf area with its medium-density housing

5.13 Decentralisation

Decentralisation is the process of encouraging population growth and job creation in areas outside the central business districts of major cities. Decentralisation is a strategy that governments use to take the pressure off larger capital cities by providing job opportunities in other areas such as:

- smaller towns and cities in regional areas
- newer suburbs on the outskirts of cities.

Decentralisation to regional cities

One way to decentralise growing capital cities is to encourage people to move to smaller regional cities and towns nearby. Industries and companies are given financial benefits to encourage them to move their operations from capital cities to regional centres. The Western Australian Government, for example, has identified nine regional towns that have the potential to become important growth centres as the state's population continues to increase. These centres, known as 'SuperTowns' are given assistance with planning for growth as well as extra finance from the state government.

Decentralisation to suburbs

Another way to decentralise capital cities is to spread the location of multiple business activity centres across the city so that business is not all centralised in the CBD. These smaller business activity centres become hubs for employment and are established in a range of suburbs with good public transport. This form of decentralisation is designed to spread the load so that all workers do not have to travel to the CBD every day but instead can find employment in more accessible locations in the suburbs. In Perth, the centres of Mandurah, Rockingham, Fremantle, Stirling and Joondalup have all been identified as suitable to become major business centres in addition to the CBD.

PERTH: POTENTIAL BUSINESS ACTIVITY CENTRES

Source 2   Source: Oxford University Press

Source 1 The town of Esperance is a SuperTown.
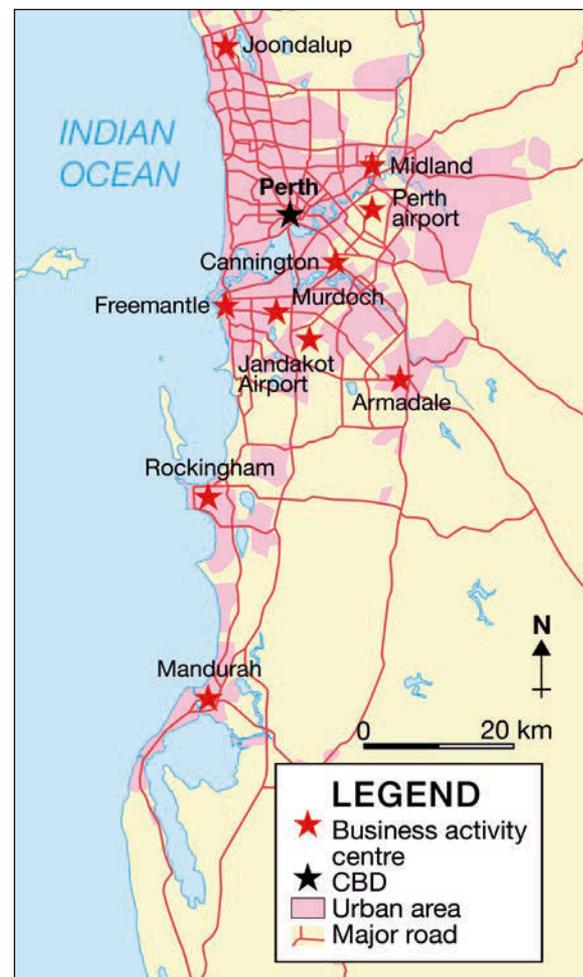
Natural decentralisation

Sometimes population movement trends can operate as a form of decentralisation naturally, without government involvement. From 1970 to 2000, for example, many older people moved from Sydney and Melbourne to coastal areas on Queensland's Gold and Sunshine coasts. This was a form of decentralisation driven by retirees attracted by a warm climate and cheaper housing. As housing prices in these regions have increased, however, the numbers of people migrating north has declined.

Advantages

Decentralisation of the population can help relieve some of the problems of large cities such as the cost of housing, traffic congestion and damage to the natural environment.

Disadvantages

It can often be difficult and expensive to get companies and workers to move to regional centres in the numbers necessary to make incentive and development programs a success.

Case study: Canberra, a decentralised city

Canberra is Australia's largest decentralised city and today has a population of 367 000 people. The inner-city area was originally designed by the American architect Walter Burley Griffin. Within the central area of the city near Lake Burley Griffin, major roads follow a geometric hub-and-spoke pattern rather than a grid. The outer areas of the city, built later, are laid out in a Y shape.

Source 3 The district of Canberra Central is one of the oldest parts of the city and is divided into divisions (suburbs) such as Barton, City and Dickson.

Canberra is organised into a series of seven residential districts:

- Canberra Central – settled from the 1920s onwards, which has 25 suburbs
- Woden Valley – first settled in 1964, which has 12 suburbs
- Belconnen – first settled in 1966, which has 25 suburbs (and 1 not yet developed)
- Weston Creek – settled in 1969, which has 8 suburbs
- Tuggeranong – settled in 1974, which has 18 suburbs
- Gungahlin – settled in the early 1990s, which has 18 suburbs (and 6 not yet developed)
- Molonglo Valley – developed in 2010, which has 13 suburbs planned.

Each district contains a mixture of a town centre, group centres, local suburbs and industrial areas. The town centre is the focus for business and social activities. The layout of these districts around a series of central shopping and town centres linked by freeways is designed to make them self-sufficient and prevent the mass commuting of workers into the CBD every day, as happens in all of Australia's other major cities.

Check your learning 5.13

Remember and understand

1 What is decentralisation?

2 How do governments try to encourage people to move to regional towns?

3 What were the reasons for retirees moving to the Gold and Sunshine coasts between 1970 and 2000?

Apply and analyse

4 Look at Source 2.
  a What are the advantages of having several business activity centres rather than just one CBD?
 b Do you think a vibrant and bustling CBD is important for a city to have? Why or why not?

Evaluate and create

5 What will be some of the advantages of SuperTown status for the residents of Esperance? What will be some of the disadvantages?

6 Do you think decentralisation is a better way of dealing with population growth than suburbanisation? Give three reasons for your answer.

Canberra: a planned city

Urban planning happens on many different scales. An example of urban planning on a massive scale is Australia's capital, Canberra. In 1911, the Australian Government announced a competition to design the city. Entries were submitted by architects from around the world. The winning design came from a Chicago architect, Walter Burley Griffin. His design involved a series of shapes that would line up with important features of the natural environment, such as the surrounding hilltops. Griffin's plan also included a central lake. This lake now bears his name – Lake Burley Griffin.
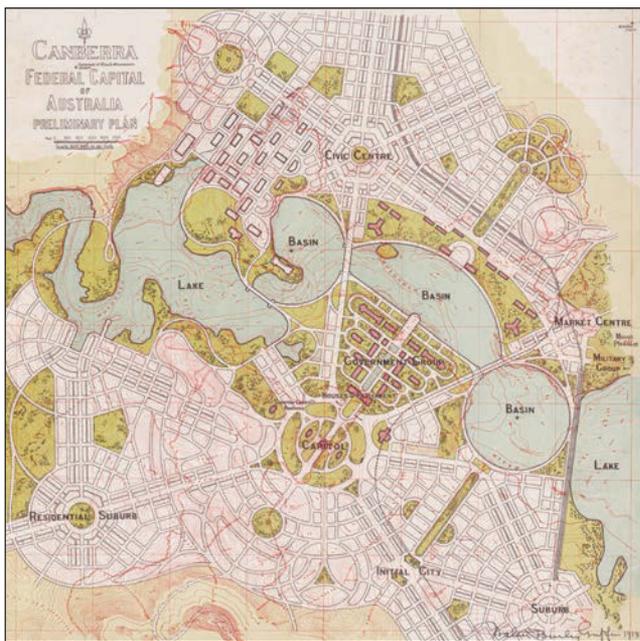
Source 1 Walter Burley Griffin's original plan for Canberra, drawn in 1911

skill**drill**

Comparing vertical aerial images

A range of sources used by geographers – such as maps, plans and photographs – are drawn or captured from directly above. In a vertical aerial photograph, the camera is positioned directly above the landscape (often on a satellite or beneath an aeroplane). Vertical aerial images can be a useful tool for examining a small area of the Earth's surface in detail. This vertical view (often called **plan view**) allows geographers to see the extent of any features and patterns they make on the Earth's surface. Most importantly, comparing these sources helps geographers identify any changes that have taken place over time. This type of analysis allows us to compare the original plans for cities and suburbs against photographs taken after they have been established. These types of comparisons are useful for geographers in a number of ways. When comparing vertical aerial images, follow these steps:

Step 1 Examine the scale and the legend of both sources. Ideally, these will be the same. If they are not, you will need to be careful when making comparisons that the area on one image corresponds exactly to the same area on the other image.

Step 2 Look for geographical features such as the outline of lakes, the location of streets and landmarks such as railway stations. This allows you to compare other features in this landscape.

Step 3 Locate features that appear on both images and are similar. Take note of these.

Step 4 Locate features that appear on both images but are different. Take note of these.

Step 5 Prepare a list or table of these similarities and differences and try to explain the different reasons for them. You may need to conduct more research at this point in order to do this.

Apply the skill

1 Look closely at Griffin's plan for Canberra (Source 1).
   a What are some of the distinctive features of his plan?
   b The judges particularly liked the way in which this plan took into account natural features, such as the surrounding hills and the native bush. What evidence can you find of this on the original plan?

2 Look closely at the vertical aerial photograph of modern Canberra (Source 2).

　a What features indicate that this is a planned city?

　b What is located at I5? Is this the land use that Griffin called for at this place?

　c Can you find three examples of where Griffin's plan has not been followed? For example, there is a missing bridge north-west of Capital Hill.

3 How well have modern-day town planners in Canberra followed Griffin's original town plan? Give some evidence from the plan and photograph in your response.

4 What evidence is there in the aerial photograph that Canberra's population is increasing?

Extend your understanding

1 What types of issues can changing land use and development create for people living in cities?

2 What evidence of changing land use can you identify in H1 and H2?

3 Use an atlas or Google Maps to locate the following features shown in Source 2:

　• National Gallery of Australia

　• Captain Cook Memorial Jet

　• Parliament House.

Provide a grid reference for each of these features.
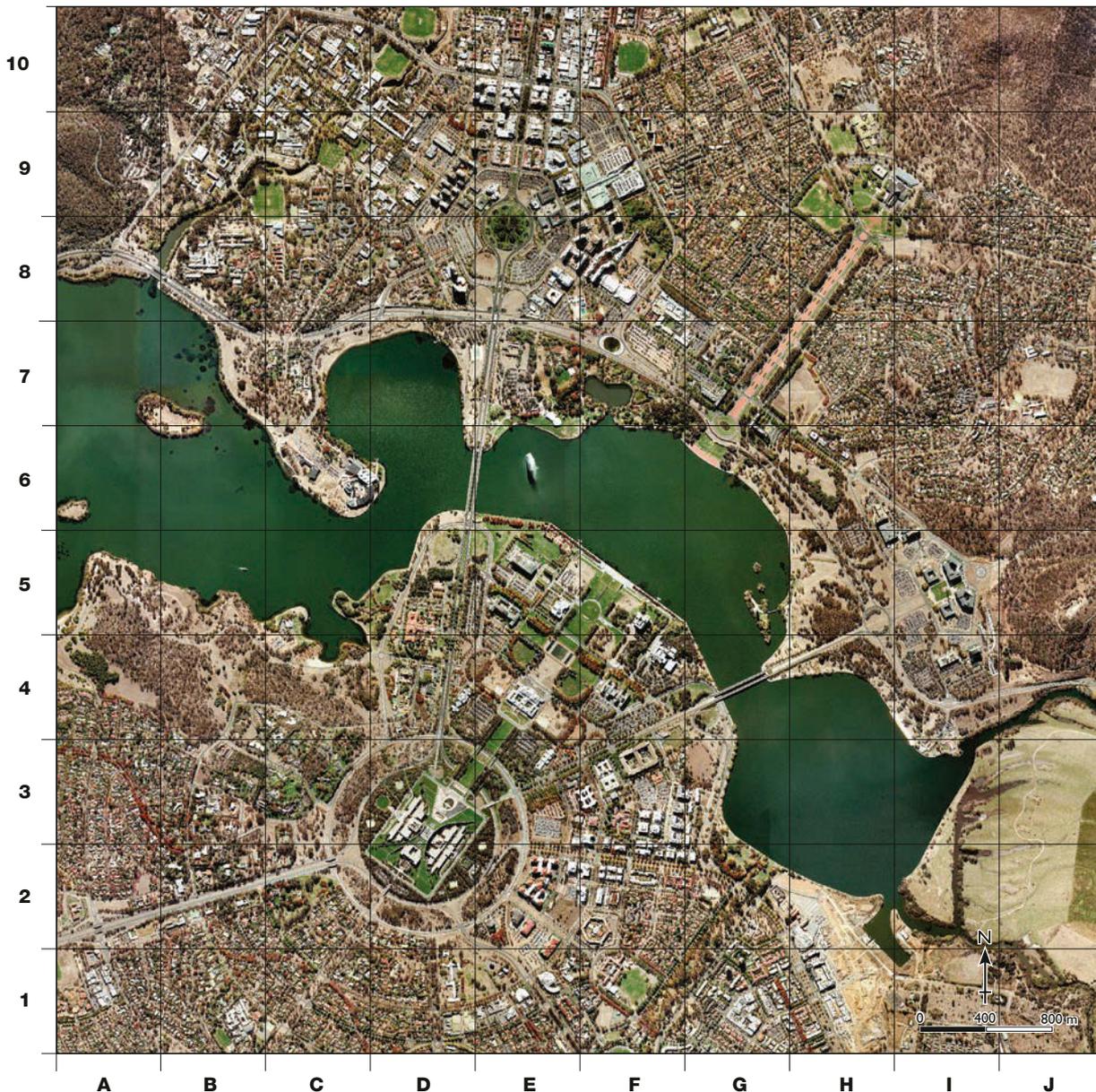
Source 2
Vertical aerial photograph of modern-day Canberra

Changing nations

Migration

People have always been on the move. Geographers refer to this movement of people as migration. There are many different reasons why we move – for work, for family, for love, or for the chance of a better life. There are also different ways in which we move – we move around the block, to the next town, to a different state, or even to the other side of the world. Movements within the same country are known as **internal migration**, while movements between different countries are known as **international migration**.

Some people choose to move – known as **voluntary migration** – while others are forced to move – known as **forced migration**. In Australia, most people are voluntary migrants. Within a five-year period, about one-third of Australians will change their home address at least once. Worldwide, however, the number of forced migrants (people fleeing violence, poverty, famine or war) is on the rise.

6A

What are the reasons for, and effects of, internal migration?

1   Where are the people shown in Source 1 going and why?
2   What do you think it means to be a 'fly-in, fly-out' worker?

6B

What are the reasons for, and effects of, international migration in Australia?

1   In what ways is Australia a multicultural country?
2   As a class, make a list of how different communities in Australia demonstrate that we live in a multicultural society. Highlight examples from your community.

Source 1 Many miners in Western Australia's Pilbara region are employed as 'fly-in, fly-out' (FIFO) workers. They live in other parts of Australia and regularly fly to the mines for work.

chapter

6

6.1 Migration in Australia

Types of migration in Australia

Migration is the movement of people from one place to another. There are two main types of migration; these are internal and international. Internal migration is the movement of people from one defined area to another within a country. For example, a family moving from Melbourne to live in Perth is classified as internal migration as it occurs within Australia. International migration is when people move from one country to another; for example, people moving from China to Australia. This movement of people is on a global scale and includes **refugees** and displaced people forced to leave their country. Other types of migration include the following:

- Rural–urban migration involves movement of people from countrysides to towns and cities within the same country in search of new opportunities and better lifestyles.
- Voluntary migration is when people choose to move freely from one place to another.
- Involuntary migration involves forced movement from or within unstable regions as a result of conflict.

- Seasonal migration is people moving as a result of agricultural cycles. It involves people relocating in search of work during particular periods such as fruit-picking and crop-harvesting seasons.
- Illegal migration occurs when people enter a country or cross a border without the permission of the government or the correct legal documents.

Australia has a very mobile population. Statistics show that more than 40 per cent of us move home once every five years. Around 15 per cent of us move at least three times in that same period. Source 2 shows the main reasons why people move home in Australia, while Source 1 demonstrates these trends using an example of an individual and the types of decisions they might make during their lifetime.

As you can see, migration in Australia is usually a very personal decision and is based on a number of important factors. These may be linked to a person's personal tastes, family life, income or health. In Australia, for example, there has been a movement of people towards the edges of large cities and towards smaller towns on the coast. The first of these moves is largely due to the cheaper land available on the city fringe and the second is due to people looking for a change in lifestyle. This movement of people to regional coastal towns is referred to as a 'sea change'.

When my sister was born, my parents bought a big house for us in the Perth suburb of Morley. I was three years old when we moved in.

When I was 29, I got married. My wife and I bought our first house in the suburb of Bayswater and moved in together. It had two bedrooms.

By the time I was 38, we had three children. Our family moved interstate to Brisbane because I was offered a job promotion. We bought a large house with five bedrooms in the suburb of Oxley.

Source 1   People move for different reasons at different stages of their life.
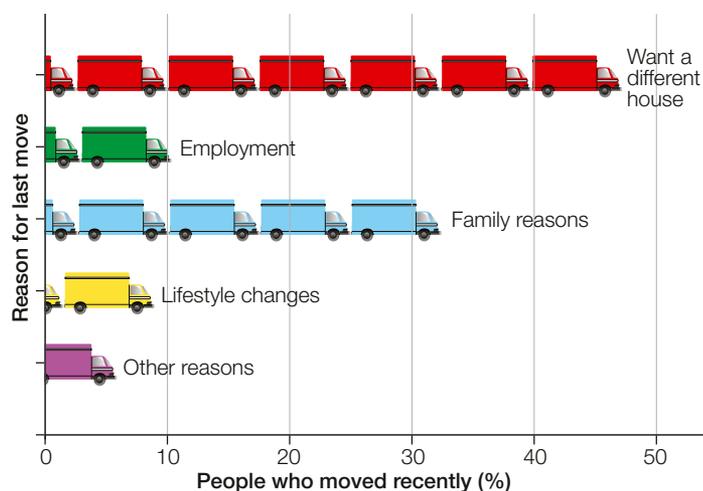
Source 2 The main reasons people move home within Australia. (Proportions may add up to more than 100 per cent as respondents could provide more than one reason for their last move.)

Source 3   New homes being built in Alkimos to accommodate more sea changers

The effect of sea changes on coastal communities

The popularity of sea changes in Australia, particularly along the south-eastern coast, is presenting many challenges for coastal councils. Population growth in coastal communities has meant an increasing demand for infrastructure and services. Careful planning is needed if these communities are to retain the lifestyle attractions that attracted the increasing numbers of people there in the first place. As well as this, changes in climate – the impact of extreme weather conditions and increasing coastal erosion – is also causing problems for councils.

Coastal councils are predicting that permanent populations will continue to expand. A large percentage of non-resident property owners are aged between 45 and 64 and many eventually plan to move permanently to their coastal property. Those planning to make the move in the next two to five years is around 67 per cent.

As populations in coastal areas grow, sleepy coastal towns are expanding into regional centres that require new hospitals, sewerage systems, water resources, roads and other services. In the past, it generally took between 50 and 100 years for a small coastal town to grow into a larger regional centre. Today, the same level of growth is often taking place over five to 10 years. Councils are still working out how to deal with this growth. As well as dealing with the increased needs for infrastructure and housing, coastal communities need to retain their character and historic value if they are to remain attractive to sea changers and tourists in the future.

Check your learning 6.1

Remember and understand

1   What is the main reason that people in Australia move home?
2   What is a sea change?
3   How does a person's stage in life influence whether or not they will move?
4   What are the main challenges facing coastal communities because of the popularity of sea changes?

Apply and analyse

5   When a town's population grows, it can have a major impact on the natural environment. Brainstorm this idea with a partner and make a list of the potential impacts. Share your brainstorm with your classmates.
6   Using Source 2, categorise the reason for each move made by the person in Source 1.

Evaluate and create

7   Conduct a survey on the reasons why people move. Each person in the class should find three (unrelated) people who have moved in the last five years. Ask each person, 'What was the main reason you moved?' Compare your class findings with the types of reasons given in Source 2. What were the differences and the similarities?
8   Is your class typical of the Australian population? What percentage of your classmates has moved home in the last five years?
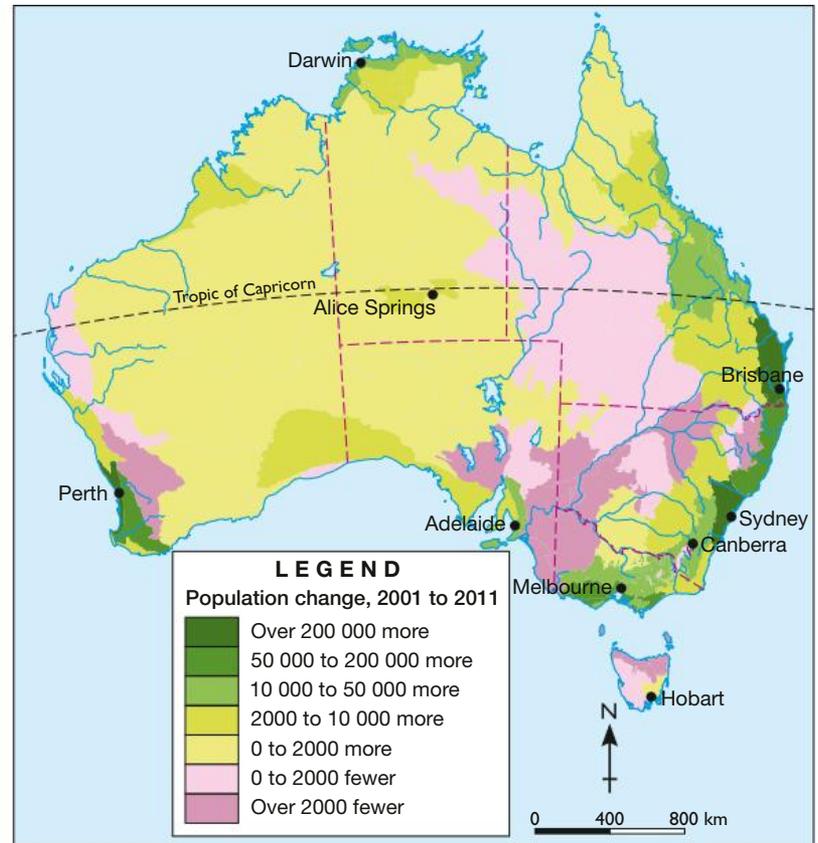
6.2 Population movements in Australia

Australians are some of the world's most mobile people. Forty per cent of us move house at least once every five years. People move for a wide variety of reasons, and if enough people move this leads to large-scale changes in the population at local, regional and national scales. For example, young people who live in country towns often must move to one of Australia's capital cities to attend university. This changes the population size and number of young people in both places. Similarly, older people may move from unpleasant climates to milder climates in order to better enjoy their retirement. This means the population of both places will change. Source 1 shows the ways in which Australia's population shifted in the 10 years between 2001 and 2011.

The map clearly shows that Australia's four largest urban areas (in dark green) and the areas surrounding them are growing more rapidly than the rest of Australia. Other significant trends include the following:

- Western Australia has overtaken Queensland as the fastest growing state. This is partially due to workers migrating because of job opportunities in the Western Australian mining industry.

- The inner-city areas of our largest cities are some of the fastest growing areas in the country. Inner-city Perth, for example, is growing at more than 12 per cent per year.

- The large cities are getting larger both in terms of their population and their size. Some of the fastest growing places in Australia are on the edges of the cities where more land is available for housing estates. The population of Wyndham in outer Melbourne, for example, is increasing by almost 30 people a day.

AUSTRALIA: POPULATION CHANGE, 2001–11

LEGEND
Population change, 2001 to 2011

- Over 200 000 more
- 50 000 to 200 000 more
- 10 000 to 50 000 more
- 2000 to 10 000 more
- 0 to 2000 more
- 0 to 2000 fewer
- Over 2000 fewer

0   400   800 km

Source 1   Source: Oxford University Press

Source 2   As with many rural towns in Australia, the population of Trundle in New South Wales is declining. To attract new residents, some empty farm houses are available for rent for only $1 a week.

Our fastest growing suburbs

One of the key population movements in Australia is the movement of people, particularly young families, to the outer suburbs of our major cities. Some of Perth's outer suburbs, for example, are growing at five times the national average. The fastest growing suburb in Perth is Wanneroo on the city's northern coastal fringe. More than 6200 people are moving to the suburb every year and new housing estates are being built to house them.

Source 3   The outer suburbs of Perth are some of the fastest growing urban areas in Australia.

Check your learning 6.2

Remember and understand

1   Why are the populations of some rural areas in Australia declining? How is Trundle (Source 2) trying to reverse this trend?

2   Using Source 1, list three places in Australia where the population is increasing. Next to these place names, explain why their population is are increasing.

Apply and analyse

3   Australia's population changes due to factors at a range of scales: global, national and personal. Give an example of a change at each of these scales.

4   Study Source 1. Describe the changes in the distribution of Australia's population between 2001 and 2011. Why did the population change in this way?

Evaluate and create

5   Look closely at Source 3 showing a new housing development in Wanneroo.
    a   How has the natural environment been changed?
    b   Why do you think young families often build houses on the edges of cities, rather than near the centre?
    c   Name some of the advantages of living in this place.

6   How do you think Australia's population will change in the next 30 years? Brainstorm these changes and then, with a partner, discuss the impacts of your predicted changes on people and places.

6.3 Australia's mining boom

Australia is home to some of the world's largest and most productive mines. A major supplier of many metals and minerals used around the world, Australia has large reserves of lead, brown coal, nickel, silver, uranium, zinc and zircon. This mineral wealth tends to be located in remote areas of the country. Large mines are currently located in the north-west of Western Australia and central Queensland.

Case study: the mining boom's impact on the movement of Australia's Indigenous population

Until recently, few Indigenous Australians worked for the mining companies. Over the past decade or so this has changed dramatically. Not only are mining companies offering work opportunities for local Aboriginal communities, but they are also recruiting Indigenous workers from other parts of the country on 'fly-in, fly-out' (FIFO) and 'drive-in, drive-out' (DIDO) working arrangements.

Source 1 The mining sector is providing employment for Aboriginal people in many ways. These trainees, from Kempsey in New South Wales, are training to become 'fly-in, fly-out' (FIFO) workers in the Pilbara region of Western Australia. This work provides a valuable source of income for the town of Kempsey.

Employing local workers

Mining companies now recognise that recruiting local Indigenous Australian workers benefits both the local communities and the mining companies. Unlike FIFO workers, local Indigenous workers have a spiritual connection to the country in which the mines are located. This makes them much less likely to leave their jobs and move elsewhere. Employing local workers also means that there is little additional strain placed on the housing market as these workers already have homes in the area. Finally, the wages of these Indigenous workers stay in the local area rather than being taken to large cities by FIFO workers. Local children see the miners as role models and the mines as pathways for their own futures. School attendance rates in mining areas tend to be higher than in other remote places.

Employing FIFO workers

The mining boom has also offered employment opportunities for Indigenous Australians living long distances from mining areas. Many fly long distances from their homes (in towns such as Kempsey, New South Wales) to earn a good living as FIFO workers in mines across Western Australia and bring back money to their communities.

Well over 50 000 Indigenous Australians now work in mining. At some mines and mining facilities, such as ports, almost half the workforce is Indigenous. Rio Tinto, one of the world's largest mining companies, is the largest non-government employer of Indigenous people in Australia, with almost 2000 Aboriginal workers. Another mining giant, BHP Billiton, has recruited 720 Indigenous trainees at its Pilbara operations in the last few years. Around one in 10 employees of the Fortescue Metals Group is Aboriginal, and the company has set up special training courses in Port Hedland and Roeburne in the Pilbara region.

Sharing the wealth?

Despite the positives, many Indigenous Australians feel the mining boom has brought little economic benefit and has increased the gap between themselves and non-Indigenous Australians. A recent study showed that there is little difference between the wellbeing (such as health and life expectancy) of Indigenous people living near mines and those living in other regions of Australia. The mining boom has also driven up housing and food prices in numerous remote communities. Many Indigenous Australians also feel that mining companies show little respect for the special connection they have with the land.

> [They] all ripping our country up and we getting nothing back from it, just chicken feed ... Everything, all the mining company, what are they giving back to the people? We are missing out on the luxury that is coming from our land, and other people are enjoying it.

Interview with Aboriginal man, Pilbara region

Source 2 Ancient rock carvings on the Burrup Peninsula in Western Australia are now under threat from mining in the area.

Threats to Country

There is also some concern that mining is threatening important sites, many of which are sacred to local Aboriginal communities. On the Burrup Peninsula, in the Dampier Archipelago of Western Australia, for example, there is one of the world's largest collections of rock carvings (see Source 2). Some of these rock carvings date back 9000 years. This is one of the world's most important archaeological sites, as the rock carvings contain the record of an ancient way of life.

Source 3 Comparison of Indigenous and non-Indigenous people in the Pilbara

Measure	Indigenous Australian	Non-Indigenous Australian
Average weekly income	$297	$1984
Adults who have completed Year 12	19%	47%
Without an Internet connection	55%	11%
Workforce employed in mining (2006)	19%	45%
Employed adults (2006)	47%	86%

The construction of a proposed chemical processing plant on the region's natural gas reserves may result in the destruction of some of the rock art to make way for roads and buildings. Some researchers also believe that air pollution from the plant may erode the art. The art is now listed as a 'Monument in Danger' by the World Monuments Fund.

Check your learning 6.3

Remember and understand

1. What are FIFO workers?
2. Why do many mining companies now employ Indigenous Australian workers?

Apply and analyse

3. Use an atlas to locate the towns of Kempsey in New South Wales and Port Hedland in Western Australia. Estimate the distance between these two places.
4. In what ways are the trainees in Source 1 similar to other FIFO workers and in what ways are they different?
5. Use the data in Source 3 to compare the wellbeing of Indigenous and non-Indigenous people in the Pilbara region.

Evaluate and create

6. Do you think that the rock carvings on the Burrup Peninsula should be protected? Give reasons for your answer.
7. Do the advantages of mining for Indigenous communities outweigh the disadvantages? Discuss this as a class before reaching a conclusion.

6.4 Case study: the growth of Australian mining towns

One of the most significant population movements in Australia today is the movement of people to areas rich in mineral deposits (such as iron ore, gas and coal) to work in and around the mines. This movement is due to a resources boom – a massive increase in demand for Australian mineral resources, particularly from Asian countries such as China and India. Many small towns located near mineral deposits are growing rapidly in size, population and prosperity as a result. This is creating opportunities for some people in these towns and problems for others.

The town of Karratha, Western Australia

The town of Karratha in the Pilbara region of Western Australia is one of the fastest growing communities in Australia. People are attracted to the town because of its location near some of richest mineral deposits in the world. Inland from Karratha lie the Pilbara iron ore deposits, which are transported by train to the nearby port of Dampier and then shipped to markets around the world. Offshore from Karratha lies one of the world's richest natural gas deposits, the North West Shelf. Gas is transported to Dampier by pipeline and then shipped to markets, particularly in Asia.

As people move to the region to take advantage of jobs in the mining industry, many buy or rent a house in Karratha, making it their home. Others continue to live in more distant places, such as Perth. They fly into Karratha for work and then fly home when their shift is finished. Some may stay in the area for three weeks and then fly home for two weeks while others may work in the region from Monday to Friday and then fly home for the weekend. This type of lifestyle is referred to as 'fly-in, fly-out' (FIFO), and it allows miners to take advantage of available jobs in remote areas without disrupting their families' living arrangements.

Source 1 Many of Karratha's residents are employed in the mines of the Pilbara.
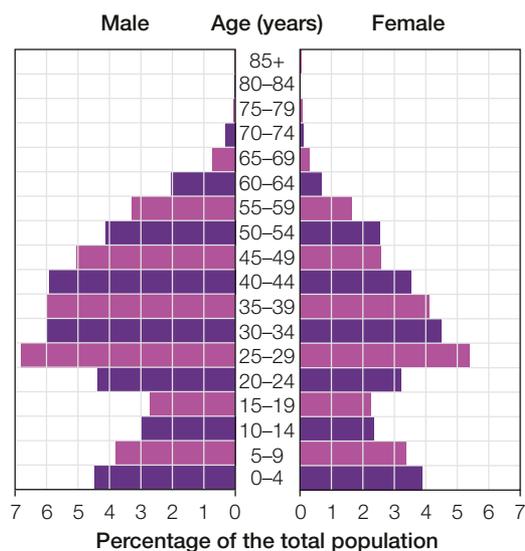

Source 2 Population pyramid for Karratha

The changes in Karratha, such as FIFO workers and the overall growth in population, present several key issues for governments and the residents of the town, inculding the following:

- The reliance on mining for income leads to uncertainty in the housing market. When demand for minerals is high, the demand for homes is also high. House prices then surge dramatically. However, when the demand for minerals falls, so do house prices. In Karratha the average house price has dropped by 32 per cent in the last year due largely to a downturn in the mining industry.
- A downturn in the demand for minerals also creates problems for local businesses such as supermarkets and hairdressers.
- Some services have struggled to keep pace with the growth of the town, particularly public transport and health care.
- There have been concerns about mental health issues for FIFO workers, who may lack a strong connection to the community in which they live and work for much of their life.

WESTERN AUSTRALIA: PILBARA AND NORTH-WEST SHELF REGIONS
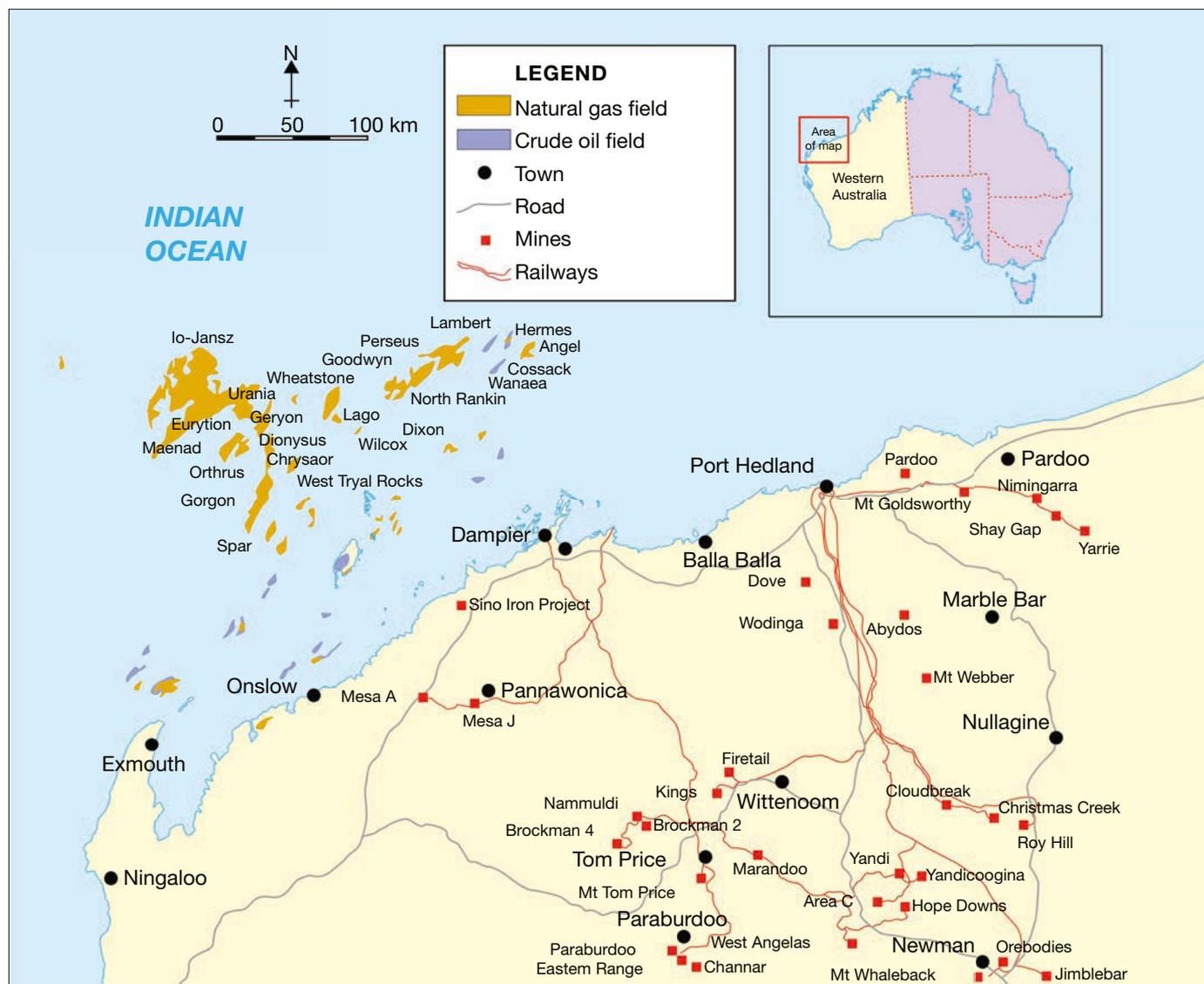
Source 3

Source: Oxford University Press

Check your learning 6.4

Remember and understand

1 Why is the population of Karratha growing and changing?

2 Why do population changes result in changes in house prices?

Apply and analyse

3 Examine the Karratha population pyramid.

a Which groups make up the majority of the population?

b Given that Karratha is a typical Australian mining town, what does this population pyramid tell you about the populations of mining towns generally?

4 Examine the map of the Karratha region. Describe the mineral resources that lie close to the town. Use compass directions and measurements (in kilometres) in your description.

5 Use the geographic concept of interconnection to explain the links between Karratha and other places in Australia and the world.

Evaluate and create

5 Mining towns are sometimes described as having a 'boom and bust' economy. What do you think this means? What would be some of the impacts on the Karratha community in a 'bust' time?
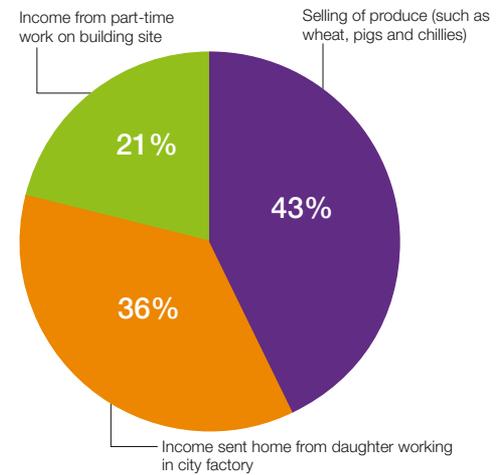
6.5 Population movements in China

For thousands of years, most Chinese people have lived in small rural villages. Their life was dominated by the daily routine of farming – planting, weeding and harvesting crops, and caring for animals such as pigs and cows. Over the last few decades, however, this situation has begun to change as more and more people move to one of China's booming cities to find work and a better life.

Although China is still home to more than half a billion farmers, it is also home to some of the world's largest and fastest growing cities. The movement of people from rural areas to cities in China is one of the greatest migrations in human history. Lured by the remarkable boom in China's economy over the last decade, millions of Chinese peasants are leaving their farms and heading for cities along the east coast. This has led to many inequalities between rural and urban areas, with the average income in rural areas being about one-third of that in cities.


Income from part-time work on building site

Selling of produce (such as wheat, pigs and chillies)

21%

43%

36%

Income sent home from daughter working in city factory

Source 1   Like many families in rural China, Xianglan's family relies on money sent home from a relative working in the city.

From rural life …

Xianglan Li lives in a small village in Guangxi Province in southern China. Her day begins at dawn, when she wakes to sweep the concrete floor of the small home she shares with her husband and son. After breakfast she feeds her chickens and pigs, and collects waste from the pig sty to carry to the fields for fertiliser. Using the water from the buckets she has placed beside the house to collect rainwater, she throws some on the road to keep down the dust. Like most rural villagers in China, the family has no car.

Source 2   Small villages dot the landscape of Guangxi Province in southern China.
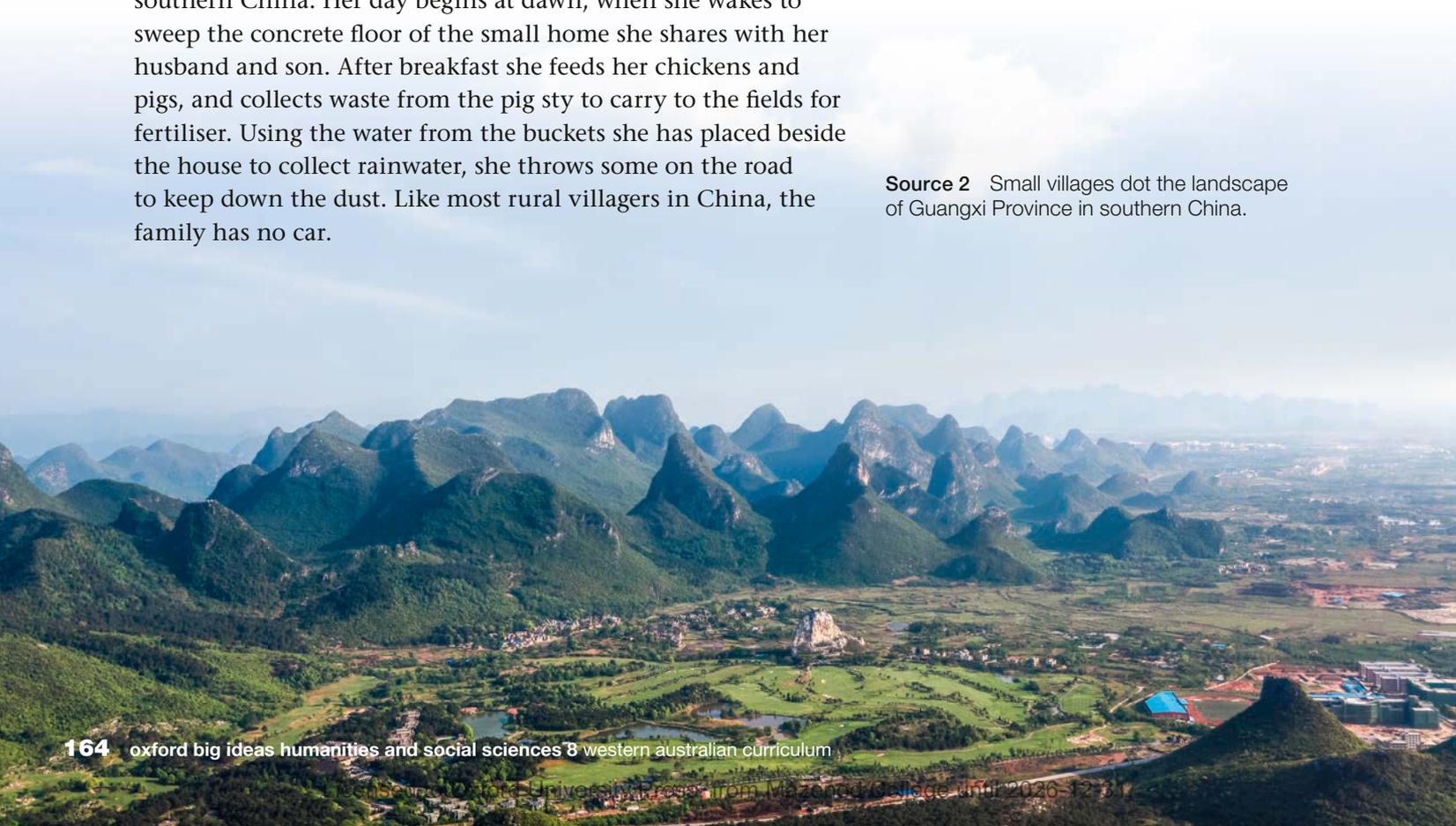
Xianglan's husband works part time as a labourer on a building site in a nearby town. Xianglan joins other villagers walking to their fields a few kilometres from the village. The roads are slowly filling with small tractors and bikes, as well as farmers carrying their produce on long poles. There is a buzz of excitement as tomorrow is market day.

Xianglan spends her morning weeding the wheat and picking chillies for the market. In the afternoon she collects firewood from the nearby forest. Carrying the wood and chillies, she walks through the village to her home. Some farmers are spreading out their wheat crop in the village square to dry it, ready to separate the grain from the stalks. The stalks will become feed for the pigs and fuel for the cooking fire.

Although her home has no running water and no inside toilet, it does have a new colour television that her daughter, Xiu, has sent from Shenzhen. There is electricity only for a few hours in the evening, so after dinner Xianglan and her husband sit on their bed and watch a new soap opera. They go to sleep as the sun sets.

… to urban life

Xianglan's daughter, Xiu, lives in Shenzhen, a major city with a population of 10 million people near Hong Kong, hundreds of kilometres from her family's village. Shenzhen is a full day's train ride away. Three years ago, Xiu left her family home to move to the city to find work. She now works in a factory where she assembles mobile phones. Xiu lives in a dormitory owned by the company and shares a room with seven other workers, most of whom are also from Guangxi Province. There is a cafeteria in the dormitory building and the bathrooms have hot and cold running water. There is reliable electricity, which the workers use to watch television in their spare time, wash their clothes and charge their mobile phones. Virtually everyone has a mobile phone; some have two or three.

Xiu works 10 hours a day in the factory. She is pleased to have a job so she can help support her parents and brother, but she finds the work boring and repetitive. She knows that if she quits she will be quickly replaced, but she sometimes thinks about moving back to Guangxi. She catches the train home once a year to celebrate Chinese New Year with her family. Next year, she intends to take home a mobile phone for her father.

Source 3 Xiu works in an electronics factory in Shenzhen assembling mobile phones for export.

Check your learning 6.5

Remember and understand

1 Why are young Chinese men and women moving to large cities?

2 What does Xiu do for a job? Where do you think she was trained for this job?

Apply and analyse

3 How has the movement of young Chinese men and women from farms to cities changed both places?

4 Why can a worker in the city earn three times as much as a farm worker?

Evaluate and create

5 In what ways do you consider Xianglan's life to be better than her daughter's? In what ways do you consider it to be worse? Discuss your answers in a small group. Are there some areas that you all agree on?

6 Imagine that Xiu quit her job and returned home. Explain the impact this would have on the following:
   a the family's income
   b the family's food expenditure
   c the factory in Shenzhen.

7 If Xiu's father visited her in Shenzhen, what do you think he would find most surprising about his daughter's way of life? Give some reasons for your answer.

6.6 Case study: the growth of China's megacities

In 2012, there were two megacities in China – Shanghai and Beijing. By 2025, six new Chinese megacities with populations of 10 million people are expected to emerge. By this time, 1 billion Chinese people will be living in cities. This is a remarkable change in a country where only 20 per cent of people lived in urban areas in 1990.

The beginning of this change can be traced back to the late 1970s and 1980s. At that time, the Chinese Government began to introduce policies and laws that encouraged economic growth. The goal was to turn China from a country of farmers into a country of business people and factory workers. Businesses and factories soon started to pop up in most Chinese cities, and people began to move from the countryside to take advantage of new job opportunities. Global demand for Chinese goods meant the numbers of factories and factory workers quickly increased. Overseas companies struggled to compete with Chinese manufacturers on price. Many started moving their factories to China to take advantage of China's expertise and lower labour costs. The drivers of this growth and change were China's big cities. In fact, cities in China are expected to produce 90 per cent of the country's total wealth by 2025.

CHINA: POPULATION OF LARGEST CITIES, 2005 AND 2025

Source 1 Source: Oxford University Press

keyconcept: Place

Dreams of returning home

One of the fastest growing cities in China is Shenzhen in Guangdong Province. In 1980, Shenzhen was a small fishing town with a population of about 10 000. Today, it is home to almost 10 million people. A recent study estimated that about 80 per cent of Shenzhen's population are migrants to the city from rural areas across China.

One of these migrants is Zhao. He moved from his home in rural Hunan Province in 1998 after friends convinced him that he could make more money as a taxi driver in the city than as a farmer.

As a migrant, Zhao is not entitled to have a licence that allows him to own land in Shenzhen. This licence (known as *Hukou*) recognises people as official residents of the city, and without it Zhao feels unwelcome in Shenzhen. Zhao intends to move back to Hunan when his son finishes high school because it has become very difficult to earn enough money as a taxi driver. This is mainly due to traffic congestion and rising petrol prices. In Hunan he intends to return to farming his 0.5 hectare plot of land and to care for his parents, who are becoming too old to farm the land.

For more information on the key concept of place, refer to page 6 of 'The geography toolkit'.

Source 2 Competition among taxi drivers in Shenzhen is fierce.

CHINA'S CITIES BY 2025

By 2025, China will build 10 new cities each the size of New York.

The population of China's cities will have increased by 350 million people, more than the current population of the United States.

Chinese cities will add up to 50 000 skyscrapers to their skylines.

New train systems will be needed in 170 Chinese cities, requiring about 28 000 kilometres of rail lines.

More than 220 Chinese cities will have over 1 million residents; Europe currently has 35, and Australia has 5.

Chinese cities will have 5 billion square metres of paved roads.

Source 3 A snapshot of China's cities by 2025 based on current trends

Check your learning 6.6

Remember and understand

1 Why are China's cities growing so rapidly?

2 Why are people moving to China's cities?

Apply and analyse

3 As a country, how does China benefit from people moving to cities?

4 How many megacities (over 10 million people) were there in China in 2000? How many are there expected to be in 2025? Why is this number expected to change?

5 In which regions of China are the cities expected to grow most rapidly? Discuss some of the reasons for this pattern with a partner. Can you find one aspect of the natural environment responsible for this pattern and one aspect of the human environment?

Evaluate and create

6 Read about the growth of Australia's cities on pages 158–159. Compare the reasons for this growth with the reasons for the growth of China's megacities. What are the similarities and the differences?

Population movements in India

In terms of area, Australia is the sixth-largest country in the world, with a population of around 25 million. The seventh-largest country in the world is India, with a population closer to 1.2 billion. This is more than 50 times greater than Australia's population.

Source 1 Most Indians live in small, rural villages.

Whichever way you look at it, India's population is immense. India is the second–most populous country on Earth after China. By 2030, India is expected to overtake China as the most populous country.

While many people think of crowded megacities when they think of India, most Indians live in small rural villages. In fact, more than half the population lives in small communities of fewer than 5000 people.

skill**drill**

Interpreting graphs

Graphs provide geographers with the ability to more easily identify trends and patterns in data they have gathered. Graphs can be used to compare places and events, to show change over time, to show the relative importance of different things, and to show important aspects of a place. When interpreting graphs follow these steps:

Step 1 Always read the title carefully so that you know exactly what the graph is showing.

Step 2 Look carefully at each axis on bar and column graphs so that you understand the scale that has been used.

Step 3 Look for general trends, such as the overall growth of a city, rather than exceptions to trends.

For more information on a range of different graphs, refer to pages 28–9 of 'The geography toolkit'.

Apply the skill

1   Study Sources 2 to 5 and complete the following tasks, giving reasons for your answers.
   a   Which of these graphs best shows why many Indians choose to move to urban areas?
   b   Are conditions better in rural areas or urban areas?
   c   Which of these graphs best shows the impact of movement to the cities?
   d   Which of these graphs best shows how India's population is changing over time?
   e   Which of these graphs best shows where most people in India live?
   f   The definition of a city varies between countries. One common measure is a place with more than 20 000 inhabitants. By this definition, what percentage of Indians live in cities?
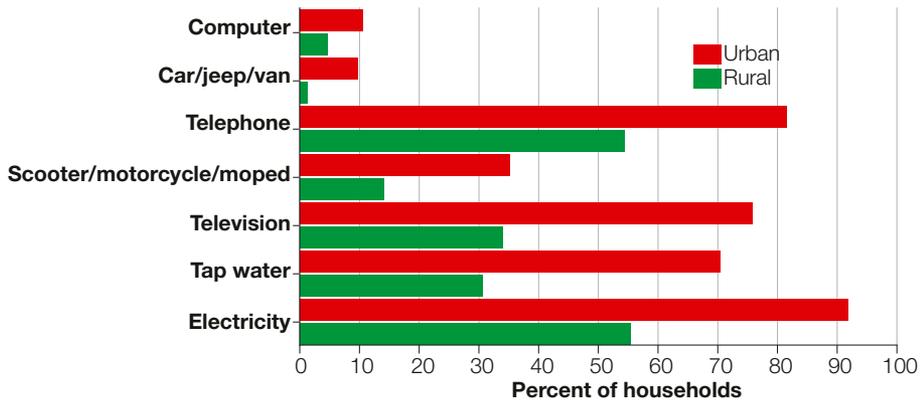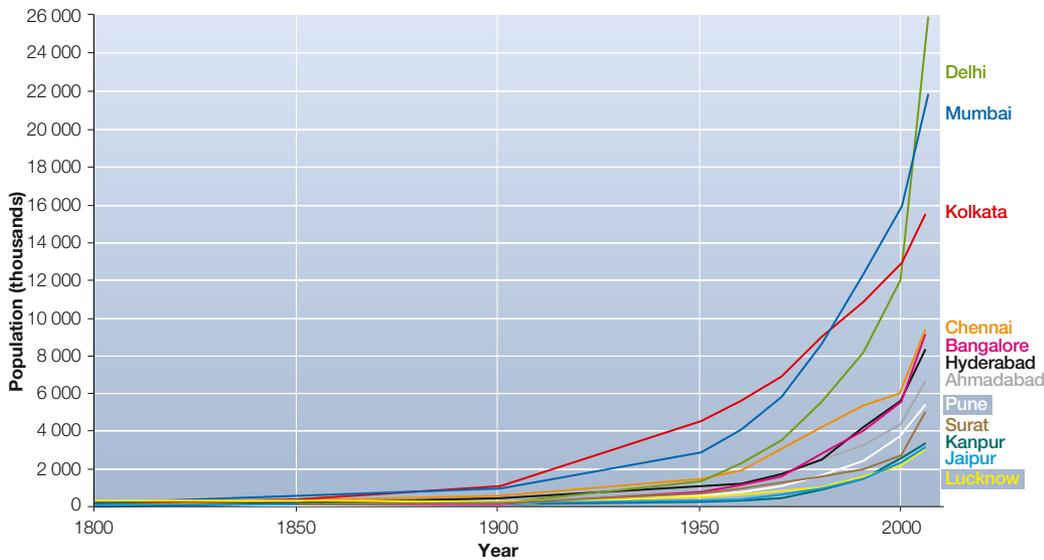
**Source 2** Household services and amenities of urban and rural Indians
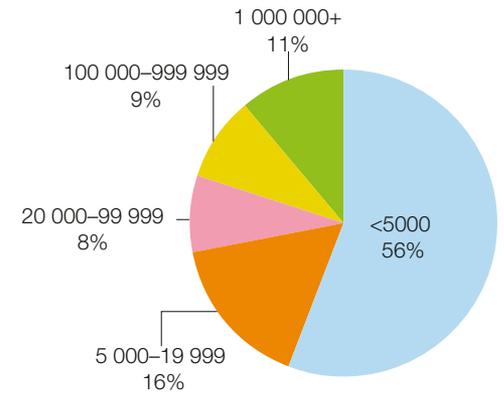
Source 3 India's population ranked by the size of the community in which they live

Source 4 Growth of India's cities, 1800–2014

Extend your understanding

1 Conduct research on the Internet to complete the following questions:

   a With a population of 25 million, Delhi is one of the largest cities in the world. According to current estimates, what is Delhi's population expected to reach by 2030?

   b By 2030, India is expected to surpass China as the world's most populous country. What is India's population estimated to reach by this time?

   c Look at Source 5. How do you explain the reduction in young people as a percentage of total population from 1990 to 2030?
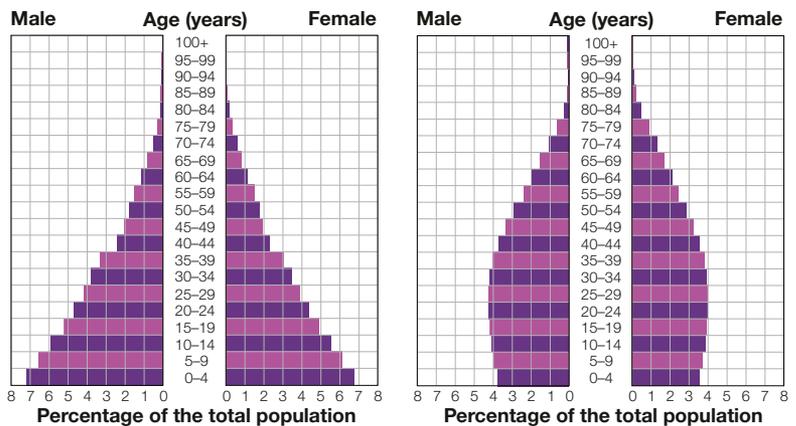
Source 5 Population pyramids for India, 1990 (left) and 2030 (right)

6.7 International migration to Australia

Modern Australia has been created and shaped by national and international population movements. From the arrival of the First Fleet in 1788 – loaded with almost 1500 convicts, sailors and soldiers – Australia has been populated by waves of immigrants. First, penal colonies at Sydney, Port Arthur and Fremantle were established. Then large numbers of migrants from Great Britain and Ireland came to establish towns and farms. By the 1860s more than three-quarters of the population were of Anglo-Celtic origin and this figure remains at about 70 per cent to this day. From the middle of the nineteenth century, immigrants arrived from across Asia and the Pacific Islands, and continued to flow from Europe. They were attracted by various factors, such as gold, work and the promise of a new life.

During the 1900s, immigrants from Britain continued to dominate. An immigration policy that discriminated against all non-white migrants (known as the White Australia Policy) was enacted in the first days of the new nation in 1901 and remained until the 1970s. The end of World War II in 1945 saw waves of migrants come to Australia from southern European countries, such as Italy and Greece. As immigration

Source 1   The discovery of gold in the 1850s brought many international migrants to Australia.
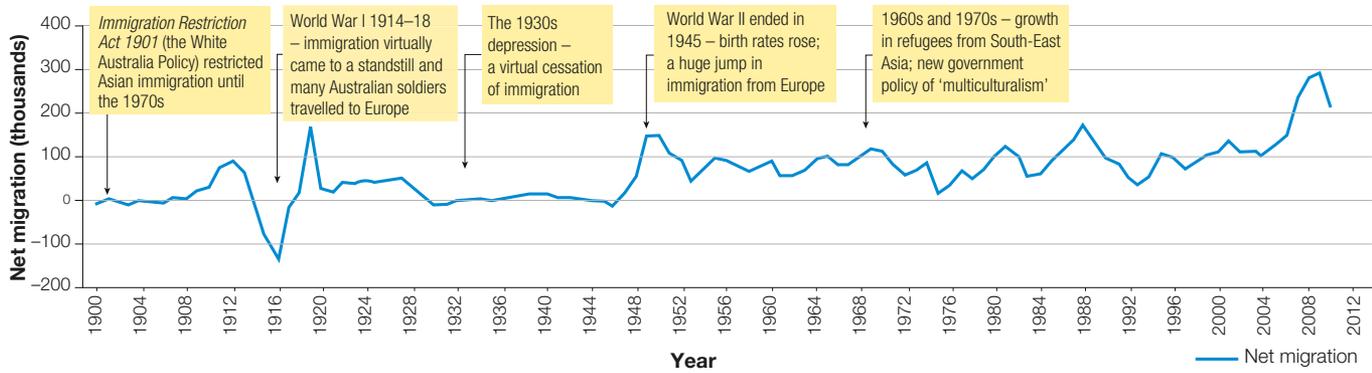
Source 2 Net migration (total arrivals less total departures) to Australia during the period 1900–2010

policies were freed up, these waves were followed by others from the Middle East, Asia and South America. Australian society is therefore very different from that in long-established countries in Europe and Asia. Just like the United States, Canada, New Zealand and Argentina, this country is largely a nation of immigrants.

Multicultural Australia

Today, Australia is considered by many to be a multicultural country. This description acknowledges that the people of Australia come from a wide range of ethnic and cultural backgrounds. In 'The People of Australia: Australia's Multicultural Policy', the Australian Government states that 'multiculturalism is in Australia's national interest and speaks to fairness and inclusion. It enhances respect and support for cultural, religious and linguistic diversity.' On 21 March each year, many Australian schools and communities celebrate Australia's cultural diversity by holding Harmony Day events.
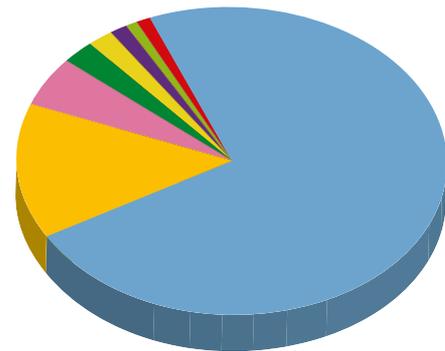
LEGEND

- Australia 73%
- England 5.3%
- New Zealand 2.5%
- China 1.8%
- India 1.5%
- Italy 0.9%
- Vietnam 0.9%
- Other countries (including Philippines, South Africa, Malaysia, Germany) 14.1%

Source 3 Australian citizens by country of birth, 2011. In 2011, more than one-quarter of Australians (around 27 per cent) were born overseas.

Check your learning 6.7

Remember and understand

1 What is multiculturalism?

2 Examine Source 1 showing miners on the gold fields during the gold rush. How did this event change the environment and the population of Australia?

Apply and analyse

3 Australia's current government policy states that multiculturalism is in Australia's national interest.

What reasons does it give for this? Do you agree? Why or why not?

Evaluate and create

4 Conduct some research into the impacts of international migration on the original Indigenous Australians. What effect did it have?

6.8 The changing face of Australia

Australia is a multicultural nation – that is, a nation of many cultures. Australia's cultural diversity is due mainly to our history. Our population is made up of our Indigenous peoples, the descendants of our British colonial past, and immigrants from the world's many countries and cultures. Modern Australia is largely a land of immigrants and their children. In 2011, about 27 per cent of Australia's population was born overseas, and a further 20 per cent had at least one overseas-born parent. Today in Australia there are people from more than 200 countries.

Australia's first female Prime Minister, Julia Gillard, was born in Wales and migrated to Australia as a child.

AFL footballer Nic Naitanui's parents are from Fiji.

Comedian Anh Do arrived in Australia as a refugee from Vietnam.

Singer Jessica Mauboy is an Indigenous Australian.

Source 1   The faces of cultural diversity in Australia

The ancestry of Australians

The Australian **census**, which is taken every five years, asks every Australian to identify their ancestry. They may identify up to two ancestries in their answer. Source 2 shows the top 10 ancestries recorded in the 2006 census.

Some geographers also use the term **ethnicity** to refer to a person's heritage. Ethnicity combines elements of language, place of origin and culture.
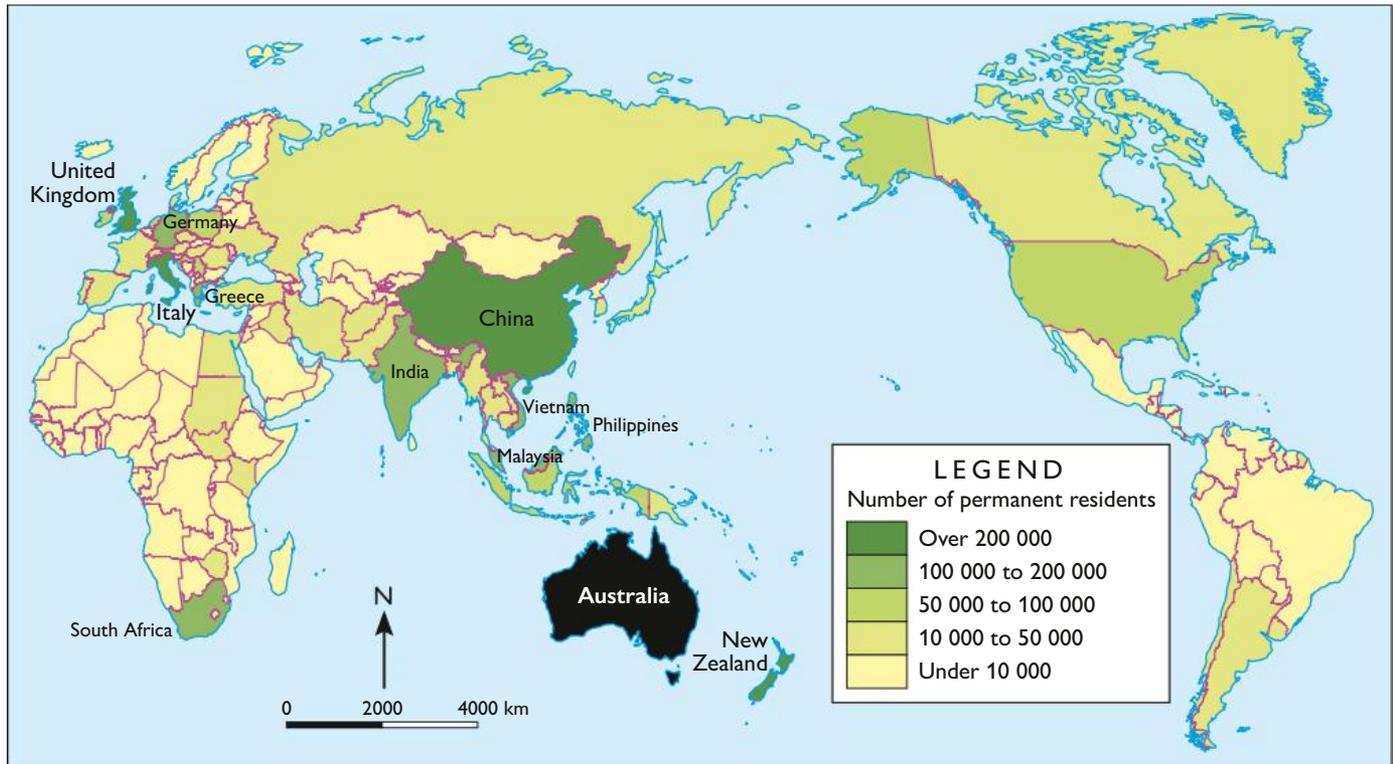
Language diversity

The number of languages spoken in a particular country is a good indicator of cultural diversity. English is the dominant language in Australia. Fewer than one in 100 Australians cannot speak English. Despite this, more than 200 other languages are spoken in Australian homes every day. The most common include Italian, Greek, Cantonese, Arabic and Mandarin. At the time of European settlement in 1788, it is estimated that more than 250 distinct Indigenous languages were spoken in Australia. Today, this number has fallen to fewer than 150. Of these, fewer than 20 are considered to be strong languages, spoken by all generations.
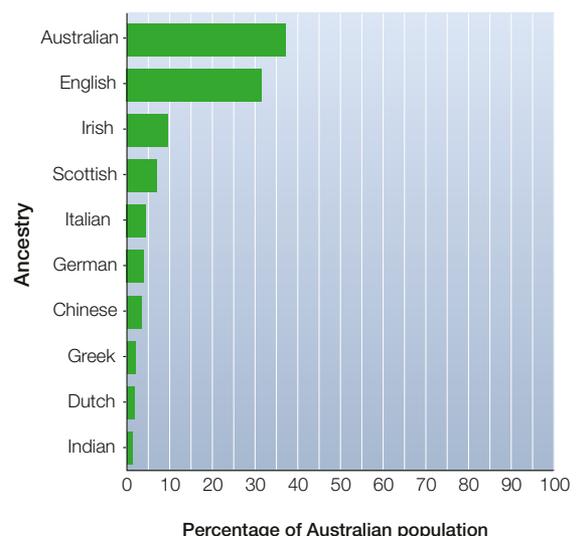
Source 2   Most common ancestries in Australia, 2006

AUSTRALIA: RESIDENTS IN 2006 BY COUNTRY OF BIRTH

LEGEND
Number of permanent residents

- Over 200 000
- 100 000 to 200 000
- 50 000 to 100 000
- 10 000 to 50 000
- Under 10 000

Source 3

Source: Oxford University Press

Patterns of international migration

Patterns of migration to Australia have been shaped by events and policies in Australia and in other parts of the world. For example, at the end of World War II Australia took in large numbers of migrants from Europe who had been forced from their homes by the war. The proportion of the overseas-born population from Europe was 52 per cent in 2001, but this reduced to 40 per cent in 2011 as the number of migrants from Asia and New Zealand increased.

Australian Government migration policy

Australian governments rely on overseas immigrants to achieve economic goals. In times of strong economic growth there is a higher demand for migrants to work and live in Australia. This migration intake may fall when the economy is weak and unemployment climbs. The Federal Government is responsible for levels of migration. It sets out

categories for migration and sets targets for each group to reflect the economic and political climate in Australia and the world. Australia also provides education services to large numbers of overseas students.

The categories of migrants are:

Permanent migrants

- Skilled labour – to fill specific shortages in the workforce
- Family migration – to help families to reunite
- Humanitarian – to assist people in need, such as refugees

Temporary migrants

- Student – individuals coming to Australia to study for a fixed period
- Business – workers migrating for a short period or on a working holiday
- Visitor – a short-term visitor for business, family visit or tourism.
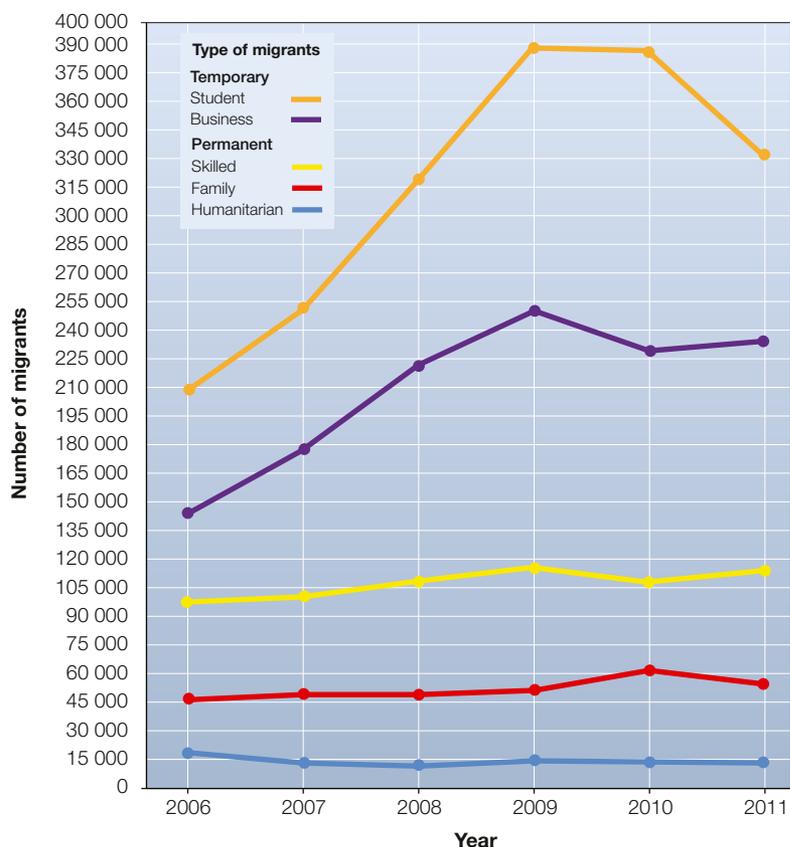
Source 4 Migration patterns in Australia

Economic benefits of international migration

As well as social benefits, population movements have the potential to provide many economic benefits. This is most apparent in the contributions that migrants make to the economy of the places they move to. Migrants often fill gaps in the labour market by providing essential skills. The Department of Immigration publishes a list of skilled occupations with shortages of applicants in Australia. Potential immigrants with these skills can then apply for citizenship to the country. Jobs in medicine, construction and education are currently high on this list. Some other sectors of the economy, such as agriculture and hospitality, also rely heavily on migrant labour.

The seasonal nature of fruit and vegetable growing, for example, means that growers need a large workforce for a short period of time. Groups of pickers move between different regions of Australia depending on the crop and time of year. Some of these groups are made up of migrants from similar backgrounds, such as Pacific Islanders or Vietnamese, while overseas backpackers are also an important source of this labour. Whether it's tomatoes in Bowen between May and October, mangoes in Cairns between November and December, or apples and pears in Shepparton between February and May, there are tens of thousands of workers following the harvest and contributing their skills and money to the local economy.

Family reunions

Many families become disconnected through the migration process. This is particularly the case for refugees. Ten-year-old Neema Mukasa was finally reunited with her father at Melbourne airport in 2006 after being separated for six years. In 2000, at the age of four, she was separated from her family, including her twin sister, while fleeing a civil war in the Democratic Republic of Congo. Neema's mother was killed in the violence and her father applied to bring his five remaining children to Australia. They were accepted as refugees under the Australian Government's Humanitarian Program and settled in Shepparton in country Victoria. During an interview with the local school principal, Mr Mukasa told the story of his lost daughter.

Source 5 This worker from Mauritius is harvesting peaches near Swan Hill in Victoria.

The principal contacted the Red Cross and through their tracing service they were able to locate Neema who was living in Nairobi with her uncle. He had desperately tried to find the little girl's missing family and had walked through five countries trying to catch up with them. This remarkable journey took them through a series of refugee camps over four years until they eventually reached Nairobi. After contact had been made between Africa and Australia, the family applied to the Department of Immigration for Neema to be able to come to Shepparton and she was reunited with her family.

Although this is just one example of an immigration story, it gives an idea of the types of responses to population movements at various levels. The Shepparton community responds at the local level by providing education and a safe place to live and work for new immigrants. The Department of Immigration operates at the national scale by assessing the refugee claims of thousands of applicants, and the Red Cross operates at the international level in response to disasters and humanitarian crises.

Source 6 Neema with her family and the Shepparton principal who helped them become reunited

Check your learning 6.8

Remember and understand

1 What does the term 'multicultural' mean?
2 What percentage of Australians in 2011 were either born overseas or had a parent born overseas?
3 Study Source 3. What were the source countries of most Australians born overseas in 2011?
4 Why do the numbers of migrants coming to Australia change over time?
5 List the different categories of migrants and provide one example for each.

Apply and analyse

6 See if your class is typical of the Australian population by asking each student to identify their ancestry. They may name one or two ancestries. Compare your results to those described in the 2006 census (Source 2).
7 Study the graph in Source 4.
   a Which category provides most migrants to Australia?
   b When did most skilled migrants enter Australia? Why might the numbers have increased at this time?
   c How does the number of humanitarian migrants compare to the other groups? What factors do you think might increase or decrease this category of migrant?

Evaluate and create

8 What does the ancestry of modern Australians (Source 2) tell you about our past? How do you think this will change over the next 50 years?

6.9 Migrant communities in Australian cities

Many people immigrating to Australia choose to start their new lives in areas of a city where people with a similar cultural background have also settled. Over time, these suburbs can develop particular characteristics that reflect the cultures of the people who live there. For example, the Melbourne suburb of Sunshine is home to a large Maltese population, while the Sydney suburb of Marrickville is home to a large Greek population.

New arrivals tend to settle in the same areas for a variety of reasons. The houses there may be affordable, they may have family or friends close by, or there may be a number of community groups and support services nearby. These services might include emergency accommodation, translation services, adult language and education centres, employment agencies and accommodation services (such as Centrelink and Department of Housing). These areas may also provide important social institutions (such as places of worship), and meeting places and shops selling familiar items (such as food, utensils and clothing).

For people from non-English-speaking backgrounds, an important factor that pulls them to live in certain suburbs is the presence of professionals (such as doctors, lawyers and accountants), shopkeepers and other people who speak their language. This can be vital in order to carry out their day-to-day lives.

Case study: the Chinese community in Hurstville, Sydney

The suburb of Hurstville in Sydney's south is an example of an area with what geographers call a high ethnic concentration. From a total population of around 26 000 residents in 2011, 68 per cent were born overseas and eight out of 10 speak more than one language. Since European settlement of Australia, Hurstville has seen several waves of immigration. First, it was mainly home to people of British


Source 1   Chinese businesses in the Sydney suburb of Hurstville
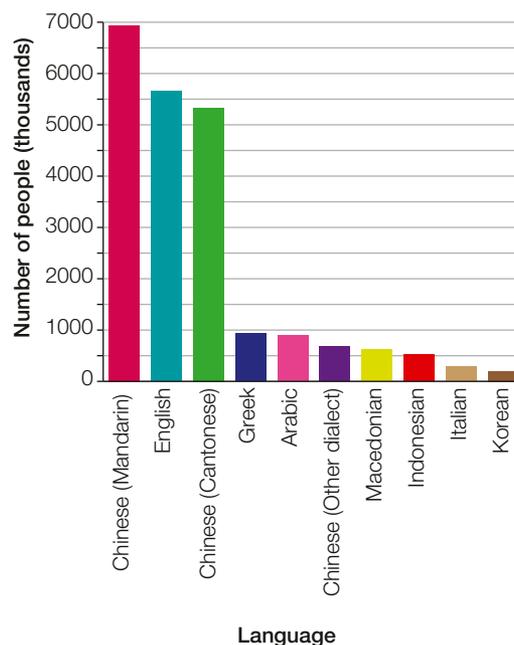
Source 2   Top 10 languages spoken at home by Hurstville residents

and Irish heritage; then came a wave of southern European migrants, largely from Greece and Italy; followed by people from Bosnia, Macedonia and the former Yugoslavia. Since the 1990s it has mainly become home to people arriving from Hong Kong and mainland China.

SYDNEY: CONCENTRATION OF RESIDENTS FROM CHINESE BACKGROUNDS, 2011
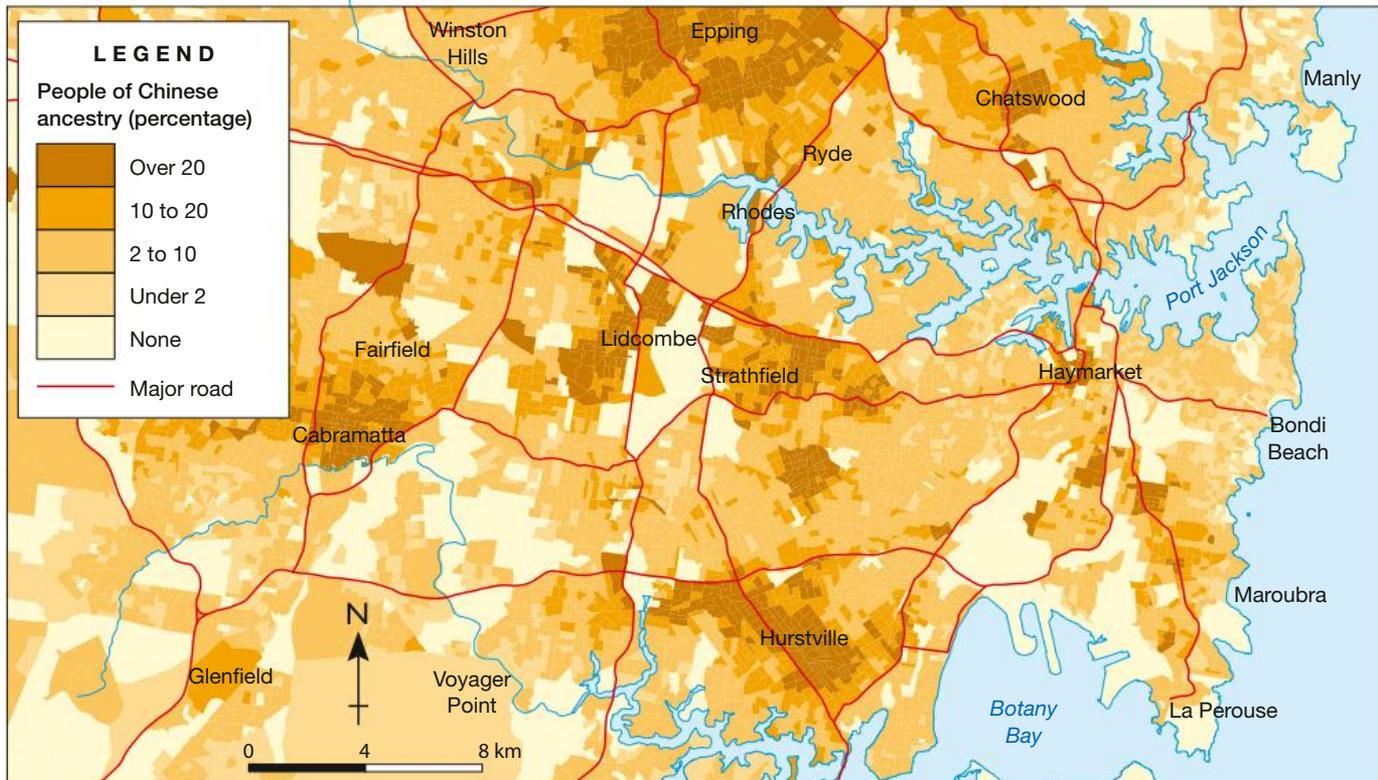
Source 3

Source: Oxford University Press

Chinese immigration to Australia dates back to the 1820s, but grew rapidly in response to the gold rushes of the 1850s and 1860s. During the twentieth century a series of government policies (including the White Australia Policy) restricted the number of immigrants from Asian countries to Australia, but since these policies were abandoned in the 1970s there has been a steady increase in the numbers of Chinese people settling in Australia. Today, China is second only to New Zealand in terms of migrant numbers to Australia.

Check your learning 6.9

Remember and understand

1   Why do people from the same language and cultural backgrounds tend to settle in the same areas of a city?

2   Studies show that English-speaking migrants arriving in Australia tend not to settle in groups as much as non-English-speaking migrants. Why do you think this is the case?

Apply and analyse

3   Use the PQE method to describe the distribution of residents from Chinese backgrounds shown in Source 3. If necessary, refer to page 26 of 'The geography toolkit' for instructions on using the PQE method.

4   How can the arrival of large numbers of people from similar cultural and language backgrounds change the areas in which they settle?

Evaluate and create

5   Access the community profile for your community using the census data available on the Australian Bureau of Statistics website (www.abs.gov.au).
    a   Use the country of birth data to construct a bar graph of the top 10 languages spoken at home.
    b   Compare your completed bar graph with the graph for Hurstville shown in Source 2. What similarities and differences can you identify?

International migration and Indigenous Australians

By 1900, the number of Indigenous Australians was less than a quarter of what it had been when Europeans first arrived in 1788. As the new immigrants built their penal colonies, towns and farms, Australia's Indigenous peoples were badly affected. Food became scarce as land was cleared, and access to water and sacred sites became difficult or impossible. Western diseases wiped out entire Indigenous communities, as the Indigenous Australians had no natural immunity to them.

Source 1 This plaque commemorates the 28 unarmed Aboriginal people massacred in retaliation for cattle theft at Myall Creek in NSW in 1838.

The population of the Darung people around Botany Bay, for example, fell by 90 per cent in three years following the arrival of European settlers. In some places there was open conflict between the Indigenous tribes and the white settlers, but armed with guns, the new arrivals nearly always won. As the Indigenous populations were forced from their traditional lands, many were placed in missions and reserves.

Today, Aboriginal and Torres Strait Islander people have one of the lowest life expectancies in the world. They are under-represented in government, education and employment and over-represented in prisons when compared with the wider Australian population.

skill**drill**

Reading complex maps

Complex maps contain more than one set of information to understand.

Step 1 Look carefully at the legend. Complex maps can have more than one part to a legend. These parts will be represented on the map in different ways. For example in Source 2 areas of colour are used to show the different types of Indigenous land across Australia. Different coloured symbols are used to show a range of significant sites.

Step 2 Train your eyes to look for one set of information at a time. For example, look at the solid blocks of colour on the map and work out what they tell you.

Step 3 Move to a different set of information and work out what that represents.

Step 4 Look for concentrations of the same symbol in areas to see if patterns exist.

Apply the skill
Study Source 2.

1 Describe where the largest areas of Indigenous-owned land (freehold) are located.

2 Which state has no freehold or leasehold Indigenous land over 100 square kilometres?

3 The significant sites are harder to pick out on this crowded map, but the colours help them stand out. Describe the location of the Myall Creek massacre site. List the other massacre sites in Australia and state their locations.

4 Many art sites are only for Australia's Indigenous people. Where in South Australia is a significant Indigenous art site?

Extend your understanding

1 Give three examples of how international migration to Australia impacted on Australia's Indigenous population.

2 Do some research on another Indigenous group, such as the Māori in New Zealand or the First Nations people of North America.

   a How was this group affected by early international migration?

   b How did this group respond to early international migration?

   c Find out their life expectancy, employment and imprisonment rates compared with the rest of their country's population. How do these compare with those of Aboriginal and Torres Straits Islander people?

AUSTRALIA: INDIGENOUS LANDS AND SIGNIFICANT SITES
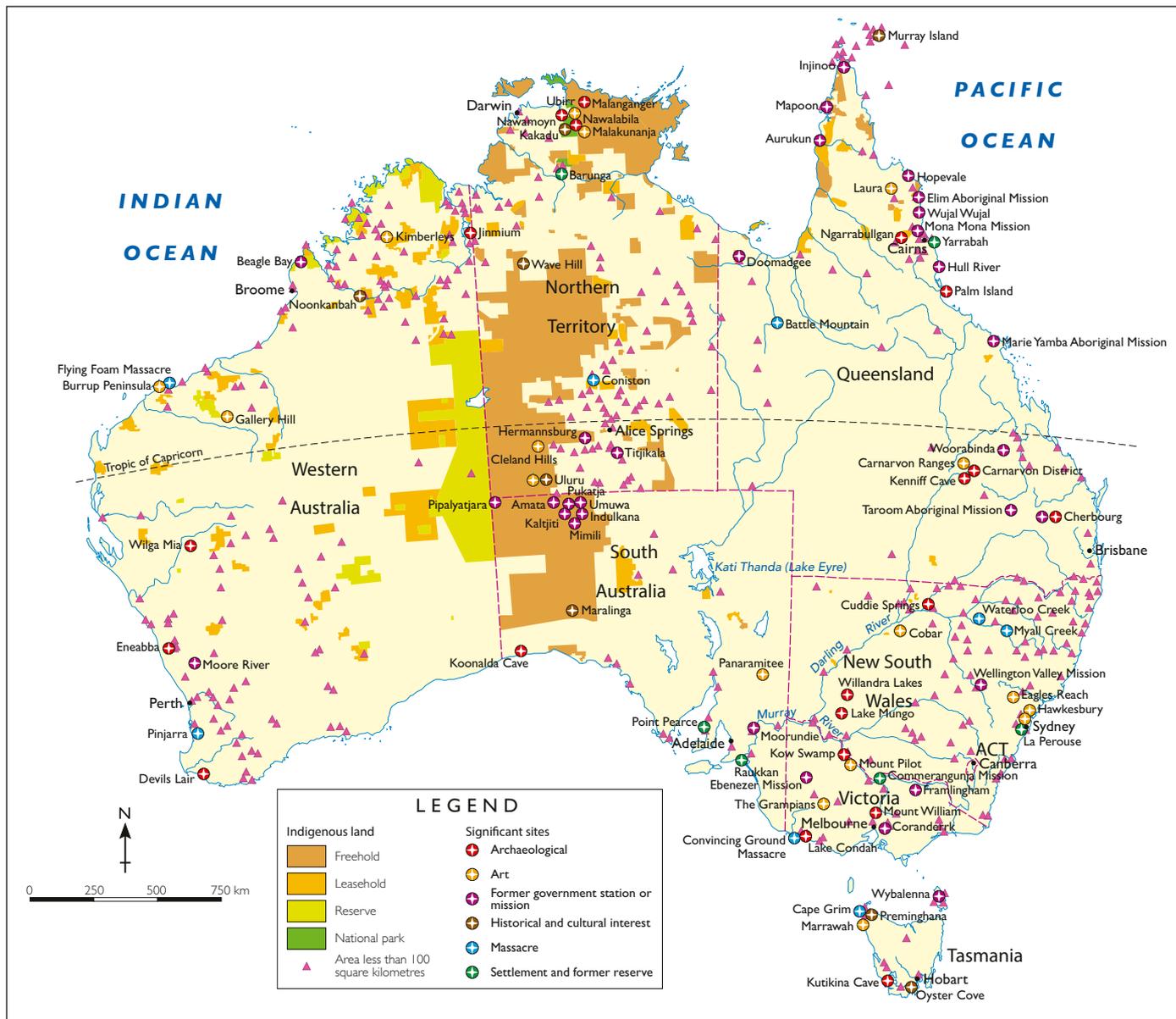
Source 2

Source: Oxford University Press

part **2**

history

The history toolkit

History is the study of the past. Historians are interested in all aspects of the past and seek to piece together accurate pictures of what life was like in days gone by. They also look for patterns – what has remained the same, what has changed, and why.

Historians are time detectives; they follow a process of **historical inquiry** in order to better understand the past. They ask questions, form opinions and theories, locate and analyse **sources**, and use **evidence** from these sources to develop an informed explanation about the past.

Historians are curious. They investigate **artefacts** like the Bayeux Tapestry and want to know more about them. These artefacts provide historians with the opportunity to actively investigate how ancient ideas and beliefs influence our modern world.

7A
What are the historical concepts?

7B
What are the historical skills?

Source 1   The Bayeux Tapestry is one of the most significant primary sources from Europe's **medieval** period. It is a piece of hand-embroidered cloth nearly 70 metres long that shows the events leading up to an important battle in 1066 known as the Battle of Hastings. This battle resulted in England crowing a new king and changed the course of history.

chapter

7

7.1 Historical concepts

Historians use seven concepts to help them investigate and understand the past. At times you will use several of these concepts at once; at other times you may focus on just one. As you learn to apply each concept, you will begin to think like a historian. The seven key concepts in History are:

- **perspectives**
- **empathy**
- **continuity and change**
- **significance**
- **cause and effect**
- **contestability**.
- **evidence**

Perspectives

The concept of perspectives is an important part of historical inquiry. Perspective is a point of view – the position from which people see and understand events going on in the world around them. People will have had different points of view (or perspectives) about a particular event, person, civilisation or artefact depending on their age, gender, social position and their beliefs and values. Just like anyone else, historians have perspectives, which can influence their interpretation of the past and the way in which they write about it. Despite their own perspectives, historians must try to understand the different values and beliefs that shaped and affected the lives of people who lived in the past.

Source 1 This Spanish artist's impression shows the conquistador Hernán Cortés meeting the Aztec ruler Moctezuma II in the capital of Tenochtitlan in 1519.

The Spanish conquest of the Americas (1492–1572) provides an example of how a clash between very different cultures, societies and religions resulted in the near-destruction of the native civilisations in the Americas. Spanish **conquistadors** such as Hernán Cortés came to the Americas in 1519 driven by a desire to convert the native people to Christianity, to expand Spanish territory and to increase Spanish wealth. The Spanish believed it was their duty to convert to Christianity a race of people that they saw as **barbarians**. From a Spanish perspective at the time, their actions were lawful and blessed by their Christian god. They also believed they were entitled to enslave the population and send the wealth and treasures of the Americas back to Spain in the name of the king. Within 100 years, the Inca, Aztec and Maya civilisations and cultures had been largely destroyed.

From a modern perspective, the actions of the Spanish during this time are seen as brutal, cruel and unjustifiable. Many historians and descendants of these once-great **empires** mourn the loss of their cultures at the hands of Spanish invaders.

Regardless of what you may think personally about the way in which the Spanish acted, the concept of perspectives encourages us to view the actions of the Spanish as typical of the way Indigenous populations around the world were treated by European colonisers.

Continuity and change

Historians recognise that over time some things stay the same, while others change. This concept is referred to as continuity and change. Examples of continuity and change can be seen across every civilisation and any given period of time.

Historians refer to aspects of the past that have remained the same over time as continuities. Aspects of the past that do not stay the same are referred to as changes. Change can occur within a certain civilisation or specific time period, but also across different civilisations and time periods.

Many aspects of history influence how we act and live today. For example, barbers and barber shops are common today as they were during medieval times. This is an example of historical continuity. However, in the middle ages, hair was not the only thing that barbers cut. They also performed a number of different medical and dental procedures. The most common medical procedure was known as **blood letting** (see Source 2). Blood letting involved cutting a person's veins and collecting a set volume of blood in a dish. It was believed to cure illness and prevent diseases such as the **bubonic plague**. No barber today would be legally permitted to perform such a procedure, nor would you want him to. This is an example of a historical change.

Another interesting example of continuity and change relating to barber shops can be seen in Source 3. Barber poles are a reminder of blood-letting operations carried out by barbers in medieval Europe. Patients held on to a metal pole tightly during the operation so their veins popped out and were easier to cut. It also helped them stay standing. After each operation bandages were used to stop the bleeding. After use, they were often hung out to dry on poles and would twist together in the wind forming a red and white spiral pattern. This pattern can still be seen today.

Source 2   A 15th-century illustration of a barber performing a blood-letting procedure on a woman. Note that she is tightly gripping a pole in her left hand to allow her vein to be easily cut. The barber also holds a bandage to stop the bleeding after the procedure.
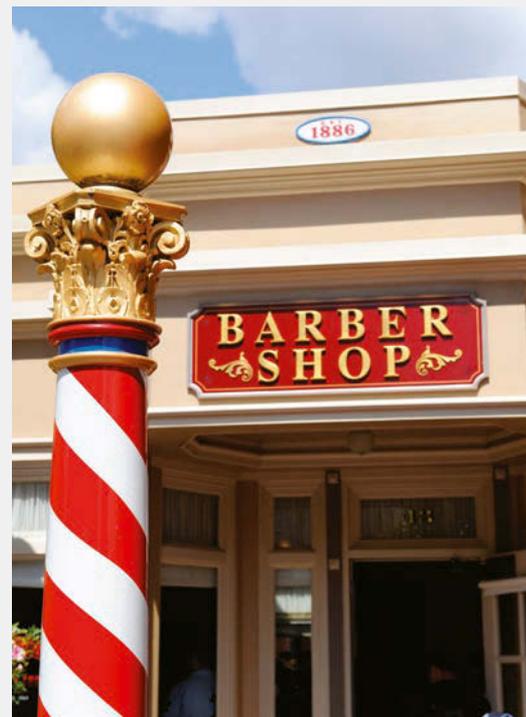
Source 3   A red-and-white-striped barber pole advertising a modern-day barber shop. The red and white spiral pattern on the pole dates back to the blood-letting procedures performed by barbers during the medieval period in Europe.

Cause and effect

The concept of cause and effect is used by historians to identify chains of events and developments, both in the short term and in the long term. Cause and effect aims to identify, examine and analyse the reasons why events have occurred and the resulting consequences or outcomes. It helps to think of cause and effect as the 'why' and 'what' of history.

Sometimes the link between cause and effect is very clear. For example, heavy rain over many weeks (cause) leads to flooding and the destruction of crops (effect). However, often this link is not quite so obvious. Generally, there are many causes (reasons) that lead to an event or action. There can also be many effects (outcomes). Sometimes the effects are simple to identify, while in other cases they are more difficult to predict and may not even be observed until long after the event.

During the 14th century, a terrible plague known as the **Black Death** swept across Europe, Asia and parts of Africa. Historians estimate that at least 75 million people across Asia, North Africa and Europe died as a result. In Europe, this represented between 30 and 40 per cent of the population.

There were a number of factors that led to the rise and spread of the Black Death. Bubonic plague (the most common form of plague) was spread by fleas infected with a bacterium known as *Yersinia pestis* (cause). These fleas lived on black rats that were commonly found in all medieval towns and cities because of poor hygiene and sanitation (cause). Bites from the infected fleas spread the disease to humans (cause). Pneumonic plague (another form of plague) was spread from person to person through the air, infecting bodily fluids such as mucus and blood (cause).

The Black Death resulted in a range of effects – some short term, others long term. Short-term effects included:

- a massive drop in population resulting in shortages of farm labourers and skilled tradesmen

Source 4   A medieval illustration of a couple with the plague. The Black Death had short-term effects, such as children being left without their parents, as well as long-term effects, such as the weakening of the feudal system across Europe.

- abandoned houses were left dirty and unattended, and rubbish and raw sewage in towns and cities was left to rot
- large numbers of deaths meant that mass burials of plague victims in large pits were necessary
- some priests refused to bury victims of the plague for fear of contracting the disease
- the persecution of some people in **society** (such as Jews) who were accused of causing the plague.
  Long-term effects included:
- the breakdown of **feudalism** across Europe because labourers and tradespeople could now demand better conditions and higher wages instead of working in return for the protection of feudal **lords**
- a reduction in the power and influence of the Church on people's lives due to the belief that the Church (including priests and clergy) had not been able to prevent the plague
- workers demanding recognition of their rights through a number of uprisings
- improvements in hygiene and medical knowledge due to new regulations and laws introduced to prevent further infections.

Evidence

Evidence is the information gathered from historical sources. The concept of evidence is an essential part of historical inquiry. Evidence can come from many different sources; for example, interviews and accounts from people who lived at the time, letters, diaries, films, maps, newspapers, buildings, paintings, photographs, song lyrics, nursery rhymes, clothing, photographs and even cartoons. But how do we use these sources to piece together the story of the past? We can make an educated guess (called a **hypothesis**) and then look for evidence to support it.

Evidence can be gathered from two types of sources:

- **primary sources** – objects created or written at the time being investigated, for example during an event or very soon after. Examples of primary sources include: official documents, such as laws and treaties; personal documents, such as diaries and letters; photographs or films; and documentaries. These original, firsthand accounts are analysed by historians to answer questions about the past.

- **secondary sources** – accounts about the past that were created after the time being investigated and which often use or refer to primary sources and present a particular interpretation. Examples of secondary sources include: writings of historians; encyclopaedia entries; documentaries; history textbooks; films; illustrations; reconstructions and websites.

Historians do not always agree on evidence, even when it is coming from the same source. They often have different opinions or points of view. This is why historians are constantly searching for new sources of evidence. They need to use a range of different sources to help them gain a more complete picture of the past.

Source 5 This Viking stone carving, known as the Tjängvide image stone, was discovered in 1844 on the Swedish island of Gotland. Carved during the 8th century CE, it shows gods from Norse mythology together with an image of a Viking **longship**. It is a primary source because it was made during the Viking Age. The remains of several Viking longships, such as the *Oseberg* ship, have been found that confirm this representation. However, no evidence remains relating to the size, shape or materials from which sails may have been made.

Source 6 This illustration from a children's book published in 1928 shows Olaf, a young Viking, returning to the Viking homeland with a rescued princess. It is a secondary source because it was created long after the Viking Age. Although a number of historically accurate features are shown (such as the basic shape and design of the longships), it would not be a reliable source of evidence for a historical inquiry because its purpose is to entertain young readers.

Empathy

The concept of empathy helps us to understand the impact of past events on particular individuals or groups. This includes an appreciation of the circumstances they faced and the motivations, values and attitudes behind their actions. Put another way, empathy is the ability to 'walk in someone else's shoes' – to be aware of, and sensitive to, their feelings, thoughts and experiences.

Empathising brings history to life. It connects us as human beings regardless of how much time has passed. For example, in medieval Japan a type of feudal system was developed in which there were rigid social classes. The warrior class, which included **samurai**, lived under a strict code of behaviour known as *bushido* ('the way of the warrior'). This code was based on honour, loyalty and discipline. From the age of five, children destined to become samurai began their training in important texts, etiquette and military arts. Every samurai's first duty was to honour and obey his master. If a samurai was defeated in battle, captured by the enemy or dishonoured in any way, the code required him to commit ritual suicide – an act known as *seppuku*. A special knife or short sword was used to stab deep into the abdomen and cut across the body from left to right. Only by taking his own life in this way would the samurai and his family be spared shame and disgrace.

It is difficult to imagine the agony of committing *seppuku*, and for many people today this act might seem barbaric. However, by applying the concept of empathy, we are able to appreciate how young men trained in the warrior code would have believed that their honour and loyalty was worth more than their life, and that no other option was acceptable. An appreciation of the type of disgrace brought upon the families of samurai who did not commit *seppuku* also goes a long way towards explaining their actions.

Source 7 A Japanese woodblock print of a samurai warrior about to perform *seppuku* – ritual suicide

Significance

The concept of significance relates to the importance assigned to aspects of the past. This includes people, events, developments, discoveries, movements and historical sites. History is full of so many important events, significant people and interesting places that we could never study all of them. Instead, we need to make a judgement about which of these is worthy of study. In order to determine if a person, event, development, discovery, movement or site is historically significant, historians may ask the following questions:

- How important was this to people who lived at that time?
- How many people were affected?
- To what degree were people's lives affected?
- How widespread and long-lasting were the effects?
- Can the effects still be felt today?

For example, the changes introduced by Genghis **Khan** during his time as ruler of the Mongol Empire are considered significant because they affected enormous numbers of people over a vast area of the world. Even though Genghis Khan ruled the Mongol Empire for a short period of time, many of his actions continue to influence the lives of people all over the world. Some of these legacies include:

- the unification of many nomadic tribes and the establishment of a vast empire and fierce army
- the establishment of a legal system that governed over 100 million people
- the development of a system that respected and accepted people of different religious beliefs
- the establishment of **dynasties** in several parts of the world, including Korea, China and southern Russia.

However, depending on your age, gender, ethnicity, religious beliefs, nationality and family background, different events and people from the past will be significant to a greater or lesser extent.

Source 9   This statue of Genghis Khan near the Mongolian capital of Ulan Bator is over 40 metres high. Genetic research now indicates that Genghis Khan's DNA is now found in around 0.5 per cent of the world's population, indicating that he and his sons fathered an enormous number of children. One out of every 12 Asians is now thought to be descended from Genghis Khan.

Contestability

The concept of contestability relates to explanations or interpretations of past events that are open to debate. Historians around the world often have access to very different sources. Artefacts, such as jewellery and weapons, may have been damaged, or stone carvings and artworks may be incomplete. Written records may contain errors, or might have been changed after they were written. Some artefacts may even have been completely destroyed. This can lead historians to draw different conclusions about what they are seeing. Even historians studying the same sources can sometimes come to very different conclusions about what the evidence is telling them. This is one of the exciting things about history – it is open to debate. There is often no right answer, and historians are always seeking a more complete understanding of the past.

For example, historians generally agree that early Polynesians migrated to various islands across the Pacific Ocean from one point of origin. However, since the 16th century (when European explorers were surprised to find people living on islands throughout Polynesia), historians have argued about how stone-age people could have crossed vast stretches of oceans to settle on these remote islands. Historians also disagreed about whether Polynesians originally travelled from South America or from South-East Asia to get there.

One theory suggests that Polynesians originated from modern-day Peru, floating across the ocean on rafts made of balsa wood, which is common in South America. This is known as 'the east–west theory'. The people who support this theory argue that the regular wind patterns and ocean currents would allow this type of travel, while travelling in the opposite direction would be much more difficult. They also sometimes suggest that there are similarities between Aztec, Incan and Mayan stone buildings and the stone statues of Polynesia such as the *moai* on Rapa Nui (Easter Island).

Another theory suggests that Polynesians originated in Asia and travelled eastwards across the Pacific Ocean. This is known as 'the west–east theory'. People who support this theory argue that Polynesian people speak languages with a common origin, and are similar to South-East Asian languages. There are also many similarities between the belief systems, social structures and tools used by Polynesians and the people of South-East Asia. Today the west–east theory has become more popular, with DNA evidence supporting it.

Although there is great support for the west–east theory today, this is an excellent example of contestability in history. Now a new debate has developed among historians who cannot agree on whether Polynesian expansion across the Pacific was deliberate or just the result of a group of fishermen whose canoes were blown off course.

Source 10 In 1947, a Norwegian adventurer named Thor Heyerdahl carried out a daring voyage in an attempt to prove 'the east–west theory' of Polynesian expansion. He constructed a raft (which he called *Kon-Tiki*) made of balsa wood and sailed it from South America into the Pacific.

Source 11 Recent DNA analysis carried out on Polynesian peoples across the Pacific – such as these Māori men in New Zealand – shows that they all share similar genetic characteristics with people in the South-East Asian countries of Taiwan and New Guinea. Many historians now believe this evidence proves 'the west–east theory' of Polynesian expansion.

Check your learning 7.1

Remember and understand

1 What is the difference between a primary and secondary source? Give an example of each type of source.

2 The red-and-white-striped pole commonly seen outside modern barber shops had its origins in medieval times. Which historical concept would this be an example of?

3 *Seppuku* (ritual suicide) was practised by samurai (members of the warrior class) in medieval Japan. Which historical concept would be most helpful to historians attempting to understand the factors that led samurai to do this?

4 Historians have developed two competing theories about where Polynesians originated from. Which historical concept is this an example of?

Apply and analyse

5 The importance of DNA analysis has been discussed a number of times in this section. Give at least one example of how and when it has been used to expand historians' knowledge and understanding of the past. Would this DNA evidence be classified as a primary or secondary source? Give reasons to support your answer.

6 Look again at the types of questions historians ask to decide if events, discoveries, people or sites are historically significant. Use each of these questions to determine the historical significance of Genghis Khan. Discuss your findings with the class.

7 Examine Source 1 showing the Spanish conquistador Hernán Cortés meeting the Aztec ruler Moctezuma ll in the city of Tenochitan in 1519.
   a Use evidence from the illustration to determine the main differences between the two cultures.
   b Cortés and the Spanish viewed the Aztecs as 'barbarians'. From the evidence presented in the illustration would you agree or disagree with this point of view? Give reasons to support your answer.

Evaluate and create

8 Museums display many different artefacts such as bones, swords, jewellery and coins. Conduct your own Internet research to find examples of Viking coins held in museums around the world. Explain two different pieces of evidence these coins provide about the way Vikings lived.

9 Create a flow chart to show the causes and effects (both short-term and long-term) of the Black Death.

10 Using images and text, create a poster that illustrates and briefly explains all seven of the historical concepts discussed in this section.

7.2 Historical skills

History has been described as 'who we are and why we are the way we are'. Historians examine the past and try to explain what they find. Like detectives at the scene of a crime, they follow a process of historical inquiry – they pose questions, locate and analyse sources, use evidence from these sources to develop an informed explanation about the past, and then communicate their findings.

To conduct a historical inquiry, historians need a range of skills. By studying history you will gradually master each of these skills. Some of them you will find easy to master, others may take a little longer. As you develop each new skill you will have gained another important tool for understanding and explaining events and people that have shaped our world.

Each of the skills you will learn over the course of this year is explained below. Each one represents a stage in the process of historical inquiry. These skills are organised into five broad categories (see Source 1). Each category has a number of more specific skills that you will be learning. It might help you to think of each of these skills as individual tools in your toolkit. For some historical inquiries, you may only need to use one tool; for others, you may need to use many.

As shown in Source 1, there are four stages in any historical inquiry. They are:

1. Questioning and researching
2. Analysing
3. Evaluating
4. Communicating and reflecting

1. Questioning and researching
2. Analysing
4. Communicating and reflecting
3. Evaluating

Source 1 There are four stages in any historical inquiry. At each stage, historians use a number of different skills. Each of these skills is like a tool in a toolkit.

7.3 Questioning and researching

Identifying a range of questions about the past to inform a historical inquiry

Historians begin any historical inquiry by asking big questions. From these big questions, historians develop a **hypothesis** (a theory) about who, what, where and why certain events took place. These questions then help to frame the process of inquiry and act as a guide for the collection of evidence.

The Bayeux Tapestry (shown in Source 1) is one of the best preserved historical sources from the medieval period in Europe. It is a piece of cloth measuring nearly 70 metres in length and around 50 centimetres in height. The embroidered cloth shows a series of events leading up to a significant battle in medieval times, known as the **Battle of Hastings**.

The Battle of Hastings was fought in 1066 in England after the death of the English king, Edward the Confessor. Edward died without an heir to the throne, so a number of men believed they had the right to rule England. The battle was fought between a group of people from England known as **Anglo-Saxons** and another group of people from France known as **Normans.**

What is the Bayeux Tapestry?

Who made the Bayeux Tapestry and what is it made of?

What is the Bayeux Tapestry doing here?

Why was the Bayeux Tapestry made and who paid for it?

Why is the Bayeux Tapestry important?

Source 1 Developing historical questions is an important part of every historical inquiry.

Generating questions to inform a historical inquiry

Look closely at Source 1. This visitor looking at the Bayeux Tapestry is asking some important historical inquiry questions. You can learn to do this too by starting your questions with the words 'what', 'where', 'how', 'when' and 'why' before beginning your inquiry.

For example, big questions, such as the following, help to guide the steps in the research process:

- What is the Bayeux Tapestry?
- Who made it?
- When was it made?

The very best questions open up an exciting area for you to explore. For example, the visitor might ask a simple question, such as 'What does the Bayeux Tapestry look like?' This is a question with a relatively simple answer. A better historical question for the visitor to ask might be 'What does the design and construction of the Bayeux Tapestry tell us about the skills of people living in medieval Europe?' This question opens up a whole new area for exploration.

Apply the skill

1 Based on what you have read and seen, generate four big questions of your own that will help guide your investigation into the Bayeux Tapestry.

2 Once you have generated your inquiry questions, identify the information you will need to answer these questions and where you might be able to locate it.

3 Are there any questions for which you have not been able to find reliable evidence or answers? What reasons might there be for this?

Identifying and locating relevant sources, using ICT and other methods

Sources provide information for historians. They can take many different forms, from historical artefacts to written records in books or online. Some examples of sources include human remains, coins, cave paintings, textbooks, journals, online databases, newspapers, letters, cartoons and diaries.

Locating a range of relevant sources is a valuable skill which usually involves a number of different search methods such as:

- checking catalogues at your school and local library
- using online search engines such as Google, Yahoo! and Bing
- visiting museum and government websites
- looking at newspaper and magazine archives
- contacting local historical societies
- interviewing older family members about the past, and examining family antiques and keepsakes.

Using ICT to locate relevant sources

Although printed books and newspapers are valuable sources of information, most research today is conducted online. In order to ensure that sources gathered online are accurate, reliable and relevant, a number of guidelines should be followed:

- Search engines, such as Google, are useful research tools, but much of the material on these sites is not reliable and may contain inaccuracies, false and misleading information or material that is out of date. When using search engines like Google or Yahoo!, be sure to define your search using keywords. Your librarian is a good person to ask for help and information. Most schools will also have a website devoted to providing information about developing good research skills.
- A reliable way of searching for sources is to use sites linked to educational institutions, government departments, reputable companies, museums, universities and educational institutions. A quick way of telling if a site is reputable is to look at the domain name in the URL (Internet address). Some of the most common domain names are listed in Source 2 along with some information about their reliability.
- Avoid blogs posted by unknown individuals. If you happen to find information relevant to your investigation on a blog or social media site, always verify it by using a more reliable source.
- Never cut and paste information from the Internet straight into your own work. Taking someone else's work, ideas or words and using them as if they were your own is called plagiarism and can result in very serious consequences.

Domain name	Description
.edu	The site is linked to an educational institution such as a university or school. These sites are generally very reliable.
.gov	The site is linked to a government institution. These sites are generally very reliable.
.net	This site is linked to a commercial organisation or network provider. Anyone is able to purchase this domain name and generally there is no one to regulate the information posted on the site. As a result, these sites may be unreliable.
.org	This site is linked to an organisation. Generally, these organisations are not for profit (e.g. Greenpeace, World Vision International, British Museum). If the organisation is reputable and can be contacted, it generally means that the information provided has been checked and verified by that organisation. You need to be aware of any special interests that the organisation may represent (e.g. particular religious, commercial or political interests) as this may influence what they have to say on a particular issue. If you are unsure about the reliability of information found on a website with this domain name, check with your teacher or librarian.
.com	This site is linked to a commercially based operation and is likely to be promoting certain products or services. These domain names can be purchased by anyone, so the content should be carefully checked and verified using another, more reliable source.

Source 2 Some domain names and their characteristics

Recording relevant sources

As you identify and locate relevant sources, it is essential that you record details to include in your list of references or bibliography.

When citing (mentioning) a book in a bibliography, include the following, in this order, if available:

1 author surname(s) and initial(s)
2 year of publication
3 title of book (in italics)
4 edition (if relevant)
5 publisher
6 place of publication
7 page number(s).

Example:

Easton, M & Saldais, M, 2016, *Oxford Big Ideas Humanities and Social Sciences 8 Western Australian Curriculum*, Oxford University Press, Melbourne, pp. 18–19.

When citing an online source in a bibliography include the following information, if available:

1 author surname(s) and initial(s) or organisation name
2 year of publication or date of web page (last update)
3 title of document (article) enclosed in quotation marks
4 date of posting
5 organisation name (if different from above)
6 date you accessed the site
7 URL or web address enclosed in angle brackets <…>.

Examples:

1 'Bayeux Tapestry', Encyclopaedia Britannica, www.britannica.com (2016), accessed 18 July 2016, <https://www.britannica.com/topic/Bayeux-Tapestry>.

2 Bartlett, R, 2010, 'The Bayeux Tapestry', http://www.bbc.co.uk, accessed 18 July 2016, <http://www.bbc.co.uk/blogs/ahistoryoftheworld/2010/08/the-bayeux-tapestry.shtml>.

Identifying the origin and purpose of primary and secondary sources

As explained earlier (see page 187), historians use two types of sources to gather evidence about the past:

* primary sources – objects created or written at the time being investigated; for example, during an event or very soon after
* secondary sources – accounts about the past that were created after the time being investigated and which often use or refer to primary sources and present a particular interpretation.
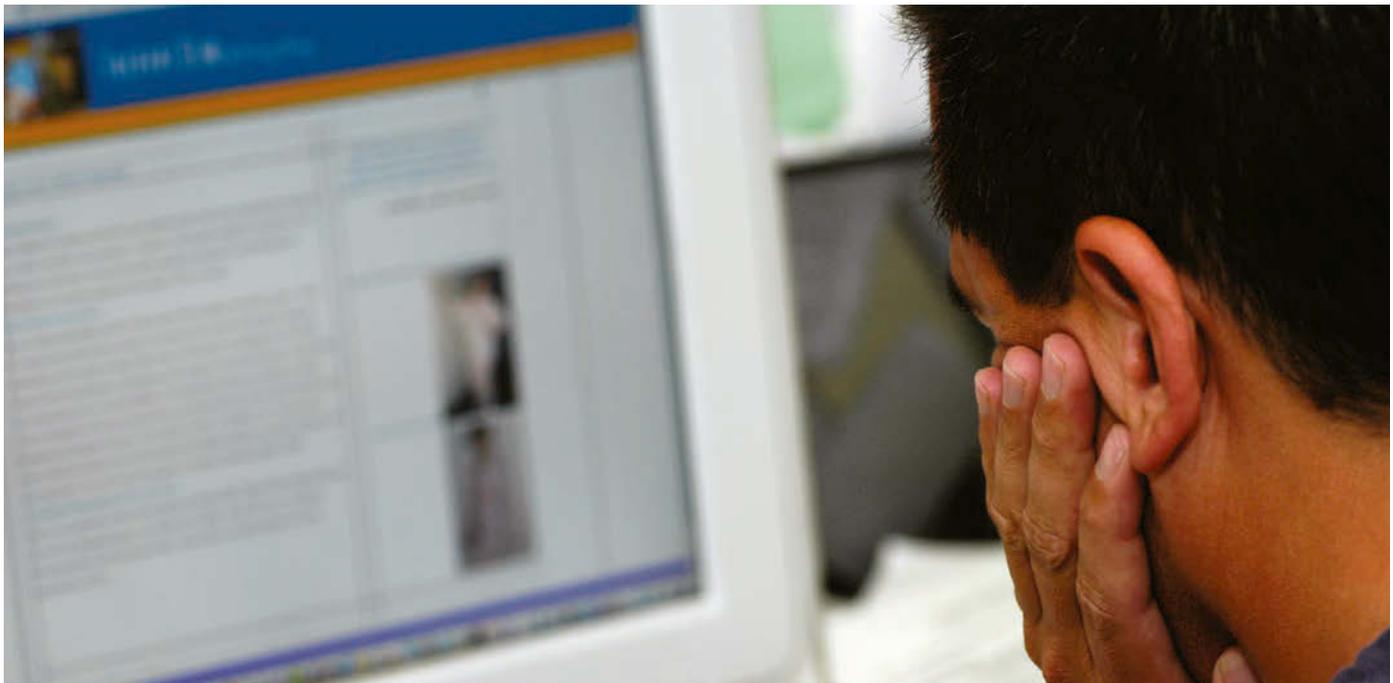
Source 3 Most research today is conducted online.

Understanding the origin and purpose of primary and secondary sources

Both primary and secondary sources are useful, but it is important to understand where they came from (origin) and why they were created (purpose) because they will almost always reflect the perspective of the person who made them, as well as the attitudes and beliefs of that time. All sources are affected by the author's own point of view, and in some cases the author may have been paid or forced to write in a particular way or ignore certain facts. This is referred to as **bias** and is often aimed at persuading the reader to agree with the author's point of view. This is why historians must carefully analyse and evaluate sources.

Analysing sources by asking 'who', 'what', 'when' and 'why' questions will help you identify the origin and purpose of the sources. For example:

- Who wrote, produced or made the source?
  - Is the creator's personal perspective obvious in the source?
  - Is the creator a member of a particular group, religion or organisation?
- What type of source is it?
  - Was the source created at the time of the event or afterwards?
- When was the source written, produced or made?
  - How old is the source?
  - Is it an eyewitness account or is it written by someone at a later date?
  - Is the source complete?

- Why was it written or produced?
  - Was it designed to entertain, persuade or argue a point of view?
  - Does the creator have anything to gain personally from the source?
  - What other events may have been happening at the time and might have influenced the author or source?

Locating, comparing, selecting and using information from a range of sources as evidence

By this stage of your historical inquiry, you will have located and collected a variety of different sources and types of information. Now it is time to compare and select the most relevant information that you will use as evidence to support your hypothesis. There are a number of different ways to organise large amounts of information so that you can decide quickly and easily which sources provide the most useful, relevant and reliable evidence.

Graphic organisers to help you compare, select and use information

Graphic organisers are very useful tools for collecting, comparing and selecting suitable resources that you have located. A source evaluation chart like the one on the next page can help you do this.

A

B

Source 4   The origin and purpose of these sources is different even though they are both related to the medieval period in Europe. Source A is a primary source – a weapon (axe head) used at the Battle of Hastings in 1066. Source B is a secondary source – a photograph taken in 2010 of men wearing **chain mail** and carrying shields about to take part in a re-enactment of the Battle of Hastings.

RESEARCH TOPIC: 'Why was the Battle of Hastings important?'

HYPOTHESIS: That the Battle of Hastings was an important for medieval Europe because it changed the course of history in England forever.

Source 1: *Battlefield Britain – medieval warfare at The Battle of Hastings*	Type of source: *Secondary source (but includes many primary sources too)*	Pros: • *good selection of primary sources like photos* • *includes lots of interviews* • *information is factually correct and detailed* Cons: • *information is a bit complicated and the language is difficult to understand properly*	Reference information: www.culture24.org.uk/history-and-heritage/military-history/pre-20th-century-conflict/tra22820
Source 2:		Pros:	Reference information:
		Cons:	
Source 3:		Pros:	Reference information:
		Cons:	
Source 4:		Pros:	Reference information:
		Cons:	

Recommended sources in order of relevance/usefulness:

1

2

3

4

Check your learning 7.3

Remember and understand

1   List three different examples of sources.

2   Beside each source write where it can be found.

3   Which of the following is a primary source?
   a   an axe head used at the Battle of Hastings
   b   a documentary film about weapons used at the Battle of Hastings.
   Give a reason for your answer.

4   Provide two reasons why graphic organisers are useful tools when analysing and comparing sources.

Apply and analyse

5   Using a table, give two advantages and two disadvantages of using different search methods, such as the library catalogue, a Google search and interviewing older family members.

6   Examine the following sites. Explain whether you think they are reliable. Explain why.
   a   Australian National Museum
       www.nma.gov.au
   b   Apple
       www.apple.com.au
   c   Answers.com
       http://wiki.answers.com/Q/Why_were_the_vikings_feared

7   Give two reasons why it is important to know the origin of a particular source of information.

Evaluate and create

8   Create a handbook or class wiki providing tips on good research techniques to share with other students in your year level or post on your school intranet.

7.4 Analysing

Identifying and describing points of view, attitudes and values in primary and secondary sources

Historical sources (both primary and secondary sources) reflect many different points of view, attitudes and values. This is because historical sources are created by all different types of people. These people have different personal, social, political, economic or religious points of view.

The Battle of Hastings is a good example of how different perspectives and interpretations are reflected in historical sources such as Sources 2 and 3.

- Source 3 is a section from the Bayeux Tapestry. It shows a scene from the Battle of Hastings from the perspective of the Normans (from France).

- Source 2 is a written account from the *Anglo-Saxon Chronicle*. It tells the story of the Battle of Hastings from the perspective of the Anglo-Saxons (from England).

Source 2 An entry from the *Anglo-Saxon Chronicle* recounting the events of the Battle of Hastings from the perspective of the Anglo-Saxons (from England)
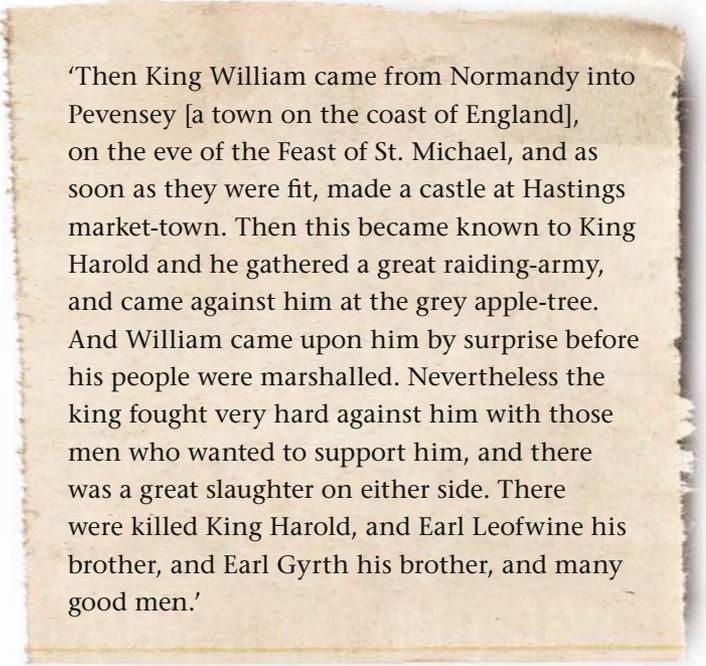
'Then King William came from Normandy into Pevensey [a town on the coast of England], on the eve of the Feast of St. Michael, and as soon as they were fit, made a castle at Hastings market-town. Then this became known to King Harold and he gathered a great raiding-army, and came against him at the grey apple-tree. And William came upon him by surprise before his people were marshalled. Nevertheless the king fought very hard against him with those men who wanted to support him, and there was a great slaughter on either side. There were killed King Harold, and Earl Leofwine his brother, and Earl Gyrth his brother, and many good men.'

The Bayeux Tapestry – a Norman source	The *Anglo-Saxon Chronicle* – an English source
• Most historians believe the Bayeux Tapestry was **commissioned** by William the Conqueror's half-brother, Bishop Odo of Bayeux. • The Tapestry provides a huge amount of detail for historians, both visually and in written accounts in Latin at the top and bottom of the cloth. • Because the Norman army won the battle, and William was crowned king, it is easier for the tapestry to present the events as fact.	• The *Anglo-Saxon Chronicle* is the main source of English history at the time of the Battle of Hastings. • The Chronicle is a kind of calendar of national life written by English **monks** in a number of different places across England. • Unfortunately for the historian there are gaps in the Chronicle, and the Battle of Hastings is only mentioned briefly. • Because the English army lost the battle, and Harold Godwinson was killed, it is more difficult for English perspectives of the event to be taken as fact.

Source 1 A comparison of two historical sources relating to the Battle of Hastings in 1066

Source 3 A section of the Bayeux Tapestry recounting the events of the Battle of Hastings from the perspective of the Normans from France. Norman soldiers are shown on horseback (on the left) and Anglo-Saxon soldiers are shown on foot (on the right).

Sources 2 and 3 show how the same event can be told in many different ways depending on the perspectives of the people there. For example, the Bayeux Tapestry shows Norman and Anglo-Saxon troops prepared for battle, but Source 2 tells of how the Normans 'came upon him [King Harold] by surprise'.

It is only when we consider a range of different perspectives (from both sides) and examine all of the available sources that we can begin to form a more complete picture how the Battle of Hastings unfolded.

Check your learning 7.4

Remember and understand

1 Historical sources always reflect the perspective of their writer. Give two examples of factors that may influence a writer's point of view or perspective.

Apply and analyse

2 Look carefully at Sources 2 and 3 and answer the following questions.

    a Who created Source 3? Whose perspective of the Battle of Hastings is being presented by this source?

    b The stories and events of battles are more often told by the victors. How do you think this influences the version of events that are told and how to historians try to get the most accurate account of events like the Battle of Hastings?

7.5 Evaluating

Drawing conclusions about the usefulness of sources

A useful source, whether primary or secondary, is one that will add to your understanding of a historical inquiry. The source needs to be relevant to the topic or question asked and must also be reliable. The following are good questions to ask in order to determine the usefulness of a source:

- Is it a reliable source?
- Is there enough information and sufficient detail to help me answer the inquiry question?
- Does the information support and reinforce evidence from other sources?
- Is it balanced or does it present one point of view (bias)?
- Is it based on fact or opinion?
- Is the information current?

Separating fact from opinion

The conclusions you draw about the sources you have found will determine their usefulness. In many cases, this means separating fact from opinion. A fact is something that can be proved: when an event took place, what happened and who was involved. An opinion is based on what a person, or persons, may believe to be true. A simple way to detect whether a statement is fact or opinion is to look closely at the language used. The use of words such as 'might', 'could', 'believe', 'think' and 'suggests' all indicate that an opinion is being expressed. For example:

- Fact: The Bayeux Tapestry is an important historical source.
- Opinion: The Battle of Hastings is probably the most important battle ever fought.

Source 1   This illustration of the Battle of Hastings is from the 19th century. How useful do you think it is as a historical source?

Check your learning 7.5

Remember and understand

1 What is a fact? How is this different from an opinion?
2 Are the following facts or opinions?
   a William the Conqueror was a worthy winner of the Battle of Hastings.
   b King Harold was defeated and killed during the Battle of Hastings.

Apply and analyse

3 What words may indicate that a writer is expressing an opinion rather than presenting a fact?
4 How would you determine the usefulness of a television program about the Battle of Hastings?

7.6 Communicating and reflecting

Chronology

Organising events in the order they happened is a useful tool, known as **chronology**. Chronology can help us organise things that happened over a small period of time, like a day or week, or huge periods of time, like hundreds of thousands of years. We can also use chronology to look at events that happened in one place or society, or compare events across many different places and societies.

Chronology allows us to develop an ordered sense of time. Once events have been ordered chronologically, we are able to use a range of historical concepts such as cause and effect, significance, and continuity and change to analyse them in detail.

Sequencing time

Examples of how historians sequence time are shown in Sources 1 and 2. Each table shows how 2100 years have been divided into smaller periods of 100 years. These periods are known as centuries. Source 1 shows the time Before the Common Era (BCE) and Source 2 shows the time in the Common Era (CE). Because there is no zero used in the Common Era calendar, we have to begin from the year 1. This means that the years from 2001 to 2100 are actually part of the 21st century. These tables will help you as you work through Year 8 History. Refer to them as often as you need to.

Century BCE	Time period	Century BCE	Time period	Century BCE	Time period
21st century BCE	2100 to 2001	14th century BCE	1400 to 1301	7th century BCE	700 to 601
20th century BCE	2000 to 1901	13th century BCE	1300 to 1201	6th century BCE	600 to 501
19th century BCE	1900 to 1801	12th century BCE	1200 to 1101	5th century BCE	500 to 401
18th century BCE	1800 to 1701	11th century BCE	1100 to 1001	4th century BCE	400 to 301
17th century BCE	1700 to 1601	10th century BCE	1000 to 901	3rd century BCE	300 to 201
16th century BCE	1600 to 1501	9th century BCE	900 to 801	2nd century BCE	200 to 101
15th century BCE	1500 to 1401	8th century BCE	800 to 701	1st century BCE	100 to 1

Source 1   More than 2000 years of history Before the Common Era (BCE) divided into centuries. When ordering time BCE, remember to count backwards to 1.

Century CE	Time period	Century CE	Time period	Century CE	Time period
1st century CE	1 to 100	8th century CE	701 to 800	15th century CE	1401 to 1500
2nd century CE	101 to 200	9th century CE	801 to 900	16th century CE	1501 to 1600
3rd century CE	201 to 300	10th century CE	901 to 1000	17th century CE	1601 to 1700
4th century CE	301 to 400	11th century CE	1001 to 1100	18th century CE	1701 to 1800
5th century CE	401 to 500	12th century CE	1101 to 1200	19th century CE	1801 to 1900
6th century CE	501 to 600	13th century CE	1201 to 1300	20th century CE	1901 to 2000
7th century CE	601 to 700	14th century CE	1301 to 1400	21st century CE	2001 to 2100

Source 2   More than 2000 years of history in the Common Era (CE) divided into centuries. When ordering time CE, remember to count forwards from 1.

Creating a timeline

Timelines are used by historians to sequence time and order important events chronologically. They help divide large sections of time into smaller periods so that events (like the births and deaths of important people, wars and discoveries) can be arranged in the correct order.

Timelines can look quite different, but they all work in the same way. There are some basic steps you need to follow when constructing timelines. You should already be familiar with creating timelines, from your work in Year 7. Follow these basic steps when creating a timeline:

Step 1 Work out the length of time you want to represent on your timeline, then divide it evenly into suitable blocks of time. A timeline showing what you did yesterday might be divided into hours, while a timeline showing key events in the development of the modern world might be divided up into thousands of years.

Step 2 To represent a huge span of time, you may need to break your timeline into sections using a jagged line. This break shows that a section of time has been left out and will ensure that your timeline will fit on the page! Just make sure no important events fall in the time you are leaving out.

Step 3 Mark specific dates onto the timeline. These dates need to be accurately plotted so that they appear in chronological order (from left to right). If an exact date is not known, the abbreviation *c.* (from the Latin word circa, meaning 'around') is placed in front of it (e.g. *c.* 250 BCE).

Step 4 Plot important dates and events on the timeline. Give a brief description of each event. Include pictures and captions if appropriate.

1066
William of Normandy (a descendent of the Vikings) defeats King Harold at the Battle of Hastings and becomes king of England. He becomes known as William the Conqueror.

1500
Tribes of Germanic origin begin moving into the area now known as Scandinavia

***c.* 250–100**
Development of Viking writing (runes) begins

787
First Viking attack on England

William the Conquerer from the Bayeux Tapestry

| 2000 BCE | 1000 BCE | 1 CE | 1000 CE | 2000 CE |

Events that took place Before the Common Era (BCE) – that is, before the birth of Christ – are positioned on the timeline in descending order (i.e. counting backwards to 1, when Christ was born).

The first year of the Common Era was 1 – there was no year zero.

Events that took place in the Common Era (CE) – that is, after the birth of Christ – are positioned in ascending order (i.e. counting forwards from 1, when Christ was born).

Source 3 A simple timeline

Apply the skill

1 Create your own timeline based around one of the following topics:

• important events that have taken place in your life so far

• events in the life of someone important in your life (e.g. a family member or close friend).

Your timeline should have at least five entries and feature at least one image (with a caption). You will need to conduct some research online to complete this task.

Using historical terms and concepts

Just like scientists, historians share a common language. They use historical terms and concepts to clarify what they are talking about and share their findings. Source 4 lists and defines some commonly used historical terms.

Term	Definition
AD	an abbreviation of the Latin *Anno Domini* – 'in the year of our Lord'; a term used for any time after the birth of Christ (i.e. any time after 1 CE); this term has now largely been replaced by CE (see entry below)
age	a period of history with specific characteristics that make it stand out from other periods (e.g. the Stone Age, the Bronze Age)
BC	an abbreviation of Before Christ, a term used for the period of history before the birth of Christ (i.e. any time before 1 CE); this term has largely been replaced by BCE (see entry below).
BCE	an abbreviation of Before the Common Era; a term used for the period of history before the birth of Christ (i.e. any time before 1 CE); this term has largely replaced BC, because it is culturally neutral
CE	an abbreviation of Common Era; a term used for any time after the birth of Christ (i.e. any time after 1 CE); this term has largely replaced AD, because it is culturally neutral
century	a period of 100 years
chronology	a record of events in the order they took place
circa	a Latin word meaning 'around' or 'approximately' (abbreviated as *c*.)
decade	a period of 10 years
era	a period of time marked by distinctive characteristics, events or circumstances (e.g. the Roman era, the Victorian era)
millennium	a period of 1000 years
prehistory	the period of history before written records
time period	a block of time in history
timeline	a sequence of related historical events shown in chronological order; a timeline is generally scaled with years marked at equal distances.
year	a period of 365 days

Source 4   Some useful history terms

Developing texts that use evidence from a range of sources

Historical writing requires you to describe and explain using evidence from a range of sources. You will often be required to outline the significance of a past event while providing reasons for the event and referring to relevant evidence.

Different types of sources need to be used to ensure that historical writing presents a balanced view and is supported by reliable evidence.

Writing descriptions

The purpose of descriptions is to give clear information about people, places or objects at particular moments in time. They focus on the main characteristics or features of particular people or things.

Descriptions must be well planned. Use the structure in Source 5 or ask your teacher to provide you with a template. Descriptions must follow a set structure, and events must be organised chronologically.

Source 5

Structure of a description	
Introduction	• Introduces the subject. • States the name of the person or event. • Outlines why the topic is important.
Body	• Provides details about the person or event (including dates and important facts). • Information must be organised in paragraphs, with a new paragraph for each detail. • Quotations and descriptive words should be used where relevant.
Conclusion (optional)	• Revisits the most important details and provides a concluding statement.

Writing explanations

The purpose of explanations is to tell how or why something happened. They provide the reader with a greater understanding of the causes and effects of past events. Use the structure in Source 6 or ask your teacher to provide you with a template. Explanations must be clear and factual. There must be supporting evidence from a variety of sources for each point made.

All historical writing needs to be acknowledged. At the end of your writing you must always include a full reference list or bibliography. This list shows your readers the range of different sources of evidence you used and where they can be found. For detailed information on this refer to the skill 'Identify and locate relevant sources, using ICT and other methods', which was covered earlier.

Using a range of communication forms and digital technologies

The final stage of any historical inquiry is the presentation of your findings. This is one of the most important aspects of your inquiry because it draws together all of the sources, evidence and findings of your investigation.

There are a number of ways to effectively and impressively communicate your findings. For example:
- oral – speeches, class presentations, re-enactments, interviews and role plays

Source 6

Structure of an explanation	
Introduction	• Clearly states the main idea or aim. • Briefly outlines the reason/s why an event occurred and its effect/s.
Body	• Each idea must be supported by evidence. There should also be some analysis of the evidence to explain its significance or importance. • Information must be organised in paragraphs, with a new paragraph for each detail. • Language should be precise and not contain emotional words. • Personal opinions (e.g. 'I' or 'my') should be avoided.
Conclusion (optional)	• Provides a short and clear overview of the main ideas presented in the body. • States a conclusion drawn from the evidence.

- graphic – posters, cartoons, graphic organisers and models
- written – descriptions, explanations, class newspapers, scripts, letters and diaries
- digital – audiovisual presentations, websites, films, blogs, wikis and apps.

These communication forms can add colour and life to the presentation of historical information.

Source 7 Class presentations can be an effective way to communicate your findings.

Creating an audiovisual presentation

One of the most popular ways to present the findings of a historical inquiry is to create an audiovisual presentation. To prepare and present a successful audiovisual presentation there are several steps to follow.

Step 1 Gather your research

Make sure that you have collected everything that you have found out in your historical inquiry. This will include any written research or findings, a list of sources you have used, and a range of relevant images and/or photographs.

Step 2 Plan and create your presentation

Once you have gathered your research, you will need to decide on the best way to deliver your findings. You may choose to use Microsoft PowerPoint or Prezi. Alternatively, you may like to create a website or short film to show to the class. How you will present your findings may depend on the criteria set by your teacher. It is important to check these before your presentation so that you can ensure you are meeting all criteria.

Step 3 Deliver your presentation

Regardless of the format you have chosen, there are some things to keep in mind:

- Practice makes perfect – rehearse your presentation before coming to class, especially if you are working in a group. Make sure each member of the group knows exactly what they have to do.
- Prepare for the worst – make a backup copy of your presentation in case anything unexpected occurs, such as data loss.
- Engage the audience – make eye contact, do not read from your notes, and prepare cue cards to help you remember your lines. Speak clearly and make sure your text and layout is as visually appealing as possible.
- Check for errors – make sure any audio and visual material is correct and contains no factual or spelling errors.
- Speak slowly – focus on the purpose of your presentation and do not allow yourself to be distracted.
- Finish strongly – your presentation should end on a high note!

Check your learning 7.6

Remember and understand

1 What is a timeline?
2 What century are we living in?
3 What does BCE after a date mean?
4 What is the purpose of a description? How is this different from the purpose of an explanation?

Apply and analyse

5 Arrange the following dates in chronological order.
   1 CE   400 BCE   399 BCE   2013 CE   2012 BCE
6 Which centuries were the following years in?
   a 2012 BCE   d 2000 CE
   b 1 CE   e 902 BCE
   c 1921 CE   f 81 BCE
7 Your teacher has asked you to create a written piece about the significance of the Bayeux Tapestry. Would it be more appropriate to write a description or an explanation? Give reasons for your choice.

Evaluate and create

8 Choose a person of interest to you and create a timeline of their life. The person can be an important historical figure, a person who has made an important discovery or invention that changed history, or even your favourite actor or singer.
   a Your timeline should include at least six significant events. Each entry must include a date and brief description of that event.
   b You should also include images related to at least two of the entries on your timeline.
   c Present your timeline electronically or as a poster.
9 Your fellow class members have presented an audiovisual presentation on the Battle of Hastings. Your teacher has asked each member of the audience to complete a peer evaluation by creating five assessment criteria. Write these five assessment criteria in order of importance.

Overview

The ancient to the modern world

The period of time between about 590 CE and 1500 CE marks the end of the ancient world and the beginning of the modern world. Historians refer to this period of human history as the **medieval** period. Across Europe it was a time of great change. New societies and civilisations grew out of the ruins of ancient civilisations. Different ideas developed and ways of thinking about the world were challenged. It was also a time during which a deadly plague spread across the world killing millions and bringing about huge changes.

Towards the end of the period, a range of new inventions developed along with new ideas about art, politics, literature, religion and science.

In this chapter you will learn how different beliefs and religions, social structures, laws, and governments influenced societies across the medieval world.

8A

Where and when did civilisations in the medieval world develop?

8B

What were the key features of societies in the medieval world?

Source 1   One of the most important changes across medieval Europe was the spread of religious beliefs. Christianity became a central part of life. This enormous stained glass window in the Notre Dame Cathedral in Paris was built at the height of the medieval period in Europe.

8.1 The birth of the modern world

The civilisations and events you will be learning about this year took place over a period of time starting around 650 CE and ending in 1750 CE. This period marks the end of the ancient world and the beginning of the modern world – it was a time of enormous change around the globe.

During ancient times, much of Europe was under the control of powerful empires. Over time, many of these ancient empires collapsed; some due to the pressures and costs of wars, others due to corrupt governments or migration. The fall of these powerful empires left room for different groups of people to move into their territories looking for new regions to settle and riches to plunder (steal). In order to gain new territories, these tribal groups often competed with one another, causing conflict and huge changes. Some new societies and civilisations were founded peacefully by local tribes, while others were founded through bloody battles by foreign tribes expanding their territory and power through fierce combat.

All over the world, different groups of people were on the move. At the start of the period, much of this movement took place across Europe. This was a direct result of the collapse of the Roman Empire. Tribes that had helped to end Roman control moved and settled across territories the Romans had once controlled. This started a period of time in Europe known as the medieval period.

Some of these tribes were the Vandals, the Ostrogoths, the Visigoths, the Vikings, the Franks,

EUROPE: MOVEMENT OF TRIBAL GROUPS

Source 1

Source: Oxford University Press

and the Angles and Saxons. The Romans referred to these tribal people as barbarians – a Latin word meaning 'outside our borders'. Romans used it to describe uncivilised people. Other groups, such as the Huns, migrated from further east in Asia, and Arab tribes migrated from the Middle East. Source 1 shows the movement of many different tribal groups across Europe (and parts of Africa and Asia) during the 4th and 5th centuries. This movement had a huge impact on the ways in which new societies formed and developed there.

Check your learning 8.1

Remember and understand

1 Who were the Angles and the Saxons? Where did they originally come from?
2 What is the name of the tribal group that established the Gothic kingdom of Italy?
3 Which modern-day country did the Visigoths establish kingdoms in? What was the name of this region at that time?
4 What is a barbarian?

Apply and analyse

5 What effect do you think the fall of the Roman Empire had on people living in Europe?

Vandals

The Vandals were a Germanic tribe who originated in eastern parts of Europe and moved at the beginning of the 5th century. They maintained a **kingdom** in North Africa from 429 until 534. In 455, they attacked and plundered the city of Rome.

Franks

The Franks were Germanic tribes that invaded the Roman Empire in Europe during the 5th century. Dominating parts of modern-day France, Belgium and western Germany, the Franks established the most powerful Christian kingdom of early medieval Europe.

Ostrogoths

The Ostrogoths moved from a region north of the Black Sea into Italy after the fall of the Western Roman Empire in the late 5th century. Under the leadership of their king, Theodoric the Great, they established the Gothic kingdom of Italy.

Angles and Saxons

The Angles and Saxons were tribal peoples from northern Germany and Denmark who invaded Britain from around 410 CE. They were recruited by the Britons and Celts to help defend against invasions from other tribes. They came to rule Britain and became known as 'Anglo-Saxons'.

Visigoths

The Visigoths were one of the most important of the Germanic peoples, separating from the Ostrogoths in the 4th century. They raided Roman territories repeatedly and founded kingdoms in Gaul (modern-day France) and Spain.

Huns

The Huns swept down from the Mongolian **steppes** of central Asia in the 4th and 5th centuries. They were skilled archers and horseriders, fierce in battle. The Huns weakened the Roman Empire in Europe and ended the Gupta Empire of India in 550.

Vikings

The Vikings were tribes of seafaring people from a region in the north of Europe (now known as Scandinavia). They raided, traded, explored and settled regions across Europe and Asia from the late 6th century.

Arab tribes

Arabs included a number of tribes who moved from a region in today's Middle East known as Arabia. They moved into Egypt and parts of northern Africa from around 642, conquering cities and spreading the religion of Islam.

Caspian Sea

8.2 The where and when of the medieval world

The period of time between about 650 CE and 1750 CE marked the end of the ancient world and the beginning of the modern world. It was a time of great change. New societies and civilisations were founded and new religions spread. Different ideas developed and ways of thinking about the world were challenged. A range of new inventions developed along with new ideas about art, politics, literature, religion and science.

This year you will be learning about different civilisations and events that took place across the medieval world, with a focus on Europe, Africa and Asia. To help you get a better understanding of the civilisations and events that developed there, it helps to look briefly at some common factors that influenced them and think about how their development was linked.

The world map (Source 1) shows the location and size of the civilisations and events you will be learning about this year, including:

- the continent of Europe during the medieval period
- the areas of the world that were affected by the spread of a deadly plague known as the Black Death during the 14th century. The Black Death spread across the world and devastated populations in Asia, Africa and Europe. In Europe alone, it killed 25 million people (about one third of the total population).

The timeline (Source 2) shows some key dates for the medieval world.

LEGEND

Medieval Europe (*c.* 590–1500)

The Black Death in Asia, Europe and Africa (14th-century plague)

Source 1

Check your learning 8.2

Remember and understand

1. What was the Black Death?
2. How many people in medieval Europe died as a result of the Black Death?
3. Look carefully at Source 1 and complete the following tasks:
   a. When did the medieval period in Europe begin? How long did it last?
   b. Describe the areas of the medieval world that were affected by the Black Death.
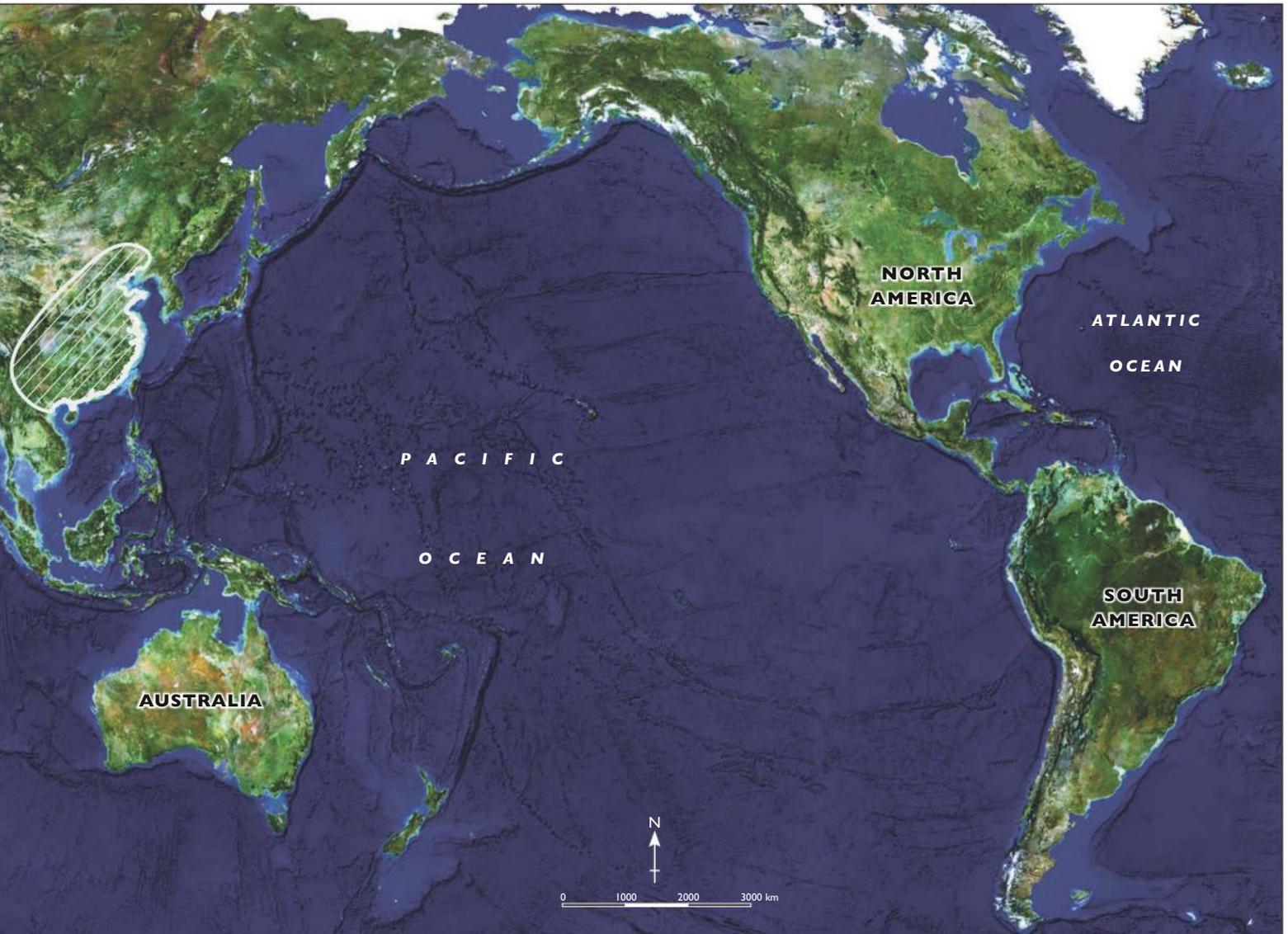
Source: Oxford University Press
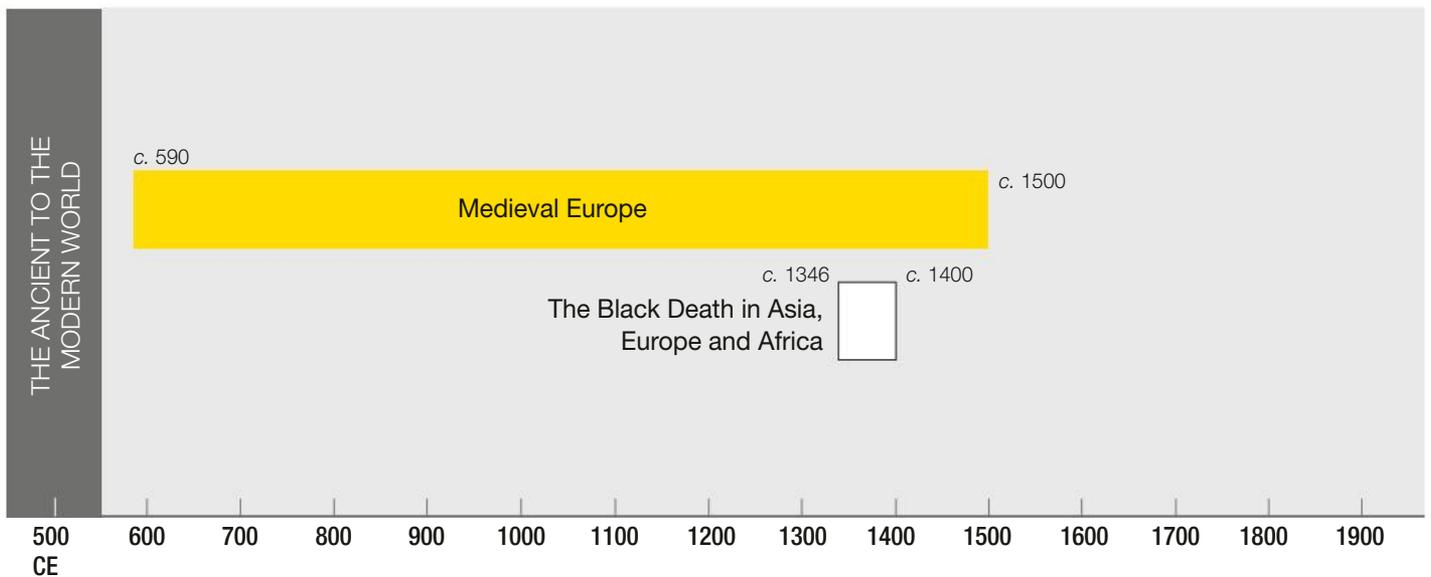
Source 2 This timeline shows the dates of key civilisations and events in the medieval world.

8.3 Key features of the medieval world

Before beginning a detailed study of medieval Europe and the Black Death, it helps to look briefly at some of the main features that influenced daily life, such as:

- belief systems and religions
- governments, laws and social structures
- conflict between societies (including important battles and wars)
- trade between societies.

Belief systems and religions

Belief systems and religions were the foundations on which all societies across the medieval world were built. These belief systems influenced almost every aspect of life. The clothes people wore, the foods they ate, the songs they sang and their understanding of the world were all influenced by their beliefs.

The spread of Christianity

When the Roman Empire collapsed in the western part of Europe in 476 CE, ordinary people living there no longer had the structure of Roman law or the protection of Rome's army against attacks from barbarians. Over a short period of time, social order broke down and attacks on people's homes and property were common. The religion of Christianity offered people hope during this difficult time. Christianity is a religion based on the teachings of Jesus Christ as recorded in the Old and New Testaments of the Bible. Living according to the word of God ensured that a person's soul would go to heaven, whereas a life of sin would lead to an eternity in hell.

In Europe's early medieval period, Christian missionaries travelled great distances to spread the religion to people including Germanic tribes (such as the Vandals, the Franks and the Visigoths) as well as the Vikings. A branch of Christianity known as Catholicism was the only recognised religion. The **Catholic Church**, led by the Pope in Rome, played a central role in the lives of all people – from the richest to the poorest. It was not uncommon for

people to pray up to five times a day, and everyone attended mass on Sunday to praise God. The **Roman Catholic Church** came to dominate most societies in Europe. Its teachings strongly influenced how people lived their lives.

Churches, cathedrals, monasteries and nunneries were built across different regions of Europe and played an important role in the community. They provided education, health care and spiritual guidance and support. Since most people could not read, their understanding of the world was shaped by the teachings of the Church.

Support for the Church was so strong that in 1096, at the request of the Pope, tens of thousands of people from across Europe volunteered to fight a series of religious wars known as the **Crusades**. The Crusades were fought between Christians and

Source 1 Christianity was central to the lives of people all across Europe during medieval times. It influenced what they wore, what they ate and their understanding of the world. Because very few people at the time could read, important stories and lessons from the Bible were told through stained glass windows in churches and cathedrals.

Muslims to gain control of key religious sites in a region known as the **Holy Land**. These wars went on to influence many aspects of modern European societies.

Governments, laws and social structures

Governments, laws and social structures were important in societies across the medieval world. These laws and systems helped to create order, define the roles and responsibilities of all citizens, and set out systems for reward and punishment. Over time, laws and teachings evolved and became more complex. In medieval times, the differences between religion and the law were not clearly defined. Medieval rulers (such as kings) were heavily influenced by the Church and the Church was also heavily influenced by the king.

Feudalism

One of the most important social structures during the medieval period in Europe was a system known as feudalism. Feudalism began in Europe around 900 CE and spread across Europe over the next 150 years. Under feudalism, society was organised according to a strict **hierarchy** (social structure) that was based on religion, law and social customs. Feudalism was a system of privileges and obligations for every person in society – from the king at the top to the peasants at the bottom.

How feudalism worked

Under feudalism, relationships in the hierarchy were between lords (people higher up in the hierarchy) and **vassals** (people lower down in the hierarchy).

- The king was the most important member of society. The king was lord to all people. He owned most of the land in his kingdom and was believed to rule with the authority of God. The Church also owned some land.

- In order to run his kingdom effectively, the king granted sections of land (known as **fiefs**) to wealthy and important people in society – such as nobles and church officials. Nobles were vassals to the king. In return for their fief, each noble provided the king with their loyalty and military support. For example, if the king was attacked or war broke out, each noble would provide men to fight for him.
- Each noble then granted smaller sections of their fiefs to a number of **knights** below them. In return for this land, the knights offered their protection.
- Each knight then allowed **peasants** (also known as **serfs**) to live on their land in return for payment or rent. Peasants would often pay their rent by working and farming the land. They would then pay in money or in crops. Peasants were at the very bottom of the hierarchy. They had very few rights. Source 2 shows how the system of feudalism worked.

OBLIGATIONS

Nobles
- vassals to king
- provide money and knights to lord

Knights
- vassals to church officials
- provide protection and military service to lord

Peasants
- vassals to all
- provide work and food to lord

PRIVILEGES

King
- lord to all
- grants land to vassals

Nobles
- lord to knights
- grant land to vassals

Knights
- lord to peasants/serfs
- grant land to vassals

King

Nobles and church officials

Knights

Peasants / serfs

Source 2 Feudalism was based on a set of privileges and obligations for each group within society.

Conflict between societies

The transition from the ancient to the modern world was not peaceful – it was marked by frequent conflict, battles and wars. There were many different causes of these conflicts, including:

- a desire for power and control (either by an individual leader or entire group)
- a desire for land or territories occupied by rival groups
- a desire or need for resources owned or controlled by rival groups (such as water, farming land, gold, weapons and castles)
- a desire to convert (or kill) people with different religious or spiritual beliefs.

In some cases conflicts were the result of a single cause, but more often a combination of these causes sparked them. Just as there were often many causes for these conflicts, there were also many effects, including:

- the death of large numbers of soldiers and ordinary people – often making up large sections of a group or society's population
- the destruction or erosion of entire cultures and civilisations
- large changes in the way societies were structured or functioned
- changes to the rulers (such as the king and royal family) or governments or groups or societies
- the introduction of new ideas, cultures and ways of doing things
- the spread of new ideas, technologies, belief systems and goods
- the spread of disease
- the development of new weapons, fighting techniques and defensive structures (such as castles and **moats**)
- destruction of the environment.

We will now look briefly at the causes and effects of two significant conflicts that took place in Europe, Asia and the Americas between 650 CE and 1750 CE. Although they took place in very different parts of the world, many of the causes for them, and the effects they had on people and places, are similar. As you read, think about the reasons why contact between different societies may have resulted in conflict and wars. Also think about the ways in which these conflicts changed the societies involved.

The Battle of Hastings

The Battle of Hastings was fought in 1066 in England after the death of the English king, Edward the Confessor. Edward died without an heir to the throne, so a number of men believed they had the right to rule England. One contender, Harold Godwinson (the powerful Earl of Wessex), had himself crowned king almost immediately, but Edward's cousin William (Duke of Normandy – an area settled by Vikings in France) believed that he was the rightful king. Later that year, the Saxon army of Harold Godwinson and the Norman (Viking) army of William met in battle near the town of Hastings. After winning this battle, William was crowned king of England and became known as William the Conqueror. He introduced a number of Norman beliefs and traditions to England – the most important of these was the system of feudalism. Feudalism changed the way society and laws in England and other societies across Europe were organised.

The Crusades

The Crusades were a series of religious wars fought between Christians and Muslims at various times between 1096 and 1290 in a region of the world

Source 4 A scene from the Bayeux Tapestry showing the Battle of Hastings in 1066

known as the Holy Land – now made up of countries such as Israel, Lebanon and Syria. The main aim of the First Crusade was to gain control over important religious sites in and around the city of Jerusalem. Jerusalem was an important religious city for Christians, Muslims and Jews at the time and continues to be to this day.

Before the First Crusade, European merchants and travellers to the Holy Land (including Jerusalem) were on good terms with the local Arabs. However, things changed when the Seljuk Turks, a militant Muslim group, took control of the city. They closed Jerusalem to Jewish and Christian pilgrims. This caused the Pope to call for Christian volunteers to form an army and recapture the city. The resulting conflicts caused a tremendous loss of life on both sides and sowed the seeds of religious tensions that continue to the present day in that part

of the world. It also saw Christian crusaders return to Europe with many new goods and ideas from the Holy Land that went on to change European society in many positive ways.

THE ROUTES OF THE FIRST CRUSADE
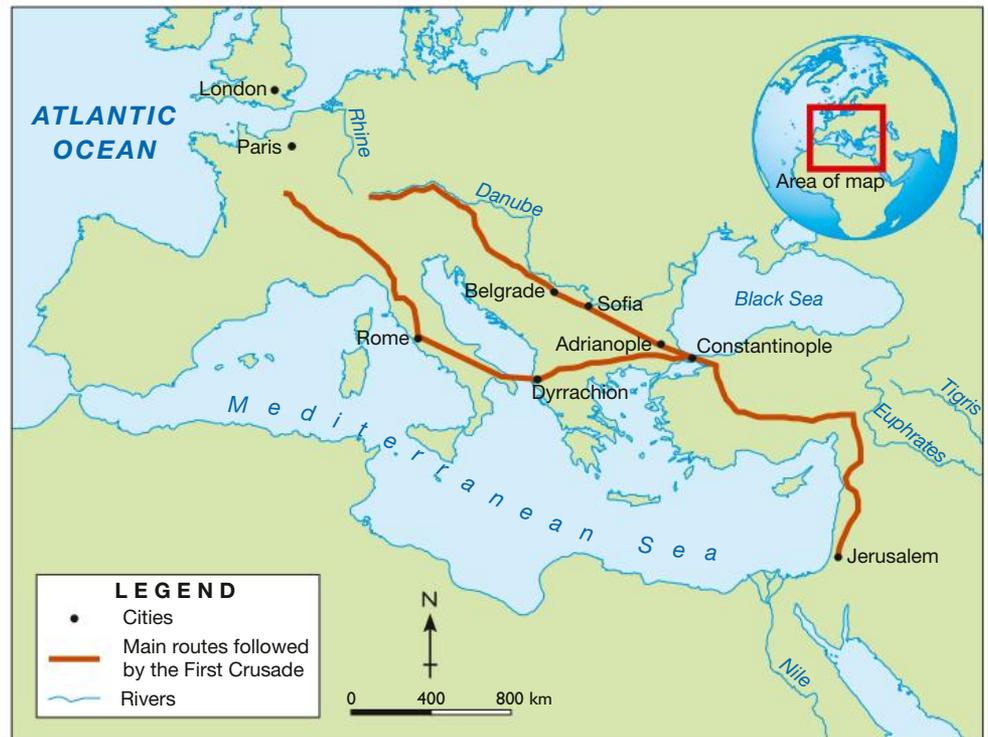
Source 3 Source: Oxford University Press

Trade between societies

In addition to conflicts, trade was one of the main reasons why medieval societies came into contact with one another. Trade was not just a way of exchanging different goods; it also enabled different ideas, beliefs and aspects of culture to be shared and spread.

As the territories controlled by civilisations grew, and empires were formed, trade became easier and more goods moved over larger distances. Access to minerals (such as gold) and other resources (such as water and fertile land) were some of the main reasons why empires expanded. Once an empire controlled large reserves of these resources, trade once again increased. After the fall of the Roman Empire in Western Europe, trade decreased dramatically. Roman forces that had been responsible for enforcing the law were no longer around, so large parts of Western Europe became very dangerous. Barbarian raids meant travel and trade were difficult and risky – traders were often robbed or murdered for their goods. In contrast, the Byzantine Empire in Eastern Europe and a number of Islamic empires across Arabia were flourishing. Muslim sea traders were pushing into the Indian Ocean and beyond. During the 6th century, they had trade contacts in the Indies (Indonesia and Malaysia). Some 100 years later, they were trading in China.

Trading routes over land

From around 1000 CE barbarian raids across Western Europe had largely stopped and people began to feel safer. The population began to increase and towns began popping up across the continent. People were drawn to these towns because they provided job opportunities and services. Around this time, many roads were built and money also started to be used. As a result, trade increased dramatically. The **Silk Road**, a 6500-kilometre-long network of

THE SILK ROAD
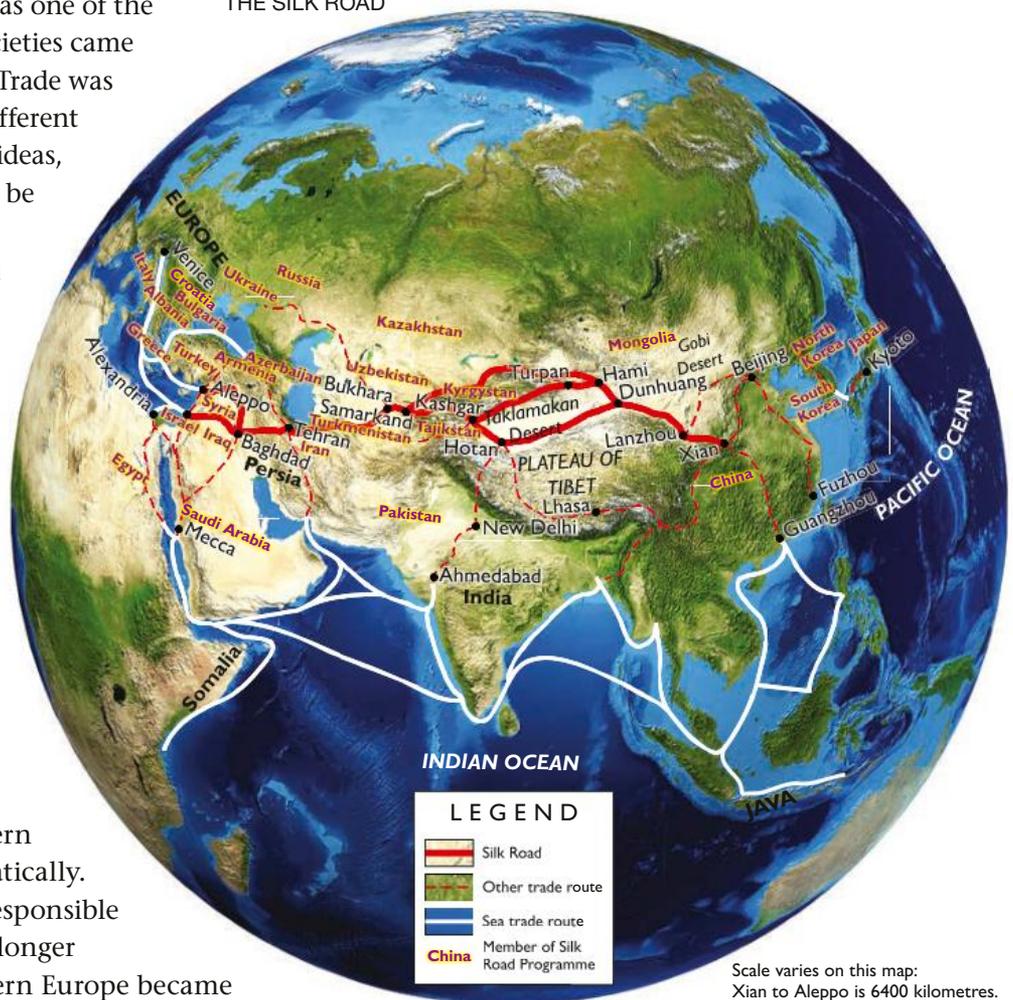
Source 5 Source: Oxford University Press

Scale varies on this map: Xian to Aleppo is 6400 kilometres.

trade routes connecting Asia with Europe, became a vital trade route between East and West. During the 14th century, Mongol rulers protected the route and ensured safe passage for merchants, which greatly helped trade.

Trading routes over sea

The use of boats had been a part of trade since the ancient civilisations of Egypt, Greece and Rome; however, the scale of sea trade increased dramatically at the beginning of the second millennium. By the 1200s, trading ports in modern-day Italy, such as Venice, Genoa and Florence, were becoming busy commercial centres. During the 15th and 16th centuries, emerging nations around the world also opened sea routes. All were eager to increase their trade and expand their territories. This meant finding new markets and faster ways to reach them.

By this time, trade along the Silk Road was starting to become slow and expensive, mainly because the power of the Mongol Empire had weakened and it could no longer protect traders who used the Silk Road to trade.

Many European monarchs began to invest money in discovering unknown parts of the world, or in finding new trade routes across the oceans. Europeans were not the only sailors exploring distant parts of the world. The Arab traveller Ibn Batuta (1307–1377) travelled as widely as Marco Polo, and the Chinese sailor Zheng He (1371–1435) sailed west from China seven times, as far west as Africa and the Persian Gulf.

Source 6 An artist's impression of the types of European ships commonly used for trade throughout the 15th and 16th centuries. This image is based on a description by Marco Polo.

The effects of trade and new markets

Such a dramatic increase in trade had many effects on societies all over the world. European journeys of discovery changed their societies in countless ways, including the following:

- Europeans began eating potatoes and tomatoes and chewing tobacco from the Americas. People in the Americas were introduced to lemons, sugar and wheat from Europe.
- Cities and towns in Europe expanded in size and wealth as metals, furs, silk, tea, timber and spices poured in from around the world.
- Some merchants became extremely wealthy. The Medici family, traders in Italy, became so powerful through trade that they dominated the way Florence was ruled. Many super wealthy families became **patrons** of the arts, constructing public buildings and monuments, and funding artists, sculptors and writers.
- Traders brought back new goods, but also disease. During the 14th century, a devastating and deadly plague known as the Black Death spread across Europe, Asia and Africa. This plague was spread from Asia across to the West by traders moving along the Silk Road and related sea routes. Spanish explorers and traders also introduced devastating diseases, such as smallpox and measles, to the native populations of the Americas, killing many and weakening their armies.

Check your learning 8.3

Remember and understand

1 What was the dominant religion across the Europe during the medieval period?

2 Describe how Christianity and the Catholic Church influenced the lives of people living in medieval Europe.

3 What was feudalism and how did it work?

4 What were the main causes of conflict between societies during the medieval period?

Apply and analyse

5 Why were stained glass windows important for most Christians in medieval Europe? What was their purpose?

6 Describe the importance of the Silk Road during the medieval period. Where did it begin and where did it end?

Medieval Europe

Europe's medieval period began with the fall of the Roman Empire around 476 CE. Over time, a system called **feudalism** replaced Roman laws and the spread of **Christianity** changed societies across Europe. Christianity had many positive effects on daily life, architecture, the arts, medicine and the justice system, but it also provided motivations for war and justifications for prejudice. Social change in Europe was also brought about by the rapid growth of towns and trade, and a series of Christian–Muslim wars known as the **Crusades**. Around 1500 CE, the discoveries of inventors and explorers, together with new ways of thinking, brought an end to the medieval period and led to the birth of modern Europe.

9A

What was life like in medieval Europe and how was society organised?

1   Societies in medieval Europe were based on a system known as feudalism. In this system, everyone had a clear position in society and had certain rights and responsibilities. How do you think feudalism might have helped to ensure stability and order?

9B

How did societies in medieval Europe change?

1   Christianity was a powerful force in medieval Europe. People believed that only the Church could grant them forgiveness for their sins and ensure their entry into Heaven when they died. How do you think this might have affected the lives of people in medieval Europe?

Source 1 Bodiam Castle is located near the village of Robertsbridge in south-east England. It was built in 1385 during the medieval period in Europe. The high walls and moat were designed to protect the lord of the manor and his family (and local villagers) in case of attack.

9C

What developments influenced life in medieval Europe?

1   A number of important developments took place during the medieval period in Europe. Some related to society and culture, while others related to technology. Make some predictions about the types of things that may have changed over this time and their effect on people's lives.

9.1 Medieval Europe: a timeline

A scene from the Bayeux Tapestry depicting Norman cavalry troops disembarking for their battle with Anglo-Saxon forces at Hastings in England

476
The Roman Empire in Western Europe collapses; start of the medieval period

1066
The king of England, Edward the Confessor, dies. Harold Godwinson declares himself king. William of Normandy invades England, defeats Harold Godwinson at the Battle of Hastings and is crowned King William I of England.

| 400 CE | 800 | 1000 | 1100 |
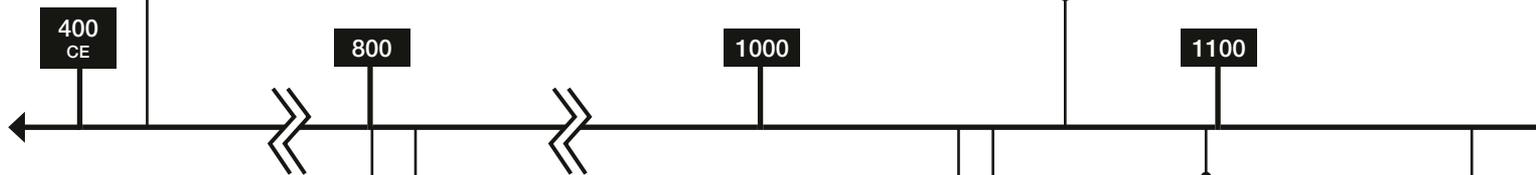
813
Charlemagne dies

800
Charlemagne, king of the Franks, is crowned emperor of the Holy Roman Empire

1042
Edward the Confessor becomes king of England

1050
A militant Islamic group, the Seljuk Turks, take control of Jerusalem

1096
The First Crusade begins; the first of eight wars to be fought between Christians and Muslims over the next 175 years

1154
Henry II becomes king of England

An artist's impression of Charlemagne, Holy Roman **Emperor**

Source 1 A timeline of some key events and developments in the history of medieval Europe

An illustration from the Toggenburg Bible (*c.* 1411) of two victims of a plague known as the Black Death

An artist's impression of Gutenberg's printing press

1315
The Great Famine begins; it lasts for two years and kills millions of people across Europe.

1347
A deadly virus breaks out in Sicily and quickly spreads across Europe, killing between 50 and 90 per cent of those who catch it; the **pandemic** becomes known as the Black Death

c. 1450
Johannes Gutenberg invents the printing press in Germany

| 1200 | 1300 | 1400 | 1500 |

1215
The **Magna Carta**, the first ever document outlining the rights of the English people, is drawn up and King John is forced to give it his royal seal.

1187
Muslim forces again capture Jerusalem, providing a motive for the Third Crusade

1337
Start of the Hundred Years War between England and France

1381
The Peasants' Revolt takes place in England; peasants revolt against strict rules imposed on wage rises and working conditions, following the severe labour shortages caused by the Black Death.

Check your learning 9.1

Remember and understand

1 In what year did the Battle of Hastings take place, and who fought in it?
2 In what year did the Crusades begin and what were they?

Apply and analyse

3 What is the Magna Carta? Why do you think it is important to this day?
4 Why do you think the fall of the Roman Empire in Europe would have caused such an important change for everyday people?

Evaluate and create

5 In pairs or small groups, conduct some Internet research into the Crusades.
   a How many Crusades were there in total?
   b What was the aim of the First Crusade?
   c Had the goals of the Crusaders changed at all towards the end of the final Crusades?
   d Using the information you have gathered, create your own timeline of the Crusades and an image to represent each one.

9.2 Feudalism in medieval Europe

Europe's medieval period lasted for about 1000 years, beginning almost immediately after the collapse of the Roman Empire in Western Europe in 476 CE. It was a time of great change over a vast area – from the Viking homelands in the north to the Mediterranean Sea in the south, and from the Atlantic coast in the west to the borders of Russia and the peoples of the east (see Source 1). Over this time, the borders and rulers of European societies changed countless times as people competed for territory and power.

Without the Roman army to enforce the laws, society largely broke down. Barbarian raids were common, so people had to find new ways to protect and sustain themselves. A system known as feudalism held the answer for many societies across Europe. Feudalism was introduced across Western Europe between the 8th and 11th centuries and was a kind of social system based on rights and obligations relating to land ownership. It shaped medieval European societies for hundreds of years.

The origins of feudalism

As shown in Source 1 on page 208-09, tribal people began invading Western Europe from about the 4th century CE. These groups included the Huns, Visigoths, Vandals, Angles, Saxons and Vikings. The ancient Romans called them all **barbarians**. Some of these tribal people were warlike and aggressive.

During the rule of the Roman Empire, common people had been protected against these invaders by the soldiers of the **emperor**. When the empire fell, there were no laws or soldiers left to protect these common people. As a result, they moved onto lands

Source 1 A map of medieval Europe (*c.* 1360) from a 1911 atlas of historical maps

owned by wealthy and powerful lords, where they could be protected by the lord's private army and take shelter in his castle during attacks. As payment, these people worked the lord's land for him and tended his animals. This was the beginning of feudalism.

How feudalism worked

Feudalism was a way of organising a society through a **hierarchy**. A hierarchy is any system that classifies its members from top to bottom in order of importance. In a feudal society, everyone from the king to the poorest peasant had certain rights (things they could expect, such as protection) and responsibilities (work they had to perform in return, such as farming).

Under feudalism, relationships in the hierarchy were between **lords** (people higher up in the hierarchy) and **vassals** (people lower down in the

hierarchy). However, feudalism was not simply a top-down structure where the people at the top could tell the people below them what to do. Obligations were mutual (two-way). For example, a king (lord) had an obligation to the nobles directly below him (his vassals). He provided them with land to live on (known as a **fief**). In return, each noble promised to obey the king and provide military support when needed. At the same time, each of these nobles (lords) had obligations to the knights directly below them (their vassals). These relationships carried on down the hierarchy, as shown in Source 2.

In a feudal system, a person could almost never change their social position. If a person was born as a peasant (at the bottom of the feudal hierarchy), he or she died as a peasant. Peasants could not become nobles, no matter how hard they worked or how intelligent they were.

OBLIGATIONS

Nobles
- vassals to king
- provide money and knights to lord

Knights
- vassals to church officials
- provide protection and military service to lord

Peasants
- vassals to all
- provide work and food to lord

King

Nobles and church officials

Knights

Peasants / serfs

PRIVILEGES

King
- lord to all
- grants land to vassals

Nobles
- lord to knights
- grant land to vassals

Knights
- lord to peasants/serfs
- grant land to vassals

Source 2 How feudalism worked in medieval Europe

Check your learning 9.2

Remember and understand

1 Why did feudalism emerge after the fall of the Roman Empire in Europe?

2 Explain the relationship between a vassal and a lord.

3 What was a fief?

Apply and analyse

4 What is a hierarchy? Do we have hierarchies of any kind in Australia today? Explain.

5 How do you think a medieval ruler's position might have been strengthened by giving fiefs to those who provided loyalty and support?

9.3 The feudal manor

Under feudalism in Europe, land not belonging to the ruler or the Church was mostly divided into manor lands. Each manor was owned by a noble or knight who was given it by his lord as a fief. Manor lands were made up of the demesne (the lord's land), and peasants and **serfs** farmed the land to meet their own needs.

Under this arrangement, the lord of a manor provided serfs on his estate with a place to live and the means to survive. In return, they provided him with their labour. They also provided taxes (a portion of what they produced on the land they farmed). Most serfs were not free to leave the manor lands and had to have the lord's permission to do many everyday tasks.

The private strips of land, given to serfs to work for themselves, were usually scattered throughout the manor. The serfs' first priority was to work the lord's land. They worked on their strips in what time remained.

Hayward – a person who guarded crop fields to ensure livestock did not damage them.

Steward – the manor manager who also looked after business matters.

Crop lands were divided into three fields. Each year a different field was not farmed to allow the soil to recover its nutrients. While crops were being harvested in a second field, a third was being planted. Different crops were grown at different times so that the soil was not drained of any particular nutrient.

Bailiff – a peasant farmer who owned a small tract of land. He collected and organised taxes, looked after manor repairs and helped the steward.

Village church and grounds – where religious services, marriages, funerals, school tuition and local markets were held.

River – supplies fish. Its waters were also used for cooking, washing and waste disposal.

Check your learning 9.3

Evaluate and create

1 Look carefully at Source 1. Imagine you are a serf living on medieval manor lands. Write a short diary entry describing a typical day in your life.

Source 1 A modern artist's impression of a typical feudal manor

After a harvest, stock were allowed to graze on a field's stubble; their manure provided fertiliser.

Forests – where the lord and his vassals hunted for game (e.g. deer and boars). Gamekeepers patrolled the forests to ensure that manor peasants did not hunt there.

Serfs harvested crops by hand. Threshers would then beat harvested crops to free the grains (such as wheat).

Fortified manor house (or castle) – where the lord and his family lived.

Mill for grinding grain. Serfs could use the mill to grind their grain for a fee (paid in produce).

Reeve – the chief serf in the village. He reported to the bailiff.

Pasture land (called a common) for stock. Serfs could graze their own stock there for short periods.

A common punishment was to be locked in the stocks or a pillory; people threw objects, such as rotten food and manure, at the face of the person being punished.

Village well – water was transported back to village huts in barrels or animal skins.

Village – where the serfs lived; typically a cluster of huts, animal pens and barns.

Women cooked, cared for their family and animals, spun, wove cloth and worked on the land (e.g. by sowing seeds).

Thatchers made roofs from bunches of reeds collected from swamps and riverbanks.

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9.4 Social groups in medieval society

In medieval Europe, a number of different groups made up society. These groups were organised in a strict hierarchy – from the very rich and powerful to the very poor and powerless.

The king

In medieval times, the king (and occasionally a queen) sat at the top of the social hierarchy. All of the land ruled by the king was believed to belong only to him. In most medieval European societies, the king kept about 25 per cent of all land for himself and granted permission to nobles and Church officials to use the rest. The king enjoyed great wealth and privilege, hosting lavish banquets and balls. However, the role of king was also difficult – much time was spent administering the country, planning or fighting wars, and fending off challengers to the throne.

Nobles

Below the king was a group of noble families loyal to him. They often lived in large manor houses built on land granted to them by the king (known as fiefs). These manor lands were farmed by peasants and serfs who were allowed to live there by the nobles in exchange for labour and food. Noblemen often spent their days attending to business on their land, hunting, attending church and ruling over their vassals.

Church officials

In medieval Europe, the Church was extremely powerful and influential. The Pope and the Church were supported by a large network of Christian workers – cardinals, archbishops, bishops, deacons, abbots, **monks**, **nuns**, village priests and friars. Some of these people (such as abbots) were often given fiefs by the king or ruler. By acquiring land and by collecting taxes and payments from the people who lived on it, the Church became very wealthy. For example, in England, the Church and the nobility owned about 75 per cent of all the land between them. The Church was not required to pay taxes.

Source 1 A medieval artist's impression of peasants harvesting grapes and tending grapevines on a feudal manor. In the foreground, the lord of the manor is inspecting their work.

Source 2 A 16th-century artist's impression of monks creating manuscripts

keyconcept: Significance

The Catholic Church

The Catholic Church (which later became known as the Roman Catholic Church) was a very significant institution in medieval Europe. Its head was the Pope. He was seen as God's representative on Earth by believers. In medieval times, the Pope had enormous religious and political authority, even influencing kings. One of the Pope's greatest powers was the ability to **excommunicate** (expel from the Church forever) members of the faith – a punishment that terrified medieval Christians. An excommunicated person could no longer go to church, and his or her soul was doomed to live in hell.

The Catholic Church played a dominant role in the life of medieval Christians from birth to death. Its many religious festivals filled the calendar. Many were named after Christian saints and martyrs (people who died in the name of their religion). People's lives typically revolved around the activities of the village or town church.

People learned from childhood how the Church expected them to behave and what they should believe. Obeying the Church's teachings helped to preserve the social order in medieval Europe.

For more information on the key concept of significance, refer to page 189 of 'The history toolkit'.

Other members of the Church

Devout Christians in medieval Europe often chose to serve God as monks or nuns. Their lives were controlled by their vows of chastity (no sexual relationships), obedience and poverty. They devoted their lives to serving God and their superiors. This meant living a simple life – praying many times a day (including late at night and early in the morning), caring for the poor and sick, and performing their religious duties. To help them keep their vows and show their devotion, monks and nuns lived apart from the community – monks in monasteries and nuns in nunneries.

In medieval times, monks were usually the only people who could read and write. Some were historians, and others were librarians and keepers of important documents for feudal lords. Many others copied or translated important **manuscripts**, such as the Bible and ancient medical texts, from around the world. The medieval Church played an important role in preserving ancient documents that might otherwise have been lost to us today.

Source 3 A 12th-century artist's impression of a knight swearing allegiance as a vassal to his lord in return for favours such as a fief

Knights

As a group, **knights** made up only a small percentage of the population. In feudal society, though, they played a particularly important role. Through the feudal hierarchy, many were given grants of land from their lords. In return they were expected to protect their lords when required, and also fight for the king. In addition to this, many knights also received income in the form of food and supplies from peasants in exchange for protection.

Peasants and serfs

Peasants made up the largest group in medieval European society (about 90 per cent of the population). They undertook the bulk of the physical work, most of which was related to farming. Their labour produced the food and other goods needed by the wealthy (such as furniture and armour). They also provided much of the income of the rich through the rents and taxes they paid. Peasants lived hard lives that were usually short.

Farm work was difficult. Everything had to be done by hand, and tools were basic. These included sickles and scythes (large, curved, sharp-edged knives used to cut long grass and harvest grain crops like wheat and rye).

People went to bed early and woke up at dawn. For the peasants, there were few human comforts, especially when the weather was bad. Survival depended on working hard and staying healthy. There was little time for rest and leisure.

Rules for peasants on manors

- Work the lord's land as required
- Pay taxes to the lord, usually in the form of crops
- Ask permission to leave the manor or move house
- Ask approval from the lord to allow their daughters to marry or their sons to be educated
- Be punished or fined for breaking manor rules
- Pay fees to the lord for basic privileges (e.g. for grinding their grain in his mill)

Source 5 Rules for peasants working on feudal manors

Source 4 A medieval artist's impression of the life of a peasant, representing the 12 months of the year (from top left to bottom right)

Check your learning 9.4

Remember and understand

1 How did their Christian beliefs influence how monks and nuns typically lived their lives?

Apply and analyse

2 Look closely at Source 4. The 12 months of the year are depicted, in order, from left to right and top to bottom. Based on this source, what might be a task that a European peasant typically did in each of the following months: February, July, December?

Evaluate and create

3 Decide on three questions you would ask a medieval monk or nun to help you better understand why they chose to live the lives that they did.

9.5 Daily life in medieval Europe

In the medieval world, the lives of the wealthy and the poor were very different. These differences reflected the social group of which people were members, and could be seen in things like clothing, hygiene, food and entertainment.

Source 1 An artist's impression of a range of garments worn by people in 11th-century England. The top panel shows the types of clothing worn by common people and soldiers; the bottom panel shows clothing typically worn by the rich – including the king.

Source 2 An artist's impression of a medieval man enjoying a 'stew'

Medieval fashions

By the 11th century in Europe, there were great differences between the clothing worn by the rich and the poor. In fact, laws were passed to enforce this difference. Only people of royal blood were allowed to wear gold and silver materials and purple silk, and only noblewomen could wear veils and have dresses made from satin and velvet.

The clothes of the wealthy were almost always custom-made by tailors. Women typically wore long, trailing garments with elaborate sleeves and ornate headgear. Wealthy men commonly wore tunics, stockings, decorated cloaks and fancy hats. The clothes of the poor were, by contrast, drab and dull in colour. They were crudely cut, and made from coarse cloth woven by peasant women from handspun wool or linen.

Hygiene

Cleanliness was valued by medieval people, even though they did not understand the health benefits of staying clean. For the poor, personal hygiene was very basic. Peasants washed in a dish of cold water. Wood was a scarce and valuable resource for the poor, so it was not wasted on heating water for washing.

Only the wealthy could afford the luxury of a long, hot bath. This was called a 'stew'. Scented oils, rose petals or herbs such as rosemary and spearmint were added to the water. Often, expensive perfumes from faraway places such as Arabia were also used. Dried herbs and spices such as mint and cinnamon were also burnt to purify and sweeten the air while bathing.

Dental hygiene for both the rich and poor was almost non-existent. People occasionally cleaned their teeth, but only by rubbing them with a piece of cloth. Sometimes, mixtures of herbs and ash were also used. There was only one treatment for a bad tooth – it was pulled out with no anaesthetic or pain medication.

Medieval food

There were no supermarkets, refrigerators or ovens in medieval times. People killed their own animals and preserved meat by salting, smoking or pickling it. Spices were also used to disguise the taste of meat when it was old and rotting. Sometimes dogs were used to test this meat before it was eaten to see if it was safe. Vegetables were commonly dried or pickled. Grain was ground into flour to make bread. People used spoons, knives or their fingers to eat; instead of plates, most people ate off thick slices of bread called trenchers.

Source 3 A 15th-century illustration of a rich man's feast

Eating habits of the rich

The rich ate the meat of both domestic animals (such as cows, pigs and sheep) and game animals (such as deer, wild boars and pheasants). They also ate fish, fruit, soft cheese, eggs, coloured jellies, vegetables, sauces and soups, salads, white bread, pies and tarts, and ornate sweet dishes called subtleties. Food was washed down with ale, wine or mead (a brew made from honey and water).

Banquets were held on important religious feast days, and to mark events such as marriages, coronations, special birthdays, tournaments and the arrival of important guests. Important people (such as members of the lord's family) sat at a higher table than other diners. Feasts often lasted for hours. In between the many courses, diners were entertained by acrobats, **minstrels**, **troubadours**, storytellers, jugglers and **jesters**.

Eating habits of the poor

The poor ate a simpler and less varied diet than the rich. It included stews, grainy bread, vegetables and fruit (when available), milk, hard cheese, porridge made from oats or barley, and perhaps some nuts from the forests. Most peasants ate their main meal for the day while working in the fields. If peasants were lucky enough to live near the sea or rivers, they ate fish. Generally, however, they ate very little meat, as they were often too poor to own and raise animals. Hunting for game (wild animals) in the lord's forests was forbidden.

Medieval entertainment

Many pastimes in medieval Europe were the privilege of the wealthy. These included lavish banquets and, for the men, activities such as hunting, falconry and playing chess. Wealthy women might embroider, stitch tapestries or listen to musical performances.

Hunts were typically conducted in the woods and forests surrounding feudal manors. Sometimes, women, riding side-saddle, would be part of the hunting party. Access to these areas was forbidden to the poor; instead, they hunted for rabbits and birds in the fields.

Source 4 This 14th-century illustration shows a hunting party of nobles carrying birds of prey on their wrists. They are led by a falconer, who trains and looks after these birds. The long stick in his hand was used to beat trees and bushes to flush out small game animals, which would then be caught by the trained birds of prey.

Source 5 This painting by Pieter Brueghel the Elder, *Children's Games* (*c.* 1560), shows a wide range of games played by children in medieval Europe.

Falconry involved using trained birds of prey such as eagles, falcons and hawks to catch small animals such as pigeons and hares (see Source 4). The type of hunting bird used indicated a person's status – eagles, for example, were only owned by kings. Appearing in public with a bird of prey on a leather-strapped wrist was a sign of a person's wealth and social status.

The poor did not have many opportunities for entertainment, but during special feasts, such as at harvest time, there might be dancing, dice throwing, ball games and wrestling, for example. Many of the games played by medieval children, such as hopscotch and hide-and-seek, are still played today (see Source 5).

Check your learning 9.5

Remember and understand

1   Describe one way in which an 11th-century noblewoman might 'advertise' that she was wealthy in the way she dressed.
2   What did 'having a stew' mean in medieval times? What social group might engage in this activity? Why?

Apply and analyse

3   Compare and contrast the diets of the rich and poor. Which diet do you think was healthier? Justify your opinion.
4   With a partner, identify as many medieval games and activities as you can in Source 5. Create a table and sort the activities into those you recognise instantly and those that seem strange to you.

Evaluate and create

5   Refer to Source 1 and conduct some further research on the Internet in order to design two separate outfits for:
  • a peasant man or woman in medieval England
  • a nobleman or noblewoman in medieval England.
  Sketch and colour your finished garments, ensuring that they follow the established rules and laws in medieval England (in terms of colours, materials and styles).

9.6 Tournaments and fairs

Tournaments were another form of entertainment popular across medieval Europe. The earliest tournaments took place in the 11th century. They were held in the open countryside and were very violent battles between two teams of up to 100 knights a side. Over time, tournaments developed into well-organised public events like the one shown in Source 1, where knights could show off their skills to the excited spectators.

The highlights of every tournament were an organised battle and a series of jousts. In a joust, two knights each holding a lance (a long wooden pole with pointed metal tip) would ride towards each other on horseback and try to knock each other off.

In addition to these events, people attending tournaments could eat, drink and be entertained by musicians and performers.
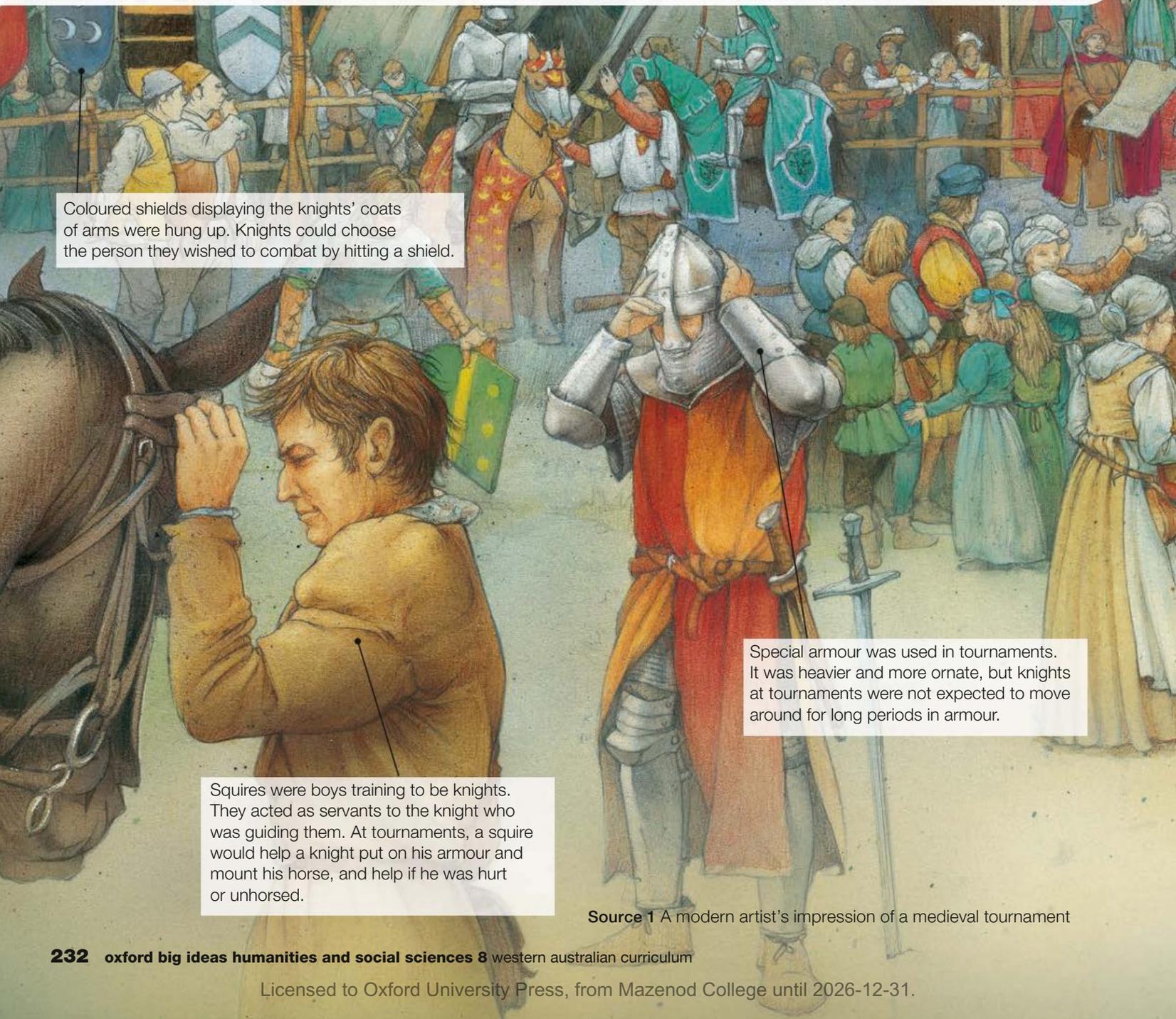
Coloured shields displaying the knights' coats of arms were hung up. Knights could choose the person they wished to combat by hitting a shield.

Special armour was used in tournaments. It was heavier and more ornate, but knights at tournaments were not expected to move around for long periods in armour.

Squires were boys training to be knights. They acted as servants to the knight who was guiding them. At tournaments, a squire would help a knight put on his armour and mount his horse, and help if he was hurt or unhorsed.

Source 1 A modern artist's impression of a medieval tournament

A stand was built for royal and noble spectators. Tournaments were also a social occasion for commoners, with feasting, music, dancing and archery competitions.

Special lances were used that would shatter on impact to avoid injury. The knight who snapped his lance on an opponent's shield was declared winner. In later years, a points system was developed, which took into account where a 'hit' landed on an opponent.

Round tents called pavilions housed knights and surgeons to treat the injured.
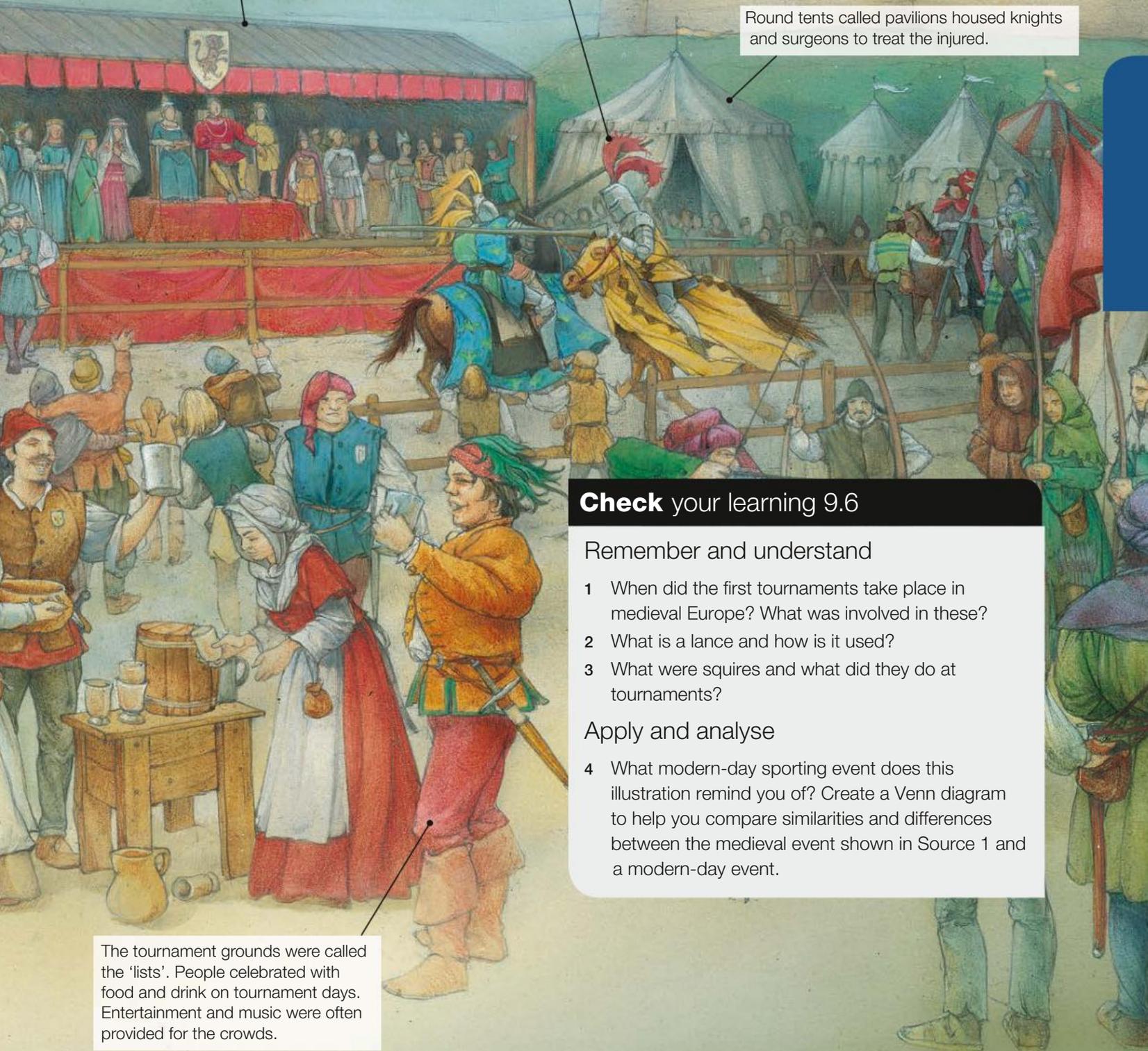
The tournament grounds were called the 'lists'. People celebrated with food and drink on tournament days. Entertainment and music were often provided for the crowds.

Check your learning 9.6

Remember and understand

1   When did the first tournaments take place in medieval Europe? What was involved in these?
2   What is a lance and how is it used?
3   What were squires and what did they do at tournaments?

Apply and analyse

4   What modern-day sporting event does this illustration remind you of? Create a Venn diagram to help you compare similarities and differences between the medieval event shown in Source 1 and a modern-day event.

9.7 Living conditions in medieval Europe

In addition to fashion, food and entertainment, there were also marked differences between rich and poor in terms of living conditions.

Living conditions for the poor

Conditions for the poor were not very comfortable. Peasant farmers often lived in a one- or two-roomed hut shared with domestic animals such as chickens and pigs (see Source 1). This was often one of a number of similar huts on a feudal manor (see Source 1 on pages 224–25). These huts were usually dirty, sooty, smelly and dark. Walls were mostly a mixture of mud, manure and sticks (called wattle and daub). They might be painted white with lime. Roofs were made from thatch (straw). Windows were narrow openings that could be boarded up in winter. The toilet was a hole in the ground outside.

Peasants who worked as servants in manor houses and castles lived in more secure and pleasant surroundings; however, their daily lives were hard like those of other peasants, with few personal comforts.

Living conditions in towns and cities

During the medieval period, towns across Europe were usually small, with populations of only a few hundred people. Some, however, grew into larger cities over time. The wealthy townspeople often lived in larger houses, close to the centre of town. The poor lived in dirtier, more cramped quarters. Narrow cobbled or dirt streets separated rows of wooden buildings with thatched roofs where these people lived. The buildings were a serious fire risk – they were made of highly flammable materials and people lit fires and candles inside for warmth and light.

roof made from thatch

opening in roof to allow smoke to escape and air to enter

utensils might include some pottery bowls and jars and an iron cooking pot

storage area

animal pens

wattle and daub walls

central open fireplace for cooking and warmth

dirt floor covered from time to time with straw

simple furniture, which might include a table, seat and storage box

beds made from sacks of straw
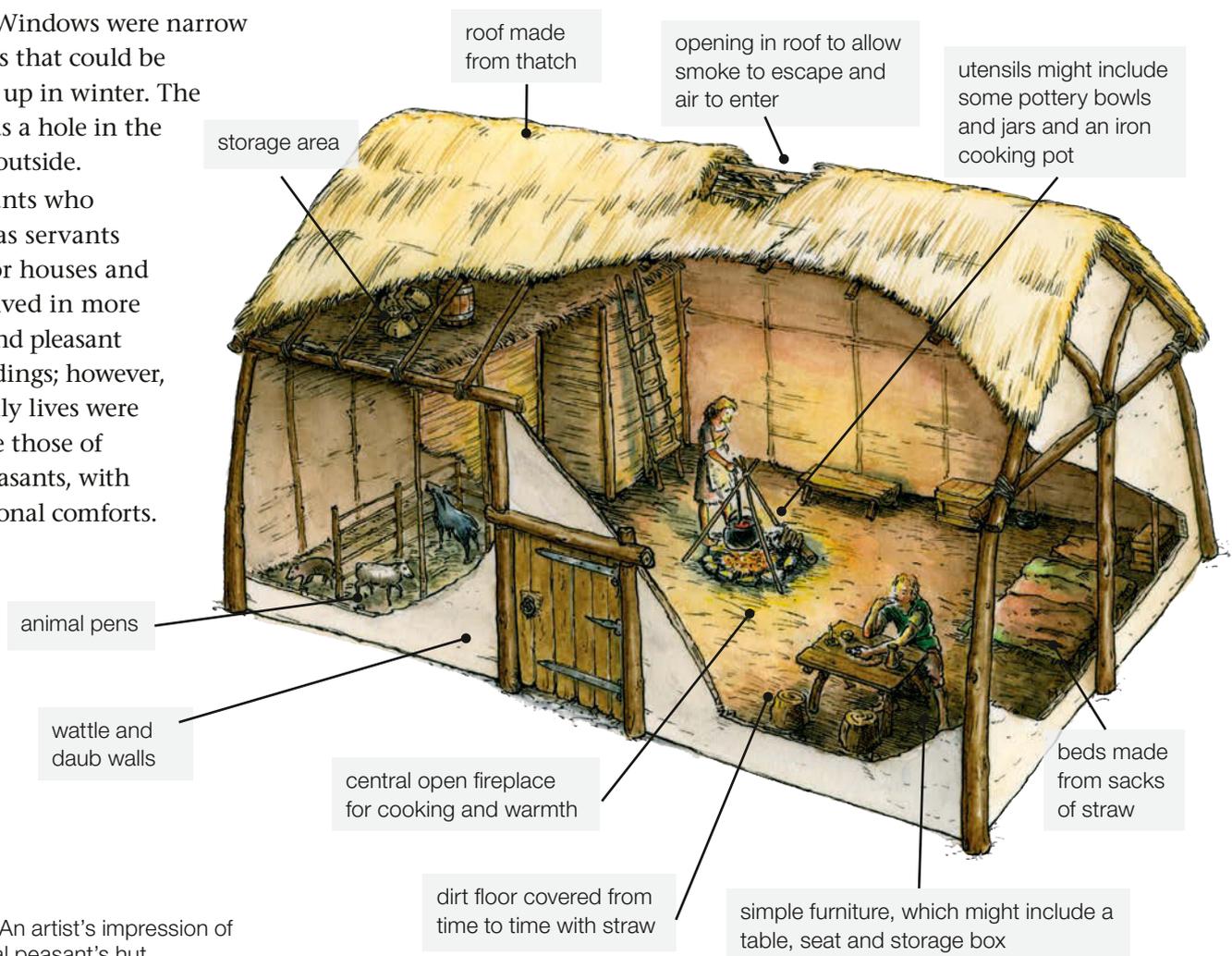
Source 1 An artist's impression of a medieval peasant's hut

Source 2 The restored bedroom of the French king Henri III in the Château de Blois in France. Often the beds of the wealthy had blankets, sheets, feather pillows, fur covers and linen curtains. Tapestries covered up draughty cracks in the stone walls of castles.

Living conditions for the wealthy

The rich included kings and queens and their extended families, feudal lords and their ladies, and the families of knights. When not fighting wars, the wealthy led mostly comfortable lives, often in manor houses and castles. The Church, too, had great wealth and certain members lived very comfortably despite their vow of poverty.

In times of peace, castles were the settings for feasts, workshops, markets, romance, raising and entertaining children, crafts and music. They were also the focal point for military training, the day-to-day running of the realm, and for administering justice.

A typical day for a lord's family began when the sun rose. By then, servants were preparing meals and had lit the fires in the kitchen and great hall.

The noble family would wash in tubs (often with the help of servants) and dress. They would also visit the garderobe (a medieval toilet), which was a small, cold room with a seat that opened directly onto a stinking pit or moat below. A chamber pot kept in the bedroom was typically used for toilet visits during the night. Strips of torn fabric were used as toilet paper.

After breakfast, the lord and lady would usually visit their private chapel. The lord's tasks for a day might include making decisions about the manor, receiving rents, presiding over a manor court and planning to visit another castle he owned. At night, there might be a feast for an important guest (perhaps the king) or to celebrate something special such as the end of a **tournament**.

Check your learning 9.7

Remember and understand

1 What were some of the typical activities and events that took place in medieval castles?

2 How would a typical lord in medieval Europe spend his day?

3 Why was there a high risk of fires in medieval towns?

Evaluate and create

4 Work in groups to construct a model of either the hut of a poor medieval family or the bedroom of a wealthy medieval noble. Share responsibilities, including research, preparing materials, assembling the model and presenting it to the class.

9.8 The medieval castle

The wealthiest and most powerful families in medieval Europe lived in castles which were scattered across the countryside. Within the castle walls lived not just the family but a whole community able to serve all the needs of the family. The medieval period saw the development of some distinct castle designs; these are covered later in the chapter on page 257.
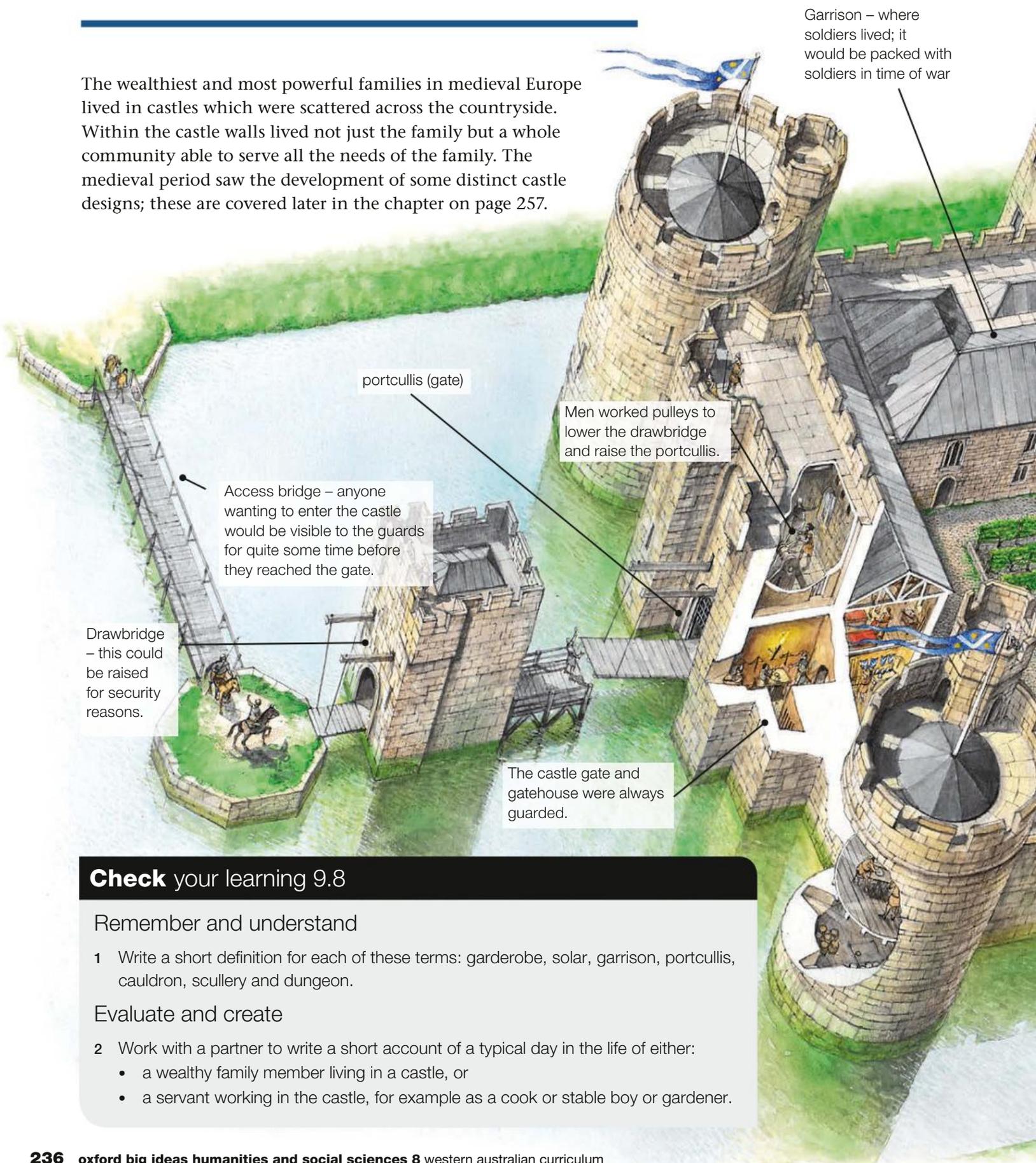
Garrison – where soldiers lived; it would be packed with soldiers in time of war

portcullis (gate)

Men worked pulleys to lower the drawbridge and raise the portcullis.

Access bridge – anyone wanting to enter the castle would be visible to the guards for quite some time before they reached the gate.

Drawbridge – this could be raised for security reasons.

The castle gate and gatehouse were always guarded.

Check your learning 9.8

Remember and understand

1   Write a short definition for each of these terms: garderobe, solar, garrison, portcullis, cauldron, scullery and dungeon.

Evaluate and create

2   Work with a partner to write a short account of a typical day in the life of either:
   • a wealthy family member living in a castle, or
   • a servant working in the castle, for example as a cook or stable boy or gardener.

Garderobe (toilet) – with a seat that opened directly onto the moat below.

main bedroom of the lord and his wife

The private quarters of the lord and his family, called the solar. This was a bit like a family room or lounge. It was often next to the great hall.

The great hall, with its often straw-lined floor, served many purposes. It was a banquet hall, a court, a place to receive visitors, and a meeting place. In the early days of castles, it was also a bedroom for the lord and his family.

freshwater well, which might tap into an underground spring

garden – used for growing herbs and vegetables

In the kitchen, cauldrons (big iron pots) hung over open fires and spits; sometimes a cauldron might contain a number of different dishes, each packed separately. The scullery, where dishes and pots were washed, was often outside.

stables

dungeons (underground prison cells)

The basement room of a castle tower would be used as a cool room to store food (e.g. salted meat and bags of grain), wine and equipment under the surface of the moat.

Workshops – where craftspeople, such as blacksmiths, furniture makers, cobblers, armour makers and potters, made their goods for the castle occupants and were trained.

Source 1 A modern artist's impression of 'home sweet home' for many wealthy and powerful families in medieval Europe

The achievements of medieval women

The societies of medieval Europe were dominated by men. The Pope and bishops controlled the Catholic Church, and the king and his nobles governed all other social and legal matters. The man was the head of his household, just as the king was the head of his kingdom. Both noble and peasant women were expected to work in the family home until they were married. After marriage, they had to run their husband's household and raise children. Typically they received very little education and had few rights. Every woman was required to obey her father or husband in all matters and was not able to make decisions for herself. Despite these challenges and restrictions, some women in medieval Europe became very influential and their stories live on to this day.

Crusade alongside her husband, taking 300 women to fight and help care for the wounded. She was not happy with Louis VII and the marriage was annulled (declared non-existent) in 1152. In 1154 she married the Duke of Normandy, who later became Henry II, the king of England. Eleanor supported her sons when they revolted against Henry in 1173, and was imprisoned for 16 years. When Henry II died she was released, and helped rule England with and for her eldest son, Richard the Lionheart.

Joan of Arc (1412–1431)

Source 2 A 19th-century artist's impression of Joan of Arc

Joan of Arc was born in 1412 in a small French village called Domrémy. As the daughter of a peasant farmer, she received no education apart from the lessons of the Church. When she was 13, she believed she began to see visions and hear the voices of saints. They told her that she would help the French defeat the English and so secure the coronation of Charles VII, then crown prince of France.

Aged 18, she travelled in men's clothing to see Charles. Her conviction and faith inspired many nobles and common people. She helped lead the French to victory, and in 1429 Charles was crowned. Less than a year later, Joan was captured and imprisoned by the English. Wanting to discredit the new French king, they accused her of **heresy**. Because she refused to confess that she did not hear the voices of saints she was burned at the stake in 1431.

Source 1 A 19th-century artist's impression of Eleanor of Aquitaine

Eleanor of Aquitaine (1122–1204)

During her lifetime, Eleanor of Aquitaine was queen of France and England, and also ruled England as **regent**. She was an intelligent, creative and sensitive woman. Eleanor was born in France in 1122. She was the daughter of the Duke of Aquitaine and heir to his land. When her father died, however, the land became the property of Louis VI, the French king. When she was 15, she married the king's son and later became queen of France. She took part in the Second

Christine de Pizan (1363–*c*. 1430)

Christine de Pizan was born in Venice in 1363. Her father was Tomasso de Pizzano, a respected physician. She grew up at the court of King Charles V of France, where her father made sure she received a good education. At 14, Christine married Etienne du Castel, a court secretary, and they had three children. In 1389, however, her husband died. Her father and the king were now also dead, and she decided to support her family by writing. Over the next 50 years, Christine wrote many poems, essays and books. As well as entertaining stories and love poems, she wrote serious works about the place of women in society, defending them against those who dismissed them as ignorant and worthless.

Source 3 A 19th-century artist's impression of Christine de Pizan

skill**drill**

Using Venn diagrams to compare information from a range of sources

Venn diagrams are simple diagrammatic tools that help you organise your thinking. They help to quickly identify the similarities and differences of two or more things. These 'things' can be anything – people, events, political systems and so on. Venn diagrams are a useful tool to compare information you have gathered from a range of sources.

To complete the Venn diagram in Source 4, follow these steps:

Step 1 Think about how each of the three things you are comparing are different. Record these individual features in the non-overlapping sections (A, B and C).
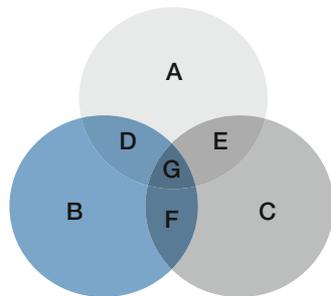
Source 4 A Venn diagram

Step 2 Then think about how two of the things are similar or share common features. Write any features that are common to A and B in section D, features common to A and C in section E, and features common to B and C in section F.

Step 3 Finally, think about the features that all three things have in common. Record these common features in section G.

Apply the skill

Use the written and visual sources about the three women provided to compare, select and use the most relevant information as evidence. Copy the Venn diagram from Source 4 into your notebook, and arrange facts from the written and visual sources to show what they had in common and what was different about them.

Consider the following topics:

- family connections
- education
- type and extent of influence.

Extend your understanding

Consider the place of women in Australian society today. Create a table to compare the ways in which women's social positions are similar, and the ways in which they are different.

Investigate the following areas:

- home life
- legal rights
- work and roles performed
- access to education
- family.

In order to collect this information you may need to conduct some additional research on the Internet.

Comparison of women's social positions in modern Australia and in medieval Europe	
Similarities	Differences

9.9 New empires, kingdoms and rulers

The medieval period in Europe was a time of great change. New groups of people moved and settled across the region; new empires and kingdoms were established; new ideas and beliefs spread throughout the population; and important events such as wars, famines and plagues brought about changes at all levels of society.

The kingdom of the Franks was one of the most important kingdoms in medieval Europe. During the 8th and 9th centuries, it was dominated by the Carolingian Dynasty, which rose to power at a time of great instability in Europe. The Carolingian kings commanded a powerful military force and had a close relationship with the Catholic Church. They created a single kingdom out of much of Western Europe and played a key role in converting tribal groups, such as the Saxons, to Christianity.

The Carolingian **monarchy** was at its most powerful during the reign of Charles I (also known as Charlemagne). Under Charlemagne, the Christian lands of Western Europe were united to form the Carolingian Empire.

The Carolingian Empire did not last long after Charlemagne's death in 814. His son, Louis the Pious, and grandson, Charles the Bald, headed an empire increasingly at war with itself. By 887, the empire had largely been reduced to a few smaller kingdoms. These laid the foundations of what we know today as France, Germany and Italy.

Source 1 An artist's impression of Pepin the Short, one of the Carolingian kings and father of Charlemagne and Carloman I.

Arrival of the Vikings

The decline of the Carolingian kings was helped by the arrival of the Vikings between about 850 and 1050. Initially they raided coastal settlements and monasteries in England, Ireland, Scotland and coastal France. Over time, however, they came to control large areas of medieval Europe, settling in places they had previously attacked and raided. They built new towns, like Dublin, the capital of modern Ireland, and set up their own kingdoms, such as the **Danelaw** in England.

The Normans

In France, the Vikings established a strong base. In 911, a Viking leader named Hrolf defeated the Frankish king, Charles the Simple (a descendant of Charlemagne). Hrolf forced Charles to pay a heavy penalty – a fief (a grant of land) in a region of western France. This area became known as Normandy, which derives its name from 'Norman' meaning 'Northman' or 'Viking'. In return for this land, Hrolf promised to stop raiding and to convert to Christianity.

In their new country, the Vikings (or Normans) adopted and refined some of the political and cultural practices of the Franks, including their language. By the early 11th century, the Normans had made further conquests in Europe and established a kingdom in southern Italy.

The Normans in England

The Normans also had long-standing interests in England. For example, Emma of Normandy (the sister of Richard II, Duke of Normandy) had married the English king Ethelred II. Their son, Edward the Confessor, became king of England in 1042. During his reign, many Normans became involved in English politics.

Source 2 A scene from the Bayeux Tapestry (an embroidery retelling the Battle of Hastings, made in around 1080). This scene shows the mounted soldiers of William, Duke of Normandy, attacking the Anglo-Saxon foot soldiers of Harold Godwinson.

When Edward the Confessor died without an heir to the throne in 1066, a number of people believed they had a right to rule England. One contender, Harold Godwinson (the powerful Earl of Wessex), had himself crowned king that year. Harold claimed that Edward had promised him the throne on his deathbed.

Edward's cousin William, Duke of Normandy, was another contender for the throne. He also claimed that Edward had promised him the throne on his deathbed. Later that year, he invaded England to take the throne for himself. William's army defeated Harold's army at the Battle of Hastings. King Harold was killed, allegedly shot in the eye with an arrow. William (who became known as William the Conqueror) was then crowned King William I of England. For more information on the Battle of Hastings, turn to 9B Rich task on pages 250–251.

After 1066, William I and his Norman nobles began imposing their rule on the English. Many of the former **Anglo-Saxon** nobility fled to Denmark, Scotland and Wales. William claimed their lands, giving some to the Church and some as fiefs to his loyal followers and knights as a reward.

The Normans built castles in their new kingdom to protect their territory and enforce their rule. They also introduced the system of feudalism already common across mainland Europe.

Check your learning 9.9

Remember and understand

1 Who were the Carolingian kings and why were they so powerful?

2 Why is Charlemagne considered to be one of the most significant rulers of the medieval period in Europe?

Apply and analyse

3 Explain how a large region of France came to be ruled by the Vikings. What was this region called?

4 Why did Harold Godwinson and William of Normandy both believe they were legitimate contenders for the English throne in 1066?

Evaluate and create

5 Explain the relationship between the Battle of Hastings in 1066 and the beginnings of a feudal system in Britain.

6 Draw a simple sketch diagram showing how the system of feudalism worked.

9.10 Significant individual: Charlemagne

Charles I (742–814), more commonly known as Charlemagne (meaning Charles the Great), was one of the most important kings in medieval Europe. Charlemagne and his brother Carloman both took the throne of the Frankish kingdom when their father, Pepin the Short, died in 768. After Carloman's death in 771, Charlemagne ruled in his own right.

He was active in overseeing his kingdom and regularly travelled around it. He also set up a network of messengers
to report back to him on what was happening. Under his rule, his kingdom rose to dominate Western Europe.

Charlemagne, the man

Much of what we know about Charlemagne today was written by Einhard, a scholar and dedicated servant of Charlemagne. Einhard's accounts were written at the request of Charlemagne's son, Louis the Pious, between 817 and 836.

Source 1 An artist's impression of Charlemagne leading his troops over the Swiss Alps on a military campaign to conquer new territories

Source 2 A medieval bust of Charlemagne, Emperor of the Romans

Source 3 A selection of statements describing Charlemagne

[Charlemagne] was large and strong, and of lofty [grand] stature … the upper part of his head was round, his eyes very large and animated, nose a little long, hair fair, and face laughing and merry. Thus his appearance was always stately and dignified, whether he was standing or sitting …

He … was temperate [controlled] in eating, and particularly so in drinking, for he abominated [hated] drunkenness in anybody … While at the table, he listened to reading or music.

He … had the gift of ready and fluent speech, and could express whatever he had to say with the utmost clearness. He was not satisfied with command of his native language … [he] was such a master of Latin that he could speak it as well as his native tongue.

He … cherished [valued] with the greatest fervour [passion] and devotion the principles of the Christian religion, which had been instilled into him from infancy [childhood].

Translated extracts from *Life of Charles the Great*, a biography of Charlemagne, written by Einhard

Charlemagne, the conqueror

Over his lifetime, Charlemagne fought many wars. His victories expanded the territory under his control. He was helped by the armies of his loyal supporters. Charlemagne had earlier given many of these men grants of land, a common practice among

the Franks. This was done partly so they could support themselves, and partly so they could equip themselves to help Charlemagne in battle. It also encouraged their ongoing loyalty and support.

Charlemagne, the leader

Charlemagne did not just lead in battle. He was also a leading thinker, introducing many political and social reforms. For example, he set up a common system of currency, bringing back coins as the means of buying and selling goods and services as the Romans had done hundreds of years earlier. He also encouraged the arts and education, setting up a number of schools for both peasants and nobles alike. Many of the cultural and artistic traditions of the Greek and Roman empires were brought back to life during Charlemagne's rule. As a result, the period of his rule is often described as the Carolingian Renaissance.

His leadership encouraged many new developments in literature, architecture and the arts.

Charlemagne, Emperor of the Romans

Charlemagne had always had a close relationship with the Catholic Church. In 799, he came to the aid of Pope Leo III. The Pope, accused of adultery, had fled Rome. His accusers had threatened to ouge out his eyes and cut out his tongue. Charlemagne escorted the Pope back to Rome and forced his reinstatement.

Pope Leo III was understandably grateful to Charlemagne. On Christmas Day in 800, the Pope crowned Charlemagne as Emperor of the Romans. This endorsement from the Pope not only reinforced Charlemagne's position as the most powerful king, but also ensured that the Catholic Church remained a strong force in Europe (as the ancient Roman Empire had been). Kings that followed Charlemagne were referred to as Holy Roman Emperors.

Charlemagne's death

In late 813, Charlemagne crowned his son Louis the Pious co-emperor. Shortly after, on 28 January 814, Charlemagne died. He had ruled for 47 years.

Source 4 An artist's impression of Charlemagne. Charlemagne established a number of schools for boys from different social classes during his rule.

Check your learning 9.10

Remember and understand

1   Explain who each of the following people were: Charlemagne's father, his brother, his son.
2   How did giving grants of land to his closest supporters benefit Charlemagne?

Apply and analyse

3   Consider the statements in Source 3 and answer the following:
    a   Are these accounts primary or secondary sources? Why?
    b   Do you think these accounts are truthful and reliable? Give reasons for your answer.
4   Why do you think the Pope decided to crown Charlemagne Emperor of the Romans?

Evaluate and create

5   Conduct research to learn more about the regions of Europe ruled by Charlemagne. On a blank map of Europe, shade the area ruled by Charlemagne when he and his brother took the throne. Next, shade the area covered by his empire at the height of his rule. Use two different colours to distinguish between the two areas. Now use your atlas to discover which modern European countries were originally ruled by Charlemagne.
6   Provide three reasons why you think Charlemagne deserves to be considered a significant individual.

9.11 The spread of Christianity

One of the most significant and lasting changes that took place across Europe during medieval times was the spread and adoption of Christianity. Christianity was one of the legacies of ancient Rome. At first, Roman emperors made every effort to stamp out Christianity across the empire, even feeding Christians to the lions. But over time it became accepted and was declared the official religion of the Roman Empire in the late 4th century CE. As a result, Christianity was well established as a religion in Europe when the Roman Empire collapsed and the medieval period began. Its influence and relevance was kept alive by the Catholic Church (today referred to as the Roman Catholic Church). Christianity influenced the arts, education, medicine, architecture and even wars. It also affected medieval Europe's relationships with other societies such as the Muslim nations of the Middle East.

Source 1 Canterbury Cathedral in England is significant not only because of its impressive architecture but also because it played a vital role in the lives of medieval Christians.

The influence of Christianity across Europe increased under the rule of Charlemagne. He supported missionaries that travelled across Europe converting people who were not Christians. He was a dedicated and passionate believer in Christianity and made constant efforts to improve the religious life across his realm. He defended the Church with his forces and protected the Pope from his enemies in Rome. In 800, the Pope crowned Charlemagne Holy Roman Emperor in order to strengthen ties between the Church and the ruler of Europe.

The organisation and influence of the medieval Church

The Church and its leader, the Pope, had great power and influence over almost every person in medieval society. From a very early age, all people, from the very rich to the very poor, were educated in the customs and traditions of the Church that would grant them salvation (entry into heaven). The desire to gain entry into heaven and the terrible fear of hell were strong incentives for people in medieval times to obey Church rules and customs.

By the middle of the 11th century, the Church was a well-organised hierarchy, reaching every level of medieval society. Small parishes, headed by priests, were set up across every region. These parishes were organised into larger dioceses, headed by bishops. Bishops were responsible for all religious affairs. They controlled church courts, which sat in judgement of cases involving members of the clergy and church property, and also ruled over other matters like marriages and wills.

Most importantly, bishops also held the authority to **excommunicate** any Christian who did not follow Church law. Excommunication prevented people from participating in church services or receiving the sacraments (sacred rituals) – meaning they would spend eternity in hell.

In addition to exercising great power over people in medieval society, the Church also provided many benefits. More than anything, it provided a stable

Sourc 2 An illumination (an illustration decorated with gold or silver) from an early 15th-century French manuscript showing a school lesson

and unifying system of beliefs and rules that all Christians were bound to follow. The Church was also responsible for providing a great deal of practical help. In most parishes the Church established schools and universities, provided care for the poor and sick, and offered legal advice and other community services.

Holy pilgrimages

As Christianity spread across Western Europe, people of all social classes started to set out on journeys to places of religious importance (such as shrines and burial sites). These journeys, known as **pilgrimages**, were designed to prove Christians' loyal devotion to God. Each region of Europe had its own sites popular with pilgrims; however, the most sacred pilgrimage site for all Christians was the Holy City of Jerusalem. The Holy Land had been held by Muslim Arabs since 637 CE, but Christian pilgrims had been allowed to travel there freely. This changed in 1050, when a group known as the Seljuk Turks, who had recently converted to Islam, took control of Jerusalem. They began harassing pilgrims and refusing them entry to the city. These events led to the start of a series of religious wars known as the Crusades.

Source 3 An artist's impression of Christian pilgrims travelling to a shrine at the Canterbury Cathedral in England. This shrine attracted many pilgrims during the Middle Ages.

Religious warfare – the Crusades

The Crusades were a series of religious wars between Christians and Muslims between 1096 and 1270 to gain control over key religious sites in and around the city of Jerusalem – an important spiritual and religious location for believers of both Christianity and Islam.

Historians argue about the total number of wars that were fought, but most agree that eight major crusades took place (see Source 4).

Source 4 The dates of the eight major Crusades

Date	Crusade
1096–1099	First Crusade
1147–1149	Second Crusade
1188–1192	Third Crusade
1202–1204	Fourth Crusade
1217–1222	Fifth Crusade
1228–1229	Sixth Crusade
1248–1254	Seventh Crusade
1270	Eighth Crusade

Source 5 An artist's impression of a battle during the First Crusade, painted in 1490

THE ROUTES OF THE FIRST CRUSADE
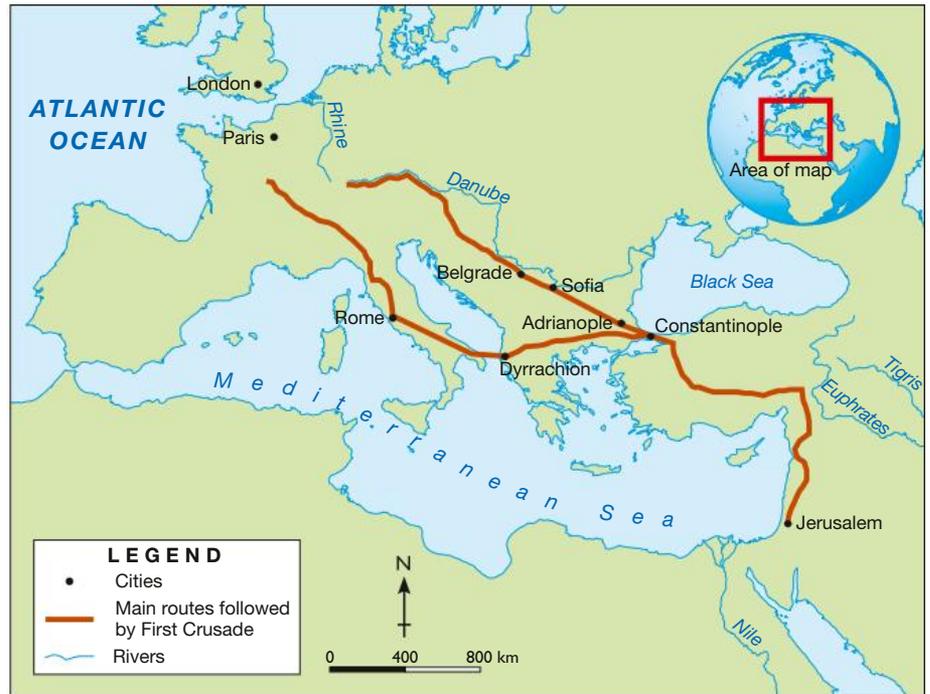
Source 6

Source: Oxford University Press

The start of the Crusades

Following the takeover of Jerusalem by the Seljuk Turks in 1050, Christian pilgrims and traders no longer felt safe in the region. Many believed that this new Islamic regime would also move to invade Constantinople, capital of the Byzantine Empire (formerly the Eastern Roman Empire), which was under Christian rule. This growing threat caused the Byzantine emperor to ask for support from Pope Urban II in 1096. In response, the Pope rallied Christians all over Europe to fight for control of Jerusalem and to help defend other Christians in the Middle East against the Turkish invaders. This was the start of the First Crusade.

People from all walks of life – from kings to peasants – joined the Crusades. Young people were particularly caught up in the desire to fight in the name of Christianity. Many young peasants who took part in the Crusades were encouraged by their local parish priests to join the fight. The priests believed that young people, free from 'sin', would make more successful Crusaders than older people.

Although most people joined the Crusades to return control of the Holy Land to Christians, many people also went for other reasons. During this deeply religious time, most Christians believed that taking part would be a sure way of gaining entry into heaven when they died. Some were also hoping to find wealth and fame; others were looking for adventure.

The effects of the Crusades

Although there were eight major Crusades, only the first was successful in bringing Jerusalem under Christian control. All remaining Crusades were either designed to protect the gains made during the First Crusade or motivated by a desire for wealth and fame. By the time of the Eighth Crusade in 1270, the Holy Land had not been regained by the Christians and many Crusaders had never returned home at all. Some were killed in battle for the Holy Land, while others died of disease or injuries. Others were sold as slaves, never to see their homes and families again.

The Crusades did, however, have enormous effects on Europe and its people. Crusaders who returned home brought new wealth, new ideas, new customs and new products (such as foods, spices, perfumes, pearls and precious stones). The power and wealth of the Church increased greatly. Trade with the East also increased. Goods from the East poured into Europe through trading ports in Italy. With the growth in trade came the desire to explore and discover unknown lands. This, in turn, brought new ideas, greater knowledge and more inventions.

People's lives improved. New trade and opportunities often meant greater wealth, and with this wealth came better living standards, health and access to education and work. The Crusades were also responsible for weakening the system of feudalism that had dominated Europe for centuries. Many lords had mortgaged or sold their estates before heading off on Crusades and many more never returned at all. All of these changes led to a move from a land-based economy to a money-based economy. All of this contributed to increased commerce in towns – causing them to grow into cities.

Source 8 An artist's impression of a medieval Crusader

Some effects of the Crusades
New inventions and devices (e.g. the windmill, the magnetic compass, new ways of drawing maps)
New products and goods (e.g. foods, perfumes, precious metals and stones)
New castle designs and weapons
Weakening of the feudal system and the development of a more money-based economy
The growth of more towns and cities
New ways of practising medicine (Arabic medicine was far more advanced than that in Europe at the time)

Source 7 Some of the new ideas and technologies Crusaders brought back to Europe from the Holy Land

Check your learning 9.11

Remember and understand

1 Why was the Catholic Church so influential in the lives of all people in medieval Europe?

2 List some of the positive contributions made by the Catholic Church to society in medieval Europe.

3 What event caused Pope Urban II to call for people to go on the First Crusade?

4 Why did so many Christians take up Pope Urban II's call to go on a crusade?

Apply and analyse

5 When did the First Crusade take place? What was the goal of this crusade?

6 List three reasons why the Crusades were such significant events for societies across medieval Europe.

Evaluate and create

7 Consider what you have read about the takeover of Jerusalem by Seljuk Turks in 1050.

a What was the immediate effect on the Middle East region of Jerusalem's takeover by this group of people? Why?

b Predict what might have happened in 1096 if Pope Urban II had ignored the Byzantine emperor's request for support.

9.12 Other causes of change across medieval Europe

All societies change over time, even if this change is very gradual. New developments, new ideas or contact with other societies often bring about changes. Sometimes these changes can be positive, other times they can be negative. This was certainly the case in medieval Europe.

Major events

In the late medieval period, there were three major events that brought about changes to societies across Europe:

- The Great Famine – This famine mainly affected northern Europe (including England) from 1315 until 1317. The poor suffered greatly. A monk described how 'plump dogs were stolen … men and women in many places secretly ate their own children'.
- The Hundred Years War – This war was fought between England and France between 1337 and 1453. The English were driven out of Normandy, ending their claim to the crown of France. A young woman, Joan of Arc, was burned at the stake for her role in uniting the French.
- The Black Death – This pandemic arrived in Europe in 1347, reducing the population by about a third. Its most common form was the **bubonic plague**. It was caused by bacteria found in the blood of the rat flea. Medieval Europeans knew nothing about germs, and paid little attention to hygiene.

Short-term impacts of these changes

The events briefly described above dramatically changed the societies of medieval Europe. France's population alone was halved during the 14th century. Peasants fled the Black Death, creating huge labour shortages. Those prepared to stay (on feudal manors or in towns) often demanded higher wages to do so. Suddenly they had more bargaining power because their services were in demand. In towns, these changes led to outbreaks such as the Peasants' Revolt against the high taxes they were being asked to pay.

Source 1 The Black Death killed millions of people across Europe, as depicted in this medieval manuscript.

Long-term impacts of these changes

Systems such as feudalism and Christianity had helped to stabilise the societies of medieval Europe over hundreds of years. There were, however, changes from the 13th century onwards that made people more aware of the world beyond Europe and their place in it. In time, this led to a number of social and political movements. Some movements questioned aspects of Church power and influence (the **Reformation**), while other movements looked to build on the knowledge and teachings of ancient Greece and Rome (the **Renaissance**). Some movements even challenged ways of thinking and learning about the world by testing new theories in the areas of medicine, biology and astronomy (the **Scientific Revolution**).

Some of these new ways of looking at things were helped by new inventions such as:

- the magnetic compass – invented by the Chinese, it seems to have been first used in Europe in the late 12th century to help sailors navigate the English Channel
- the astrolabe – an ancient navigation tool used across the European and Islamic world. Together with the magnetic compass, the astrolabe enabled European sailors to travel across oceans to claim new lands
- the printing press – invented by Johannes Gutenberg around 1450, it revolutionised people's access to the written word. Books could now be produced quickly and cheaply. Most importantly, new ideas could spread rapidly.

Source 3 A magnetic compass
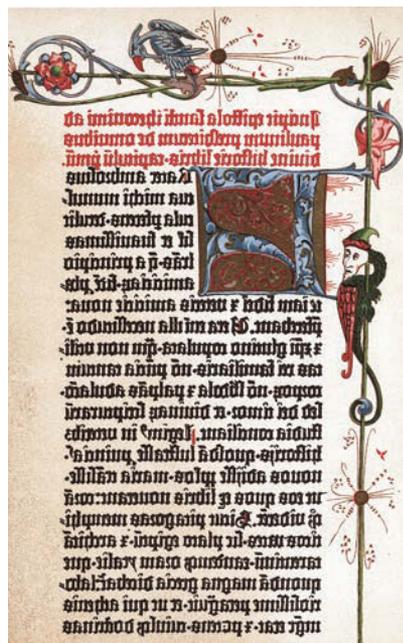
Source 2 A page from the Gutenberg Bible – the first book ever printed using the printing press

Source 4 An astrolabe was used to chart the movements of planets and stars.

Check your learning 9.12

Remember and understand

1 What major events in the 14th century led to significant changes in medieval societies?

2 Which areas of Europe were most affected by the Great Famine?

Apply and analyse

3 In your own words, describe some of the factors that led to the Peasants' Revolt of 1381.

Evaluate and create

4 Conduct some further research on the magnetic compass, the astrolabe and the printing press. Create a short report outlining how each of these inventions helped bring about change in medieval Europe. Include information on the following:
 a the effect on people in Europe
 b the effect on trade in Europe
 c the effect on European exploration.

The Battle of Hastings

The Battle of Hastings is one of the most significant battles in medieval Europe. It took place at Hastings in the south of England on 14 October 1066. The forces of the newly crowned king of England, Harold Godwinson, and William, Duke of Normandy, fought for the English throne. Harold was killed, and William was crowned king. This marked an end to Anglo-Saxon rule and the start of Norman rule in England.

Norman rule changed England forever – there were changes to the government, the Church, language and everyday life.

There are a number of different primary and secondary sources that retell the events of the Norman invasion and the Battle of Hastings. Three of these are described here:

1 The Bayeux Tapestry

One of the best primary sources is a 70-metre embroidered cloth known as the Bayeux Tapestry. It is a valuable document for the study of medieval weapons, warfare, architecture and clothing. It tells a story that begins around 1064 and ends in October 1066, with the death of King Harold at the Battle of Hastings. The exact origin of the tapestry is not known. One story claims that Matilda, William the Conqueror's wife, sewed the tapestry. Other accounts claim it was probably commissioned in the 1070s by Bishop Odo of Bayeux, half-brother of William the Conqueror.

2 The *Anglo-Saxon Chronicle*

Written between the 9th and 12th centuries, the *Anglo-Saxon Chronicle* is a collection of seven volumes written by Anglo-Saxon monks in England. The *Chronicle* is written in Old English (the language of the Anglo-Saxons). It recounts events and tells the story of England. A few brief descriptions of the Battle of Hastings appear in the *Chronicle,* but in some cases the entries were made several years after the battle took place.

Source 1

William came against him [Harold] by surprise before his army was drawn up in battle array [formation]. But the king [Harold] nevertheless fought hard against him [William] … and there were heavy casualties on both sides.

Many English deserted from the line, and very few stood firm with him [Harold]: yet from the third hour of the day until evening he resisted his foes with the utmost courage … But alas, after so many had fallen on both sides, Harold himself was slain [killed] as the evening shadows lengthened. King Harold was dead … and many good men. God granted the victory to the [Normans] because of the sins of the English people.

An extract from the *Anglo-Saxon Chronicle*, retelling the events leading up to the death of King Harold

Source 2 A section of the Bayeux Tapestry depicting William and his Norman troops fighting the English army

3 The writings of William of Poitiers

William of Poitiers served as a knight in Normandy before becoming a priest. When William, the Duke of Normandy, became king of England in 1066, William of Poitiers was appointed his personal chaplain. In 1073, William wrote *The History of William the Conqueror*. The book contains the most detailed written account we have of the Battle of Hastings.

Source 3

[The Duke of Normandy] hastily built a fleet of three thousand ships. At length he brought this fleet to anchor at St Valery in Ponthieu [in France] where he filled it with mighty horses and most valiant men, with hauberks [armour] and helmets. Then when a favourable wind began to blow, he set sail, and crossing the sea he landed at Pevensey [in England] where he immediately built a castle with a strong rampart [defensive wall].

An extract from *The History of William the Conqueror* by William of Poitiers, retelling the events leading up to the Battle of Hastings

skill**drill**

Drawing conclusions about the usefulness of sources

A useful source will add to your understanding of a historical period or event. The source needs to be relevant to your investigation and reliable. Ask yourself the following questions to determine the usefulness of a source:

- What type of source is it?
- Who wrote or created the source?
- Why was it written or created?
- Is it balanced or does it present only one point of view?
- Is it based on fact or opinion?
- Is there enough information and detail for the source to be of use to my inquiry?
- Does the information support and reinforce evidence from other sources?

Apply the skill

Use the sources and information in this section to draw conclusions about their usefulness and reliability. When examining a range of different sources, it is often helpful to gather your information into a table or graphic organiser.

1 Copy the following table into your notebook and complete it using the information provided. Alternatively, create your own graphic organiser (such as a Venn diagram) to draw conclusions about the sources.

Source name	Source type (primary/ secondary)	Key questions to determine the usefulness of each source
Source 1: The Bayeux Tapestry	Type of source:	• Who created the source? • Why was it created? • Is it balanced or does it present only one point of view?
Source 2: The *Anglo-Saxon Chronicle*	Type of source:	• Who wrote the source? • Why was it written? • Is it balanced or does it present only one point of view?
Source 3: The writings of William of Poitiers	Type of source:	• Who wrote the source? • Why was it written? • Is it balanced or does it present only one point of view?

2 In what ways are the three sources similar? In what ways are they different?

3 Based on your findings, which of the three sources provided do you think is the most reliable and useful? Give reasons for your answer.

Extend your understanding

1 The complete Bayeux Tapestry is a rich source of information about the Battle of Hastings. Use the Internet to collect images of the full Bayeux Tapestry. Make a flow chart showing the major events in the Norman invasion of England (including the Battle of Hastings) using the images from the tapestry. Most sites that show the full tapestry will provide commentary about what is happening in each panel. Consider using the following format:

January 1066 Edward the Confessor, King of England, dies

9.13 Developments in architecture, literature and music

The medieval period in Europe lasted for about 1000 years. Over this time, there were many important developments and achievements that affected the lives of people – some were cultural and social (such as developments in music, literature and the law, and the growth of towns), while others were technological (such as developments in architecture, weapons and warfare).

Architecture

A lasting example of these developments in medieval Europe is its architecture. Most European towns and cities settled during the medieval period still have buildings that date back almost 1000 years. These buildings include churches, **monasteries**, manor houses, town halls, castles and cathedrals (see Source 1).

Gothic style

A major development in medieval architecture was the Gothic style. It originated in France during the 12th century and was popular across Europe until the 16th century. Gothic architecture, with its use of pointed arches and large windows, ornate decorative patterns and tall spires, was commonly used when designing and building cathedrals (see Source 1). Large stained-glass windows in these cathedrals played an important role in retelling important religious messages. Images in the windows were used to convey biblical stories because many people could not read.

Literature

Few people in medieval Europe could read or write. Those who could were often members of the clergy – mostly priests, monks and a few nuns. All documents were written by hand until very late in the medieval period. This was a time-consuming process, with books taking years to produce.

Source 1 Completed around 1240, Notre Dame Cathedral in Paris is one of the most famous Gothic cathedrals in the world.

Medieval manuscripts contained laws or administrative information about a kingdom or a landholding. Some rulers also arranged for others to write accounts of their lives or those of their ancestors. It was rare for the common people to write anything, even diaries or letters. This fact greatly limits our knowledge of how the poor lived in medieval Europe. Most medieval manuscripts related to religion, including copies of the Christian Bible and prayer books.

Illuminated manuscripts

Some medieval manuscripts were ornate works of art, known as illuminated manuscripts. They featured highly detailed illustrations decorated with gold and silver, often depicting scenes related to the text.

Illuminated manuscripts were significant historical documents. For a start, they were very valuable. Many materials and skilled craftspeople were needed to make them. They were generally written on parchment or on vellum (a material made from the skin of sheep, goats or calves). Paints were made from plants, ground-up semi-precious stones, charcoal and spices to give them bright and vibrant colours. Sometimes even earwax and urine were used to create colours. Gold and silver were also painted onto manuscripts.

The invention of the printing press

When the printing press was invented in Germany by Johannes Gutenberg around 1450, it revolutionised reading and writing across Europe. Books became quicker and cheaper to produce, which made them more readily available to common people. This increased the number of people who could read and write, and also meant that the Church no longer had control over the types of books that people could read.

Music

Music played an important role in medieval life. It marked the end of harvests, provided entertainment for people at all levels of society, and was an important part of religious life.

Although most popular music from medieval times has been lost, traces of tunes to which peasants sang and danced can be found in modern folk and traditional music. Most sources of evidence for medieval music survive from more formal settings, such as church services and coronations.

Source 3 A page from an illuminated manuscript created in the 15th century, which records the New Testament gospel of John

Source 2 A stringed medieval instrument called a dulcimer

Check your learning 9.13

Remember and understand

1 What are two features common to the Gothic style?
2 In what areas of medieval life was music important?

Apply and analyse

3 Why was the invention of the printing press a significant development in the lives of medieval people? How did it change the course of history?
4 Consider what you have learned about illuminated manuscripts.
   a Explain what an illuminated manuscript is.
   b List some of the materials used when creating illuminated manuscripts.
   c Why might such documents be thought of as significant?

Evaluate and create

5 Design your own Gothic cathedral either on paper or using computer software. Conduct further research to plan your design. Include a floor plan (as seen from directly above) and a close-up sketch of two important features.

9.14 Crime and punishment

Throughout the medieval period in Europe, laws were extremely harsh and punishments were even harsher. Those in charge of law (kings and the nobility) believed that peasants and common people would only behave properly if they feared what would happen to them if they broke the law. Even the most minor offences had serious punishments.

Under feudalism, different courts dealt with different types of offences. Minor matters, such as a woman gossiping and nagging her husband, were heard by village courts. If found guilty, a woman like this (known as a scold) would be forced to wear a 'scold's bridle' (see Source 2). More serious matters, like a peasant's son being educated without the lord's permission, were heard by manor courts. If found guilty, a peasant might be fined or put in the stocks.

The most serious charges were dealt with in Church courts (for charges such as heresy and witchcraft) and the King's court (for charges of **treason**). Confessions for such crimes were often obtained under torture (with the use of thumbscrews and other devices). If found guilty, people could be executed by being burned or skinned alive. Traitors were frequently executed by being hung, drawn and quartered. This involved first hanging a person, cutting him down while still alive, then pulling out his intestines while he watched, and finally attaching each of his hands and legs to a horse and having the horses pull him apart.

Source 1 This painting from 1471 shows an ordeal by fire. The woman is trying to prove her dead husband's innocence of a crime against the king by holding a red-hot iron bar in one hand and her husband's head in the other.

Source 2 A medieval engraving of a woman wearing a 'scold's bridle' being paraded through the streets by her husband. While wearing the mask it was impossible to speak. Some scold's bridles had bells on top to draw even more attention to the woman wearing it, increasing her humiliation.

Trial by ordeal

The legal system of early medieval Europe required accused persons to prove their innocence. They did this by swearing an oath before God. Sometimes the oath of the accused was tested using trial by ordeal. There were two types of ordeal:

- Ordeal by fire – The accused held a red-hot iron for some time, put an arm in a fire or walked across burning coals. If, after three days, the burn was not healing, they were seen to be guilty (see Source 1).
- Ordeal by water – The accused placed an arm in boiling water, with the same test as above. They also could be bound and tossed into a river. If the body floated, they were seen to be guilty.

Trial by combat

Another trial commonly used for members of upper classes was trial by combat, where the accused fought the accuser. Sometimes a champion (such as a strong knight) fought on behalf of a weaker party. The winner (or whoever they represented) was innocent – God was believed to ensure this. Guilty people were punished or killed. They might have ears or hands cut off, or worse.

Changes to the medieval justice system

In 1154, Henry II became king of England. The various types of courts continued to exist during his reign, but Henry also wanted all his subjects to have access to royal justice. So he and his court (the king's court) travelled around the land, hearing cases. At this time, judges also began recording court decisions.

Over the centuries, this initiative continued to be refined. It set the basis for today's common law, as practised in England and in Australia – where judges' decisions, and the penalties for them, are based on similar examples from the past. Another initiative of Henry II was trial by jury. It, too, continues to this day as a key part of the Western justice system.

The Magna Carta

By the early 13th century, John was king of England. He was unpopular because he raised taxes, fought a series of unsuccessful wars and upset the Pope. The Pope was so angry that he banned religious services in English churches.

The nobles decided to act. They negotiated with King John, forcing him to sign a charter (legal agreement) known as the Magna Carta. The Magna Carta marked a significant legal development in England because it required the monarch to be subject to the will of others, not just God. No longer could he rule exactly as he saw fit. This is seen as one of the first steps towards the development of legal and political rights for 'the people' and the start of modern democracy.

The Magna Carta also abolished trial by ordeal. No more could people be condemned, tortured or killed on the grounds of suspicion or rumour.
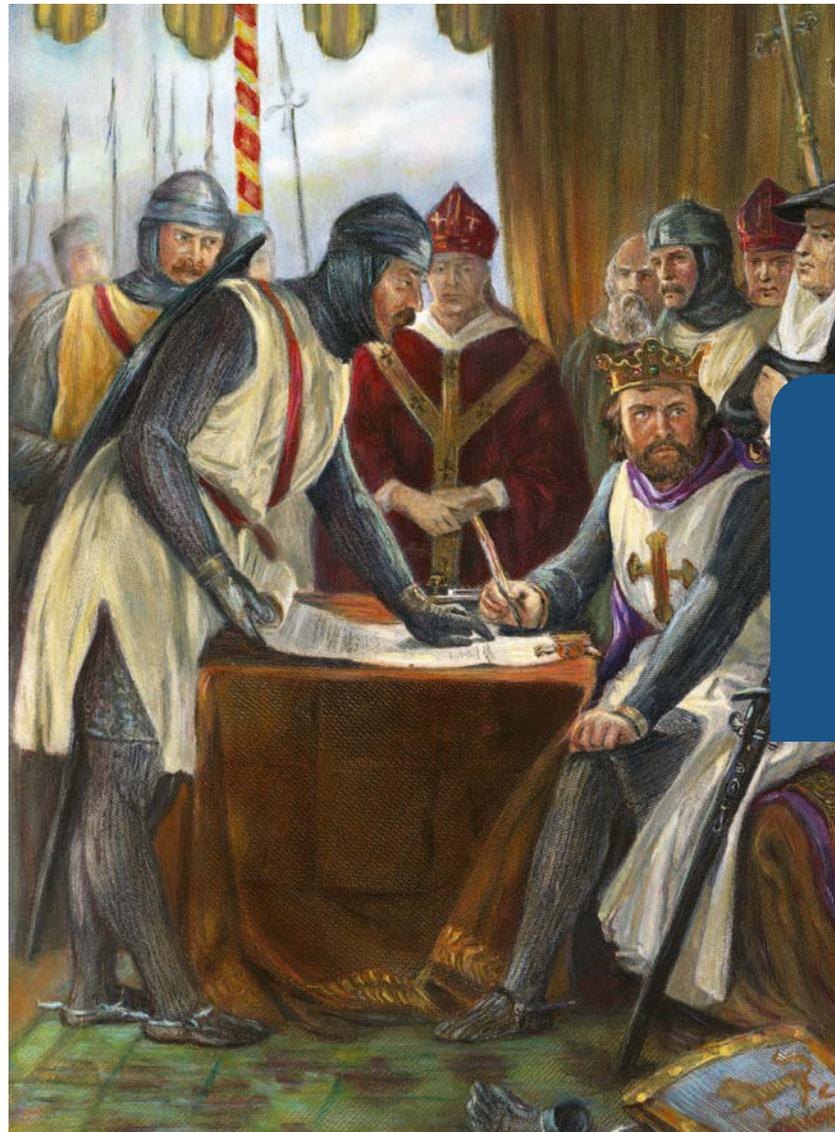
Source 3 An artist's impression of King John of England reluctantly signing the Magna Carta

Check your learning 9.14

Remember and understand

1   What were some of the different courts in medieval Europe? What sort of cases were heard in each court?

2   How was the medieval practice of trial by ordeal changed by the Magna Carta?

Apply and analyse

3   The words 'Magna Carta' mean 'Great Charter' in Latin. Do you agree that it was 'great'? Discuss in pairs and present your ideas to the class.

4   Do you think that trial by ordeal was fair? Give reasons for your view.

9.15 Military and defence systems

Warfare was one of the chief ways a medieval kingdom in Europe could become powerful (either by fighting to expand its territory or by defending itself against invaders). The focus was often on capturing the enemy's stronghold, usually a castle. Castles were typically built in places that were easier to defend – on top of a cliff or hill, on an island, or jutting out into a lake.

Castle fortresses

In times of peace, castles were home to important rulers or wealthy feudal lords and their families, servants and vassals. At these times, only a small group of soldiers was needed to guard the castle. In times of war, however, castles became hives of military activity as the ruler or lord called on his supporters to defend the castle by supplying him with foot soldiers, armour, weapons and often horses.

Knights and soldiers

In medieval Europe, knights were obliged to fight for their lord in times of war as well as recruit others to fight for him. Some recruits were professional soldiers, men of the upper social class. They might be the younger sons of noble families, wanting to improve their standing through military service. Such soldiers were often called men-at-arms. Other fighting recruits were commoners or peasants. These men usually came straight from the fields or towns to fight. They often had no formal training and fought as foot soldiers because they could not afford horses. Their weapons and armour were much simpler than those of knights and men-at-arms.

Military training

To stay fit and trained for war, knights fought jousts. Often these were public spectacles. Heavily armoured knights charged each other on horseback holding wooden lances ahead of them. Sometimes a long wooden fence, called a tilt, separated the charging horses. The idea was to knock an opponent off his horse.

Source 1 An illustration from a medieval **manuscript** showing a joust between Jean Chalons, an Englishman, and Loys de Beul of France in 1446

Source 2 This modern-day re-enactment of a medieval tournament shows two knights on horseback jousting.

Larger contests between hundreds of knights on horseback and soldiers on foot were also held during the medieval period. These events, known as tournaments, were mock battles similar in principle to military training exercises today. By the 13th century, tournaments had become colourful spectacles (like carnivals) that created great excitement among medieval communities.

Changing castle design

Over the medieval period, certain elements of castle designs changed and developed, improving on weak features and strenthening those that worked. Three castle designs evolved over the medieval period in Europe:

Motte-and-bailey castles

Early fortresses were called motte-and-bailey castles. The motte was a raised area (such as a hill) on which a wooden fortress was built. Below it was an open area called the bailey, where barns, workshops and stables were located. Both the bailey and motte were encircled by a gated timber palisade (fence-like barrier, made of logs), a ditch (sometimes filled with water) and an earth bank.

Source 3 A motte-and-bailey castle

Stone castles with keeps

By the late 10th century, stone structures (called keeps) were starting to replace the wooden fortress in the motte-and-bailey design. These keeps, usually rectangular and up to four storeys high, were fitted out to withstand a **siege**. Thick stone walls replaced the palisade and a wide moat replaced the ditch. Access to the castle was via a drawbridge.

Concentric castles

Two hundred years later, the concentric castle emerged. It was based on designs Crusaders had seen in the Holy Land. This stone and/or brick castle had two outer walls (with battlements) to provide an extra barrier against attack. The outermost wall was often curved. The wall closest to the centre was the highest. There was a greatly reinforced gatehouse, but no keep.

For more information on the key concept of continuity and change, refer to page 185 of 'The history toolkit'.

Source 4 A stone castle with a keep
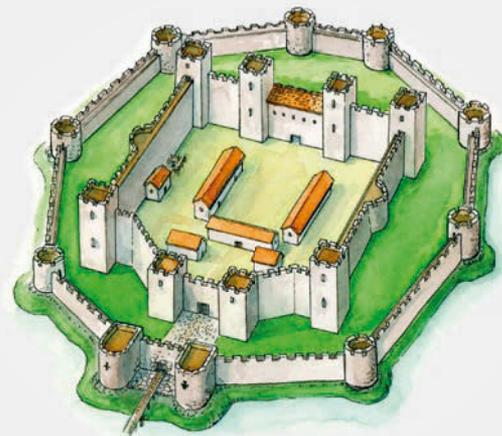
Source 5 A concentric castle

Source 6 An artist's impression of an attacking army laying siege to a castle
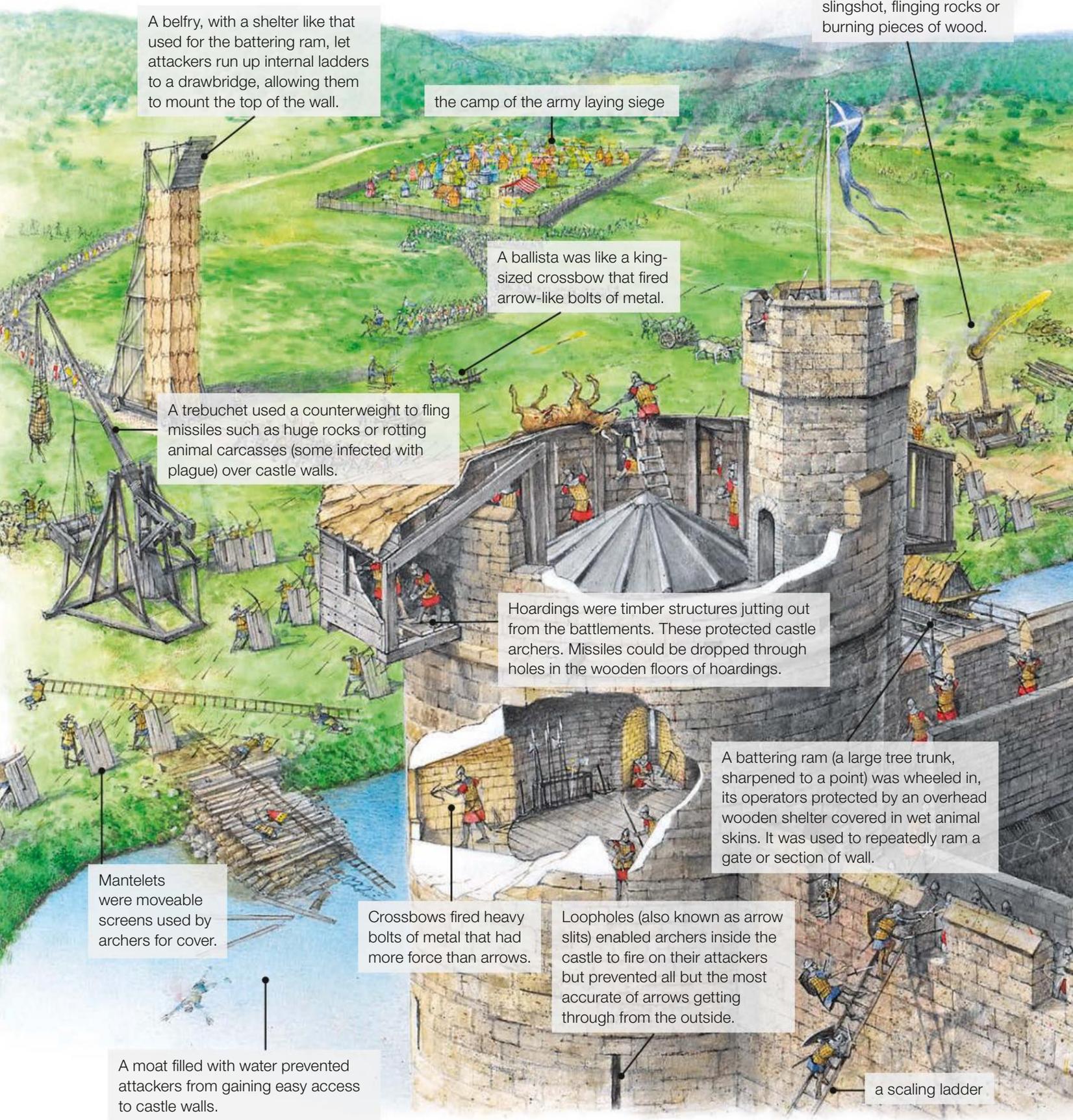
A belfry, with a shelter like that used for the battering ram, let attackers run up internal ladders to a drawbridge, allowing them to mount the top of the wall.

A mangonel was a giant slingshot, flinging rocks or burning pieces of wood.

the camp of the army laying siege

A ballista was like a king-sized crossbow that fired arrow-like bolts of metal.

A trebuchet used a counterweight to fling missiles such as huge rocks or rotting animal carcasses (some infected with plague) over castle walls.

Hoardings were timber structures jutting out from the battlements. These protected castle archers. Missiles could be dropped through holes in the wooden floors of hoardings.

A battering ram (a large tree trunk, sharpened to a point) was wheeled in, its operators protected by an overhead wooden shelter covered in wet animal skins. It was used to repeatedly ram a gate or section of wall.

Mantelets were moveable screens used by archers for cover.

Crossbows fired heavy bolts of metal that had more force than arrows.

Loopholes (also known as arrow slits) enabled archers inside the castle to fire on their attackers but prevented all but the most accurate of arrows getting through from the outside.

A moat filled with water prevented attackers from gaining easy access to castle walls.

a scaling ladder

Castle siege

There were different ways of capturing castles in medieval times. The most obvious was to launch a surprise attack, smashing the castle defences. However, when the chances of victory from a direct attack were low, armies would instead lay siege to the castle. Siege tactics included surrounding the castle in order to cut off its food supply, poisoning its water supply and digging under sections of its outer walls to gain entry. Rarely was a siege won quickly or easily.

Over the medieval period, many advances in castle siege technologies were made. A variety of these are shown in Source 6.
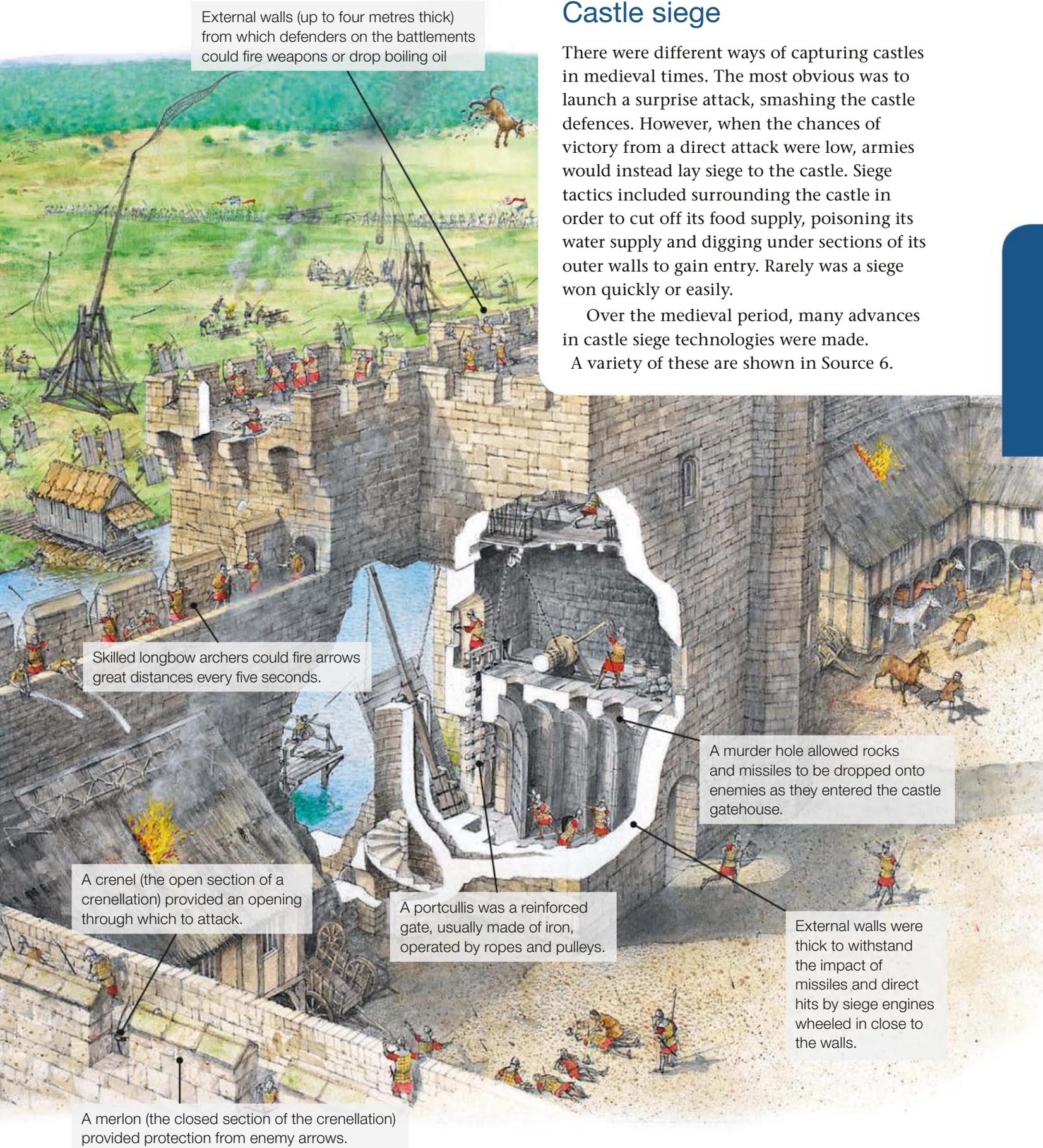
External walls (up to four metres thick) from which defenders on the battlements could fire weapons or drop boiling oil

Skilled longbow archers could fire arrows great distances every five seconds.

A crenel (the open section of a crenellation) provided an opening through which to attack.

A portcullis was a reinforced gate, usually made of iron, operated by ropes and pulleys.

A murder hole allowed rocks and missiles to be dropped onto enemies as they entered the castle gatehouse.

External walls were thick to withstand the impact of missiles and direct hits by siege engines wheeled in close to the walls.

A merlon (the closed section of the crenellation) provided protection from enemy arrows.

Medieval warfare

Until about the 12th century, armour was made of chain mail (small hoops of iron linked together), which was fashioned into a knee-length tunic. From about 1300 onwards, however, metal plate armour became more common (see Source 7). Over the years, its design changed further so it eventually protected the whole body. Full-body armour made shields less necessary.

When using a shield, the fighter had only one hand for his sword, so early swords were lighter and made for one-handed use. As armour changed, and shields became less common, the design of swords also changed – they became larger and heavier for two-handed use. The aim of these weapons was not so much to cut as to bash. Two free hands meant that other weapons such as the mace (an iron club), morning star (a spiked club like a mace), flail (a metal ball, often spiked, attached to a chain and handle) and battleaxe could be more easily used (see Source 8).

The bow and arrow was also a popular weapon during the medieval period. Archers were an important force used in medieval battles because their arrows were easily able to pierce through armour. There were two main types of bow – the longbow and the crossbow. The longbow was a bow drawn by hand which released an arrow. A skilled archer could shoot arrows very quickly, releasing arrows every few seconds that would travel over long distances. The crossbow was a bow fixed across a wooden stock with a groove for the arrow. The crossbow required less skill to use as it had a mechanism for drawing and releasing the arrow.

Source 7 The type of full-body armour worn by a man-at-arms in Italy in the late 1300s

Source 8 An illustration of a range of medieval weapons, including a spiked club (left), mace (second from left), flails (third and fourth from left) and battleaxes (fifth and sixth from left)
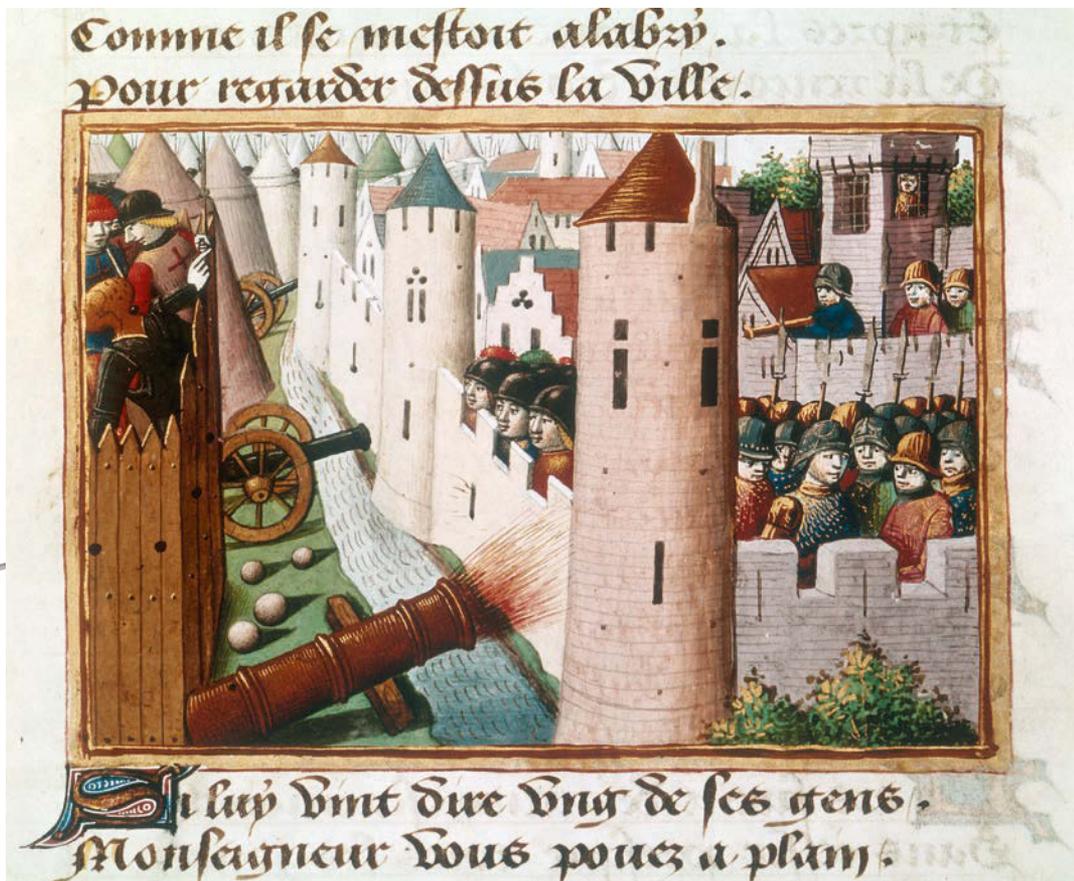
Gunpowder

Gunpowder reached Europe from China during the 13th or 14th centuries, where it was first developed 400 to 500 years earlier. Gunpowder was another factor that helped to end Europe's feudal system. It did so by changing how wars were fought.

It was first used effectively during the Hundred Years War between France and England (see Source 9). Now castle walls could be more easily broken down using weapons fired with gunpowder. By the 15th century, different forms of cannon were becoming commonplace.

The use of firearms in warfare gradually reduced the importance of knights on horseback. Early firearms increased the distance between fighting armies. They also meant that all soldiers in battle now required armour. This made it more expensive to equip an army. Kings, rather than nobles, had to take responsibility for this increased cost. As a result, the importance of knighthood began to diminish. In place of knights, new types of professional soldiers emerged who led new types of troops.

Check your learning 9.15

Remember and understand

1 Name three locations where a castle might commonly be built for security.
2 What two main purposes did castles serve in feudal Europe?

Apply and analyse

3 Explain briefly how both castle design and armour design changed over time. Where relevant, explain what aspects of each continued (even if in another form).
4 Study Source 6.
   a List three ways of defending a castle under attack.
   b List three tactics or items an attacking army might use to force the surrender of a castle.

Evaluate and create

5 Draw a flow chart to show some of the ways gunpowder changed medieval warfare, both in the short and long term.

9.16 Towns, cities and commerce

During the early part of the medieval period, societies and economies of Europe were based around agriculture and land ownership. These various kingdoms were largely divided into feudal estates and manors, owned by nobles and farmed by peasants. For centuries, this system was successful because these peasants needed the protection of these nobles and their knights against attacks from barbarians; however, from about 900 CE on, these attacks began to ease. This meant that common people no longer needed the protection from their lords and the system of feudalism began to weaken. Slowly, people began moving and living in towns.

Over the next few centuries, a number of other events further weakened feudalism and fuelled the growth of towns. The Crusades, in particular, played an important role. Before heading off to fight, some lords sold their estates; others never returned at all. Those who did return brought new ideas, new customs and new products to trade. As trade increased, so too did the number of towns. Over time, many of these towns grew into cities. By 1200, there were about 600 cities in Europe, three times

as many as there had been 50 years earlier. Many cities also had cathedrals, so they attracted Christian pilgrims as well as merchants.

Types of towns

Across Europe, a number of different types of town began to pop up. Many grew up around castles or manor houses that had been established for hundreds of years, while others were newly settled close to ports, rivers and roads that were important for trade and transport. As trade increased, so did the size and populations of these towns. To begin with, the populations of these towns across Europe were largely made up of people who had left manor estates. Many of the peasants that resettled there went on to earn a living as skilled craftspeople, labourers or merchants.

New markets, new goods and booming commerce

Not all those who drifted from feudal manors settled immediately in towns. Some chose to travel around as wandering 'salesmen'. The goods they offered for sale were often cheap and basic, but the best profits came from selling goods like spices, oils and perfumes from faraway places. The risks of sourcing these goods, though, were high – pirates, harsh landscapes, extreme weather and attacks by wild animals claimed the lives of many merchants and traders. Despite the dangers, some merchants made huge profits and returned to settle in towns in order to establish thriving businesses.

The growth of businesses and guilds

Merchants in medieval Europe mainly sold their goods in marketplaces and at huge open-air fairs held each year. Buyers flocked to these displays and purchases were often made in bulk and taken away the same day on carts.

Over time though, permanent shops and businesses were built and those who worked in the same craft or specialist occupation (such as butchers or carpenters) started banding together to form

Source 1 The medieval city of Fribourg, in Switzerland. Many of its medieval buildings still remain, including the St Nicholas Cathedral.

organisations known as **guilds**. Guilds were similar to modern-day unions and professional organisations in one. They were particularly common in large Italian cities where trade was the main industry. Guild members met regularly to discuss quality standards, conditions of work, fair pay and prices, and to set up apprenticeships for young workers.

The growth of moneylending and banking

As commerce and trade continued to grow in towns and cities, the need for moneylending, banks and financial record-keeping became more common across Europe. The beginnings of these practices originated long before medieval times, but after the Crusades they became more formalised. Merchants in the Holy Land had been acting as moneylenders for generations, so many of these practices were brought back to Europe by the Crusaders in the 12th and 13th centuries. Loans enabled more goods to be purchased and traded, boosting town economies. Some merchant families became so wealthy they even lent money to kings and royal families. Many also invested in the construction of large public buildings, palaces and works of art in their towns and cities.

The independence of towns

As time passed, the growing numbers of large towns and the wealth of the people living there brought about the desire for another change. Townspeople wanted more independence from feudal restrictions and more rights. As mentioned, many towns across Europe during the medieval period were settled on land 'owned' by nobles and feudal lords. Many of these lords continued to expect payment for the use of this land, even after the feudal system had weakened – the only change was that they now demanded payment in money rather than crops. Many townspeople came to resent this. They started to present petitions to these lords demanding release from old feudal arrangements and a set of rights. In return for large payments, some towns were given what they asked for and town **charters** were drawn in writing to set out what had been agreed by the lord and the townspeople.

Source 2 A 15th-century artist's impression of a covered medieval European marketplace

Rights outlined in many town charters

- The ability to trade freely
- Freedom to enter and leave the town freely
- The right to establish town laws independently
- The ability to hold trials in town courts, rather than the lord's manor court

Source 3 Some of the rights sought by townspeople and included in town charters

Check your learning 9.16

Remember and understand

1 What changes caused the growth of towns across medieval Europe?

2 How did some of these early towns form, and where?

3 Where could people living in towns buy the goods merchants brought back from distant lands?

Apply and analyse

4 Explain how and why the practice of moneylending came to be adopted in medieval Europe. Where did this practice originate and how did it become common in Europe?

Medieval architecture and the Catholic Church

The Catholic Church played a key role in the daily lives of almost everyone in medieval Europe. Most medieval Europeans were Christians and lived according to the teachings of the Church.

Source 2 The north rose window at Chartres Cathedral in France

Source 1 The interior of Chartres Cathedral in France

Until the 15th century, monks were usually the only people in society who could read and write. In order to form their own opinions and beliefs, common people had to rely on what they were told by village priests, what they heard and saw in religious plays, and what they saw in religious artworks such as stained-glass windows and paintings. Scenes in stained-glass windows retold lessons and stories from the Bible, as well as recounting important historical events. In this way, stained-glass windows played an important part in educating people and ordering society by maintaining the power of the Church and the king.

Chartres Cathedral just south of the French capital, Paris, is an excellent example of a Gothic cathedral. It was built between 1194 and 1250 and features 176 stained-glass windows.

Source 3 A detail of the north rose window at Chartres Cathedral

skill**drill**

Identifying the origin and purpose of medieval stained-glass windows

Unlike the windows in most other buildings and houses, the stained-glass windows in medieval churches and cathedrals across Europe were created for a number of reasons. In order to understand these reasons, historians need to ask a number of questions. Analysing sources by asking 'who', 'what', 'when' and 'why' questions will help you identify the origin and purpose of the sources. Use the following table to help guide your investigation.

Identifying the origin and purpose of primary and secondary sources	
Is it a primary or secondary source?	Was the source created at the time you are studying or afterwards?
Who created the source?	Is the creator's personal perspective obvious in the source? Is the creator a member of a particular group, religion or organisation?
When was the source created?	How old is the source? Is it an eyewitness account or was it written/created by someone at a later date? Is the source complete?
Why was the source created?	Was it designed to entertain, persuade or argue a point of view? Did the creator have anything to gain personally from the source? What other events may have been happening at the time and might have influenced the creator or source?

Apply the skill

1   Work individually or in pairs to complete an investigation into the origin and purpose of one of the stained-glass windows at the Chartres Cathedral in France. Use the sources in this section to help you begin an Internet search.

2   Once you have chosen the window you would like to investigate, conduct a further search to gather the information you will need to answer the questions in the table. You may not be able to answer every question, but try to answer as many as you can.

3   When you have completed your table, share your results with other students in your class. Compare the origin and purpose of the different windows you have researched. Which factors are similar and which are different?

Extend your understanding

1   Make a table comparing the size and appearance of Chartres Cathedral with the average peasant's home (see Source 1 on page 234). Describe how a peasant might have felt when viewing the windows in the cathedral.

2   Examine the position of the windows and how they were lit, to explain why they gave the viewer a sense of 'godliness' – awe and wonder.

3   Many of the windows make strong links between the Church and the king. Identify what those links are. You will need to look for symbols belonging to the royal family.

4   Explain how links between the Church and the king in the Chartres windows may have helped to maintain power over the peasants. In your explanation, refer to:
   * the emotional reaction peasants would have had to the windows
   * the way the feudal system functioned
   * the benefits for the Church and nobility of these things being linked in the minds of the peasants.

The Black Death in Asia, Europe and Africa

During the 14th century, a deadly outbreak of plague known as the Black Death spread across Asia, Europe and Africa. Scientists and historians now believe that merchants returning home from the East introduced the disease to Europe in 1347. Within three years, it had spread across most of Asia, Europe and into north Africa. A lack of medical knowledge, filthy living conditions, superstitions and fear helped the disease to spread quickly. In Europe alone, 25 million people – one-third of the population – died.

10A

How was society organised at the time of the Black Death?

1   Living conditions in towns in the early 14th century were filthy and crowded, and people had poor diets. How do you think these two factors might have made people more susceptible to diseases such as the Black Death?

10B

What were the causes of the Black Death and how did it spread?

1   By the time the Black Death pandemic began, numerous land and sea trade routes had been established all over Europe, Asia and Africa. How do you think these trade routes might have enabled the rapid spread of the Black Death?

chapter 10

10C

What were the effects of the Black Death?

1   The Black Death caused a huge drop in the population, which meant there were far fewer peasants available to work. In what ways do you think this might have led to a decrease in the power of landowners and the wealthy over the peasant class?

10.1 The Black Death: a timeline

It is thought that the plague initially infected rodents like this black rat.

The hand of a victim of septicemic plague, the rarest (and deadliest) form of the plague

1330 CE

1330s
Widespread famine and plague breaks out in north-eastern China

1340

1346
Plague reaches the trading city of Kaffa on the Black Sea; Genoan merchants return to Sicily, spreading the disease

Source 1 A timeline of some key events and developments related to the medieval Black Death pandemic

The plague struck down people of all ages and from all walks of life.

Leader of the Peasants' Revolt, Wat Tyler, was wounded during a meeting between peasants and the English king, Richard II. Later, Tyler was beheaded.

1347
Genoan merchants on their return journey to Sicily spread the plague to Constantinople, Cyprus and then into modern-day Italy; it reaches Venice as well as Alexandria in Egypt.

1349
Widespread persecution of Jews, with thousands burned to death; plague reaches Aswan in Egypt and the entire Islamic world is now affected

1353
Some 35 million deaths from the plague recorded in China since the 1330s

1381
The Peasants' Revolt breaks out in England

1350

1360

1380

1351
The Statute of Labourers is introduced, making it illegal for employers to increase workers' wages; plague reaches Russia

1350
Plague has largely run its course in the countries around the Mediterranean Sea

1348
Plague reaches the French cities of Marseilles and Paris, then moves to England; it moves along the Rhine River and into modern-day Belgium, the Netherlands and Luxembourg; outbreaks occur in Tunis, Cairo and Gaza; the flagellant movement gains popularity; serious persecution of Jews starts

People known as **flagellants** who believed the plague was God's punishment flogged themselves until they bled, in the hope of obtaining God's forgiveness.

Check your learning 10.1

Remember and understand

1 In what year did the plague reach Sicily?

2 In what year did serious persecution of the Jews begin?

Apply and analyse

3 Using the timeline, calculate how long the medieval plague epidemic lasted in Europe.

Evaluate and create

4 Conduct some Internet research to find out the years in which the Black Death reached Scandinavia. Add this to your own version of the timeline.

10.2 Life in Asia, Europe and Africa before the Black Death

In order to understand how and why the Black Death spread across Asia, Europe and Africa, it is necessary to look at how **societies** in these parts of the world were organised at the time, and what living and working conditions were like for the people there.

The information below provides a brief outline of what conditions were like across Asia, Europe and Africa before the first outbreaks of the Black Death.

Societies in Asia

The expansion of the Mongol Empire across Asia between the early 13th century and mid 14th century had significant impacts on the societies that it conquered. The Mongols introduced positive changes such as religious freedom, and also expanded trading routes (like the **Silk Road**) that increased contact and trade with the West. Not all elements of Mongol rule in Asia were quite so positive though. Their conquests of new regions often resulted in the deaths of many people and disrupted vital activities such as farming and food production. In addition to this, a series of civil wars and natural disasters across Asia led to crop failures in the early 1330s. This in turn caused widespread famine across the region. Weakened and malnourished, many people were no match for the plague outbreak that followed.

Societies in Africa

Most of what we know about social and economic conditions in Africa during the 14th century relates to North Africa and Egypt. This period saw the dominance of a number of powerful Islamic nations – in particular the Mamluk Sultanate of Egypt and the Marinid, Zayanid and Hafsid Dynasties across North Africa (covering modern-day Morocco, Algeria, Tunisia and Libya). Over many years, each of these Islamic nations struggled for control over different parts of the region. Despite many ongoing conflicts, sea trade and commerce thrived. Port cities along the coast of North Africa, such as Tunis and Tripoli, traded extensively with European societies, particularly those on the Italian Peninsula. There were also busy trade routes between Alexandria in Egypt and Constantinople, as well as other ports around the Black Sea. When the plague broke out, all of these trade routes and centres became gateways for the Black Death **pandemic**.

Societies in Europe

In contrast to societies in Asia and Africa, there is a great deal of evidence relating to the outbreak of plague in Europe. From the 10th century onwards, the system of **feudalism** that had organised society and provided protection and stability across the continent began to weaken. There were a number of reasons for this, but most historians agree that the changes brought about by a series of Holy Wars (known as the **Crusades**) had a lot to do with this. New ideas, products and wealth brought back to Europe from these wars

Source 1 A medieval illustration of serfs harvesting grain in a lord's manor fields

led to a time of great economic success between the 10th and 12th centuries. Trade with societies across Asia and Africa increased and towns and cities grew rapidly. This prosperity led to a huge increase in the birth rate. As more and more people moved to the cities, conditions became difficult. Many cities became extremely overcrowded and living conditions were unhygienic. As a result, the diet, housing and general hygiene of the average city dweller was very poor.

Despite the population explosion across Europe, farming methods had remained inefficient and farmers struggled to grow enough food to feed the population. In addition to this, from around 1250 onwards the weather also became unusually cold and wet, causing a series of crop failures. All of these factors led to a number of famines across Europe and many died from starvation. Just like those living in Asia and Africa, the people of Europe were not prepared for what they were to face with the first outbreak of the Black Death.

Historical evidence relating to the Black Death

One of the difficulties associated with studying the spread of the Black Death across Asia and Africa during the 14th century is that very few detailed sources of evidence are currently available. There are a number of different reasons for this. Although societies there were often quite advanced, the records they kept have either been lost over time or have not yet been analysed by historians in the West. Despite

Source 2 An artist's impression of a typical medieval town in Italy during the 14th century

this, there are some general sources available that outline the path taken as the disease spread and who was affected.

By contrast, many sources of evidence relating to Europe are available, and Western historians have spent considerable time analysing them. In countries such as England and Italy, local authorities and members of the church kept written records (such as birth and death notices, illuminated **manuscripts**, population surveys and **census** information). All across Europe, artists, poets and writers also recorded their experiences for future generations.

Given that much more research and analysis has been carried out on the effects of the Black Death across Europe, this chapter will largely focus on the experiences of the people there.

Check your learning 10.2

Remember and understand

1. What were the positive and negative effects of Mongol conquest in Asia?
2. What were some of the trading routes between north Africa and Europe?
3. What was feudalism? How did it help to organise medieval societies?
4. Which group of people became the new middle class in medieval cities? Explain why.

Apply and analyse

5. Why do you think medieval peasants, working under systems such as feudalism, might have been attracted to town life?

Evaluate and create

6. With a partner, write a script for a conversation a peasant farmer might have had with his wife to persuade her to leave the manor and go with him to live in a nearby town.

10.3 Growth of trade and cities

From the middle of the 11th century, European explorers such as Marco Polo (1254–1324) opened up the 'world of the East' to Europe. Marco Polo spent many years travelling in China and Mongolia, among other parts of Asia. The luxury goods that he and other merchants brought back included spices, semi-precious stones and silks. Wealthy Europeans were eager for more – and eager for knowledge about this part of the world that had been unknown to them.

Trade was also beginning to boom between European towns and places such as Constantinople, Damascus, Moscow and north Africa's Alexandria. Goods were carried back and forth along a network of land and sea trade routes (see Source 1), often to be sold in huge open-air markets.

Growing trade routes

Much early medieval trade between West and East took place along the Silk Road. By the mid 1200s, this network of dirt tracks – stretching from China in the east, westwards to the Mediterranean Sea – was controlled by the Mongol Empire. Mongol protection meant safer passage and more reliable delivery of goods.

But this reliance on the Silk Road for trade would not last. New ways to reach markets faster and more cheaply would be sought. This would eventually change the balance of power between the East and West and weaken the authority of the Mongols.

New sea routes

Countries such as Portugal and Spain led the push in Europe to discover new sea routes to eastern markets –

and to claim lands in the **New World** (the Americas). They were most likely motivated by a combination of curiosity and a desire to impose their culture on others they thought of as primitive. Most of all, they had a desire for wealth.

The European sailors of the late 1400s and beyond pushed further and further into unknown waters. Many sailors died at sea looking for new lands and trading partners, but eventually new lands in the East and elsewhere were reached by sea. This opened the door for the exchange of many new products that significantly changed societies.

Not only were these new sea routes faster than land travel they also made it possible to transport greater volumes of cargo. There were many risks, including being shipwrecked on rocks, facing wild storms at sea and being attacked by pirates. However, as ship design improved and navigational skills strengthened, some risks were reduced.

KEY MEDIEVAL TRADE ROUTES AND GOODS TRADED
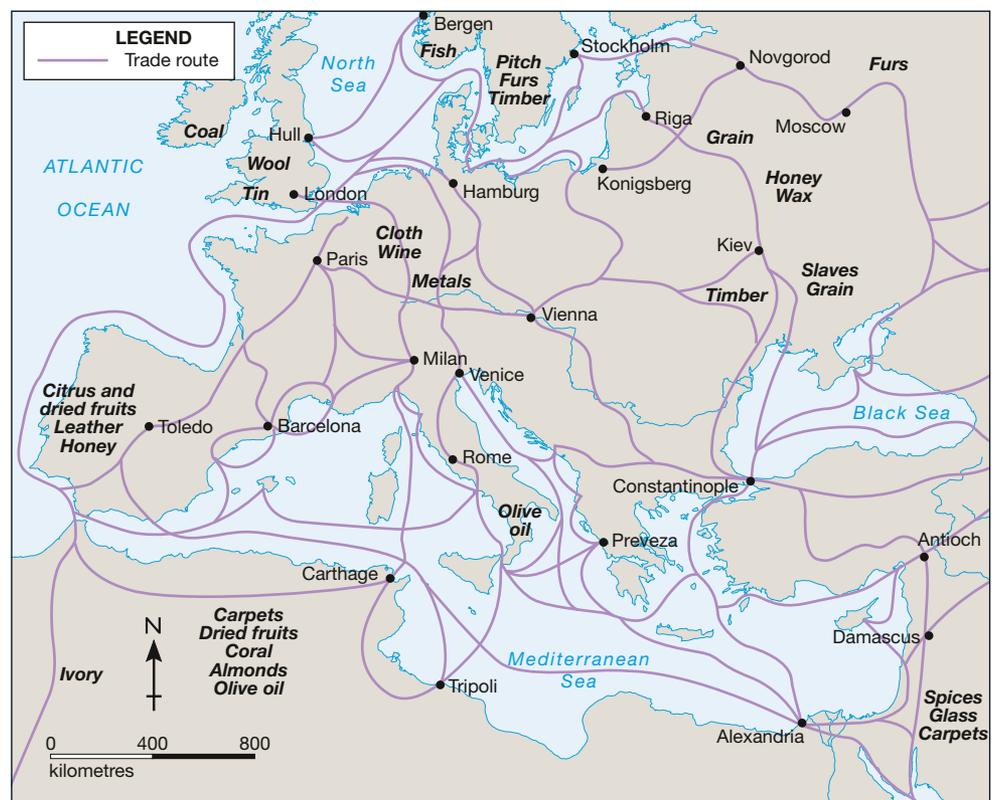
Source 1

Source: Oxford University Press

New towns and cities

During the early part of the medieval period, societies and economies of Europe were based around agriculture and land ownership. These various kingdoms were largely divided into feudal estates and manors, owned by nobles and farmed by peasants. For centuries, this system was successful because these peasants needed the protection of these nobles and their knights against attacks from barbarians; however, from about 900 CE on, these attacks began to ease. This meant that common people no longer needed the protection from their lords and the system of feudalism began to weaken. Slowly, people began moving to, and living in, towns.

A number of different types of town began to pop up. Many grew up around castles or manor houses that had been established for hundreds of years, while others were newly settled close to ports, rivers and roads that were important for trade and transport. As trade increased, so did the size and populations of these towns. To begin with, the populations of these towns across Europe were largely made up of people who had left manor estates. Many of the peasants that resettled there went on to earn their living as skilled craftspeople, labourers or merchants.

Over the next few centuries, a number of other events further weakened feudalism and fuelled the growth of towns. The Crusades, in particular, played an important role. Before heading off to fight, some lords sold their estates; others never returned at all. Those who did return brought new ideas, new customs and new products to trade. As trade increased, so too did the number of towns. Over time, many of these towns grew into cities. By 1200, there were about 600 cities in Europe, three times as many as there had been 50 years earlier. Because of this rapid growth, conditions in these towns and cities were often cramped and unhygienic.

Source 2 A 15th-century illuminated manuscript showing Marco Polo sailing from Venice in 1271, on his way to the East

Check your learning 10.3

Remember and understand

1 Explain why Marco Polo's adventures created such interest in Europe on his return.

2 How did the discovery of new sea routes improve trade in medieval times?

Apply and analyse

3 Many medieval people took great risks in the interests of trade, even exploring unknown seas.
   a Why do you think they were prepared to do this?
   b Do you think that people today also take risks for the same reasons? Justify your view.

4 Give three reasons why towns and cities began popping up across Europe from about the 10th century. Which of these reasons do you think is the most important?

10.4 Living conditions

Living conditions across Europe during the 12th century were often very harsh. A population boom in the 11th century led to a surge in the number of people living in towns and cities and competition for food and accommodation was tough.

Living conditions in towns

People living in medieval towns and cities included both the very wealthy and the very poor. Rich people might live in castles or manor houses on the outskirts of towns, or in tall, impressive homes in the town centre.

Source 1

> The city was well laid out within, and constructed with many beautiful houses … Buildings were improved to make them comfortable and elegant, and fine examples of all sorts of improvements were sought from outside the city.
>
> An extract from the writings of Florence-based writer and banker Giovanni Villani (*c*. 1275–1348) describing his city in the early 1300s

The poor part of town

Homes for the poor in medieval towns were often just one or two rooms in one of the shabby multi-storeyed buildings clustered around a market area. Many of these buildings were joined together in a similar way to modern apartment blocks. Family businesses were typically run from the ground floor (which often had a dirt floor). Floors on upper levels were often covered with straw. Over time, this floor covering became a stinking squashed mat of rotting food, bones, bodily wastes and grease. Bathing was not seen as a daily routine in those days. In fact, some people thought that washing was bad for their health! The poor and rich alike lived with lice and fleas and scurrying rats.

Source 2 Part of a medieval European town, still standing today, with some modern additions

Source 3 A modern artist's impression of a medieval European town around the mid 1400s. Note the busy marketplace.

The dirty streets

Town centres were dirty and smelly. Rotting food scraps and sewage typically blocked the drains. Each day, household rubbish and the contents of chamber pots (used for going to the toilet) were tossed out of windows. It was common to see animals such as pigs and chickens roaming the streets and alleyways. The smell of animal manure and human waste was constant, and the streets were a thriving environment for rats and other vermin.

Narrow stone or dirt streets separated the rows of what were, at first, mostly wooden buildings with thatched or shingled roofs. Such flammable materials made these buildings major fire risks.

Market activity

Medieval towns and cities were noisy, crowded places. At the centre of many towns there was a marketplace where goods were bought and sold. Festivals were also held there. One might hear animals bleating, the clatter of cart wheels, the cries of merchants as they carried out their trade, the songs and music of wandering **minstrels**, and the yells of running children.

Living conditions in the country

People living in the country also faced very difficult conditions. Houses were small with dirt floors covered in straw. These houses were usually dirty, smelly and dark, and were often shared with animals such as chickens and pigs. Windows were narrow openings that could be boarded up in winter. The toilet was a hole in the ground outside.

Peasants living in the country worked long hours to produce their food, and were often undernourished. This made them susceptible to many different kinds of illnesses.

Life expectancy

Life expectancy during the 11th and 12th centuries was very low compared to today. Infant mortality (death) rates were very high, and if an infant survived, on average they could only expect to live to be about 35 years old if they were male, and about 31 years if they were female. Many women died during childbirth, whereas many more males died as children before the age of 10.

Life expectancy in medieval Europe became worse from about 1300 (even before the Black Death) as a result of famine and the dirty, overcrowded living conditions in cities.

Check your learning 10.4

Remember and understand

1 Why were towns and cities – especially the poorer parts – such fertile areas for the spread of the plague?
2 What was the average life expectancy for a male living in medieval Europe?
3 What was the average life expectancy for a female living in medieval Europe?
4 Why do you think the average life expectancy was lower for women than men?

Apply and analyse

5 Divisions in medieval societies helped to create living conditions in some towns and cities that were a breeding ground for disease. Think about the town or city in which your school is located. With a partner, answer the following questions:
   a How are social differences reflected in the layout and appearance of your town or city?
   b What health risks and social problems might be created by some areas of your town or city? Why?
   c What steps have already been taken to improve this situation? Can you suggest others?

Evaluate and create

6 With a partner, draw a concept map exploring some of the hardships you think that those living in early medieval towns might have faced. Think how these hardships might have affected family life, health, lifestyle, employment and life span.

10A rich task

Medieval London – a dirty old town

How people in medieval cities lived is very different from how we live in cities today. In medieval London, the streets and roads were still bare earth and the ground was covered with the excrement of people and animals, as well as animal entrails and rotting food.
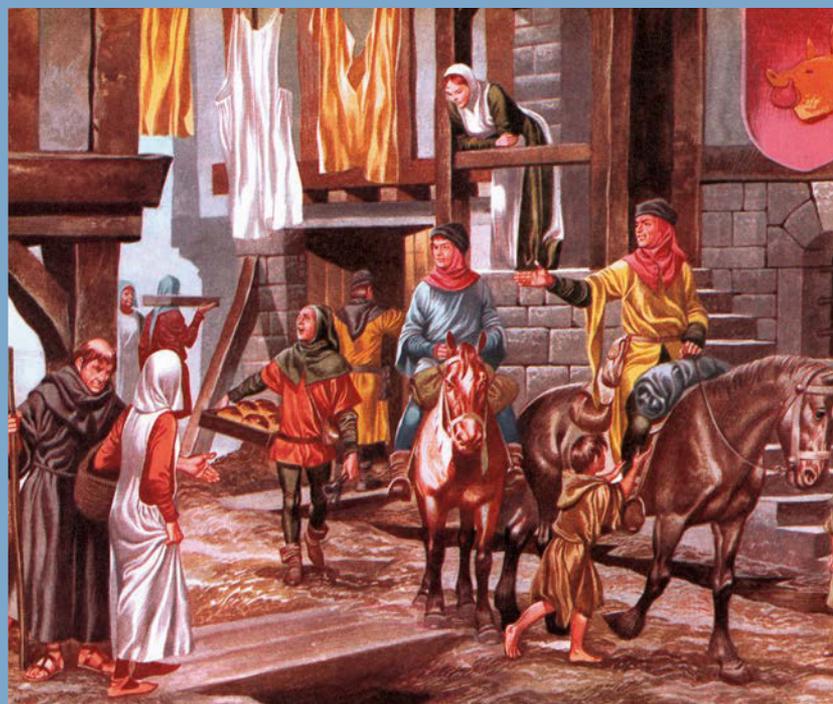
From our point of view today, it seems hard to believe that people were happy to live in these conditions. Were no attempts made in the 14th century to control the filth in the streets of London? The following extracts provide evidence of early moves to clean up London.

Source 1

Concerning dung
No-one is to throw straw, dust, dung, sawdust, nor any other unpleasant material into the streets or lanes. Rather they are to have them removed by the rakers or others to places designated for the dumping of such dirt, under penalty of 2s. [for default, payable] to the Chamber.

Concerning pigs and cows
No-one is to raise pigs, bulls, or cows within their houses, under penalty of seizure of the same to the Chamber.

Extract from Corporation of London Records Office, Liber Albus, f.213, *c*. early 13th century, translated and reproduced in Henry Thomas Riley, ed. Liber Albus, Rolls Series, no.12, vol.1 (1859), 335

Source 3

Next case heard by the wardmen of the city of London: the lane called Ebbegate was a right of way for all men until it was blocked by Thomas at Wytte and William de Hockele, who got together and built latrines [toilets] which stuck out from the walls of the houses. From these latrines human filth falls on the heads of the passers-by.

Extract from the *Book of Customs* (1321) which recorded court cases brought against people in London in the Middle Ages

Source 4

Almost all the floors are made of clay and rushes from the marshes, so carelessly removed that the bottom layers sometimes remain for 20 years, keeping there below spittle and vomit and urine of dogs and men, beer that has been thrown down, leftovers of fishes and filth unimaginable ... It would help also if people made the council keep the streets less dirty from filth and urine.

A letter from the Dutch scholar Erasmus to an English doctor (1524), with his ideas to stop plagues

Source 2 An artist's impression of the busy streets in medieval London

Identifying purpose and point of view

Whenever you use a historical source, you need to evaluate its usefulness and accuracy. The first thing you need to do is find out who created it and when, and what sources *they* might have used. Another aspect is to work out *why* the source was created. Most primary sources are created for specific purposes; for example, a letter might be intended to share news with a friend or convince somebody to do something. Even sources that are intended to inform us about the past, such as a history website or documentary, can have another purpose, such as to entertain or make money. Therefore, we need to be able to identify the point of view or attitude presented in a source (**bias**), and then decide whether it is useful and relevant.

Ask yourself:

- Why was the source written or produced?
  - Are there personal motives?
  - Are there political reasons?
  - Is it propaganda?

- How was it written or produced?
  - Does it give a particular point of view?
  - Does it give a detached, balanced account?
  - Is it biased either for or against the issue?

Remember, just because a source is biased does not automatically mean that it is not useful. It may be extremely useful if you are investigating the opinions of a particular group at a particular time. However, if you are investigating 'the facts' of an event, a biased source may be much less useful. To make a conclusion about whether a source is useful, you need to be very clear about what you want to use the source for.

Apply the skill

1. For each of the three written sources, name the main reason why they were produced.
2. What do these sources reveal about the state of London streets in medieval times?
3. How reliable do you think each of these sources are?
4. For each of the sources, consider whether there is any possible bias shown and why this might be the case.

1. Read Source 4 – taken from a letter by Erasmus to an English doctor. Put yourself in the position of the English doctor. Do some research on the Internet to try to find out what English doctors at the time thought of the filth in the streets and in people's houses. Find out whether they thought this increased the risk of disease. Would the English doctor have agreed with Erasmus or have had another point of view? Write a short response to the letter from the English doctor's point of view.

10.5 Causes and symptoms of the Black Death

Causes of the Black Death

The Black Death was a plague pandemic that broke out in parts of Asia, Africa and Europe between the early 1330s and 1350s.

A pandemic is an infectious disease that spreads through human populations across a large region, or even worldwide, in a short period of time. This particular pandemic did not become known as the Black Death until many years later. It was given this name because of the black lumps, or **buboes**, that appeared on the victim's skin.

There had been outbreaks of the plague in previous centuries, but the outbreak that occurred in the 14th century was far more deadly than previous ones. By the time it ran its course, it is estimated that more than a third of the population in Europe had died from it.

The Black Death is now believed to have been a combination of three types of plague – **bubonic plague**, pneumonic plague and septicemic plague. Bubonic plague is transmitted by infected fleas carried by rats. Rats were very common in the dirty, crowded conditions of medieval Europe. When the rat carrying the flea died from the plague, the flea would jump onto a person to feed from their blood. The person bitten by the flea would then be infected. Bubonic plague was the most common form of plague.

Pneumonic plague was the second most common form of plague. It attacked a person's respiratory system and was spread through the air by a victim's cough. It was far more contagious and deadly than the bubonic plague.

Septicemic plague was the rarest and deadliest form of the Black Death. It was also spread by infected fleas, but moves directly into the

Source 1 Medieval artist's impression of merchants conducting their trade. It was medieval traders, many say, who were responsible for spreading the pandemic.

bloodstream and becomes life threatening even before buboes have had time to form on the skin. Septicemic plague killed almost 100 per cent of victims.

Medieval societies were significantly changed by the Black Death. Town populations were devastated, trade virtually stopped and many manor lands and businesses were ruined. Family and social relationships were also ruined, for both the rich and the poor.

Symptoms of the Black Death

For most sufferers, the first sign of the Black Death was large bulges or lumps that appeared on the skin, usually in the groin, in the armpits or on the neck. These lumps were known as buboes, and initially appeared as a red colour, before turning purple, and then finally black. These buboes would spread all over the body. The victim would also get a fever and headaches. Over the next few days, the victim would lose motor control, so that they could not speak or walk properly. They would suffer much pain and vomiting, and become delirious.

The average time of death from the first symptom was between three and seven days. It is believed that between 50 and 75 per cent of those who caught the disease died.

Source 2 This detail, called 'Suffering man', from a painting by Matthias Grünewald (*c*. 1480–1528) provides evidence of why this terrible disease caused such fear and horror.
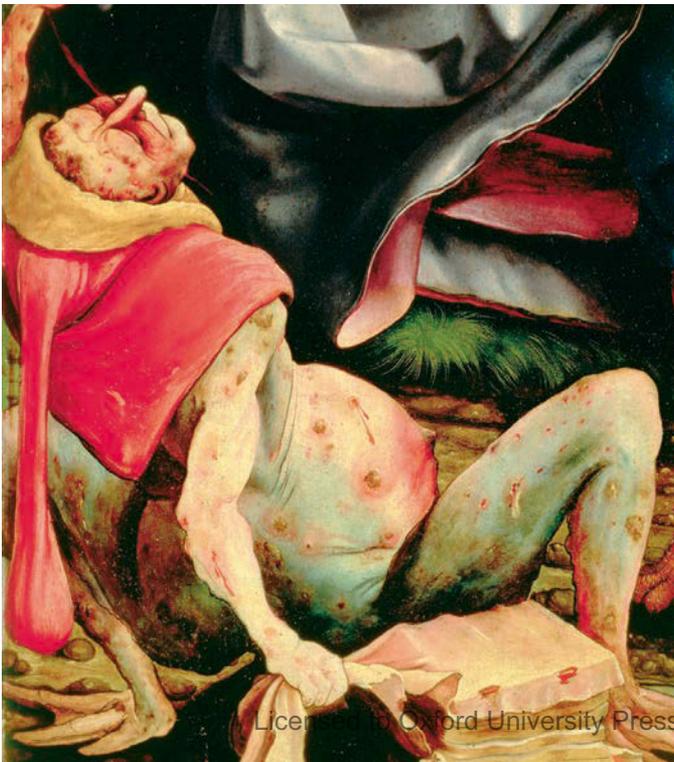
Source 3 *Yersinia pestis* bacteria – the bacteria that lived in the stomach of fleas and that caused the bubonic plague

Source 4 The black rat helped spread the bubonic plague throughout medieval Asia, Africa and Europe.

Check your learning 10.5

Remember and understand

1 What is a pandemic?
2 What were the three types of plague that became known as the Black Death?
3 Why did the disease become known as the Black Death?

Evaluate and create

4 Conduct some research into the bacterium *Yersinia pestis*. Find out:
   a who discovered it as the real cause of the Black Death, and when
   b who discovered the first effective treatment for the Black Death, and when.

   Write a short report to show your findings.

10.6 The spread of the Black Death

From around 1330 to 1351, the Black Death swept through Asia, Europe, north Africa and the Middle East, killing an estimated 100 million people.

Origins of the Black Death

Most scientists and historians believe that an especially lethal strain of the plague broke out in China in the early 1330s, following a devastating famine. This area was then known as the Yuan Empire (covering most of present-day China and Mongolia), which had been under Mongol rule since 1279. Some think that the disease was first carried westwards by Mongols travelling along the Silk Road.

In 1346, the pandemic eventually reached a trading city on the Black Sea called Kaffa that was controlled by Genoan (Italian) merchants (see Source 1). At that time, Muslim Turks (called **Tatars**) were attacking Kaffa. The attacking forces of Tartars were infected with the plague. A 14th-century Italian writer, Gabriele de' Mussi, described how the Tatars 'ordered dead corpses [of their men] to be placed in **catapults** and lobbed [thrown] into the city in the hope that the intolerable stench would kill everyone inside. What seemed like mountains of dead were thrown'. The Tatar attack began to break down as the disease spread rapidly among their troops, killing all but a few. The Genoan merchants in Kaffa took the opportunity to flee to their boats.

The Genoans, however, were now also carrying the disease. On the way home, they infected those they came in contact with, including merchants in Constantinople (who, in turn, carried the plague further east). When the ships reached their home port back in Italy, crowds flocked to greet them. These survivors unknowingly introduced the disease to their homeland via their own infection and the rats on board (who jumped to land).

ORIGINS AND SPREAD OF THE BLACK DEATH
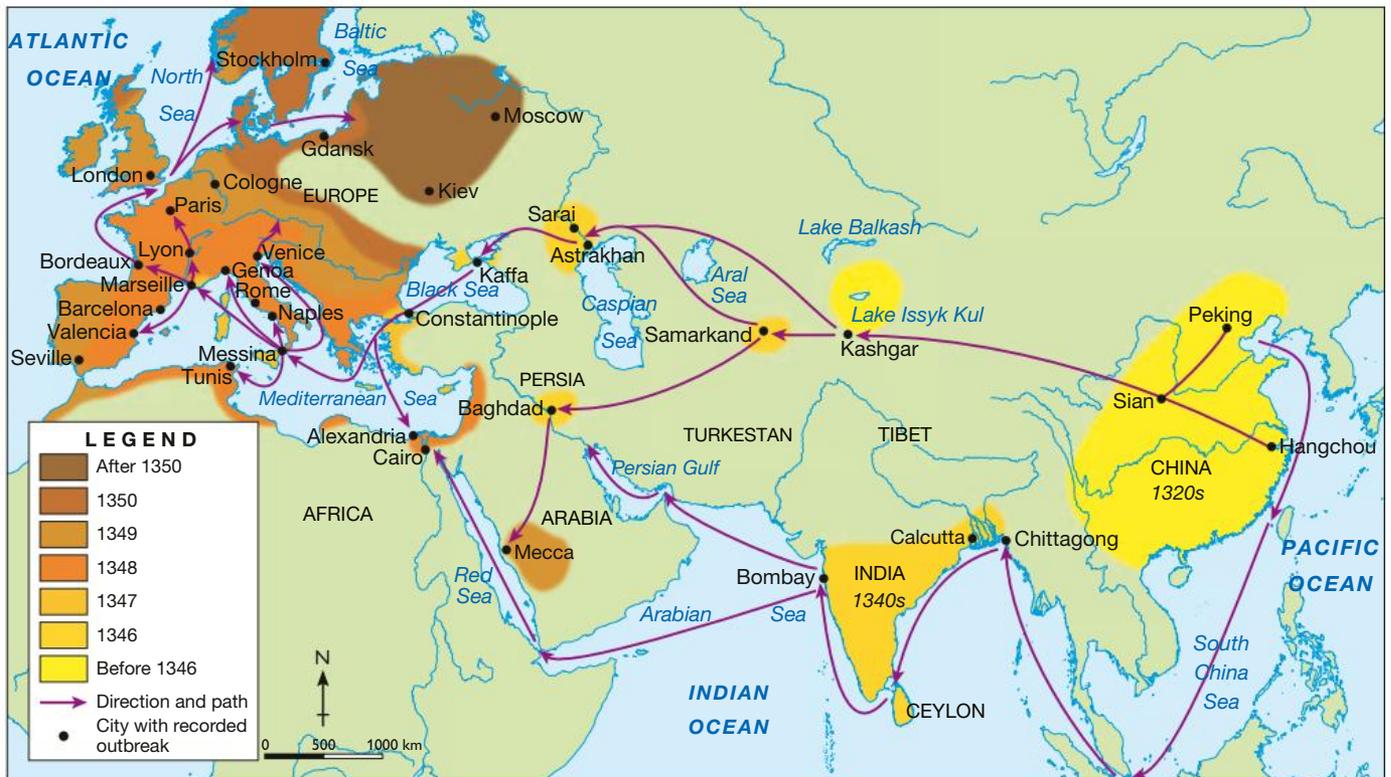
Source 1

Source: Oxford University Press

Source 2 The tower of a 14th–19th-century Genoese fortress in Kaffa (modern-day Feodosiya in Ukraine)

The rapid spread of the Black Death

The spread across Europe

Once the Black Death had moved westwards from Asia, it raced through Europe (see Source 1). By the end of 1347, most Mediterranean islands were infected. Many Mediterranean seaports were also infected. By 1348, the Black Death was in Marseilles and, then, other cities in the south of France. From there, it moved into Spain and further into Italy.

Later in 1348 the plague was carried across to England by sea. In 1349, the plague spread across the rest of the British Isles and then across the North Sea into Norway. It also continued its spread across mainland Europe, reaching Germany. By 1350 the plague had further spread into eastern Europe, Russia and the rest of Scandinavia. By 1352 the plague was widespread across Europe.

The spread into Egypt and north Africa

Europe was not the only area devastated by the Black Death. By 1347, it reached Alexandria in north Africa, carried by infected travellers on ships. An Arab writer described the arrival there of a slave ship that had set out to sea from Constantinople with over 330 people on board. By the time it arrived in Alexandria, there were only three survivors.

By early 1348, up to 1000 people were dying per day in Alexandria. In fact, Alexandria's population did not return to what it was before the plague until hundreds of years later.

In other villages of the Nile delta, the death rate was so high that towns were abandoned, fishing almost stopped and law courts were closed. In the town of Bilbeis, for example, bodies were reported to be piled up in mosques and shops. Roads were littered with rotting corpses, which were eaten by dogs and rats.

The southward spread of the plague from Alexandria saw it travel up the Nile Valley (again, mostly through infected boat passengers). About 200 000 people died in Cairo alone – 37 per cent of the city's population. By February 1349, the Black Death had reached Aswan, 1000 kilometres south of Cairo.

To the west of Egypt, the plague's advance followed the north African coastline. It reached Tunis in April 1348 – most likely through trading links with Sicily. From there it pushed into today's Algeria and Morocco. Interestingly, **nomadic** Arabs (who lived in tents, moving from place to place) were not struck down by the plague.

The spread into the Middle East

The Black Death spread to Yemen in the east by 1351. The king of Yemen, and his attendants and **courtiers**, carried the disease to their home country after their release from a Cairo prison.

Three years earlier, in April 1348, the plague had already reached Gaza. From there it spread to Palestine and Syria. Less than a year later, it had killed 50 000 people in Damascus – roughly half the population. Eventually, the whole of the Islamic world was affected, especially those living in towns or cities.

Check your learning 10.6

Remember and understand

1 Where was the initial outbreak of the Black Death believed to have occurred?

2 Describe the impact of the Black Death on Egypt during 1348 and 1349.

Apply and analyse

3 Write a paragraph outlining the role that trade and trade routes played in the rapid spread of the Black Death.

4 Why do you think it is that nomadic Arabs were able to escape the Black Death?

Evaluate and create

5 Create a timeline that lists key events in the spread of the pandemic from east to west. Include key dates for Asia, the Middle East, Africa and Europe.

10.7 Medicine at the time of the Black Death

Today we know far more about many health conditions and diseases than medieval people did. Those suffering from the Black Death in the 14th century had no idea why they were dying. They knew nothing about germs or bacteria. The cause – the bacterium *Yersinia pestis* (see Source 3 on page 279) – was not discovered until the late 1800s.

Beliefs about the causes of the Black Death

When the Black Death broke out, some people looked to the skies for answers. In medieval times, astronomical events to do with the planets, the Sun and the Moon were often believed to trigger events on Earth. One such event occurred on 20 March 1345, when the planets of Jupiter, Saturn and Mars were aligned closely in the night sky. This unusual event was considered by certain people to have caused a toxic cloud to form over India. As this cloud drifted on, it was said to infect people below with the plague.

At this time, bad smells were also commonly considered to be the cause of disease. To counteract the odours, people carried small bunches of flowers or parcels filled with fragrant herbs, spices or flowers. Green wood (such as from the rosemary plant) was burned in the home to give off a fragrant smoke. People were encouraged by doctors not to sleep on their backs because it was believed that bad smells could slip too easily up their nostrils.

Medical care at the time of the Black Death

By today's standards, medieval medical care was very primitive. There were some university-trained doctors in Europe, but only the wealthiest people in society could afford to visit them. One of these doctors would diagnose the problem, prescribe a treatment and then possibly refer the patient to a surgeon. Poor people received medical attention from **monks** or **nuns**, or healers in their community. Often, healers were older women, respected for their knowledge of illness and herbal treatments.

keyconcept: Evidence

Plague doctors

Plague doctors were specialist physicians hired by towns and cities to fight the Black Death, but they were not always well trained. Most could do little for victims, except separate them from people who had not yet contracted the plague and burn their clothing. They also prayed for them.

Source 1 provides evidence of how plague physicians typically dressed. Heavy floor-length coats extended up the back of the head. They also wore a hat, and a bird-like beak, which was filled with strong-smelling items such as mint, spices, garlic, flowers or vinegar. This, it was hoped, would protect them from contracting the plague and from coming into contact with its associated bad smells.

For more information on the key concept of evidence, refer to page 187 of 'The history toolkit'.

Source 1 A 19th-century illustration of a typical plague doctor. Earlier medieval plague doctors were similarly dressed.

Medical treatments

Besides taking or using herbs, one of the most common medical treatments was **blood letting**. Blood letting was believed to cure illness and prevent diseases such as the Black Death by removing 'dirty' blood. Leeches were sometimes used to suck out blood, or a person's vein was cut and a set volume of blood was collected in a dish. Often this procedure was done in a barber's shop – and the person who did it was the barber.

Other medical procedures included forcing a patient to vomit, or bringing on severe sweating or diarrhoea. Some doctors treated the buboes of plague victims by cutting them open to release blood. Then a mixture made from crushed dried toads and dried human faeces was spread over the open, pus-filled wound.

Surgeons

As discussed, there was a very limited understanding of human **anatomy** across medieval Europe and surgical treatments were very crude (see Source 3). In general, surgeons knew very little of what lay below the skin, despite the fact that some were university educated.

Medieval operating tools included saws, knives, hot irons and sharp instruments for blood letting. None of these were sterilised, and operations were often carried out in the open – even major procedures such as amputations. The success rates for major surgery were, unsurprisingly, very low.

Anaesthetics did not exist in medieval Europe, so the pain of surgery or other treatment had to be endured. Poor people might be given a piece of wood to bite on. More wealthy people were sometimes given a sedating drug like alcohol mixed with opium. Another sedative called 'dwale' was often used but it was deadly if given in the wrong amounts. Besides opium and dwale, lettuce juice, vinegar and the bile of a castrated wild pig were also used to relieve the pain of surgery.

Source 2 A 15th-century illustration of blood letting

Source 3 An artist's depiction of a medieval surgeon treating a broken leg. The pain of such treatments simply had to be endured.

Check your learning 10.7

Remember and understand

1 Medieval people did not know what caused the plague, but they did have some ideas. Describe two possible explanations put forward.
2 Who might the very wealthy go to see about a medical condition? Who might the very poor go to see? Why?
3 What types of tools did medieval surgeons use?

Apply and analyse

4 Describe two different methods used by medieval surgeons to control pain during surgery. How effective do you think each might have been?

Evaluate and create

5 Design and make a mask that meets the requirements of a medieval plague doctor. Share your creations with the class, explaining how you made them.

Medieval medicine

Doctors in medieval Europe had little knowledge, skills or resources to deal with serious diseases and health conditions. Physicians believed that illness was a result of the body's 'humours' being out of balance. Popular treatments used by physicians to restore balance included blood letting, which involved draining an amount of blood from the patient as a cure or alternatively attaching leeches to a patient's skin to suck blood from the patient. Other treatments involved herbal remedies. Some of these remedies were dangerous as they could contain poisons, but other herbs are still used today to help treat some health conditions.

Herb	Ailment
Aloe	hair loss, wounds
Anise	bad breath, bee stings
Basil	stomach upset, tumours
Caraway	gas, indigestion
Chamomile	indigestion, headache
Comfrey	broken bones, breathing difficulty
Coriander	cramps, plague
Dandelion	boils, itching
Dill	gas, hiccups
Fennel	insanity, body odour
Garlic	colds, heart problems
Ginger	flu, stomach upset
Liquorice	asthma, stomach upset
Oregano	indigestion, cramps
Parsley	epilepsy, arthritis
Pepper	depression, pain
Rosemary	paralysis, dandruff
Sage	worms, wounds
St John's wort	snakebite, burns
Thyme	worms, depression
Valerian	sleeplessness, pain

Source 2 Some of the herbs used in medieval times and a selection of medical conditions for which they were prescribed
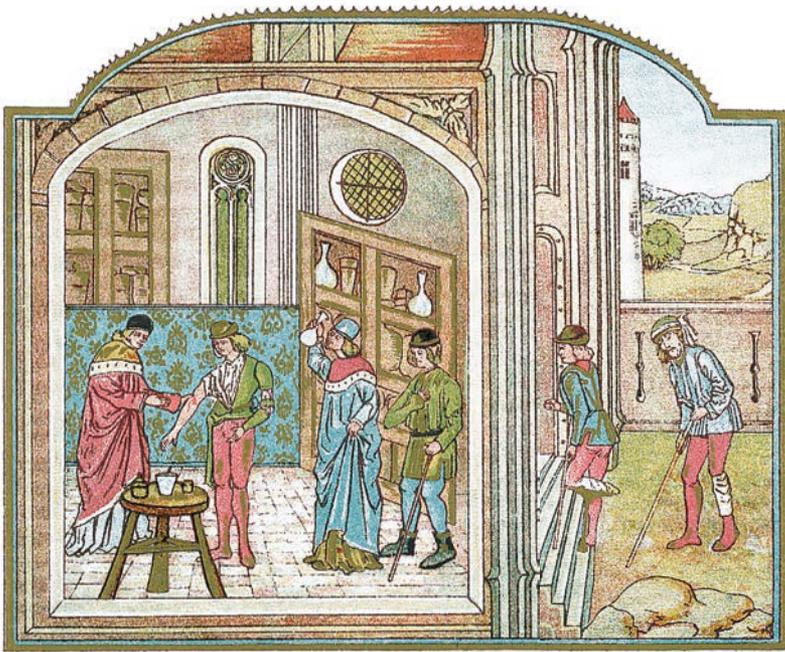
Source 1 *The Leech's Chamber* shows sick people going to the doctor to have blood extracted using leeches, *c.* 16th century.
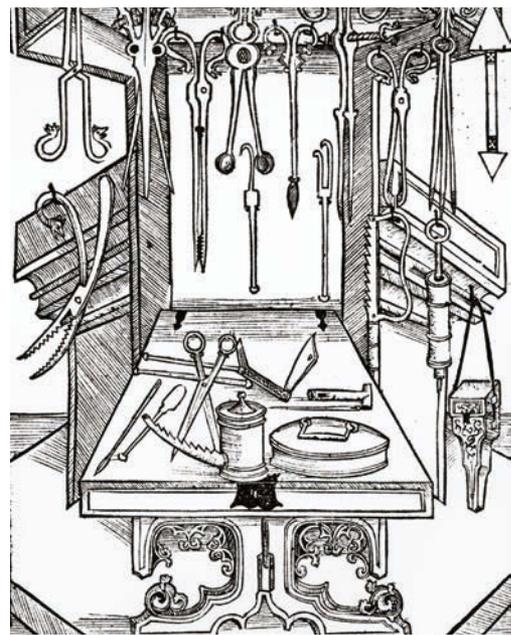
Source 3 This woodcut print shows assorted medical tools from the medieval period, *c.* 15th century

Source 4

If a depression caused by various fever attacks causes a person headaches, he should take mallow and twice that amount of sage, crush these into a pulp in a mortar and pour a bit of olive oil on it … He should then apply it over the skull from the forehead to the neck and wrap a cloth over it.

An extract from *Liber Compositae Medicinae* by Hildegard of Bingen (1098–1179)

skill**drill**

Comparing, selecting and using information from a range of sources as evidence

When conducting a historical inquiry, it is important to locate, compare, select and use information from a range of sources. By doing this, you can be sure that the evidence you gather from these sources is fair, balanced and accurate, rather than biased – that is, only based on the point of view of one person.

There are a number of different methods you can use to compare and select information for your sources; one of the simplest and most effective is to use source evaluation chart. Source evaluation charts can be very simple to create, but will help you quickly and easily decide which sources provide the most useful, relevant and reliable evidence. To create a simple source evaluation chart, follow these steps:

Step 1 Create a table that is four columns wide and has as many rows as required – this will vary depending on how many sources you are using.

Step 2 List your inquiry question at the top of the table, as well as any possible hypotheses you may have developed during your research.

Step 3 In column 1, list the name of the source and where you found it.

In column 2, list the type of source it is – primary or secondary.

In column 3, list all of the positive things (pros) and negative things (cons) about the source. For example, the source may have been written by a very reputable historian (pro); but it may only be very short and not include all the details you need (con).

In column 4, list the details of where you found it, such as an Internet address or book title and author details.

Step 4 Once you have completed your source evaluation chart you will be in a good position to make some decisions about which sources provide reliable evidence and which do not. This will then help you answer your inquiry question.

Apply the skill

1 Compare, select and use information from Sources 1, 2, 3 and 4 by creating a source evaluation chart as described. For an example of a source evaluation chart, refer to page 197 of 'The history toolkit'.

2 Based on your analysis of the available information, answer the following inquiry questions:

   a Which sources do you believe present the most reliable evidence of what medieval medicine was like? Why?

   b Which sources do you believe present the most unreliable or biased evidence of what medieval medicine was really like? Why?

   c Which of the treatments described or shown in the sources do you think may have been effective and which do you think may have been dangerous?

   d Which ailments are likely to have been treated effectively during the medieval period and which do you think would have been treated ineffectively?

Extend your understanding

Medieval medicine seems very strange to many people these days, but even today there are many forms of 'medicine' that seem strange to people accustomed to mainstream medical care. Some of these alternative medicines are very effective, and many are not. Despite these failings, people continue to seek treatment from alternative sources.

1 Research an 'alternative' form of medicine, or an alternative treatment for a particular disease. You may look at some types of homeopathy, Chinese medicine, or other treatments. Find out what this form of medicine has in common with Western medicine, and what is different.

2 Why do you think this form of health care exists and why do people seek such treatments?

10.8 Seeking a cause or cure

Nobody in medieval times understood the real cause of the Black Death, but this did not stop them looking for reasons why this terrible disease was devastating their world. Many thought that it was a punishment sent from God for their sins. These people became more and more concerned with seeking religious salvation by confessing their sins and praying for forgiveness. Others started looking for someone to blame.

Those seeking a cause

Persecution of the Jews

Societies in medieval Europe were dominated by Christian beliefs, so the Jews formed only a small minority of the population. Despite their small numbers, they were often looked down upon because of the Christian belief that Jewish people were responsible for the crucifixion of Jesus Christ. With the spread of the Black Death, many people were looking for someone to blame for their suffering, and the Jews were a common target.

Source 1 A procession of flagellants, painted by the Spanish artist Goya between 1815 and 1819

Massacres of Jews began in the spring and summer of 1348, starting in France. Persecution grew more intense after a Jewish doctor in Switzerland confessed to poisoning the drinking water, thus causing the Black Death. However, he was tortured to obtain his 'confession'. That month all Jews in the town of Basel (in today's Switzerland) were rounded up and burned alive.

Jewish persecution began in Germany in November 1348 and continued for the next nine months. Some Jews managed to escape to Poland where they were offered protection by King Casimir III. Many then moved on to Russia where large Jewish communities were established.

The flagellants

The **flagellants** were groups of radical Christians who roamed through Europe, wearing red crosses on their clothing. Organised in groups of up to 300 people led by a master, flagellants would walk into towns and villages and form a circle to conduct their flagellation rituals. They were known as flagellants because they would flagellate, or whip, themselves believing that this would help them gain God's forgiveness for their sins.

Each person carried a heavy whip tipped with metal studs. After forming a circle, they would strip off the top half of their clothing and the master would walk around, whipping them. Then, they would whip themselves until they drew blood. As they did this, they would cry out to God to forgive them for their sins and to stop the Black Death.

The flagellants also believed that Jewish people were responsible for the Black Death, and encouraged attacks on the Jewish populations in the towns they visited.

The sinners

Some people in medieval Europe became so depressed and disillusioned by what was happening during the Black Death that they gave up caring about religion entirely.
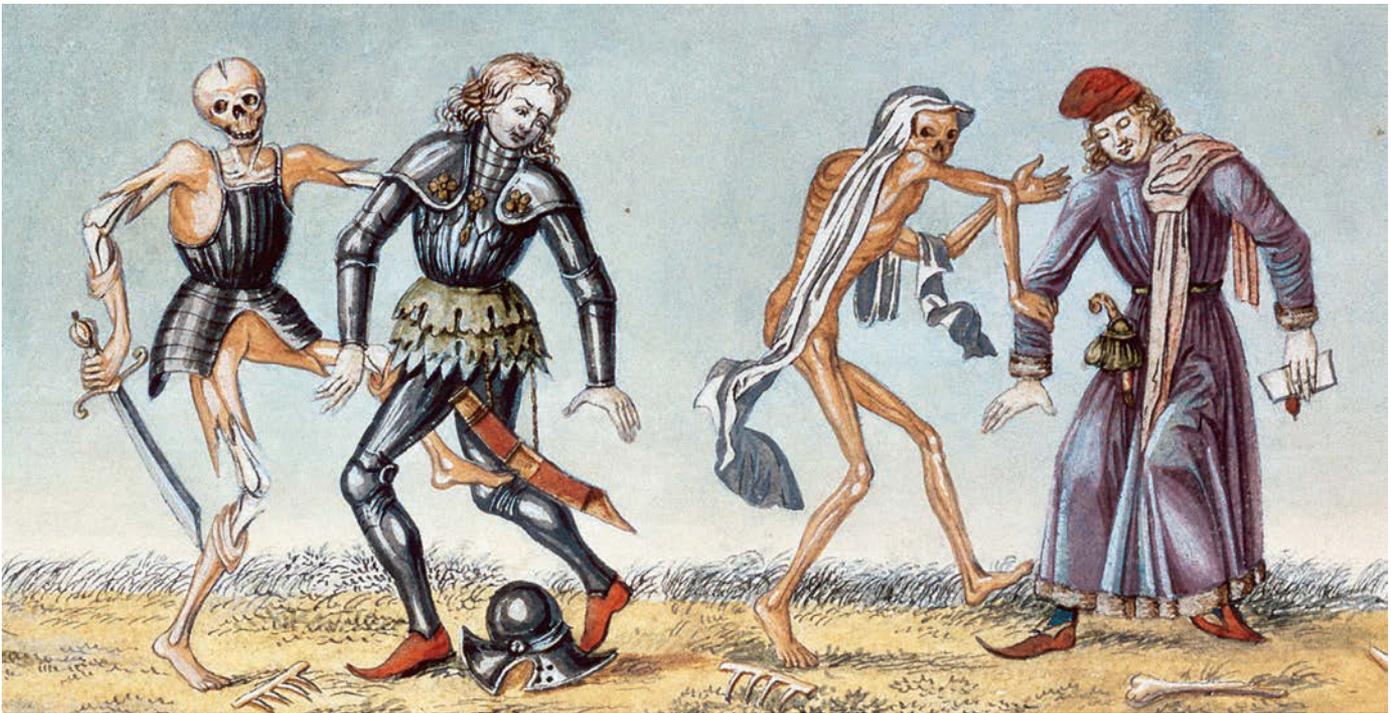
Source 2 A section of a medieval painting called *Danse Macabre* (or *Dance of Death*)

Without the strict moral guidance and teaching of the Church, some people began to show wild and careless behaviour. Spending all day drinking, laughing, singing and dancing took people's minds off their fear, and eased some of their pain. This mix of emotions (fear and celebration) is well captured in medieval artworks such as the *Danse Macabre*, or *Dance of Death* (see Source 2).

Those seeking a cure

The effect on medicine and public health

The failure of medieval medicine to cure or prevent the spread of the Black Death led to changes in medical practices immediately following the plague. Frustrated with diagnoses and treatments that revolved around astrology and superstition, doctors and scholars began focusing more on clinical medicine and seeking to increase their knowledge of the physical world. This approach led to an increase in autopsies and dissections of human corpses in a desire to learn more about anatomy. This in turn led to a greater understanding of the workings of the human body and new medical texts and treatments. Hospitals developed into places of treatment rather than being places where the sick were sent to die.

After the plague had passed, some towns and villages slowly began to set up local health boards to develop and enforce sanitation procedures. These remained very simple but included such moves as regulations to restrict the dumping of waste and the employment of street sweepers.

Check your learning 10.8

Remember and understand

1 Describe the rituals that the flagellants would perform when they entered towns and villages.

2 Why and how did Jewish people get persecuted during the time of the Black Death?

Apply and analyse

3 Analyse Source 2. What evidence does the detail from this painting reveal about how medieval people were thinking at the time of the plague?

Evaluate and create

4 Write or compose a chant or song that might have been suitable for flagellants to call out as they walked around whipping themselves.

10.9 Short-term impacts of the Black Death

Many of the immediate impacts of the Black Death on **society** were the result of death on a massive scale. People from all walks of life, all trades and professions were affected, as were all types of families.

Depopulation

It is difficult to give an exact figure for the number of people who died from the Black Death. Many medieval authors made claims about the number of deaths that occurred in particular areas, but these sources have proven unreliable. Church records also provide us with details about births and deaths in their particular region, but these records also contain many gaps and inaccuracies, and are therefore also unreliable. Many of the **primary sources** that exist do not distinguish between deaths caused by the Black Death and deaths that occurred because of other factors, such as old age or other diseases.

The effects of the Black Death on Eastern societies are not understood as well as they are in Europe. It is believed that in China alone the population dropped from 125 million to 90 million. It is known that the plague spread into other regions of Asia besides China, including the Khmer region and India. A writer from the period is reported as saying: 'India was depopulated; Tartary, Mesopotamia, Syria, Armenia were covered with dead bodies; the Kurds fled in vain to the mountains. In Caramaria and Caesaria [in modern-day Turkey] none were left alive.'

The most recent estimates suggest the following approximate number of deaths as a result of the Black Death:

- 33 to 40 per cent of the population of Europe, with higher rates of death in rural areas
- 35 million people in China
- one-third of populations in the Middle East
- 40 per cent of Egypt's population.

The effect on towns

Rubbish and raw sewage in the streets of medieval towns was a common sight, even before the plague, but once the plague struck, this filthy situation became even worse. Abandoned houses were left dirty and untended, and muck in the streets piled up. There were few people to tend to the disrepair, even if they had wanted to. Tradesmen and craftsmen died along with cleaners, magistrates and officials.

Impact on religion

Many monks, nuns and priests died as a result of the Black Death. Some others in the general population saw this as proof that the lifestyles of these religious people had displeased God. A few religious centres, such as monasteries, were accused of improper conduct and greed, rather than being places devoted to God. Some priests

Source 1 An illustration from the Toggenburg Bible (1411) showing a couple covered in buboes, symptoms of the Black Death

and other religious figures fled, abandoning their parishioners because they feared becoming infected. Those who replaced them were often poorly trained. Some did not even live in the parishes they were meant to oversee. This added to the disappointment and anger of many ordinary people toward the Church and weakened its position in society.

Burial of the dead

People were dying so quickly, and in such large numbers, that there was no time for proper burials or religious ceremonies. In fact, some Christian priests began refusing to bury victims for fear of contracting the disease. Mass burials became common, with corpses shovelled into large pits and covered with earth.

Source 2 This medieval painting shows nuns caring for the sick at the Hôtel-Dieu (Hospital of God) in Paris. Many nuns and monks contracted the plague by helping others.

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key concept: Evidence

The Decameron

One of the most significant primary sources of evidence for an insight into how the Black Death affected societies in Europe is *The Decameron*. It was written by Giovanni Boccaccio in the 1350s. Although it was written as entertainment (it consists of a number of lively stories told by young people who flee Florence to escape the plague), it provides key information about life in plague-affected communities.

Source 3

Some thought that moderate living and the avoidance of all superfluity [excesses] would preserve them from the epidemic … they shut themselves up in houses where there were no sick, eating the finest food and drinking the best wine very temperately [moderately], avoiding all excess, allowing no news or discussion of death and sickness … others thought just the opposite. They thought the sure cure for the plague was to drink and be merry, to go about singing and amusing themselves, satisfying every appetite they could, laughing and jesting [joking] …

Many others adopted a course of life midway … they did not shut themselves up, but went about, carrying flowers or scented herbs or perfumes in their hands, in the belief that it was an excellent thing to comfort the brain with such odours; for the whole air was infected with the smell of dead bodies, of sick persons and medicines.

… brother abandoned brother, and the uncle his nephew, and the sister her brother, and very often the wife her husband. What is even worse and nearly incredible is that fathers and mothers refused to see and tend their children.

> A translated extract from *The Decameron* by Giovanni Boccaccio (1313–1375)

For more information on the key concept of evidence, refer to page 187 of 'The history toolkit'.

Check your learning 10.9

Remember and understand

1 Why is it so difficult to give an exact figure for the number of deaths resulting from the Black Death?

2 Explain how the plague led to a loss of confidence in the Church for some medieval Christians.

Evaluate and create

3 Carefully read Source 3. In dot points, summarise some of the major effects of the Black Death on people's lives in plague-affected communities as described in this source.

10.10 The end of the world…

This labelled illustration presents some of the short-term impacts of the Black Death on medieval society.

The Black Death caused a huge labour shortage in towns and on the farms. Many feudal manors were largely deserted, either because workers had died or run away.

Source 1 A modern artist's impression of the impact of the plague on a medieval town

The plague caused some people to question their beliefs. Many priests died too, causing some to think that the Church was powerless to stop this terrible epidemic.

There were so many dead bodies (in the streets and houses), they had to be buried in mass pits. Bodies were collected and put on carts that travelled the streets.

Check your learning 10.10

Remember and understand

1 Using Source 1, identity five short-term impacts of the Black Death that have hit this medieval town.

Plague doctors wore full-body cloaks, and masks with long beaks filled with sweet-smelling substances. Sick female patients began to allow male doctors to examine all parts of their bodies, which was not common before.

Believing the plague was God's punishment for wrongdoing, people known as flagellants began walking the streets whipping themselves in a bid to repent for their sins and ask forgiveness from God.

Some people adopted an 'eat, drink and be merry, for tomorrow we die' attitude, celebrating in drinking houses as they waited to die.

Doctors suggested unusual cures, such as telling people to sniff herbs or lemon leaves, or even their own faeces. Sometimes leeches were attached to the skin to remove blood believed to be causing an imbalance in the body.

People began to avoid others for fear of catching the disease; some ran away. Many victims were abandoned even by their own family and were left to suffer and die alone.

People did not know then about the health dangers associated with mice and rats, nor did they know that disease could be transferred by coughing and sneezing.
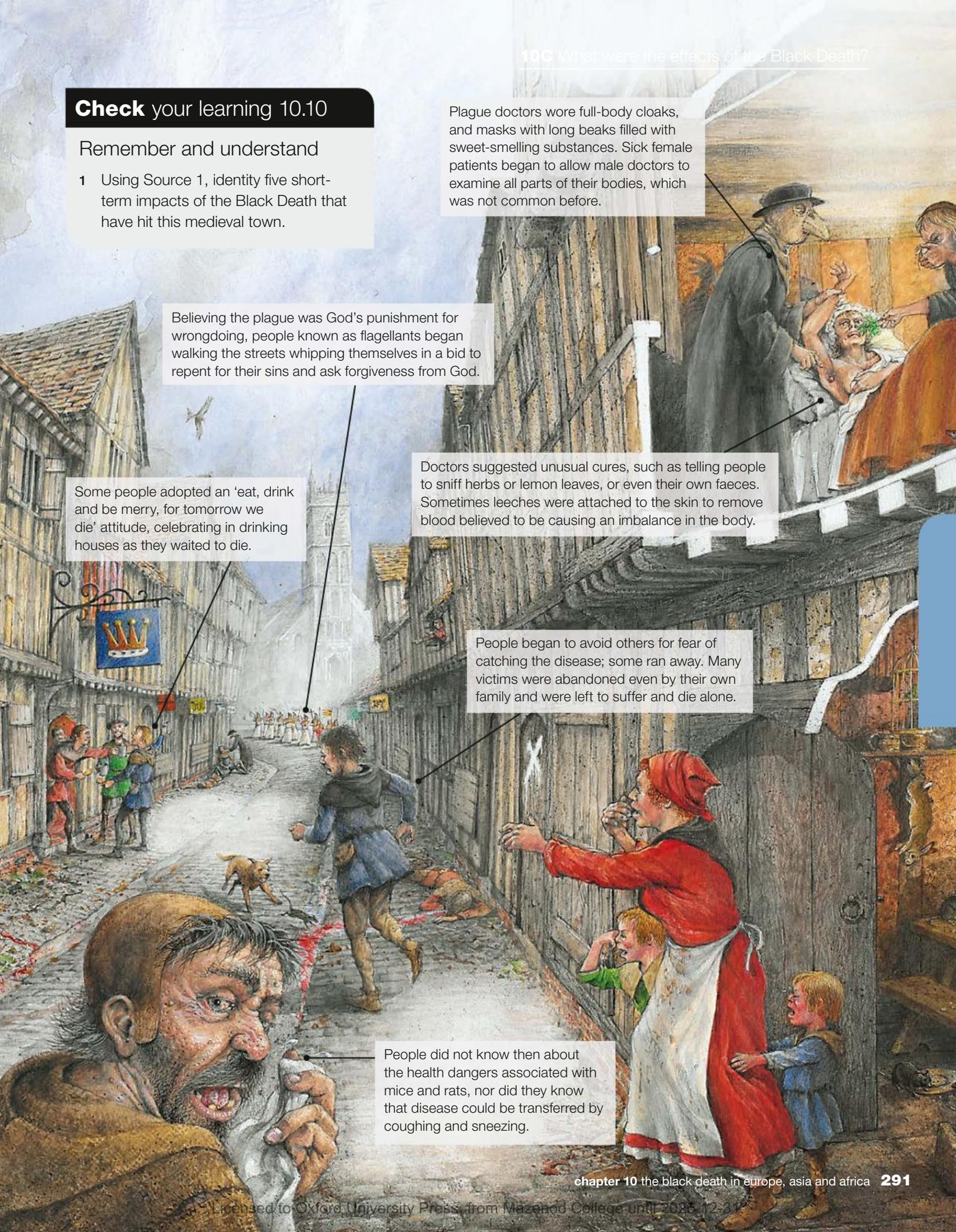
10.11 Long-term impacts of the Black Death

It is often only with the passage of time that the long-term impacts of devastating events become clear, and the Black Death was no exception. The Black Death reduced the populations of towns, villages, cities and manors dramatically. In some cases the populations of whole towns were wiped out, leaving the countryside empty. Europe would not recover until the 1500s.

Weakening of feudalism

The massive drop in population drastically affected trade, manufacturing, and the production of food from the land. Skilled labourers and craftsmen were now in short supply. Survivors who had been trained in different trades were highly valued by employers. They had more bargaining power and, hence, more social status.

In time, this situation helped to break down the already weakened system of feudalism. Instead of providing their labour free in return for a lord's protection and support, knights and manor workers could now demand money for their services. In towns, workers could demand higher wages.

The wealth available to survivors of the Black Death is believed to have been at least five times more than it was before the plague struck. Spending increased in towns and cities, increasing the power and social position of surviving members of the middle class. Prices also began to increase in some areas.

Peasant unrest

Concerned by the increase in wages being demanded (and paid), some rulers tried to introduce new laws to keep wages low. They also tried to stop the rising cost of food, then being forced up by black market trading and piracy.

In England, the Statute of Labourers was introduced in 1351. This law made it illegal for employers to increase workers' wages to attract new

The Peasants' Revolt

The Peasants' Revolt took place in England in 1381. This revolt, which involved separate but related uprisings by peasants, eventually led to the end of feudalism in England.

The lower classes under feudalism were often badly treated. They lived in complete poverty and were enslaved to their lords. Despite their poverty, peasants in England at this time were required to pay taxes to support the king.

By then, the Black Death had severely reduced the population of England, but the king passed a law to ensure that workers could not ask for better employment terms (such as higher wages). When some peasants refused to pay these taxes, they were fined or put in the stocks as punishment. But the discontent was felt in many places, and an uprising swelled across England. The leader of the revolt, Wat Tyler, was eventually killed by the mayor of London.

Although the demands for better working and living conditions were not immediately met, the upper classes realised that they could not rule over the peasants in the same ways they had in the past. They also realised that large groups of workers could be a significant political force to reckon with.

For more information on the key concept of cause and effect, refer to page 186 of 'The history toolkit'.

Source 1 An illustration of Wat Tyler being killed during the Peasants' Revolt

Source 2 A detail from the ceiling of the Sistine Chapel in the Vatican City in Rome, painted by Michelangelo (1475–1564) – one of the more significant works of art from Renaissance Europe

workers. It also made it illegal for workers to travel to other areas for better wages. This law upset many peasant workers. Indeed, it created some of the unrest that led to the Peasants' Revolt of 1381.

Weakening of the Church

The inability of religious leaders to limit the terrible effects of the plague, as well as the deaths of so many monks, nuns and priests, led to a lessening of many peoples's faith in the Church. In the aftermath of the Black Death, people began to question the influence and power that the Church had over society and to openly criticise some of its practices.

In time this would lead to a strengthening of power of the state over the Church and to movements such as the Reformation that would see the establishment of alternative Christian faiths.

Foundations of the Renaissance

After the Black Death had passed, many wealthy survivors in Europe chose to invest in art or literature as a means of expressing their gratitude for being left alive. Some became **patrons**. They funded talented individuals to create paintings, build churches and other public buildings, and to write literature. Some encouraged scientific research, hoping that answers might one day be found to what caused the Black Death. These developments added to the cultural rebirth in Europe at the time. This would later become known as the Renaissance (which means 'rebirth' in French).

The start of the slave trade

One long-term effect on African society was the start of the slave trade. The first Africans brought to Europe as slaves were captured by Portuguese captains Antão Gonçalves and Nuno Tristão in Cabo Branco (modern Mauritania) in 1441. From this point the Portuguese established a steady trade in African slaves. Just over 10 years later, the Spanish also entered the slave trade. Initially established to provide labour in Europe, as European nations began to establish colonies from the 16th century onwards the slave trade increased as labour was needed in these new lands. Africans from the Sahara region began to be taken as slaves in the 14th century, at first to boost Europe's greatly reduced labour force.

Check your learning 10.11

Remember and understand

1 The Statute of Labourers was introduced in 1351.
   a How did it change conditions for workers in England?
   b What did this law have to do with the plague?
2 How did some survivors of the plague help the spread of Renaissance thinking in Europe?
3 How can the plague be seen as a factor that led to the start of the African slave trade?

Apply and analyse

4 What evidence is there to suggest that the plague had a devastating effect on the population of India at the time?

Evaluate and create

5 Write an essay of 500 words explaining what you believe was the most important change in the society of medieval Europe as a result of the repeated outbursts of the 14th-century plague.
6 In small groups, role-play for the class an interchange between survivors of the Black Death and either their former lord of the manor or their former employer in a medieval town. Your conversation will focus on how things have changed (for both parties concerned) and will reflect the values and knowledge of the times.

10C rich task

The consequences of population loss

The Black Death had far-reaching effects around the world. One of the most obvious and immediate consequences was the massive loss of life, which affected all aspects of society, culture and the economy.

Source 1 shows one of the consequences of the plague. Of course, this was not the only response to the crisis; in fact the consequences were complex and far-reaching.

Source 1

It was thought that the people ... having seen the extermination of their neighbours and of all the nations of the world ... would become better, humble and virtuous and catholic, avoiding iniquities and sins and overflowing with love and charity for one another ... The opposite happened. Men, finding themselves few and rich by inheritances and successions of earthly things, forgetting the past as if it never was, gave themselves to more disordered and sordid behaviour than ever before.

Observations written in the 14th century by the chronicler Matteo Villani, son of a respected merchant family in Florence
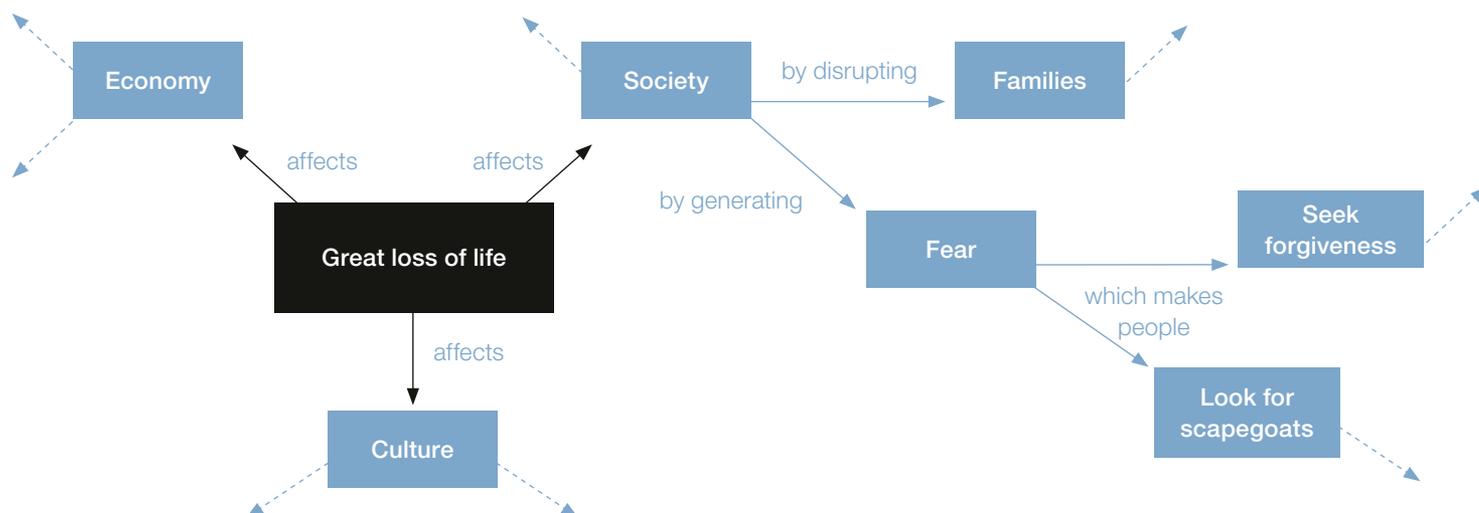
Creating a concept map

Graphic organisers are very useful tools for historians because they can help to compare a range of sources and identify connections between events. One of the simplest and most effective ways to explore connections between events and the consequences of them is to create a concept map. Concept maps are very simple to create, but will help you organise your thoughts and more easily identify the causes and effects of different events. To create a concept map, follow these steps:

Step 1 Identify the topic or event that you are interested in exploring.

Step 2 In the centre of a large sheet of paper, write down this topic and draw a circle around it.

Step 3 Brainstorm the main ideas that relate to the topic and write them around the central idea. Draw circles around each of these ideas and connect them to the main topic. Keep the concepts as concise as possible.

Step 4 Continue to brainstorm more ideas, and connect them to relevant topics. More important ideas should be put nearer to the centre and less important ones closer to the edges. Identify the relationship between the

Source 2 An example of a concept map

concept groups by using a range of different colours. You can also make different connections clear by using arrows or dotted lines.

Step 5 After you have finished work on your concept map, look carefully at the way it is organised. Check to see that nothing is missing, and that each group of connected ideas is organised logically.

Apply the skill

1   Copy the concept map that has been started for you in Source 1. Complete it in your notebook, or on a computer using a mind-mapping or drawing program. As you create your map:

- think of all the logical consequences of each idea

- draw arrows to a new concept bubble, and put words on the arrow that make a sentence (e.g. Great loss of life – *affects* – society – *by creating* – fear)

- draw arrows between concepts on different parts of the map if you see a link

- use colours to categorise your concept bubbles into sensible groupings once you finish

- create a key to explain what the colours mean.

    To generate ideas, you will need to use your own knowledge and information from this chapter. Make the concept map as big as you can, then compare it with a classmate to see what further ideas you can add. Your final map will give you a clearer picture of the many consequences brought about by population loss.

Source 3 A painting of life on a manor soon after the plague ended

Extend your understanding

The consequences of such a large proportion of the population dying were profound.

1   Imagine you are a medieval peasant who has survived the Black Death. Many in your village were not so lucky. The churchyard is full of new graves, houses are empty, and hungry animals roam the roads and fields. No-one is working, and the crops need to be harvested or will soon begin to rot. For the first time, you see how important you and your work are. Without your labour and farming knowledge, the lord and his family will not have food to eat.

Prepare a speech to deliver to your lord, requesting better conditions and pay. Consider the following:

- what you will ask for and why

- the evidence you will use to convince your lord to agree

- the tone you will use – for example, will you choose to present your demands reasonably or use threats to get what you want?

part 3

economics and business

Concepts and skills

The economics and business toolkit

Economics is the study of how people choose to use the limited **resources** on Earth to satisfy their needs and wants. Studying economics helps us understand how the world really works. Many people assume that economics is simply about money and business, but this is only one part of what economics explores. As much as anything, economics is the study of human behavior – how people interact with one another locally and globally. Today, more than ever before, it is useful to have an understanding of economics and business skills. These skills will help you make good decisions and avoid uneccessary risks.

11A

What are the economics and business concepts?

11B

What are the economics and business skills?

chapter 11

Source 1 While economic growth is often measured with money, it is really about improving our quality of life through smart decisions about how to use our resources.

11.1 Economics and business concepts

Economics and business students can use a wide range of concepts to help them understand the world of economics and business. These concepts may be used together or as separate ideas. As you learn to use each of these key concepts you will begin to think like an economist or business person.

The six key concepts of economics and business are:

- **scarcity**
- **making choices**
- **specialisation and trade**
- **interdependence**
- **allocation and markets**
- **economic performance and living standards.**

Scarcity

Scarcity is the economic problem of having unlimited needs and wants, but limited resources available. Resources can include natural or made materials. Water, electricity, soil and sugar are all examples of resources that may be used in the production of **goods and services** (the items or activities we buy) to fulfil our needs and wants. People can also be considered resources. For example, skilled workers are also an important part of developing products that will meet our wants and needs.

In economics and business, resources can be divided into four categories, known as the **factors of production** (or economic resources). These categories are:

- land (natural resources such as coal or water)
- **labour** (human resources such as workers)
- capital (manufactured resources such as equipment)
- entrepreneurship (management resources: the skills or talents required to bring the other resources together successfully).

For example, in many places around the world, water is a scarce natural resource. We need water for many things, including to drink, to wash and to grow our food. Even though the Earth has a lot of water, we cannot access enough to fill the needs and wants of everyone on the planet.

Australia has access to more water than some countries, but when we are going through a drought, we need to manage the amount of water we use. For example, if we only have a limited amount of water, it is not a good idea for people to water their lawns and fill up their swimming pools. It would be better to save water for important things like growing food and drinking.

Our limited access to resources means we are not all able to have everything we need (or think we need). Businesses or individuals are not always able to obtain all the resources they need, which means they must manage what they do have carefully. An important part of economics is examining the decisions that result from our need to manage scarce resources.

Source 1   Water is a scarce resource that must be managed carefully.

Making choices

Making choices is an important part of economics. As **consumers**, we make choices about what we want to buy to satisfy our needs and wants. These decisions can be small, such as what we will buy for lunch, or big, such as whether or not to buy a house.

In order to make a good economic decision, we consider our options. We evaluate these alternatives, weighing up the costs and benefits of each to choose the option that is best for us.

Throughout our lives we will be faced with many economic decisions. In addition to consumer decisions, we might need to make:

- financial choices (such as how much money to save or spend)

- business decisions (such as what to produce or where to sell a product)
- **employment** decisions (such as what career path to follow)
- legal decisions (such as whether or not to take legal action over a faulty product).

Part of our need to make choices results from the concept of scarcity. Because our resources are limited, we are not able to produce, buy or own everything we want or need. We must therefore decide or prioritise what we wish to produce or consume using the resources available to us.

Specialisation and trade

Many countries around the world are unable to produce the variety of goods and services required to support the wants and needs of their populations. This can be for a number of reasons, including the availability of resources. When a country is unable to produce a good or service, it can rely on **trade**, or the ability to **import** or **export** goods or resources to or from another country.

For example, in Australia we have many valuable natural resources that other countries do not have. Western Australia in particular is rich in natural resources such as gold, iron and nickel. These precious resources can be used by us and other countries for many different things, including making money with gold or making steel with iron.

This means we can sell these resources to other countries that cannot access them on their own.

Specialisation refers to the way an individual, business, or entire country can focus on the production of a particular good or service in order to develop a more efficient and competitive production process.

In Australia, one of our specialised industries is the mining industry. We have the natural resources, workers, equipment, and processes in Australia to run many large mines efficiently. This has built up over many years of experience.

Like many other countries, Australia can buy products that we are unable to produce cheaply ourselves. For example, while Australia is technically capable of manufacturing cars, we import most of our vehicles from countries that specialise in the automotive industry because it is much cheaper.

Source 2   Australia's specialist industries includes the mining industry. The Super Pit in Kalgoorlie is the biggest open-cut mine in the southern hemisphere.

Interdependence

Interdependence refers to the way we rely on others to satisfy our wants and needs. Participants in our economy, including **producers**, consumers, businesses and the government, depend on each other to produce, specialise and consume goods and services. If you are not able to produce everything you need for yourself – for example the electricity you use, the clothes you wear or the food you eat – you are considered dependent. We rely on others to help fill the gaps in our needs and wants that we cannot fill ourselves.

As consumers, we must pay for goods and services to meet our needs. In order to afford these things, we rely on earning an income, such as by working for businesses. Businesses or producers rely on being able to sell their goods and services to consumers so that they can continue producing. Source 3 shows how a consumer's ability to earn an income, and therefore purchase goods and

services, is dependent on producers. Similarly, producers rely on consumers to provide work for them and to purchase their goods and services. This interdependence is often referred to as a simple **circular flow model**.

The Circular Flow
Goods and services
Expenditures

Individuals

Businesses

Income
Labour
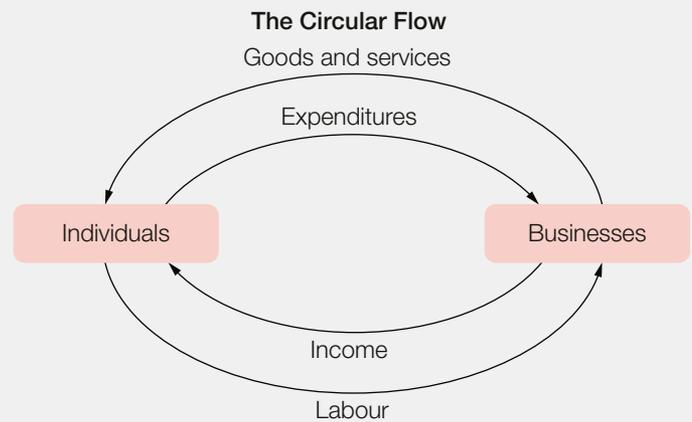
Source 3 The circular flow model shows how consumers and producers rely on each other, or are interdependent

Allocation and markets

The concept of **allocation** refers to the way we distribute our scarce resources among producers. It also refers to the way we then distribute scarce goods or services among consumers. As we will continue to learn as we study economics, the scarcity of resources available means that we cannot fill all of our wants and needs.

There are many ways to distribute resources. The exchange of goods and services (or resources) among buyers and sellers is referred to as a **market**. Our market economy usually determines how resources will be distributed. This means we often rely on price to determine how much we are able to produce and consume.

When the cost of producing or obtaining a particular resource is high, not everyone will be able to obtain it.

For example, it costs a lot of money to buy a house in Australia. Many people cannot afford to buy a house in Australia because of the cost of land, building materials and other expenses. This means some people will have to **rent**, live with

their families or rely on the government support. In some sad cases, people will not have access to housing at all.

Source 4 Houses are expensive, which means that they are often difficult to obtain.

Economic performance and living standards

Economists measure how well an economy is doing, known as its **economic performance**, using a wide variety of methods. It is important to measure our economy so that we can understand what problems exist, develop solutions for our problems and plan for our future. Often economies will set objectives, such as reducing national debt, and then measure their performance against these objectives. Some key indicators of economic performance include:

- **Gross Domestic Product (GDP)** – the total value of goods and services produced in a country over a year
- **inflation** – the general increase in prices of goods and services
- the **unemployment rate** – the percentage of people who are unemployed out of all people who are able to work.

We can measure an economy at a number of different levels, such as state (Western Australia's economy), country (Australia's economy), or world (the global economy).

Economists also measure **living standards**. Living standards can be material or non-material. Material living standards refer to our access to physical goods and services. People in Australia are considered to have very high material living standards, because most of our population has easy access to food or services that allow us to fulfil our wants and needs. Non-material living standards are harder to measure and include things that may contribute to our happiness, such as freedom, low crime levels, access to facilities or free elections.

Measuring economic performance and living standards is an important part of understanding and managing our economy. By knowing our areas of strength and weakness, governments can develop policies to improve our economy and as a result our standard of living.

Source 5 Economists look at the way people live to measure how well an economy is performing.

Check your learning 11.1

Remember and understand

1 What is scarcity?
2 How is making choices related to scarcity?
3 Why do some countries specialise in producing a particular product?
4 How does the market influence the allocation of resources?
5 What is the difference between material and non-material living standards?

Apply and analyse

6 Many concepts of economics and business are interrelated. Describe the relationship between the following concepts:
   a scarcity and making choices
   b interdependence and specialisation and trade
   c making choices and allocation and markets
   d scarcity and allocation and markets
   e economic performance and living standards and scarcity

Evaluate and create

7 Research one of Australia's major industries (for example, farming, mining, transportation or tourism) and answer the following questions:
   a How much does this industry contribute to the Australian economy?
   b What would be the benefits of Australia specialising in this industry?
   c What are the challenges faced by this industry? Does it relate to any of the key concepts we have discussed?

11.2 Economics and business skills

Economics and business students use real-life examples to help them to generate questions, interpret information and argue their point of view. They also learn through experiences where they are provided with an opportunity to be innovative, show leadership and practise the ability to make wise business decisions.

Studying economics and business requires you to analyse information and ask a range of questions to find out more about a topic. You will learn to question and research information asking what, why, when, who and how to uncover the truth about an issue. Your investigation may involve weighing up the costs and benefits of economic or business choices and making recommendations.

As shown in Source 1, there are four stages in any economics and business inquiry. They are:

1 Questioning and researching
2 Analysing
3 Evaluating
4 Communicating and reflecting

Source 2 We can access a great deal of information about businesses and the economy using the Internet.

1 Questioning and researching

2 Analysing

3 Evaluating

4 Communicating and reflecting

Source 1 There are four stages in any economic and business enquiry. At each stage, economists use a number of different skills. Each of these skills is like a tool in a toolkit.

11.3 Questioning and researching

Developing questions

Economics and business students ask lots of questions. They seek out real-life economic and business cases and undertake an investigation to try to learn from and avoid mistakes made in the past. They also check facts and look at the arguments for and against a certain issue before reaching their own conclusions. When economics and business students state their opinion, they support it with evidence such as statistics, cases from the past, quotes from what others have said and sound reasoning.

Collecting relevant data and information

Sources provide information for economics and business students. They can take many different forms, from written records in books or online, to live video and audio recordings. Some examples of sources include economic journals, newspaper articles, letters, government department or business websites, tweets, blogs or Facebook posts, cartoons and interviews.

Locating a range of relevant sources is a valuable skill, which usually involves a number of different search methods, such as:

- using online search engines such as Google
- following social media such as Facebook and Twitter
- looking at newspaper and magazine articles in print or online
- contacting local businesses or asking people with expertise in the subject
- speaking with other class members or family members to gain an insight into their views on a particular issue.

Planning an economic or business inquiry

Key inquiry question	Information needed	Possible sources of information
Is it a good idea for the local pizza place to sponsor the local football team?	• How much would it cost to sponsor the local football team? • What is the football team offering in return? • Who/how many people will see the sponsorship? • How will that affect the pizza place's brand or public image?	• Contact the football club for information • **Survey** past or current sponsors on their experience sponsoring the team • Conduct fieldwork into the football team's spectator numbers • Survey current customers at the pizza place

Source 1 A guide for planning the direction of an economic or business inquiry

Check your learning 11.3

Remember and understand

1 What do economics and business students do first before reaching their own conclusions?
2 Give three examples of what an economics and business student might use as a source.

Apply and analyse

3 Siew has been asked to find out how many small businesses operate in her local area. Suggest how she could find the answer to this question.
4 Lachlan believes that his family's fish and chip business would do better if they advertised online. How can Lachlan prove his point?

Evaluate and create

5 Develop five questions that you think may assist an economist or businessperson in deciding if it is a good idea to start a business in their local area. Create a planning table similar to that used in Source 1.

11.4 Analysing

Interpreting information and identifying relationships

Economics and business students use charts, statistical tables, case studies, interviews and simulation games to help identify the cause of a problem or event and its likely outcome or effects.

Once you have collected, recorded, evaluated and represented your data, it is time to identify any trends, patterns or relationships in the information. You will have used questionnaires, surveys and statistics from many different sources, such as textbooks, websites and the wider community, before you create graphs and tables to summarise the information. Now it is time to look at this information to identify any trends, links or relationships.

For example, Andy collected data on a phone company's advertising expenses. His data showed that the more money the company spent on advertising, the more phones they sold. Andy also recorded the number of employee complaints during this time. He found that the amount of money the company spent on advertising seemed to have no effect on **employee** complaints. This means Andy was able to identify a relationship between advertising and phones sold, but that there was no relationship between advertising and employee complaints.

Economics is not a pure science. There are a lot of different theories and approaches to economics, which means there are often several different answers to the same problem. It is quite common to see two reputable economists have completely different opinions on a topic or issue. For instance, another economist may think that Andy is wrong and that there is a link between advertising and employee complaints. They might collect different data or find different trends. Many issues require us to weigh up different points of view, while keeping an open mind.

Source 1 Being able to interpret data and information is an important skill that helps businesses and individuals make decisions.

Check your learning 11.4

Remember and understand

1 Why is there not always a right answer to economic questions?
2 What does it mean to 'interpret' data?
3 Why is it important to identify trends, patterns or relationships in the information you collect?

Apply and analyse

4 Look at the following dataset on visitors to a park during different seasons. What relationship could you interpret from this data?

	Average number of visitors per season			
	Summer	Autumn	Winter	Spring
Green Park	2102	1380	763	1390

11.5 Evaluating

Drawing conclusions and generating alternatives

There's usually more than one way to solve an economic problem or find the right solution in business. An economics and business student carefully considers all of the circumstances related to the issue with an open mind. They consider the different options that are on offer, and make a rational decision that they believe will lead to the best outcome.

skill**drill**

Evaluating alternatives

Before looking at the different options in a business situation you must first do some work to find out more about the topic. Once you know about the topic, you can then assess the options available and choose the best one. This can be done using the following steps.

Step 1 Read through the different sources of information and find out what experts say about the topic.

Step 2 Make your own notes as you learn and write down any interesting facts, statistics or other information that will help you to explore the different options.

Step 3 Next to each option write the advantages and disadvantages, or costs and benefits.

Step 4 Get rid of the options that seem weakest based on their advantages or disadvantages.

Step 5 Concentrate on the strongest options and either decide which one is best or do further research before choosing the best option.

Apply the skill

Let's see how we could apply this skill to help a business owner make the right decision.

Tony runs a takeaway pizza restaurant in town that is becoming quite popular. So popular, in fact, that he is finding it difficult to keep up with all of the customer orders for pizzas. He is worried that he will not able to make enough pizzas in time to satisfy all his customers, particularly on Friday and Saturday nights when he is busiest. Tony is considering:

Source 1 Business owners like Tony are regularly faced with economic choices that can determine whether or not the business is a successful one.

a buying a new state-of-the-art oven that can reduce baking times from 15 minutes to 10 minutes, at a cost of $80 000

b hiring a part-time employee to help out on the weekends for $17 per hour

c increasing the selling price of all pizzas by 50 per cent.

1 Write a list of additional information that would help you to evaluate each option.

2 Write a list of the advantages and disadvantages of each option.

3 Suggest which option you think would be most suitable for Tony.

Applying economics and business knowledge, skills and concepts in familiar and new situations

Reading about economics or business in your textbook or using online resources can only teach you so much. Applying knowledge to a real business situation is a valuable experience and there are a number of ways you can do this, including:

- talking to someone in business about their experiences to see whether the theory you have learnt applies in real life
- observing the world around you. When you next go shopping think about some of the things you've been studying, such as customer services, competition, marketing techniques and types of businesses
- trying to come up with your own innovative business idea and discuss it with others
- using opportunities to role play or play simulation games as a chance to improve your skills and put what you have learnt into practice.
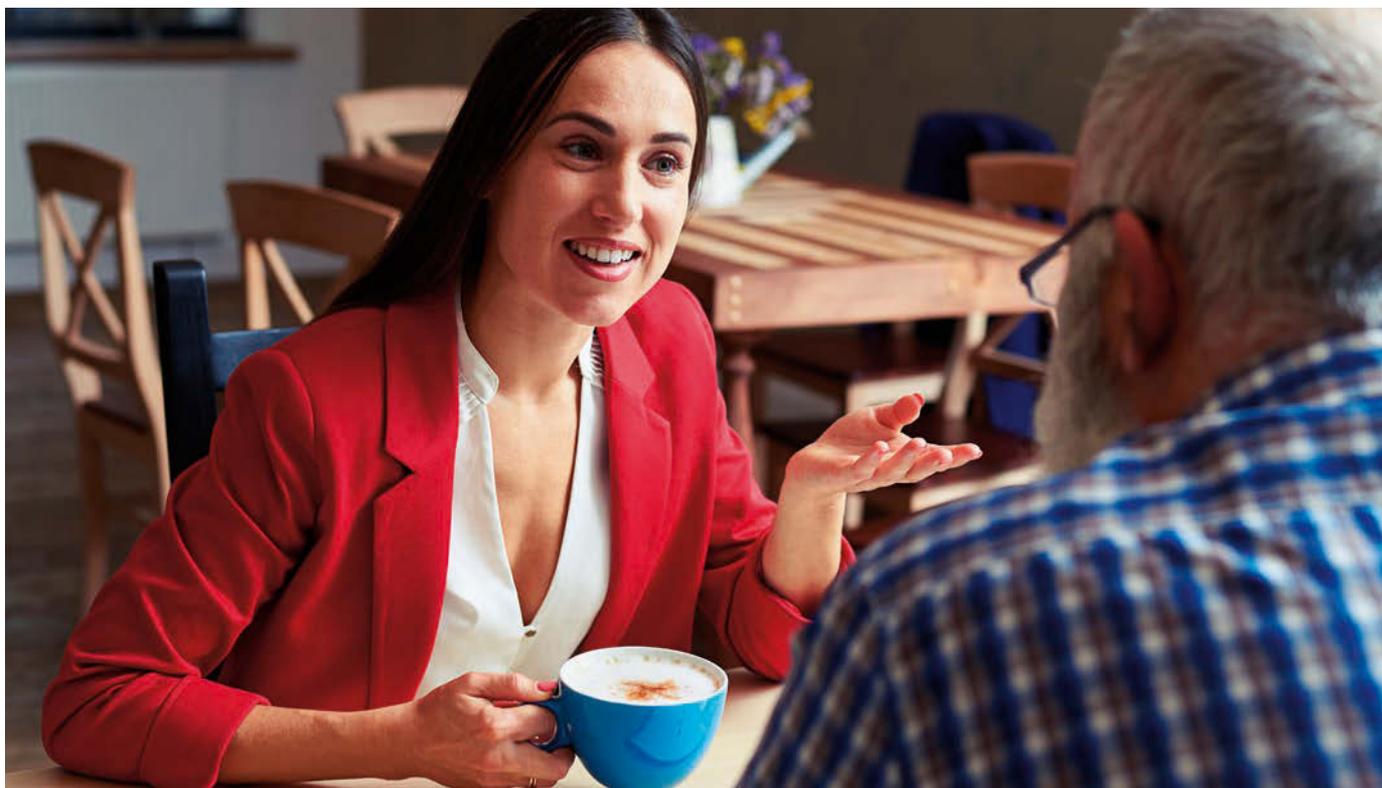
Source 2 Talking to someone from a local business in your community can be a great way to apply the economic and business theories you have learnt to familiar situations.

11.6 Communicating and reflecting

Presenting information and reflecting on learning

In every subject, there is a common language that is used. Certain terms form part of important concepts and are essential in helping us understand these concepts. Source 1 lists and defines some commonly used terms in business and economics; additional business and economics terms can also be found in the glossary at the end of this book. If you come across a term that you are unsure of, you should use a dictionary, the Internet or your teacher to help you understand what it means. It is a good idea to keep a glossary of subject-specific terms, as well as any other new words that you come across, in your workbook.

Term	Definition
business	activity that involves making goods or providing services in exchange for money
consumers	people who buy things to use
cost–benefit analysis	estimating what will need to be paid (costs) and possible benefits that will arise from a business proposal
economics	study of how people and society choose to use limited resources to satisfy their needs and wants
interest	the cost of borrowing money from a bank; a person has to pay the bank interest on top of the original amount borrowed from the bank
investing	putting money into shares, property or other financial schemes in the hope of making a profit
market	where buyers and sellers interact to exchange money for goods and services
opportunity cost	the cost of the next best alternative use of resources
producers	people or businesses who make and sell goods and services for a **profit**

Source 1 Some useful economics and business terms

Check your learning 11.6

Remember and understand

1 Define the following terms in your own words:
   a business
   b producers
   c resources.

Apply and analyse

2 Robert is reading a newspaper article when he comes across a few terms he has never seen before, including words such as 'interest' and 'market crash'. What advice would you give to Robert to help him find out the meaning of the terms?

Evaluate and create

3 Write one sentence that uses the following economic and business terms:
   a business
   b consumers
   c profit.

4 Create a poster that reflects how one or more of the economics and business terms from Source 1 could be represented in everyday life. For example, you might create a poster that shows what a market is and what kinds of people would interact there.

Participation and influences in the marketplace

The Australian marketplace

The Australian marketplace is made up of many different **markets** that we can participate in as buyers and sellers. We participate as buyers when we buy goods, such as food and clothes, and pay for services such as swimming lessons or taking the train.

We can also participate as sellers when we create or sell goods or services. For instance, have you ever been paid for work like washing a car, mowing the lawn or babysitting? If you have, this would make you a seller, because you are selling your skills as a worker.

Together, **consumers** and **producers** interact to influence how **goods and services** are created and sold in Australia.

12A

What is the relationship between producers and consumers in the Australian market?

1   Name three goods or services that you would purchase on a weekly basis.
2   How do you think businesses might decide on a price to sell their products?

12B

What influences work in the marketplace?

1   How do you think new technologies are changing the way people work?
2   What kind of jobs do you think will be important in the future?

Source 1 The Fremantle Market in Western Australia has been operating since 1897. It is an example of a public market where producers of food and other goods can sell their products to buyers for the right price.

12.1 Markets

When we need or want something, we generally go and buy it. This is what makes us consumers (buyers). In order for this to be possible, producers (sellers) have to make and sell these things, which they are happy to do for a **profit**. A market is where buyers and sellers interact with one another to exchange things of value. Usually, consumers will pay money to producers in return for goods (physical things like food or clothes) and services (activities or skills provided by people such as construction work or healthcare).

You may have seen a market with rows of stalls selling fruit, vegetables and other goods directly to consumers. In economic terms, markets do not necessarily have a physical location like the fruit and vegetable market. The housing market, for example, doesn't physically exist; buyers can view houses listed for sale on the internet or in the newspaper and contact the seller with an offer to buy the house. An economic market exists for anything that can be bought and sold.

The labour market

The labour market is where workers sell their skills, knowledge and effort to **employers**. In return for their **labour**, the employer will pay the workers a **wage**. This is how most people in our society earn an income. In Australia, wages for most professions are higher than in other parts of the world. This is a large reason why so many people consider Australia to be the 'lucky country'.

Because work is such an important part of people's lives, there are laws that aim to stop the unfair treatment of workers by their employers. There are also laws that require employers to maintain safe working environments for their **employees**. One of the government's goals is to improve the lives of ordinary Australians by creating jobs that will provide them with an adequate income.

The housing market

The housing market is where houses are bought and sold. Houses satisfy the basic need for shelter, and so most Australians desire the security of owning their own home. For those who can afford it, it is possible to own multiple houses which can also be a way of making more money. This is because houses can be bought and then **leased** out to a **tenant** in exchange for **rent.** In this way, the owner of the property, also known as the **landlord**, can earn a profit. Unfortunately, however, as more people decide to invest in houses, the prices increase, making it much more difficult for everyday people to afford their own homes.

For most people today, the only way to buy a house is by taking out a huge loan from the bank and slowly repaying the loan over a 30-year period. The bank makes a profit by charging people **interest** on the money that it lends them. In some instances, the collection of rent as profit can help pay the interest off more quickly.
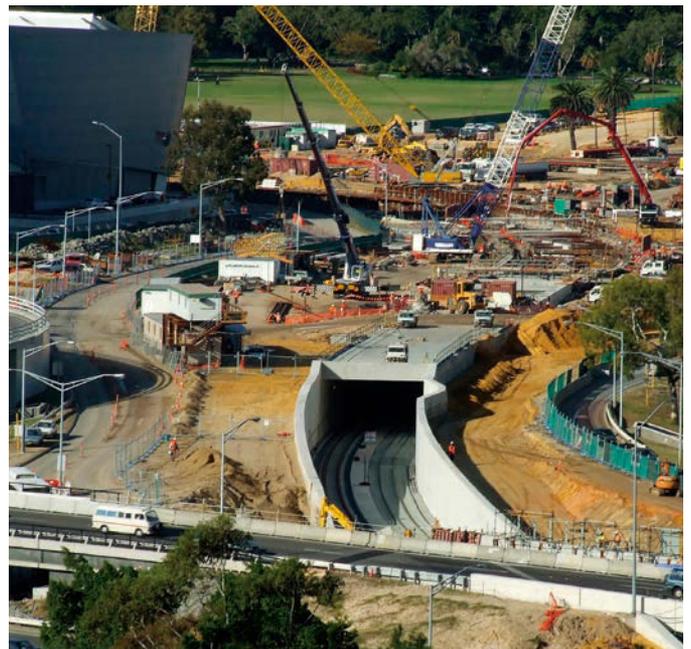
Source 1 Nearly one-third of Western Australia's labour market is working in the three biggest employing industries: healthcare, retail and construction.

Source 2 Most people pay a real estate agent to help them sell their house.

Source 3 You can learn more about investing in shares by playing the ASX schools sharemarket game (www.asx.com.au/sharegame).

The stock market

The stock market or sharemarket is where shares in Australian companies are bought and sold. These shares represent part ownership of a company. Owning shares in a company entitles the shareholder to a portion of the company's **profits**. In Australia, the shares of large public companies are listed on the Australian Securities Exchange (ASX).

Foreign exchange

The foreign exchange market is the largest market in the world, where different currencies from around the world are bought and sold. Some people and businesses will trade currencies so that they can make purchases or other payments in other nations using the local currency. Foreign exchange traders will try to make money by anticipating changes in the value of certain currencies. For example, they might buy a currency when it is not worth much, and sell it again when it increases in value.

Check your learning 12.1

Remember and understand

1 What is a market?
2 What is exchanged on the labour market?
3 What is a landlord and how do they earn income from houses?

Apply and analyse

4 Why do you think the government focuses on creating jobs for Australians?
5 How do you think not having a job would affect the way a person lives?
6 Use the Internet to conduct the following research about a house in your area:
   a Visit realestate.com.au via the link in your obook and find a house that is for sale in your area.
   b Visit the Commonwealth Bank's home loan calculator online via the link in your obook and calculate how much interest you would have to pay on a 30-year loan to purchase that house.

12.2 Interdependence in the marketplace

In Australia's market economy, people rely on businesses to produce many of the goods and services that they consume. Similarly, businesses would not be able to produce goods and services without the labour provided by workers. This relationship in which consumers and producers rely on each other is known as **interdependence**, and can be shown through the **circular flow model** (see Source 1).

The household sector

The household sector refers to the individuals or consumers who work for businesses. In return for the labour that they provide, they receive an income or wage from the business. The individuals then use this money to buy goods and services from various other businesses. In this way, money, goods and services keep flowing through the economy to satisfy the needs and wants of consumers.

Source 2 Nearly one-third of Western Australia's labour market is working in the three biggest employing industries: healthcare, retail and construction.

Businesses provide goods and services to consumers

Businesses pay wages to workers

Household sector

Business sector

Workers provide labour to businesses

Consumers pay businesses for goods and services

Source 1 The two-sector circular flow model describes the relationship between businesses and individuals in a market economy.

Source 3 Consumers spend their income on a variety of goods and services that will satisfy their needs and wants.

Source 4 The Geraldton Fisherman's Co-operative is owned by the fishermen who work for the cooperative. Cooperatives such as this ensure that workers receive full reward for their hard work and can avoid the conflict that other business owners may have with employees.

The business sector

The business sector refers to the producers that are responsible for making and selling goods and services. Businesses aim to make a profit for their owners by selling items to consumers for a price that is greater than the overall cost of production. Businesses need a variety of resources to produce goods and services, including labour provided by workers.

A business relationship

While a relationship with businesses may provide consumers with the goods and services that they desire, there is also conflict between the two. As businesses strive to achieve the highest possible profit, they can find themselves at odds with consumers who desire cheaper products and workers who desire higher wages. There is great debate over whether businesses have an unfair advantage over individuals in this relationship due to the large profits that often flow to business owners and investors. Critics of this system believe that workers can control the production of goods and services themselves, without the need for business owners.

Check your learning 12.2

Remember and understand

1 What does it mean to be interdependent?

2 What do businesses provide individuals with in return for their labour?

3 What do businesses aim to achieve?

Apply and analyse

4 Why might a business's desire to earn a profit conflict with what workers desire?

5 What do you think might happen if a business and its workers cannot agree on a fair wage?

6 How is a workers' cooperative different to other businesses?

Evaluate and create

7 Create and label a poster showing the circular flow model.

12.3 Supply and demand

Buyers and sellers in the marketplace are heavily influenced by price. Prices can be influenced by many factors, such as the availability of product, the popularity of a product or the state of the economy. These are example of **market forces** or changes in supply and demand, which will affect the prices people are willing to pay or accept for their goods and services.

Demand

Demand refers to the amount of a good or service that consumers will buy at a particular price. Consumers want to pay as little as possible for a good or service. This way, they will have more money left over to buy other goods and services. If prices go up, consumers are less likely to want to buy. When prices are reduced, consumers are more likely to purchase a good or service. This is known as the **law of demand**, where a larger quantity is demanded when prices drop.

Imagine the price of ice creams at the school canteen went down to 50 cents. Students would be flocking to the canteen trying to buy the cheap ice creams before they run out. Now if the price of those same ice creams went up to $5, very few would be sold.

Price of an ice cream ($)	Number of ice creams sold
0.50	190
1.00	170
1.50	150
2.00	130
2.50	110
3.00	90
3.50	70
4.00	50
4.50	30
5.00	10

Source 2 This table shows how many ice creams would be purchased for a given selling price.

Source 1 Many people go shopping on days when big sales are on, such as on Boxing Day.
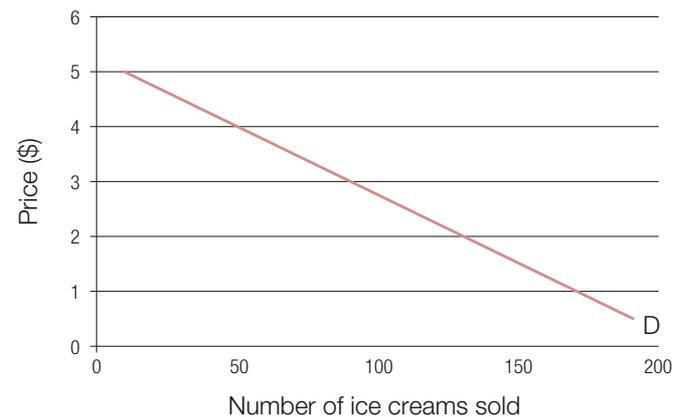
Source 3 By graphing the values from Source 2, we can see how the demand for ice cream increases as the price of ice cream decreases.

Supply

While consumers are more willing to buy goods and services if they are cheaper, suppliers are more willing to produce goods and services if they can sell them for a higher price. This is because selling them for a higher price will bring the business greater profits. The **law of supply** states that the higher the price of a product, the higher the quantity that suppliers will want to produce and sell.

For example, farmers can choose to grow many different fruits and vegetables. They will choose to grow the fruits and vegetables that they believe will sell for a high enough price to earn a profit.

There is no point in growing strawberries if no one will buy them at a price that covers the farmers' costs and earns a profit.

Price mechanisms

The way price can affect the supply and demand of goods and services is known as **price mechanism**.

Price mechanism can also affect the ways consumers and producers respond to and influence each other in the market. For example, in some industries, consumers can negotiate the price with producers in order to create profit in their favour.

Price per kg ($)	Quantity (tonnes)
5.00	250
6.00	500
7.00	750
8.00	1000
9.00	1250
10.00	1500
11.00	1750
12.00	2000
13.00	2850
14.00	2500

Source 4 This table of values demonstrates how many tonnes of strawberries farmers are willing to produce if they can sell them at each given price
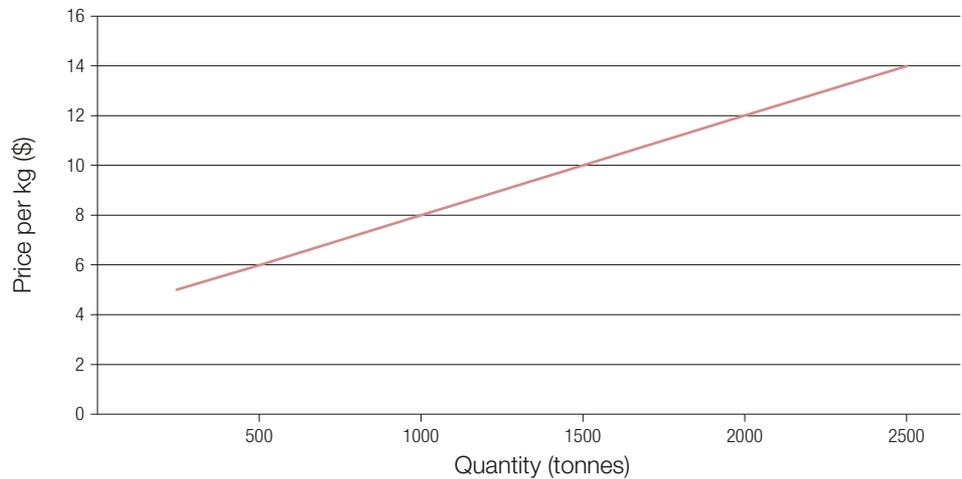
Source 5 By graphing the values from Source 4, we can see how farmers are willing to produce more as the price of strawberries increases.

Check your learning 12.3

Remember and understand

1 What is meant by the 'law of demand'?

2 Why do consumers like to buy things when they are on sale?

3 What is meant by the 'law of supply'?

4 Why are producers more willing to produce something that sells at a higher price?

Apply and analyse

5 What do you think would happen if the strawberry farmer set a price that consumers were not willing to pay?

6 What would happen if the strawberry farmer set a price that was too low?

7 Consider the following scenario:
A chef is at a food market to buy 1 tonne of strawberries. The chef notices that there are two strawberry farmers selling their fruit. The first strawberry farmer's fruit looks very ripe and ready to eat, but he has priced his strawberries at $7 per kilogram. The second strawberry farmer, however, has priced her fruit at $5 per kilogram but they are not as ripe. Which strawberry farmer should the chef buy from and why?

12.4 Allocation of resources

Resource allocation refers to how we divide **resources** and how these resources are then distributed to consumers. In **economics**, resources, also referred to as **factors of production**, are all the things we need to create the finished product. They include:

- land (natural resources that a business uses, such as geographical locations, minerals we can mine, forests or animal populations such as fish)
- labour (employees that a business needs to produce, develop and sell goods or services)
- capital (money, machinery and buildings businesses use to produce goods and services)
- enterprise (a business's ability to combine land, labour and capital to make a profit).

Source 1 Labour is an important resource for businesses producing goods and services. If a business spends a lot of money on resources, such as labour, this can affect the price of the end product.

The price of resources can influence what a business is able to produce, how they are able to produce it and how much they can sell it for. If the price of resources go up, so too will the price of the final product. This can impact who has access to goods or services. For example, if a small car costs more than $150 000 because factors of production were so expensive, not as many people would be able to own a car.

What to produce?

The goal of businesses is to make a profit. They aim to do this by producing goods and services to sell to buyers. They can decide what to produce based on the availability of resources to both them and their potential consumers. Some businesses might seek to make a profit by distributing a resource that is in high demand, but low in supply. This is sometimes referred to as finding a 'gap in the market'.

How to produce?

When producing goods or services, businesses will try to keep their costs as low as possible so that they will make more profit. This means they will need to manage their resources carefully. For example, consumer demand might be high for a pill that cures all food allergies. If the resources involved in making the pill are expensive, the business would have to sell the pills at a price no one could afford.

It is therefore important for businesses to keep their costs low so that they can sell their goods and services at prices people are willing to pay for.

Businesses might reduce their costs by:

- increasing production so that more goods or services are produced and sold using the same resources, which is often known as using an 'economy of scale'
- using cheaper materials, although this might affect the quality of the product
- paying lower wages to employees or producing goods overseas where the labour market is cheaper
- using machinery to replace human jobs.

keyconcept: Scarcity

The basic economic problem

The biggest challenge facing economists is that we do not have enough resources to satisfy our unlimited wants and needs. Every person, business and government has access to a limited amount of resources, which means that we all must deal with the problem of **scarcity**.

People in wealthy nations, such as Australia, have access to greater amounts of resources because we can afford them. Yet we also have a greater list of wants than people in poorer nations. How many of us have a list of things we can't wait to buy? A new laptop, a tablet, movie tickets or a trip away?

For most of the world's population – those living in poor or developing nations – it is difficult to access the resources to satisfy even the most basic needs. Access to basic resource, such as clean water, enough food, building materials and health care can be difficult. As a result, the standard of living is very different for people in poorer nations whose governments cannot organise for resources to be distributed fairly.

For more information on the key concept of scarcity, refer to page 300 of 'The economics and business toolkit'.

Source 2 Scarcity of resources in poorer nations can greatly impact people's standard of living.

Different businesses will save money in different ways. Some will decide to use quality materials and Australian workers, and will sell their products at higher prices.

Who to produce for?

An important part of resource allocation for businesses is knowing who they want to sell to. Since price is such an important part of whether or not people can access goods or services, businesses must consider who their buyers are. For example, larger retailers, such as Kmart, mass-produce their goods cheaply so that as many people as possible have access to and can afford to buy their products. On the other hand, a single piece of clothing from an exclusive designer brand would cost a lot of money to make, and would cost a lot of money to buy.

Check your learning 12.4

Remember and understand

1 What is resource allocation?
2 What are the factors of production?
3 Give two suggestions for how a business might reduce its production costs.

Apply and analyse

4 Why might governments need to intervene in allocating resources? Use an example to illustrate your answer.

Evaluate and create

5 In groups, use the idea of a 'gap in the market' to identify a market that you think would benefit from a new business or supply of goods or services. Develop your idea and present a summary to the class of what you would produce, how you would produce it and who you would produce it for.

12.5 Government in the market

While some economists believe that the market forces of supply and demand can allocate resources efficiently, the government often has to intervene in the market to act in the best interest of society as a whole. It does this to reduce or prevent the over-production of harmful goods such as alcohol, tobacco and drugs, and to provide goods or services that would otherwise be under-produced. Public health, education, roads and defence are all examples of goods and services that the government provides with the **taxes** that it collects from the public.

Taxes

For thousands of years, governments have collected taxes from the public to pay for public goods and services. The goal of Australia's tax system is to collect the taxes it needs from the areas of the economy that can afford to pay it. The main source of tax revenue in Australia is in the form of income tax, which is taken directly from the money people earn from working.

Source 1 A public hospital in Western Australia

Externalities

One of the main problems with market economies is the effect that some transactions have on people that are not producing or consuming the good or service. For example, when a consumer purchases an environmentally unfriendly car from a producer, the consumer gets to enjoy the car while the producer earns a profit from the sale of the car. However, the pollution caused during the production and driving of the car is not paid for by the producer or consumer. Society as a whole pays for this transaction with their loss of clean air. When people other than the consumer or producer are affected by a transaction in this way, it is known as an **externality**. Some economists argue that more government intervention is needed to tax producers and consumers for the damage that they cause to society through externalities.

The federal budget

The **federal** budget outlines what money the Australian government expects to receive and spend throughout the **financial year**. Sometimes the government wants to spend more money than it expects to receive and will have to borrow money from banks and other countries.

Source 2 The short-lived 'Carbon Tax' was designed to tax heavy polluters and reward those who make an extra effort to reduce their carbon emissions. In 2014, the Carbon Tax was abolished because it added to the running costs of many businesses.

Federal revenue ($ billions)

other taxes $4
fringe benefits tax $5
other excise $7
superannuation taxes $9
customs duty $10
fuels excise $18
non-tax revenue $25
sales taxes $62
company taxes $71
individual income tax $194

Source 3 This chart shows where the government will typically receive its money over a year.

Federal expenditure ($ billions)

defence $26
education $32
other functions $45
health $69
other purposes $86
general public services $22
social security and welfare $154

Source 4 This chart shows where the government might spend its money over a year.

casestudy

Medicare

Health care in Australia is funded by private companies and the government. Australia's policy on health is controlled by the federal government, while the running of hospitals is controlled by the state governments.

For many of us, the cost of health care is very expensive. Operations, medication and consultations with specialist doctors can cost a lot of money. This is why the government provides us with Medicare, a service run on behalf of the Department of Health.

Medicare gives Australian citizens and residents access to a range of medical services, lower cost prescriptions and, in some cases, free care in public hospitals. For those of us who are eligible, Medicare covers:

- free or subsidised (meaning it is paid for in part by the government) treatment from doctors, specialists, optometrists and other health practitioners
- free treatment and accommodation in a public hospital for public Medicare patients (patients in private hospitals must pay for care either themselves or through their private health insurance).

By providing Australians with affordable (or free) access to important medical care, the government is assisting us to distribute resources and therefore fulfil our needs. Without this kind of government intervention, the expensive medications and treatments that people really need would become inaccessible to many people.

Check your learning 12.5

Remember and understand

1 Why does the government intervene in a market economy?
2 How does the government pay for the public goods and services that it provides?
3 What is an externality?
4 What is the purpose of Medicare?

Apply and analyse

5 Look at Source 3, the revenue pie chart.
   a Where does the government get most of its revenue from?
   b How much money does the government expect to receive in total for the 2015–2016 financial year? (You can use a calculator to add all of the amounts in the pie chart up.)
6 Look at Source 4, the expenditure pie chart.
   a How much money does the government spend on education?
   b How much money does the government expect to spend on military or defence?
   c What is the biggest expense of the government?
   d How much does the government expect to spend in total for the 2015–2016 financial year?
   e Is the government spending more or collecting more money in the 2015–2016 financial year?

Chocoholics

Chocolate is very unhealthy and highly addictive, but that's why many people can't get enough of it. The damage that sugary products like chocolate do to our health is causing many people to look at ways of kicking the bad habit.

Even though we know how unhealthy chocolate can be, there is still a high demand for chocolate and chocolate-flavoured products in Australia. In fact, the confectionary industry receives over $7 billion from selling chocolate and other sugary products to Australian consumers each year.

The government taxes other unhealthy products, including alcohol and cigarettes, and some people suggest that the government should tax chocolate and sugary products as well. They say that higher prices on these products will stop people from buying as many of them. With such a great love of chocolate, do you think a tax on chocolate would impact how much chocolate Australians would buy?

The relationship between the supply of and demand for chocolate products can be investigated in many ways, making it easier for **manufacturers** to determine how much chocolate they should produce, and how much they can charge. We can also assess how a tax on chocolate would impact the demand for chocolate by constructing a demand graph.

Source 1 While delicious, chocolate is filled with sugar and fat, which can cause many health problems.

Constructing a demand graph

Constructing supply and demand graphs is an important skill for economists. They allow us to look at how supply and demand for a good or service will respond to changes in price. This is especially important for businesses as they decide on what to produce, and how much to produce. The following steps are used to draw a demand graph, but the steps are very similar for drawing a supply graph.

Step 1 Gather data about how much will be demanded at different price levels.

Step 2 Create a table of values to show this (like the one in Source 2).

Step 3 Draw an L-shaped axis like you would in maths (like the one in Source 3).

Step 4   Label the vertical axis as 'Price' and fill in the values from your table.

Step 5 Label the horizontal axis as 'Quantity' and fill in the values from your table.

Step 6 Plot the points from the table onto the graph.

Step 7 Draw a line connecting the graph (see Source 3).

Price per slice ($)	Quantity (number of slices sold)
2.00	10
4.00	8
6.00	6
8.00	4
10.00	0

Source 2 This table of values demonstrates how many slices of chocolate cake a cafe can sell for a given selling price.

Apply the skill

1   Using Steps 1 and 2, fill out a table showing how many of your favourite chocolate bars you think you would buy in an average week at the following prices.

Price ($)	Quantity (number of chocolate bars per week)
0.50	
1.00	
2.00	
3.00	
4.00	
5.00	
6.00	
7.00	
8.00	
9.00	
10.00	

2   Using the table that you have just filled out, follow Steps 3 to 7 to draw a demand graph (like the one in Source 3).

3   Looking at your graph, do you believe a tax would be effective in making people eat less sugar?

4   What do you think would happen if a tax was not applied to chocolate?
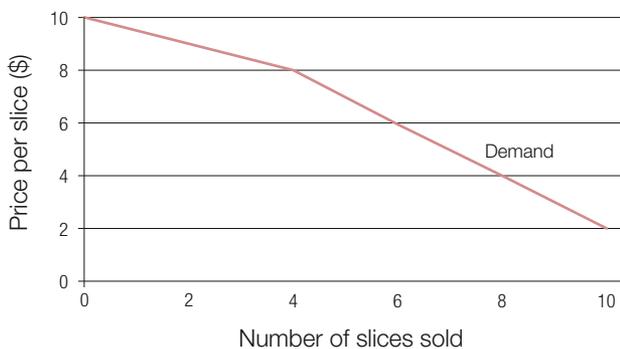
Source 3 By graphing the values from Source 2, we can see how the demand for chocolate cake increases as the price of chocolate cake decreases.

Extend your understanding

1   Use the Internet to research and make a list of sugar's effects on health.

2   Make a pros and cons list of cutting sugar out of your diet.

3   Looking at the results of your pros and cons list, should you cut out sugar from your diet?

4   When people become addicted to sugary products, such as chocolate, nutritionists often suggest that they replace these with natural sugar. Using the Internet, research foods that contain natural sugar.

Source 4 How do you think higher prices will affect the demand for chocolate cake?

12.6 Influences on the way people work

The world around us is changing. Technological advances have created new ways of doing things that most people could not even imagine in the past. This has changed the way that goods and services are produced, as well as affecting the labour market.

Artificial intelligence

Artificial intelligence (AI) is more than just an imaginative creation of science fiction movies. AI gives machines and robots the ability to think and act more like humans. Robots with AI have been quite common in factories and warehouses for many years, and are now even demonstrating the ability to do highly professional tasks such as analysing data, generating reports and even diagnosing patients. While robots have the potential to improve our living standards and create new industries, a study by the McKinsey Global Institute predicted that, by 2025, robots could jeopardise between 40 million and 75 million jobs worldwide.

Some people argue that the increasing use of technology will put people out of work in the future. However, others argue that technology will improve our **work–life balance**, giving us more time to relax or socialise as a result of technology making our jobs quicker and easier.
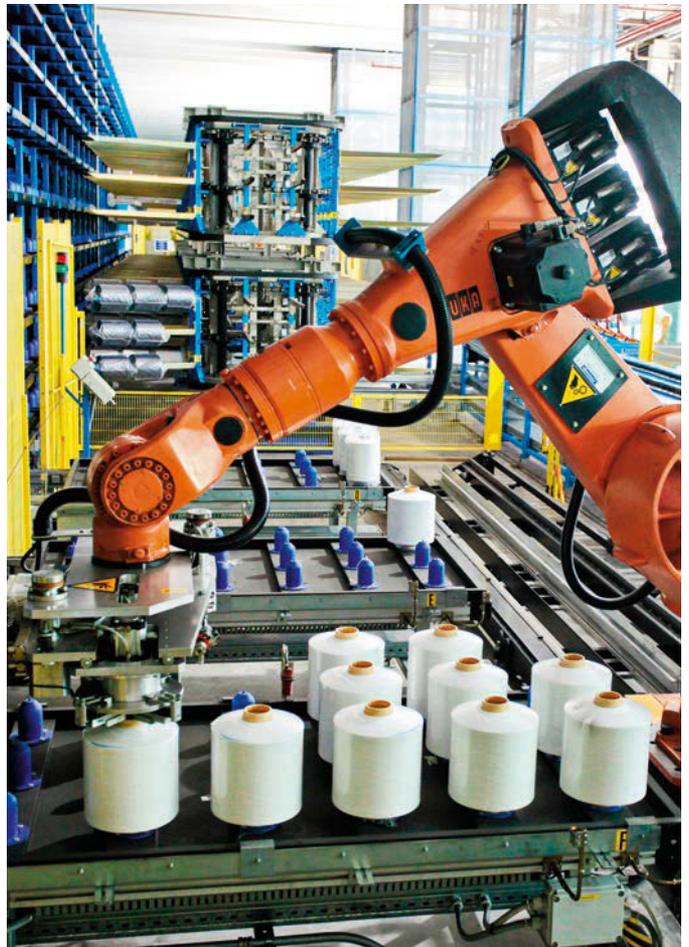
Source 1 Many of the tasks that used to be performed by manual labour have been replaced by machines, which are more precise and efficient than humans.

Source 2 IBM's Watson computer won the American TV quiz show *Jeopardy* in 2011 and is being used to diagnose cancer patients in the United States. Watson can sift through symptoms, medical histories and the latest research to deliver diagnoses and suggest potential treatments but, unlike a human doctor, cannot treat patients with empathy and understanding.

Source 3 Google has successfully designed a self-driving car. The car uses sensors and software to detect objects, such as pedestrians, cyclists and vehicles, and is designed to safely drive around them.

Outsourcing

Outsourcing refers to using an outside supplier to provide goods or services. For many decades, Australian businesses have outsourced their operations to nations where labour is cheaper to help them compete with the cheaper products of international **competitors**. In the past, outsourcing labour overseas has mainly been to take advantage of the lower wages paid to unskilled workers in poorer nations. In recent years, however, advances in communication technology has allowed for the outsourcing of more technical jobs, such as those in information technology. With more people from poorer nations gaining access to education and the Internet every day, many predict the outsourcing of many more jobs in the future.

However, outsourcing does not only give work to people overseas. Australian businesses can also benefit from outsourcing by other local businesses. For example, a business might outsource their marketing or advertising to a local marketing company. Sometimes this might be because the business does not have the resources to hire an employee to supply this skill or service, and sometimes it is because it is cheaper for the business to outsource than to employ someone. This is often the case for businesses who need a once-off job completed and do not want to hire a staff member solely to complete this one task.

Check your learning 12.6

Remember and understand

1 What is artificial intelligence?

Apply and analyse

2 Look at Source 1. Write a list of the advantages and disadvantages for a business using robots.

3 Look at Source 2. What kinds of jobs do you think would be under threat from technology such as the IBM Watson computer?

4 Look at Source 3. What kinds of jobs do you think would be under threat from technology such as self-driving cars?

5 What kinds of jobs do you think might be created as a result of the technologies shown in Sources 1–3?

Evaluate and create

6 Design a robot that could help you with your everyday life. Be sure to draw and label the robot, as well as to explain the list of features that it comes with.

7 Consider the idea that technology will improve our working lives in the future. Do you agree or disagree? Create an audiovisual presentation that argues against this idea.

12.7 The future of work

As the world of work changes we can expect our roles in the **workforce** to change with it. New technology is becoming a part of our daily lives, replacing some jobs (such as at supermarket checkouts or more dangerous physical roles), while making other roles more valuable (such as in the IT and service industries).

Yet the automation of process with new machinery and programs is not the only thing that will influence the way we work in the future. Rapid communication changes, changing attitudes and longer life expectancy will all impact work in the future.

Rapid communication changes

Recently we have seen extreme changes in the way workplaces are able to communicate and use technology. For instance, email and instant messaging have replaced traditional post and fax machines and social media has changed the way producers communicate with consumers.

One of the most important changes to impact the way we work is the introduction of 'the cloud'. This allows people to save documents, contacts, photos or music to an online 'cloud' which can be accessed from any device, such as a phone, tablet or computer. For example, Google Drive allows people to save large documents online to access later.

It is expected communications technology will continue to develop and change in the future. This will influence the way we work for the better, by making communication between employers and employees easier and faster.

Flexible work

Rapid communication changes have also changed where and when we work. Thanks to developments like the coud, we are able to work from home, while we are in transit or even on holiday. If there is a connection to the Internet, then it is possible for workers to access their work or documents.

It also means that we can start work later or earlier depending on what suits us. Because people can

Source 1 Developments in communication technology and file sharing software (such as the cloud) has changed the way people work.
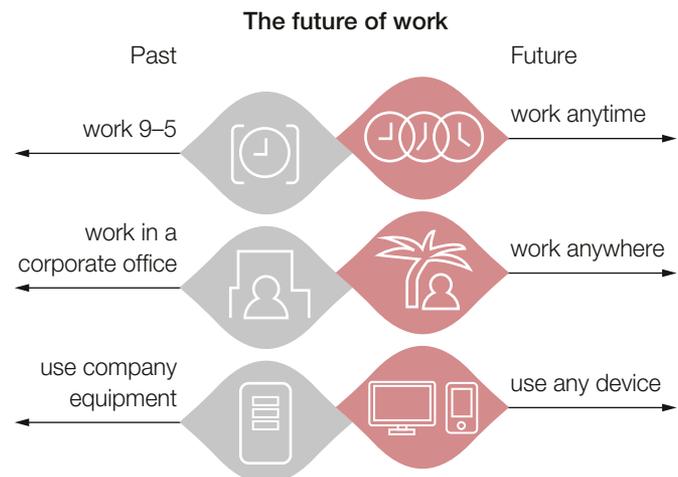
Source 2 The future of work has been influenced by changing technology.

now work remotely (i.e. not just in an office or place of business), many employers are happy for their workers to start later or earlier, or work weekends instead of their usual hours. If the work is getting done, then why does it matter if it is done at 2pm or 2am?

The problem with flexible work is that some employees will continue to work on the weekend and after hours as they have access to all the equipment they need.

Changing attitudes to work

How would you like a three-day weekend? What about every weekend for the rest of your school and working life?

The population's attitude to work–life balance is changing. With many people working hard and doing extra hours to keep up with their workload, it is common for Australians to have a poor work–life balance.

It is not uncommon for people in today's working environment to work overtime, or more than they should. This is because people feel as though they need to work more to get everything done and so that they do not lose their job.

While some people argue that the increasing use of technology will put people out of work in the future, others look forward to technology making work quicker and easier. This is because as technology decreases our workload, the time we have to spend with our family and friends increases and gives us more time to do the things we enjoy.

Attitudes are also changing as younger generations enter the workplace. For example, many workers from older generations valued loyalty to an employer and would stay with a company or business for most of their working life. Now it is quite common for people to move around with people changing jobs, or even careers, more often.

Age of retirement

In the future it is expected that people will work for longer before they retire. This is because on average people are expected to live longer. The longer we are alive, the more money we are likely to need.

The increase in life expectancy means that people will have to work longer to ensure that they have enough savings to cover the cost of living when they are retired.

Although this seems unfortunate for people thinking of retirement, it has the potential to benefit our workforce by putting the experience of older workers to use for longer.

Australia has an ageing population, which means that the average age of the population is increasing. This also means that the number of people who rely on the age pension (a payment from the government to cover the cost of living of eligble older

Source 3 People will need to work for longer to support longer retirements.

Australians) as a source of income is increasing and the government will need to spend more money to support them.

At the moment, Australians are able to access the age pension when they are 67. Previously, people could access the age pension when they were 65. This means the government will spend less money to provide the age pension to eligible Australians.

Check your learning 12.7

Remember and understand

1 Name three ways the cloud has changed the way we work.
2 How are attitudes to work changing?
3 Why might people in the future need to work for longer and retire later?

Apply and understand

4 How could flexible working conditions impact work–life balance?
5 What is one advantage and one disadvantage of people retiring later?

Evaluate and create

6 Get into groups to debate the following statement based on what you have learned:

'The future of work looks grim.'

12.8 Australian workers

Workers in Australia's labour market have far better working conditions than workers in most other nations around the world. This is largely because Australia's healthy economy produces enough jobs to employ most people. It's also due to the laws and agreements that protect the rights of workers, which in many cases came about after campaigns by workers' unions.

Unemployment

One of the main goals of the Australian government is to create enough jobs for its citizens. It does this by managing the economy in such a way that businesses have the potential to grow. This might include giving money or tax breaks to businesses that hire more workers to help produce and sell more products. The goal of the government is to create jobs for around 95 per cent of people who are able and willing to work. This is known as full **employment**.

Workers' unions

Workers and their employers have had many disputes over the years. This is because a business is mainly concerned with making as much profit as possible, which often means paying its workers as little as possible. Workers' unions are groups of workers who join together to protect their rights and working conditions. This can involve actions such as meeting with employers to negotiate better terms of employment or even holding strikes or protests when negotiation fails.

Source 1 Unions such as the Rail Tram and Bus Union will at times strike to draw attention to their cause. Strikes involve stopping all work until something is done to address their concerns.

Source 2 A business must ensure that it does everything in its power to prevent workplace accidents from happening. This includes providing employees with safety equipment and training them to perform tasks in a safe manner.

Government laws

Over the years, government laws affecting Australian workplaces have seen many changes. While the government has adopted a more relaxed stance on how much workers get paid, they have set laws to prevent the mistreatment of workers. These laws relate to things such as:

• occupational health and safety – Businesses are required by law to ensure that their workplace is safe at all times

• the minimum wage – Although the government doesn't set the exact amount that workers are required to be paid for their work, it does set out a minimum wage that employers cannot pay below.

• discrimination – The government has strict laws to ensure people are treated equally. This means that it is illegal for a business to mistreat someone because of their race, beliefs, gender or other personal circumstances that do not affect the way in which they go about their job.

Check your learning 12.8

Remember and understand

1 What does the government aim to achieve in terms of employment?

2 What is the role of workers' unions?

3 Describe three areas of law that affect Australian workplaces.

Apply and analyse

4 Look at Source 1. What is a strike and how can it help workers improve their working conditions?

5 Look at Source 2. Why do you think it is important for businesses to provide safety equipment on work sites?

Evaluate and create

6 Explore the school and take note of any potential safety hazards that could harm teachers or students. Consider how these can be made safe for everyone on school grounds and report back to your teacher with your findings.

12.9 Workers of the world

The nature of work varies greatly from country to country. Earlier in this chapter we looked briefly at how businesses often outsource parts of their operations to poorer nations. This is done to take advantage of cheap labour and fewer regulations protecting the rights of workers. In doing so, a business can reduce its costs of production and make a greater profit. The practice does, however, raise concerns about the ethics of exploiting poor workers in this way.

Sweatshops

A sweatshop is a factory that pays its workers very low wages to work in poor conditions. They are common in poorer nations where the laws that protect workers are not enforced. Workers are regularly beaten, abused and forced to work incredibly long hours in unsafe environments. Many well recognised businesses use sweatshops to produce products such as clothing, cotton, bricks, cocoa and coffee.

Source 1 On the 24th April 2013, the Rana Plaza building in Bangladesh collapsed killing 1134 garment workers and injuring many more. The horrific event once again shed light on the unethical behaviour of over 150 international brands that source the cheapest possible clothing supplies on the planet, ignoring horrible crimes against the workers that produce them.

Source 2 Enrique wipes the soot from his face while collecting wood for charcoal production in Ulingan, the Philippines. Many of the workers there are small children who are unable to attend school because of poverty.

Child labour

There are an estimated 168 million children around the world between the ages of five and 14 who are forced to work. They are often abused and paid next to nothing for the work that they do. Child labour is most commonly used in sweatshops and on plantations, often producing goods for famous brands that sell their products in wealthy nations such as Australia.

Solutions

The people who work in sweatshops spend the majority of their pay on food for their families to survive. The child labourers who miss out on an education have no real chance of breaking out of poverty on their own. A study showed that doubling the salary of sweatshop workers would only increase the consumer cost of an item by 1.8 per cent, while consumers would be willing to pay 15 per cent more to know a product did not come from a sweatshop.

As consumers, we can do a great deal to help protect workers from unethical businesses. By being **ethical consumers** who research products before we buy them and choose ethical products over unethical products, we can put pressure on businesses to do the right thing. We can also use our freedom of speech and our ability to raise awareness and campaign for the rights of these people.

Check your learning 12.9

Remember and understand

1 What is a sweatshop?

2 What does it mean to be an ethical consumer?

Apply and analyse

3 Look at Source 1.
  a Would you buy products from a business that you knew was exploiting workers in unsafe factories?
  b How could you find out more about the products you are purchasing?

4 Look at Source 2. Why do you think children like Enrique will find it very difficult to get out of poverty without someone's help?

Evaluate and create

5 Using the Internet, try to find out whether your favourite brands use sweatshops to produce their products. If so, try to find out what the pay and working conditions are like in those sweatshops.

Minimum wages around the globe

The minimum wage sets the legal standard for how much people must be paid. Employers cannot pay their workers less than this amount. In this way, the minimum wage prevents workers from being taken advantage of and falling into poverty even when they are working hard. Yet some economists argue that the minimum wage in Australia is too high and could be costing Australians jobs in the long run. They believe that businesses that cannot afford to pay the minimum wage will either close down or move their operation overseas, meaning less jobs for those who need them.

Working Australians enjoy high living standards compared to many people around the world. Part of this is because minimum wage laws ensure that we all get a fair share of the profits if we work for an employer. However, because businesses can now outsource work to other countries, some economists argue that a lower minimum wage is needed to keep businesses and the jobs that go with them in Australia. Supporters of a higher minimum wage argue that lowering the minimum wage does nothing but cause competition between workers around the world to see who will settle for the lowest wages. Would Australians be willing to work for less than a dollar an hour, as is the case in many other nations? They argue that business owners already make substantially more than the workers who perform the actual tasks of the business, and should be required to pay workers their fair share.

Source 1 Protesters hold signs at a rally in support of a minimum wage increase in New York, USA, on 15 April 2015. Fast-food workers held rallies in 236 American cities in their fight for higher pay and union rights.

Interpreting economic data from a bar graph

An important part of being an economist is being able to interpret data to gain information which can be used for decision making. We can interpret economic data from bar graphs, using the following steps:

Step 1 Read the questions. By reading the questions first, you will know what to look for in the graph, and have a better understanding of the purpose of the task.

Step 2 Read the title and labels. Read the title of the graph and the labels on the end of each axis. This will give you an understanding of what is being measured.

Step 3 Find the relationship. The goal of interpreting data from bar graphs is to visually compare values, such as minimum wages for different variables, such as nations.

Step 4 Identify points of interest. Are there any values that stand out for being much bigger or smaller than other values? If so, what might be the reasons for this?

Step 5 Answer the questions.

Apply the skill

Using the steps of the skill drill, answer the following questions about the bar graph shown in Source 2.

1 Which nation has the highest minimum wage?

2 What is Australia's minimum wage as given in $US?

3 From the nations listed, which country has the lowest minimum wage?

4 Which nation would you most like to live in if you were an unskilled worker? Why?

5 Do you think that Australia should lower its minimum wage, or try to help other nations raise theirs? Justify your choice.

Extend your understanding

1 Some people argue that there needs to also be a 'maximum wage' to promote equality in our society. Use the Internet to research this idea and write a paragraph explaining why you think this would be a good or bad idea.
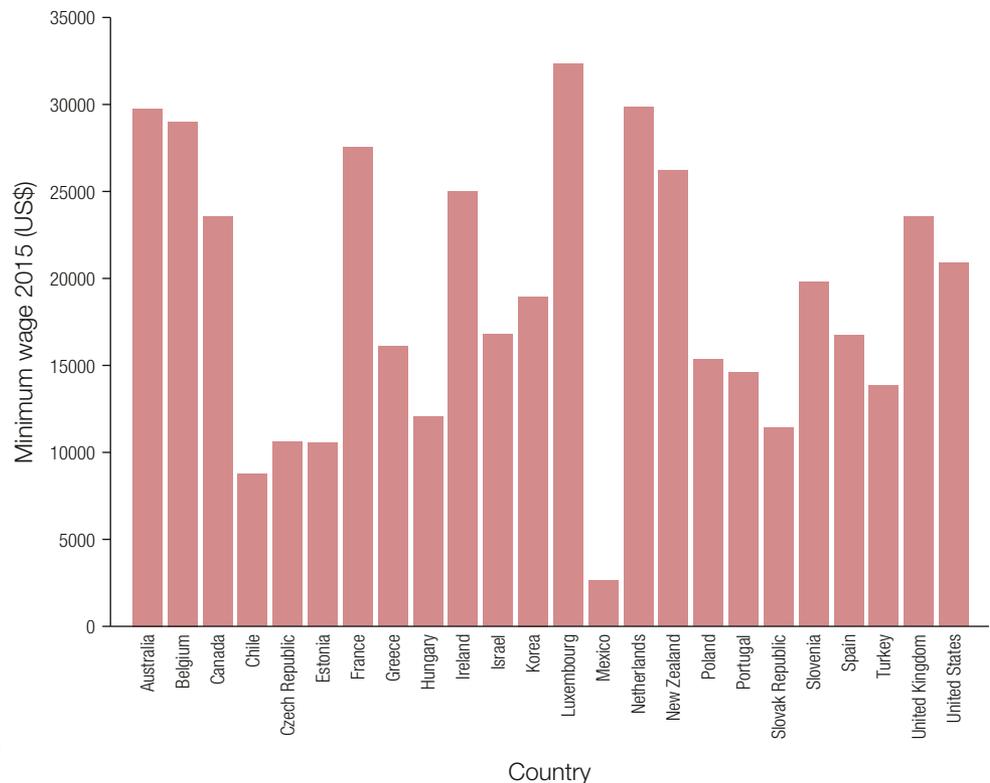
Source 2 A comparison of the real minimum wages of workers by nation in 2015 (in US dollars)

Participation and influences in the marketplace

Consumers and businesses

Consumers deal with businesses every day. Whether you use something bought from a shop, or simply see or hear an advertisement, business is everywhere. Today, businesses can vary in size from small local businesses such as cafes to massive global corporations such as McDonald's. Regardless of size, businesses are responsible for the majority of **goods and services** produced around the world. Some of the world's most powerful businesses earn more money than some small countries. Often the day-to-day operations of a business will involve many different skills. Ultimately, the main goal of a business is to earn money by selling goods and services that we as consumers want.

13A

What does it mean to be a responsible business?

1   Why do you think a business should consider the environment in its day-to-day operations?
2   Would you buy products from a business that mistreats people and the environment? Why or why not?

13B

What are the rights and responsibilities of consumers in Australia?

1   What would you do if something you bought looked nothing like it appeared in advertising?
2   How can you find out more about a product before you buy it?

Source 1 Many of today's large businesses operate in different nations across the globe.

chapter 13

13.1 Types of business

There are many different business structures to choose from when starting or growing a business. Each type of business has different features and rules, making them more or less suitable to different business owners.

Sole traders (proprietorships)

Sole traders, also known as proprietors, are individuals who run their own businesses. While they can employ other people to work for them, sole traders are completely responsible for the success or failure of the business. This means that the owner might find themselves having to sell their personal assets such as their car or home to pay off the debts of their business if it fails. Proprietorships are the most common legal business structure in Australia and are favoured by most small business owners since they are cheap and easy to set up.

Source 1 Proprietorships are cheap and easy to set up but do not provide the owner with the legal protection that companies do.

Partnerships

Partnerships are formed when two or more people agree to run a business together. The details of what each partner is responsible for and entitled to are often specified in a partnership agreement. Partnerships help the owners share the responsibility of running a business while utilising the skills, effort and finances of the different partners. Partnerships are cheaper to set up and run than companies, but partners can be held accountable for the failures of the business and any bad decisions made by other partners on behalf of the business.

Corporations (companies)

Corporations, also known as companies, are businesses that are considered separate legal entities to their owners. Companies are more expensive and tricky to set up and maintain than proprietorships or partnerships, but they protect the owner(s) by providing them with limited liability. This means that if the company fails, the owner will not be forced to sell their personal assets to pay the debts of the company in most circumstances. The owners of a company are called shareholders since they own a share of the company and are entitled to that portion of the company's **profits**.

Cooperatives

A cooperative is a business made up of at least five members who contribute to the running of the business, all of which have equal voting rights regardless of their position in the business. Although not very common, cooperatives are becoming increasingly popular and successful as they make each member feel valued as equals, regardless of their position or title within the cooperative.

Source 2 CBH Group is Australia's largest cooperative and the leader in the Australian grain industry. It is owned and controlled by around 4200 Western Australian grain growers, and it contributed nearly $3 billion to the Western Australian economy in 2014–2015.

Franchises

A franchise agreement allows a person (franchisee) to use the name, products and services of an existing business (franchisor), in return for franchise fees and a portion of the profits. Franchises are popular as they allow the franchisee to use a proven business model that is less likely to fail. The franchisee must follow the guidelines set by the franchisor as to how to run certain aspects of the business, but can often rely on the franchisor for some support.

Source 3 Most fast-food chains, such as Subway, McDonald's and Pizza Hut, operate under franchise agreements.

Check your learning 13.1

Remember and understand

1 What is the most common legal business structure in Australia?
2 What is meant by limited liability?
3 How does a franchise agreement work?

Apply and analyse

4 Make a table showing the advantages and disadvantages of each type of business.

Evaluate and create

5 Interview a local business owner asking them why they chose the type of business that they did.

13.2 Business opportunities and influences

A business owner must always be aware of the different factors that influence the business in order to be successful. These influences can provide the business with opportunities for growth or threaten its future if not dealt with properly. Different businesses will face different influences at any given time. We will look at a few common influences that most Australian businesses have to consider.

Location

The location of a business can determine whether it will be a success or failure. Different types of businesses will perform better in certain locations which is why the owner should carefully consider the needs of the business before deciding on a location. Retail shopping strips and shopping centres are visible to customers and easy to access but can also be expensive to **rent**. The Internet has allowed many small online businesses to operate from home, but this isn't suitable for bigger businesses that need to store their stock.

Target market

It is important for a business to figure out exactly what kind of people will be buying its products. Very few products appeal to absolutely everyone. The type of people who are most likely to buy a product are the business' target market for that product. Knowing its target market allows the business to plan important aspects of the business, such as its location, advertising **strategy** and product features, in a way that appeals to those people.

For example, the target market of a business selling toys would probably be young children. Advertising for children is different to advertising to adults. Have you ever noticed that more toy advertisements are on the television in the afternoons or Saturday mornings? This is because the business is trying to reach their members of their target market, who are unlikely to be watching TV late at night.

Source 1
Advertisements for toys, such as Bratz, are purposefully aired after school when the young people who are likely to want them are watching TV.

Source 2 Coca-Cola and Pepsi are examples of competitors. They both sell similar products to the same target markets.

Demographics

Before a business decides on its location and target market, it needs to know what kind of people are out there. By categorising the population into categories or demographics, a business can get a better understanding of what products to produce, how to market these products and where to locate their business. A business may analyse demographics based on age, sex, level of income, cultural background or any other categories that are relevant to the way it wishes to operate.

Competition

Competition between businesses is what drives them to improve the way in which they provide goods and services to customers. A business must always strive to stay ahead of the competition if it is to be successful. If a **competitor** is able to offer customers better quality products at cheaper prices, the business will not be able to attract the customers needed to survive.

Check your learning 13.2

Remember and understand

1 Why is location important?
2 What is a target market?
3 How do demographics help a business choose its location and target market?

Apply and analyse

4 Provide one example of a business that would be considered a competitor of each of the following businesses:
   a BMW
   b Rio Tinto
   c Target
   d McDonald's
5 Do you think a business would like to be located close to its competitors? Why or why not?

Evaluate and create

6 Select any business that you are familiar with. Create a mind map or short report showing how each of the factors discussed affect the business. You may need to use the Internet to research the business for more information.

13.3 Business opportunities in Australia

In Australia there are many opportunities for people to start businesses. Like any other country, the wants and needs of the population present an opportunity for businesses to make money by supplying us with the goods and services to fill these wants and needs.

casestudy

The Yoga Vine

Originating in India more than 2500 years ago, the spiritual science of yoga has become increasingly recognised around the world for its mental and physical health benefits. It involves simple mediation, breath control and bodily postures, as well as a range of philosophical teachings.

Yoga enthusiasts Kate Taylor and Donna Buchanan saw an opportunity to bring yoga to people working in the fast-paced environment of the Perth CBD, establishing The Yoga Vine. As the only studio dedicated to yoga in the CBD, The Yoga Vine has grown into a successful business that improves the health and wellbeing of many Perth-based corporate workers. The business has grown to offer instructional yoga sessions in the workplace in a bid to make yoga more accessible to busy workers. This move has been welcomed by many businesses who see the benefits of yoga in achieving a happy and healthy workforce, which is in turn a more productive **workforce**.

In 2016, The Yoga Vine's success was recognised when it placed as a finalist in the Telstra Western Australian New Business Awards. The Yoga Vine is an example of how enthusiastic entrepreneurs can grow a successful business from their passion for health and wellbeing.

Source 1 Yoga is an ancient spiritual science that is believed to have originated from India over 2500 years ago.

Source 2 Kate Taylor and Donna Buchanan, co-founders of the Yoga Vine have developed values to accompany the way they run their business.

'One of our primary values is to make yoga accessible to all, irrespective of status, time-availability or fitness. Even a short amount of yoga twice a week significantly enhances feelings of wellbeing.'

Koomal Dreaming

Koomal Dreaming was founded by Wadandi man Josh Whiteland to provide an opportunity for visitors to experience Wadandi and Bibbulman country and culture.

From his home base of Dunsborough, Josh provides guests with the opportunity to taste native foods, discover bush medicine, and experience traditional fire lighting. Josh recounts stories of the Dreaming spirits that relate to his traditional area, and takes visitors deep into Ngilgi Cave for a uniquely memorable didgeridoo cave experience.

Josh's spiritual awareness and deep connection to the land drives his passion for the business, which received the Western Australian Indigenous Tourism Award in 2014.

As a cultural custodian, Josh works in a variety of roles in the community. He works with primary and secondary children teaching them about local culture, language and traditional values. Through Koomal Dreaming, Josh is also able to provide leadership programs for Aboriginal youth at risk and disengaged students. He believes that prevention is better than cure and that education can make a difference.

As a descendent of the traditional land owners, Josh is dedicated to protecting the environment

Source 3 Josh Whiteland takes visitors deep into the Ngilgi Cave.

through initiatives ranging from river restoration and tree planting to working with and advising councils and private land owners.

Check your learning 13.3

Remember and understand

1 Who are the founders of The Yoga Vine?
2 Which award did the business win in 2016?
3 Who founded Koomal Dreaming and where does the name come from?
4 What services does Koomal Dreaming offer its visitors?
5 Which award did the business win in 2014?

Apply and analyse

6 Explain why the co-founders of The Yoga Vine may have chosen to locate the business in the Perth CBD.
7 How might businesses benefit from offering instructional yoga sessions to their workers?

8 What do you believe may have motivated Kate and Donna to open The Yoga Vine?
9 How does Josh help the community and the environment?
10 What do you think motivated Josh to establish this business?

Evaluate and create

11 In 150 words, explain why you agree or disagree with the statement, 'People are only motivated to open a business by money'. In your response you should refer to the Koomal Dreaming and The Yoga Vine case studies.

13.4 Responsible businesses

A business has both rights and responsibilities. While it has the right to legally make a profit for its owner, it should do so in a way that doesn't harm people or the environment. Every business has to follow the law. A business' commitment to people and the environment is known as its **social responsibility**.

Legal rights and responsibilities

There are many laws that outline the rights and responsibilities of businesses and consumers in Australia. These laws protect both businesses and consumers from unfair treatment. We will now discuss just some of the legal areas that affect the rights and responsibilities of businesses.

Competition and Consumer Act (2010)

The *Competition and Consumer Act (2010)* sets out the rules that businesses and consumers have to follow when buying and selling products. It covers a wide range of issues, such as the safety and quality of products, refunds and advertising. It also protects the rights of a business to compete in the **market** without being treated unfairly by other businesses. The *Competition and Consumer Act (2010)* was put in place so that both businesses and consumers would get a fair go.

The **Australian Competition and Consumer Commission (ACCC)** is the authority whose role is to enforce the *Competition and Consumer Act (2010)*.

Product safety recalls

If it turns out a business has sold a product that is faulty or dangerous, they must organise a **product safety recall**. This means they must notify consumers that there was a problem with the product, and organise for all of those products to be returned to the business.

In 2016, a number of car **manufacturers** had to recall cars across Australia after it was discovered they had been installed with faulty airbags. Many well-known car brands, including BMW, Honda, Mazda, Nissan and Toyota, had received their airbags from the same supplier, and were obliged under consumer law recall the cars. While no one was injured as a result of the faulty airbags, the companies are responsible for providing safe products to consumers.

Employer rights and responsibilities

As an **employer**, a business has many rights and responsibilities when it comes to dealing with **employees**. For example, a business has the right to only hire employees that they feel are fit for the job and ask questions relating to the employee's ability to do the work.

The business must then ensure that employees are treated fairly and equally, and do not face discrimination based on their gender, race or personal beliefs and characteristics. An employer must also make sure that it provides safe and healthy working conditions at all times.
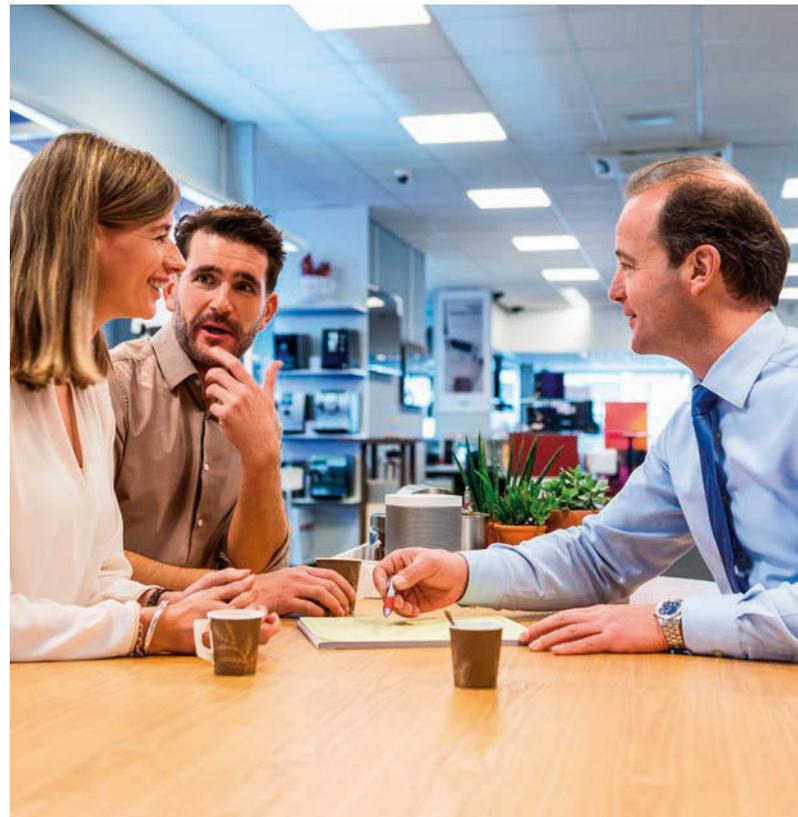
Source 1 All businesses must ensure their employees are treated fairly.

Source 2 WorkSafe is the government body in charge of promoting and enforcing safety in Western Australian workplaces. One of WorkSafe's responsibilites is to inspect workplaces, focusing specifically on workplaces with high injury rates or saftey hazards.

Source 3 WeWood Watches is a socially responsible company that plants a tree for every wooden watch that it sells.

Social responsibility

Finding the right balance between making money and being socially responsible can be a tricky but rewarding task for businesses. While doing the right thing can be more expensive, it can often be more profitable in the long run. Socially responsible businesses are likely to attract more customers, who prefer to see their money going to a good cause. They are also less likely to lose **employees** who don't wish to work for a business that does the wrong thing.

A business can be socially responsible by always considering its impact on people and the environment when making decisions. This can include implementing environmentally friendly practices such as recycling and reducing waste and pollution. For instance, some businesses might only buy their materials from ethical sources, so that, no child labour, sweatshops or destructive farming practices would be involved. It can also be achieved by helping the community through donations and charity.

Check your learning 13.4

Remember and understand

1   What is social responsibility in business terms?
2   Which legislation is concerned with protecting businesses and consumers in the market?
3   What responsibilities does a business have towards its employees?
4   Which government body is in charge of promoting and enforcing safety in Western Australian workplaces?

Apply and analyse

5   Look at Source 3. Do you think consumers would be more likely to buy WeWood products than that of another watchmaking company? Why or why not?
6   Pick any type of business you are familiar with and make a list of things that they could do to be socially responsible.

Socially responsible business: The Body Shop

The Body Shop is a cosmetics company that was founded by entrepreneur Dame Anita Roddick in 1976. The business started in England and opened its first Australian store in 1983. It is now well known around the world with 90 stores across Australia alone.

The Body Shop regularly monitors its impact on society and the environment through official investigations, called **audits**. It releases this information publicly and uses it to help improve its level of social responsibility.

Source 2 The Body Shop is a business that is internationally renowned for its commitment to social responsibility.

Much of this success is due to its reputation as a socially responsible business as well as the quality products that it offers to its customers. Over the years, Anita and The Body Shop have run campaigns protecting human rights, animals and the environment, and have shown commitment to boosting body image and **self-esteem**, winning the support of a generation of consumers.

In 1990, the business even opened its own charity, The Body Shop Foundation. The foundation gives financial support to innovative organisations that otherwise would have had little hope of gaining conventional funding. Its focus is on assisting those working to achieve progress in the areas of human and civil rights, the environment and animal protection.

Source 1 The founder of The Body Shop, Dame Anita Roddick, passed away in 2007, but the core values she instilled in the business remain present today.

Source 3 The Body Shop has 90 stores in Australia.

skill**drill**

Creating a concept map

A concept map is a visual display of ideas and how they link to one another. Ideas are usually represented in a box or circle, connected together by lines when there is a relationship between ideas. Words can be placed on the lines to explain the relationship between the ideas. It is a great way to show others what you are thinking and to keep track of your thoughts. You can map out your ideas on paper or on your computer or tablet.

Step 1 Identify the topic you are interested in. In the example shown in Source 4 the topic is 'Cosmetics business'.

Step 2 Write the topic and a list of all the concepts and ideas that are related to the topic.

Step 3 Connect related ideas with a line, adding a word or two to the line if the relationship needs clarification.

Step 4 Keep adding concepts that relate or follow on from the main concepts that you have already identified using the same process as in the previous step.

Apply the skill

1 Use the steps above to create a concept map for the topic of 'social responsibility'.

Extend your understanding

1 Visit The Body Shop website via the link in your obook and write down a list of things that the company does to be socially responsible.

2 What potential benefits would The Body Shop receive by operating in a socially responsible way?

3 What are the potential costs or disadvantages The Body Shop would experience for being socially responsible?

4 Think of another business you come into contact with regularly. How could they be more socially responsible? Draft a letter to that business identifying how their business could be more socially responsible and convincing them that these changes would benefit their business.

Source 4 A basic concept map exploring a cosmetics business

13.5 Consumer rights

In Australia, there are many laws that protect consumers from unfair treatment. In order to be fully protected, we must first learn what our basic rights as consumers are.

Australian consumer law

In Australia, the *Competition and Consumer Act (2010)* is just one of the laws that states what rights and responsibilities consumers have. Because this law is so important, there are government bodies at both **federal** and state level whose main purpose is to enforce it. At a federal level, the Australian Competition and Consumer Commission (ACCC) makes decisions and provides guidance on issues that affect markets across Australia. At a state level, **Consumer Protection** acts as the **regulatory body** that aims to make a fair and competitive marketplace for businesses and consumers in Western Australia. As well as providing information to consumers, these bodies guide businesses towards operating in a way that avoids unfair situations. While you do not need to know all of the details of Australian consumer law, it is important that you understand your basic rights and responsibilities as a consumer, as well as where you can get help.

Source 1 The Australian Competition and Consumer Commission (ACCC) monitors petrol prices.

Consumer guarantees

Under Australian consumer law, when you buy a product or service it comes with an automatic guarantee that it will work to a reasonable level, or as you would expect it to. This is a consumer guarantee that means that the products you buy must:

- be safe
- be of reasonable quality (won't break after a few uses)
- do all of the things that a person would normally expect them to
- match descriptions made by the salesperson, on packaging and labels, and in promotions or advertising
- not have any hidden costs associated with their use or purchase
- meet any extra promises made about performance, condition and quality, such as lifetime guarantees and money-back offers
- have spare parts and repair facilities available for a reasonable time after purchase unless you were told otherwise.

Services that are provided by people through their skills, knowledge and effort must:

- be provided with acceptable care and skill, taking all necessary steps to avoid loss or damage
- achieve the results that the consumer and the business had agreed to
- be delivered within a reasonable time if there is no agreed end date.

Warranties are additional guarantees that businesses can offer consumers when they are buying a product. An **express warranty** is a promise from a business about the quality or features of a product that go beyond basic expectations. For example, a business might sell a trailer with the express warranty that it can tow up to 800 kilograms of weight. If it were unable to do this when tested, the business would be obliged to repair, replace or refund the trailer. An **extended warranty** gives consumers the option of paying extra to lengthen the time

a product is under warranty. Before buying an extended warranty, it is important to check that you are not being asked to pay for something that you are already covered for under Australian consumer law.

Exceptions

There are some exceptions to the guarantee that can protect sellers from unfair situations. Consumer guarantees do not apply if you:

- got what you asked for but simply changed your mind, found it cheaper somewhere else, decided you did not like the purchase or had no use for it
- misused a product in any way that caused the problem
- knew of, or were made aware of, the faults before you bought the product
- asked for a service to be done in a certain way against the advice of the business or were unclear about what you wanted.

Resolving issues

If the goods or services do not satisfy the consumer guarantee, the consumer has the right to approach the seller and request that the problem is fixed by a repair, replacement, refund or, in some cases, compensation (usually in the form of money) for damages and losses.

The seller of the good must help the consumer directly, or by sending them to the manufacturer or **importer** of the good who is responsible for the problem.

Source 2 While Australian consumer laws protect consumers from buying faulty products, they do not apply in instances where the consumer has caused the problem.

It is important to keep your receipt to prove that the good or service was purchased from the seller and on what date.

If a consumer has made a complaint to the seller but is still having difficulty resolving the problem, they should contact the ACCC or Consumer Protection who will advise them on the best course of action.

Check your learning 13.5

Remember and understand

1 Which Australian law outlines the rights of consumers?
2 What are the two government bodies that regulate the marketplace and ensure that consumers are protected from unfair treatment?
3 Describe three things a product must be to meet its consumer guarantee.

Apply and analyse

4 Why do you think there are exceptions to the consumer guarantee?

5 Look at Source 3. Explain whether you think the seller of the phone would be required to replace it if:
   a the consumer opened the box only to find that the phone was already broken upon purchase
   b the consumer accidentally dropped the phone causing the damage.

Evaluate and create

6 Write a letter of complaint to a store about the faulty product you have purchased from them. Visit the ACCC website via the link in your obook for a template that will help you write your letter.

13.6 Consumer responsibilities

While consumers have many rights that are protected by law, we also have many responsibilities. Some of these are to ensure that we know what we are agreeing to purchase, while others relate to our social and moral responsibilities to the people and environment that we share our planet with, such as buying local produce and consuming less.

Legal responsibilities of consumers

As discussed earlier, there are certain exceptions to the guarantee we receive when we buy a product or service. After all, it would be unfair on the seller if we didn't take the time to consider what we were buying and then demanded a refund because we made a careless mistake. For this reason, it is our responsibility as consumers to learn about the product or service we wish to buy before we commit to buying it. This involves:

- reading the description and specifications carefully
- using the Internet to check the prices of similar goods or services at other stores
- reading online reviews and information about the product
- asking questions about the product or service
- reading the terms and conditions carefully.

Once we purchase a product, we must ensure that we:

- read and follow the instructions for its use carefully
- take care of it so that it is not exposed to anything that is likely to damage it (such as leaving a computer outside where it might rain)
- contact the seller or manufacturer with any important questions about how to properly use the product.

Source 1 It is important to carefully read the specifications of a product before purchasing it. The important information is generally printed on its packaging.

Social responsibilities of consumers

Socially responsible or **ethical consumers** make an effort to purchase goods and services that do not have a negative impact on other people, animals or the environment. As ethical consumers, we consider how we can satisfy our needs and wants in the way that is least harmful to others.

Consume less

Undoubtedly the easiest way that we can minimise our negative impact on the planet is by simply buying less stuff, especially if it doesn't satisfy a basic need. To consume less we need to be aware of how we use the goods we buy and how the disposal of them will affect our world. If we do not change how wasteful we are with our consumption, we will continue to contribute to the environmental problems that our world is facing.

Source 2 Buying products from your local market is not only better for the environment, but supports your local community

Buy local

By purchasing locally made products, we can be certain that workers from poorer nations have not been exploited to make our products. Buying locally also reduces the negative effect of transportation on the environment.

Research the product and company

Researching products that we regularly buy as well as the companies that make them gives us a better idea of what we are buying. Researching helps us decide for ourselves if a product is being made in an ethical way and whether it is healthy for us to consume. We can also research alternatives to products that don't seem like the best purchasing choices. We can access much of this information on the Internet via our smartphones while we are shopping. Websites such as Shop Ethical! have a great deal of information about a wide range of household products.

Source 3 Fairtrade is about stable prices, decent working conditions and the empowerment of farmers and workers around the world.

Look for certification

Another way of helping to ensure that we are being socially responsible is by looking carefully at the packaging of a product. Often, we will see that some products have little certification logos on them, such as the Fairtrade logo, that not all products have. A product with Fairtrade certification provides better working conditions for the people who produce it in poorer countries.

Check your learning 13.6

Remember and understand

1 Describe three legal responsibilities of consumers.
2 What does it mean to be an ethical consumer?

Apply and analyse

3 Why do you think consuming less is the easiest way to reduce our negative impact on the environment?
4 Which of the strategies for being an ethical consumer do you think you might use in the future?

Evaluate and create

5 Log onto the Fairtrade website via the link in your obook and use the information to create a poster explaining and promoting Fairtrade.

You are what you eat

Of all the products that we purchase, none are more important to understand than food and drink. What we eat and drink can have dramatic effects on our health and wellbeing. But with so much information on the labels and so many different ingredients, knowing what we are putting into our bodies can be a little tricky. Fortunately, the law states that nearly every packaged item of food and drink has to provide nutritional information on its packaging. By learning how to read this information, you can be on your way to a happier and healthier you!

MILK CHOCOLATE EGG WITH A SOFT FONDANT CENTRE.
MILK CHOCOLATE: MILK SOLIDS 20% MINIMUM.
CONTAINS VEGETABLE FATS IN ADDITION TO COCOA BUTTER.

Ingredients: Milk chocolate (Milk, Sugar, Cocoa butter, Cocoa mass, Vegetable fat, Emulsifiers (E442, E476, Soya lecithin), Flavourings), Fondant (47%) (Sugar, Glucose syrup, Invert sugar syrup, Dried egg white, Flavouring, Colour (Paprika extract))).

CONTAINS: MILK, EGG, SOYA.

NUTRITION INFORMATION

Be treat wise - Get to know your GDAs
EACH EGG CONTAINS . . .

Calories	Sugars	Fat	Saturates	Salt
175	**25.9g**	**6.3g**	**3.9g**	**0.05g**
8.8%	28.8%	9.0%	19.5%	0.8%

. . . OF YOUR GUIDELINE DAILY AMOUNT (GDA)

To be enjoyed as part of a healthy, active lifestyle

*GDA Typical Adult	Typical values	Per 100g	Per Egg
	Energy kJ	1845 kJ	745 kJ
2000 kcal	kcal	440 kcal	175 kcal
45g	Protein	4.0g	1.6g
230g	Carbohydrate	70.5g	28.5g
90g	(of which sugars)	64.2g	25.9g
70g	Fat	15.7g	6.3g
20g	(of which saturates)	9.7g	3.9g
24g	Fibre	0.4g	0.2g
2.4g	Sodium*	0.05g	0.02g
6g	*Equivalent as salt	0.13g	0.05g

To learn more visit
www.betreatwise.org.uk

Source 1 The nutrition label and information table for milk chocolate eggs

How to read a food nutrition label

The infographic in Source 3 gives a guide of what each part of the label means, and what an acceptable level of consumption is for the ordinary person. Many labels also give a rough guide on the recommended daily intake of each type of nutrient for adults. As a younger person, you would want to consume less than this amount.

Step 1 Locate the food nutrition label on the packaging of a product.

Step 2 Identify the serving size, usually at the top of the label. This indicates how much of the product you should consume. This amount also relates to the nutrition information figures per serve.

Step 3 Use the table of information to identify the amount of energy, protein, fat, carbohydrates (including sugars), fibre and sodium in the product, either per serve or per 100 grams.

Step 4 Find the ingredient list. This is usually located at the bottom of the nutrition information but sometimes on other parts of the packaging. Use the ingredients list to decide if this product is something you can or you want to eat. This is especially helpful for people with food allergies or intolerances. For example, some people might read that there is wheat in the product and decide that they cannot eat it because they are gluten intolerant.

Source 2 The nutrition label and the information table for juice

Source 3 Use this as a guide to help you understand what you are eating and drinking.

Step 5 Look up any ingredients you don't recognise, such as psyllium husk, and decide if you do or do not want to eat the product.

Apply the skill

1 Compare the nutrition information tables from Sources 1 and 2. For each of the items, suggest which product might be healthier.

2 Which product do you think is healthier overall?

3 If none of the products we bought had nutritional information labels on them, how do you think this would affect consumers?

Extend your understanding

1 Find three different products in your kitchen at home. Follow the steps for how to read a food nutritional label on each. Once you've done this, compare the products' information and rank them from healthiest to most unhealthy.

part 4

civics and citizenship

The civics and citizenship toolkit

Civics and **citizenship** is the study of the **rights and responsibilities** that Australians have in our society. It looks at how we can work together to shape our nation into one that is fair and just for all. By building an understanding of these rights and responsibilities we can develop our own sense of what it truly means to be Australian.

Civics and citizenship teaches us to 'agree to disagree'. That is, we learn to form our own opinions but accept that other people will have different views. To do this, we must first learn to gather information about various issues before we come to conclusions.

As open-minded citizens we can promote the values of freedom, respect, compassion and equality that allow us to live in harmony.

14A

What are the civics and citizenship concepts?

14B

What are civics and citizenship skills?

Source 1 Parliament House in Canberra is where elected federal politicians meet to make important decisions about how our nation is run.

14

14.1 Civics and citizenship concepts

Civics and citizenship students can use a wide range of concepts to help them understand the workings of Australia's political and legal systems. These concepts may be used together or as separate ideas. As you learn to use each of these key concepts you will begin to think like an active citizen.

The six key concepts of civics and citizenship are:

- **democracy**
- **democratic values**
- **the Westminster system**

- **justice**
- **participation**
- **rights and responsibilities**.

Democracy

A democracy is a system of **government** run by the people, for the people. In most democratic societies, citizens are involved in the running of society by electing people who will represent them in government. Representatives of the people then develop policies and make **laws** on behalf of the people who have elected them.

The concept of democracy has been around for a long time, with many civilisations and societies throughout history. The term democracy comes from the Greek words 'demos' (meaning citizen) and 'kratos' (meaning rule). The people of ancient Greece practised what is known as a **direct democracy**. A direct democracy involves citizens meeting together to make laws for their society.

Today, most democratic societies such as Australia are **representative democracies**. This means we elect representatives to make laws on our behalf. In Australia, citizens over the age of 18 are required to vote for candidates in elections for federal, state and local government. Our system of voting is compulsory, unlike other democracies such as the United Kingdom or the United States where participating in elections is optional.

Source 1 The Australian House of Representatives is made up of the people we have elected to represent us in our democracy.

Democratic values

Democratic values are the beliefs and ideals that are held by our society as a democracy. Such values include respect, equality, fairness and freedom (see Source 2). It is important to understand democratic values when examining Australia's political system. By understanding democratic values and their purpose, we can assess if a government is operating as a true democracy.

For example, in Australia (like many democratic nations), freedom is a very important part of society. In Australia we are free to say and do many things. For example, we are free to protest if we do not agree with something or if we feel passionately that something should change. We are free to practice whatever religion we want to, including no religion.

These freedoms are a very important part of living in a democracy as they allow us to participate and have a say in the way our country is run. If we couldn't safely participate in our society, then it wouldn't be a democracy at all.

Democratic value	Definition
respect	treating others with consideration and valuing their views, beliefs and rights
equality	rights and privileges for all, without **discrimination** based on gender, race, religion, age, sexual orientation or level of education; all citizens have the right to the same opportunities
fairness	all people are treated fairly, or without injustice, and are given equal opportunity; also known as a 'fair go' in Australia
freedom	rights, privileges and responsibilities for all without interference, or control from other citizens or government

Source 2 Democratic values

The Westminster system

Australia's system of government is based on the Westminster system. The Westminster system is a form of parliamentary government originating in the United Kingdom. It is named after the area of London where the British **parliament** is located (see Source 3). The Westminster system has been adopted by a number of countries, including Canada and New Zealand. It includes:

- a lower house of parliament that has been elected democratically by the people
- a head of state or sovereign (such as the Queen or Governor General) whose job is mainly ceremonial
- a head of government (such as a prime minister) who leads the majority of representatives in the lower house
- an executive or cabinet made up of members of parliament (MPs)
- an independent civil service that serves the government in power
- an independent **judiciary** (made up of the courts), which upholds the rule of law.

In Australia, the Westminster system is used by both our federal and state governments.

Source 3 Westminster Palace, Houses of Parliament, London

Justice

The concept of justice can have many different definitions. The idea of justice can mean different things to people from different societies and cultures. For some it might mean payback, while for others it might mean fairness. However, the concept of justice in Australia ultimately means that people should treat each other in a manner that is fair and balanced.

Our legal system has strong ties with the concept of justice. In fact, it is sometimes referred to as 'the justice system'. In Australia, when people break the law and are convicted by the courts it is said that they have been 'brought to justice'.

As we will begin to learn, the key features of the Western Australian legal system and the Australian legal system are designed to deliver justice to all. Through its key principles and procedures (such as the right to a fair trial), the legal system encourages the delivery of justice to all citizens, whether they be guilty or innocent. Our laws and rights are also written and enforced so that we can enjoy a fair and just society.

The government's ability to publicly deliver justice to its people is an important part of retaining the trust of citizens. It is also an important factor in stopping people from breaking the rule of law, by knowing that there are consequences for **crimes** and that the legal system is in place to protect us from injustice.

Source 4 Australia's legal system is designed to serve justice to citizens.

Participation

The concept of participation is an important part of living in a democracy. It refers to the way good citizens contribute to or take part in society. In Australia, we participate in the running of society in a number of ways, such as by voting in an election or referendum, serving on a **jury** or paying taxes. These things help our government to deliver services to our community, which we in turn will benefit from.

One of the most important ways we can participate in a democracy is by voting in an election. By voting for the issues that are important to us, we have the power to influence the way our country is run.

Other ways of participating in a democracy might include:

- protesting or demonstrating about important issues (to make your opinions known to the rest of the community)
- participating in a political discussion
- signing petitions that aim to make a change to society
- contacting your local member of parliament (such as by writing letters or emails)
- campaigning for a person or party who is trying to get elected
- becoming a member of parliament.

As a part of democratic societies, participation is important in giving citizens a sense of ownership or accountability in the running of society.

Source 5 People can participate in a democracy by protesting issues they feel are important.

Rights and responsibilities

The concept of rights and responsibilities refers to our entitlements and duties as citizens. The rights and responsibilities we experience in Australia are an important part of living in a democracy. Our rights ensure we are able to have a say in the way our country is run and are treated fairly in the process. On the other hand, our civic responsibilities ensure we contribute to our society in order to keep it going as a strong democracy. A list of some of these rights and responsibilities is shown in Source 7.

In the United States, the rights of the citizens are protected by their Bill of Rights. This **Bill** (or legislation) makes sure the freedoms of US citizens are protected, including the freedom of speech and the freedom to assemble or gather in protest. In Australia, we do not have a Bill of Rights that officially protects our rights. Rather, our constitution says we have a number of rights (see Source 7), including the right to vote. In Australia, we have no official protection for our right to freedom of speech, but the democratic values held by our society ensure that this privilege is rarely prevented.

Source 6 Votimg in elections is both a right and responsibility of Australian citizens.

Rights	Responsibilities
the right to vote	voting in elections
protection against acquisition of property on unjust terms	jury service
the right to trial by jury	paying taxes
the right to freedom of religion	obeying the law
protection against discrimination	

Source 7 The rights and responsibilities of Australian citizens

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Check your learning 14.1

Remember and understand

1 What is a democracy?
2 What kind of democracy is Australia?
3 Name and describe two democratic values.
4 What is justice?
5 What rights do we have in Australia that are protected by our constitution?

Apply and analyse

6 Why is it important for citizens to participate in a democracy?
7 What other values do you think are important to our democratic society?

Evaluate and create

8 Research the government of another democratic society (such as New Zealand, Canada or Japan). How is its form of government similar to or different from Australia's form of government? Present your findings as a poster or audiovisual presentation.
9 Consider the statement 'Australia should have its own Bill of Rights'. Using the Internet to conduct research, develop an argument both for and against this statement.

14.2 Civics and citizenship skills

Active citizens learn to question, interpret information and argue their point of view. For civics and citizenships students, the classroom is a place where you learn to share your opinions and see things from different perspectives. You should take this approach when examining the identity and democratic system of Australia, as well as the legal rights and responsibilities of its citizens.

Studying civics and citizenship requires you to analyse information and ask a range of questions to find out more about a topic. You will learn to question and research information asking what, why, when, how and who to uncover the truth about an issue. Through investigating an issue you are able to develop your own point of view, whilst understanding the reasons why others have different opinions.

As shown in Source 1, there are four stages in any civics and citizenship inquiry. They are:

1. Questioning and researching
2. Analysing
3. Evaluating
4. Communicating and reflecting

Source 2 Learning to question and interpret information is an important skill for civics and citizenship students.

1. Questioning and researching
2. Analysing
4. Communicating and reflecting
3. Evaluating

Source 1 There are four stages in any civics and citizenship enquiry. At each stage, we use a number of different skills. Each of these skills is like a tool in a toolkit.

14.3 Questioning and researching

Developing questions

Civics and citizenship students ask lots of questions. They don't believe everything they read and carefully consider why someone takes a certain point of view or acts in a certain way. For example, when they see politicians talking in the media, they listen to their arguments and seek out different points of view.

They also check facts and look at the arguments for and against a certain issue before reaching their own conclusions. When civics and citizenship students state their own viewpoint, they support their views with evidence such as statistics, cases from the past, quotes from what others have said and sound reasoning.

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skill**drill**

Developing civics and citizenship questions

As active citizens, we should ask questions about the society we live in rather than just accepting it or taking things for granted.

You can learn to investigate a civics and citizenship issue, such as the keeping of asylum seekers in detention centres, by starting your questions with the words 'what', 'where', 'how', 'why', 'what impact' or 'what should'. When examining a source, whether it is a cartoon, video footage, newspaper article or election slogan, the following approach may be helpful.

Source 1 A political cartoon about the controversial issue of keeping asylum seekers in detention centres for an unspecified period of time, often years.

Step 1 Brainstorm a list of questions and then try to answer them. Some questions, such as, 'What is happening?', might be easily answered, whereas other questions, such as, 'Why is it happening?', might need further research.

Step 2 Look at the source itself to try to understand the context. The 'who' question is important here. 'Who is saying this?' can be just as important as, 'What is being said?' Identifying where the source comes from can quickly alert you to whether the truth of their statements should be examined more carefully.

Step 3 The 'how' question is also important. In this example you might ask, 'How are the asylum seekers being detained and processed?', but you also might ask, 'How does this source (cartoon) affect me?' Are there any emotions such as fear, persuasion or humour that are being used to influence your judgement?

Apply the skill

1   Where could you look to find answers to the question, 'What is the issue with detaining asylum seekers?'
2   Why is it important to know the author of the source when discovering the truth about an issue?
3   Why is examining how the source affects you sometimes more important than basic descriptive questions such as, 'What is happening'?
4   What tactics have been used to convey the cartoonist's message about the issue of asylum seekers in detention centres?

Collecting information and data

Sources provide information for civics and citizenship students. They can take many different forms, from written records in books or online, to live video and audio recordings. Some examples of sources include case transcripts and judgments, newspaper articles, letters, tweets, blogs or Facebook posts, cartoons and interviews.

Locating a range of relevant sources is a valuable skill, which usually involves a number of different search methods, such as:

- using online search engines such as Google
- following social media such as Facebook and Twitter
- looking at newspaper and magazine articles in print or online
- contacting local members of parliament or asking people with expertise in the subject
- speaking with other class members or family members to gain an insight into their views on a particular issue.

Using technology to locate relevant sources

Although books and newspapers are valuable sources of information, most research today is conducted online. In order to ensure that sources gathered online are accurate, reliable and relevant, a number of guidelines should be followed:

- Search engines such as Google are useful research tools but much of the material on these sites is unreliable and inaccurate. When using search engines, be sure to define your search using keywords. Your librarian or teacher are good people to ask for help with this.
- A reliable way of searching for sources is to use sites linked to educational institutions, government departments, reputable companies, universities and educational institutions. A quick way of telling if a site is reputable is to look at the domain name in the URL (internet address).
- Avoid blogs posted by unknown individuals. If you happen to find information relevant to your investigation on a blog or social media site, always verify it by using a more reliable source.
- Never cut and paste information from the Internet without referencing where it is from. Taking someone else's work, ideas or words and using them as if they were your own is called plagiarism and is against the law, as well as school rules.

Check your learning 14.3

Remember and understand

1 When do citizens ask questions?
2 Why is it important to ask questions as citizens?
3 What should we be wary of when looking for information to answer questions?

Apply and analyse

4 As an active citizen, develop a question to ask about the following scenarios:
   a A local politician promised to fix and reopen the local pool but nothing has happened.
   b Young people in the local area are bored and desperate for things to do.
   c The number of children that can read in one state of Australia is decreasing.

Evaluate and create

5 Identify an issue in your local area. Develop three questions to ask your local politician about that issue.

Source 2 Littering is an example of a local isssue you may want to ask your local politician about.

14.4 Analysing

Analysing information and ideas from a range of sources

A useful source is one that will add to your understanding of a civics and citizenship inquiry. The source needs to be relevant to the topic and reliable. The following are good questions to ask in order to determine whether a source is useful:

- Is it a reliable source?
- Is there enough information and sufficient detail to help me answer the inquiry question?
- Does the information support evidence from other sources?
- Is it balanced or does it present one point of view (bias)?
- Is it based on fact or opinion?
- Is the information current?

Separating fact from opinion

Sources are only really useful if they help you to form an opinion. In many cases, this means separating fact from opinion. A fact is something that can be proved: when an event took place, what happened and who was involved. An opinion is based on what people believe is likely to be true. A simple way to detect whether a statement is fact or opinion is to look closely at the language used. The use of words such as 'might', 'could', 'believe', 'think' and 'suggests' all indicate that an opinion is being expressed.

For example:
- Fact: Australia detains asylum seekers for an unspecified period of time.
- Opinion: Keeping asylum seekers in detention centres is unethical as they have not committed a crime.

Source 1 Separating fact from opinion in civics and citizenship is an important skill.

Check your learning 14.4

Remember and understand

1 What is the difference between a fact and an opinion?
2 How can we tell if a source is useful?

Apply and analyse

3 Matt wants to know more about the government's policies on education. He has found a few blogs on the subject but doesn't know where else to look. What advice would you give Matt.

14.5 Evaluating

Evaluating different points of view and negotiating to resolve issues

In civics and citizenship it is important to understand not only what opinion is being expressed but why it is being expressed. It is useful to consider why a person may have a certain point of view. For example, the family of a victim of crime may say to the media that a sentence given to a criminal was insufficient and unjust. This may be true, but it's important to consider how the opinion of these family members might be influenced by the emotions of losing a loved one. Listening and being respectful of opinions that may be different to our own is an important skill to learn in civics and citizenship.

Planning a course of action

A democratic process exists when everyone has an opportunity to have their say. This might include giving all members of a group the opportunity to contribute to a discussion, making sure that all group members have access to information and taking a vote.

A democratic process exists when everyone has an opportunity to have their say. This can include giving all members of a group the opportunity to contribute to a discussion in order to communicate their opinion. Often in a democratic system, it is also useful to make sure that all group members have access to any relevant information regarding the discussion or issue. Once all group members have had their say the group will then conduct a vote.

Once the vote has been completed and all members of the group have reached an agreed outcome, a plan must be developed that will be used for that action or issue.

Source 1 One way to reach a decision that reflects the majority view is to take a vote.

Check your learning 14.5

Remember and understand

1 What is a democratic process?
2 Give an example of a democratic process in action.
3 Why is it important to recognise different points of view?

Apply and analyse

4 A PE teacher has given a class a choice of what sport they are allowed to play during a double period. The class is divided between people who want to play netball, people who want to play football and people who want to play hockey. Suggest a process to help the class make a fair decision.

Evaluate and create

5 Create a handbook or class wiki providing tips on how to make class decisions when not everyone agrees.

14.6 Communicating and reflecting

Presenting conclusions

In every subject, there is a common language that is used. Certain terms form part of important concepts and are essential in helping us understand these concepts. Source 1 lists and defines some commonly used terms in civics and citizenship; additional civics and citizenship terms can also be found in the glossary at the end of this book. If you come across a term that you are unsure of, you should use a dictionary, the Internet or your teacher to help you understand what it means. It is a good idea to keep a glossary of subject-specific terms, as well as any other new words that you come across, in your workbook.

Term	Definition
citizenship	a person's status as a citizen; a citizen is a person who legally lives in a geographical area such as a town or country; in a wider context, citizenship encompasses the rights and responsibilities citizens exercise
civics	the study of the rights and responsibilities of citizens and how government works
government	the elected members of parliament who make decisions for a nation or state; the government is made up of the party or coalition that has won a majority of seats in the lower house of parliament; the lower house of federal parliament is the House of Representatives; the upper house is the Senate
multiculturalism	the way in which people of many different cultures, races and religions live peacefully with one another as equals
parliament	the national or state law-making body that is made up of elected representatives in both the upper and lower houses with a head of state; in Australia, the national parliament is referred to as the Commonwealth or federal parliament
parliamentary democracy	a system of government where people elect representatives to parliament in order to make laws which reflect the views of the majority of voters

Source 1 Some useful civics and citizenship terms

Reflecting on our role as citizens

Australian citizens have many rights and responsibilities as members of a democratic society. We have a right to live freely in a society where we allow others to live freely. As individuals, we should always think about what we can do to make the world a better place. This goes above and beyond simply obeying the law, but rather a higher level of social consciousness that helps us make our world more beautiful through the positive changes that we make to it. Australian citizens are global citizens, and understand that the decisions we make can affect the entire planet and its inhabitants. Ultimately, we are free to choose what kind of a world we live in.

Check your learning 14.6

Remember and understand

1 Explain the following terms using your own words:
   a citizen
   b civics
   c government.
2 What can you do when you come across a term you do not understand?

Apply and analyse

3 List three ways you could help to improve your local community.

Evaluate and create

4 Develop a class project that you think would help your local community. It can be anything from picking up litter to raising money for a local charity. Suggest a plan of action for this project and reflect on this in terms of how it might help you to fulfil your role as an active citizen in your community.

Democracy and law in action

Democracy in action

Australia is a **democracy**. In a democracy, each citizen has an equal right to influence the political decisions that affect their society. This means that each person may express their opinions to help decide how the society is governed. In a nation of over 24 million people, making sure everyone is heard can be quite tricky. For this reason, Australia has a voting system that allows us to elect politicians or political parties to represent us at local, state and national levels. This system of **government**, as well as our freedoms and responsibilities as citizens, is what defines democracy in Australia.

15A

What are the freedoms and responsibilities of citizens in Australia's democracy?

1 Why do you think it is important to be able to express your political opinion?

2 What are some of the ways in which people can express their opinion?

15B

What does it mean to be an Australian citizen?

1 What do you think are the three most important values that Australians have?

2 Why do you think the cultures of Aboriginal and Torres Strait Islander peoples is such an important part of our national identity?

Source 1 Australia has a **representative democracy** in which people vote for a political party or politician that best reflects their opinions on most political issues.

15.1 The freedoms of Australian citizens

Australia has long been considered by many as the lucky country. This is largely because of our high living standards and financial opportunities, but it also has much to do with the freedom with which people can live their lives in Australia. Freedom allows people to act and express themselves in whatever way they feel, so long as it does not infringe upon the rights of others.

Freedom of speech

A fundamental need for any democracy to function is freedom of speech. Freedom of speech allows a person to actively participate in Australia's democracy by voicing their opinions publicly about any topic within the **bounds of the law**. It is because of this freedom that our citizens can explore new ways of thinking and make changes that benefit our society. Interestingly, the **Australian constitution** does not protect freedom of speech, rather it is a privilege encouraged by the culture of our society. A person can make any honest comment that is not intended to harm others. There are **laws**, however, to prevent freedom of speech from causing harm to others. People are not allowed to spread lies that could damage a person's reputation. People are also not allowed to spread hatred against others because of their religious, racial or cultural background.

Freedom of association

People in Australia are free to join or form any group or organisation that they wish to, as long as the main activities of the group are legal. This means that a person can be a member of a political party, social club or workers' **union** without fear of persecution.

Like many of our freedoms in Australia, our freedom of association is not officially protected by the Australian constitution, although culturally it is considered a basic right.

Source 1 The French philosopher Voltaire is known for supporting freedom on speech and religion. He has been quoted as saying, 'I disapprove of what you say, but I will defend to the death your right to say it'. It is now thought that Voltaire didn't say these words, that they were, instead, said about him.

Freedom of assembly

The freedom of assembly allows people to meet in groups for social or political purposes. A group of people can come together to express their opinions in a protest as long as it does not turn violent or break laws such as trespassing. The ability to assemble and protest freely is an important part of democracy in Australia because it allows us to influence political outcomes.

Source 2 Protestors in Perth rally against racism

Source 3 Students from different religions participate in a multi-faith day

Freedom of religion

Australia is a multicultural society without an official religion. Australians are free to practice their many different faiths or, to practice no religion at all. It is important to remember that the rules of any given religion cannot override Australian laws.

Freedom of movement

Today, there are twice as many people arriving in Australia as there are leaving the country. Australia is considered by many as a land of opportunity but it does not restrict those who wish to seek opportunities elsewhere. A citizen can travel freely to all states and territories in Australia and also leave and re-enter Australia. These rights are not available to people who are not Australian citizens, who must fulfil certain requirements to be allowed to enter the country.

Bounds of the law

In some ways, our freedoms are limited by 'the bounds of the law'. This basically means that we cannot break the law in order to express our freedom of speech, association, assembly, religion or movement. For example, we are allowed to assemble and protest in Australia, but if that protest becomes violent and people get hurt, it is no longer a legal activity. Another example would be the limitations on association. In recent years, several Australian states have introduced legislation to restrict members of criminal gangs, such as bikie gangs, from meeting as a group. This legislation was introduced to limit

their criminal activity. There are also 'counter-terrorism' laws in Australia which prevent people from associating with organisations suspected of being terror groups. Unfortunately, the wording of these laws is not very specific and the definition of 'terrorism' is vague – leaving much of the interpretation and enforcement of this law up to the people in charge.

Check your learning 15.1

Remember and understand

1. Why do you think freedom is so important to participating in a democratic society?
2. Explain how the bounds of the law can limit our freedoms.

Apply and analyse

3. Refer to the caption of Source 1. Why do you think Voltaire was so passionate about defending the right of someone to express an opinion he disagreed with?
4. Explain how each freedom allows us to participate in Australia's democracy.
5. Refer to Source 3. Do you think that it is important for people to be able to practice whatever religion they choose in Australia? Why or why not?

Evaluate and create

6. Create a poster describing the different freedoms that Australian citizens have. Your poster should include images that represent each of the freedoms that you describe.

15.2 Freedom of speech

What is freedom of speech?

Freedom of speech is an important part of any democracy. It refers to our right to express information, opinions and beliefs without fear of the government preventing us or punishing us for it. Freedom of speech does not just refer to speaking. It also includes the freedom to express our ideas in written form, or as artworks such as political cartoons and murals. Freedom of speech allows us to participate in society by expressing our opinions and debating important issues.

As a key feature of many democracies, our ability to speak freely means that we can criticise the government or let them know if something needs to change. This right extends to the media, opposition political parties and any other group who might want to express an opinion about the government.

Freedom of speech in Australia

Many other democratic nations around the world include freedom of speech in their constitutions. In Australia, this right is not part of the constitution, but some judges argue that our freedom of speech is 'implied', meaning that it is suggested in the Australian constitution without being directly stated.

As a democratic society, it is assumed that we should all be able to have a say in the way our country is run. In general, Australians are able to express themselves freely without any consequences.

Lange v Australian Broadcasting Corporation (1997)

In 1997, a court case between New Zealand's prime minister and the ABC set a standard for Australia's position on freedom of speech in the legal system.

In 1990, Prime Minister David Lange of New Zealand was the subject of a report televised by the ABC show *Four Corners*. This report suggested that Lange's government was under the influence of some big businesses and as a result had been a part of some corrupt (or dishonest) activities.

Lange took the ABC to the High Court over the report, accusing them of **defamation**. Defamation is the legal term for damaging someone's reputation, either verbally (**slander**) or in written form (**libel**).

The judges of the High Court decided that it was the ABC's right to inform voters of government activities. They referred to several sections of the Australian constitution, saying that it was important to protect the freedom of communication that allows people to make an informed decision about government at election time.

This decision set an important standard in Australian law. The ruling meant that Australian citizens and media outlets could freely criticise or share information about the government without fear of being stopped or disciplined.

Bounds of the law

Freedom of speech does not mean we can say whatever we want, to whoever we want, whenever we want to. In spite of the court case of *Lange v Australian Broadcasting Corporation* (1997), freedom of speech is still restricted by our laws for a number of reasons. This is in some ways necessary because it is the government's responsibility to prevent things like hate speech and **discrimination** that might hurt people.

Just some of the Australian the types of laws that can limit free speech include:

- criminal laws – For example, it is illegal to encourage violence, terrorism or harm to others.
- anti-discrimination laws – For example, it is illegal to spread information or express opinions that are offensive, intimidating or harmful to people of a particular race, gender, age, disability or religion.
- media, broadcasting and telecommunications laws – For example, Australian media must obey classification laws, which prevents extreme or obscene content from being depicted without warning or to an inappropriate (eg. young) audience.
- information laws – For example, journalists are not allowed to publish personal or private information (such as the full name or address) of the people they report on without permission.

Freedom of speech in Cuba

In some countries, freedom of speech is not encouraged. In fact, saying something that insults, questions or contradicts the government is an offence that can be punished severely. There are many countries around the world who **censor** (or supress) the opinions of its citizens, such as North Korea, Libya and Cuba. These countries are not run by democratic governments. Their citizens must strictly obey and have no say in the way their countries are run.

Source 1 Unlike Australians, Cuban citizens do not have freedom of speech.

Cuba is a popular destination for tourists because of its rich culture and beautiful cities. Yet Cuban citizens are not able to express themselves freely. In 2015, Cuban artist Danilo Maldonado Machado was put in jail because he painted the names of Fidel and Raul Castro on the backs of two pigs. Machado was never formally charged or given a trial, and was forced to spend ten months in prison. The Castro brothers have held power over Cuba since 1959 and do not tolerate contempt (disrespect or disobedience) against their regime.

In Cuba, the government owns most of the media such as newspapers and television stations. This means that the information that is spread through the media supports the Cuban government. Internet access is also limited, and what information does get through is filtered by the government. Some Cubans have found a way to speak freely about their country; however they do so at their own risk. In countries like Cuba, a person speaking against the government could end up in jail if they are caught.

Check your learning 15.2

Remember and understand

1 What is freedom of speech?

2 What is different about freedom of speech in Australia when compared to other democratic nations?

3 Name two things that might restrict a person's freedom of speech.

Apply and analyse

4 Examine the case study on Cuba and answer the following questions:

   a How is freedom of speech in Australia different to Cuba?

   b Why might the Cuban government censor people who question it?

5 What might be an advantage of restricting freedom of speech?

Evaluate and create

6 Create a table examining the advantages and disadvantages that would come from having complete freedom of speech, unrestricted by the bounds of the law.

7 Prepare a short speech for a debate arguing for or against the restrictions of free speech.

15.3 Freedom of association

What is freedom of association?

Freedom of association refers to the right to peacefully form or join a group, club or organisation without being stopped. This might include social groups, sporting groups, political parties, unions or religious groups. No matter what a group's purpose, freedom of association is meant to protect the right of all people or groups to gather together for a common goal or interest.

Equally, no one can be forced to be part of an association if they do not wish to be involved. Freedom of association means that we are free to choose if we do or do not want to associate with a group or organisation.

Freedom of association in Australia

Similar to freedom of speech, freedom of association is not officially protected by the Australian constitution. However, Australia (along with many other countries in the world) has signed a number of different treaties or agreements to ensure our citizens receive basic human rights.

In one of these treaties, known as the *International Covenant on Civil and Political Rights (ICCPR)*, it says:

'Everyone shall have the right to freedom of association with others, including the right to form and join trade unions for the protection of his interests.'

By signing this treaty, Australia has agreed that its citizens should receive the right to freedom of association.

Bounds of the law

Freedom of association in Australia is encouraged unless it involves breaking Australian law. As a result, our right to associate freely with others is restricted in some ways.

Some of the Australian types of laws that can limit freedom of association include:

- criminal law – For example, the courts may restrict criminal gangs or terrorist organisations from associating in order to reduce the risk of **crime** or harm to the general public.
- workplace relations – For example, an employer is not allowed to fire a worker for being part of a union. However, if that worker commits a crime (for example during a protest against the employer) they would then have the right to fire that person.
- anti-discrimination law – For example, it can be unlawful to exclude someone from an association based on their disability.

Source 1 People are free to associate with whatever religious groups, clubs or organisations they choose, so long as they do not break any laws.
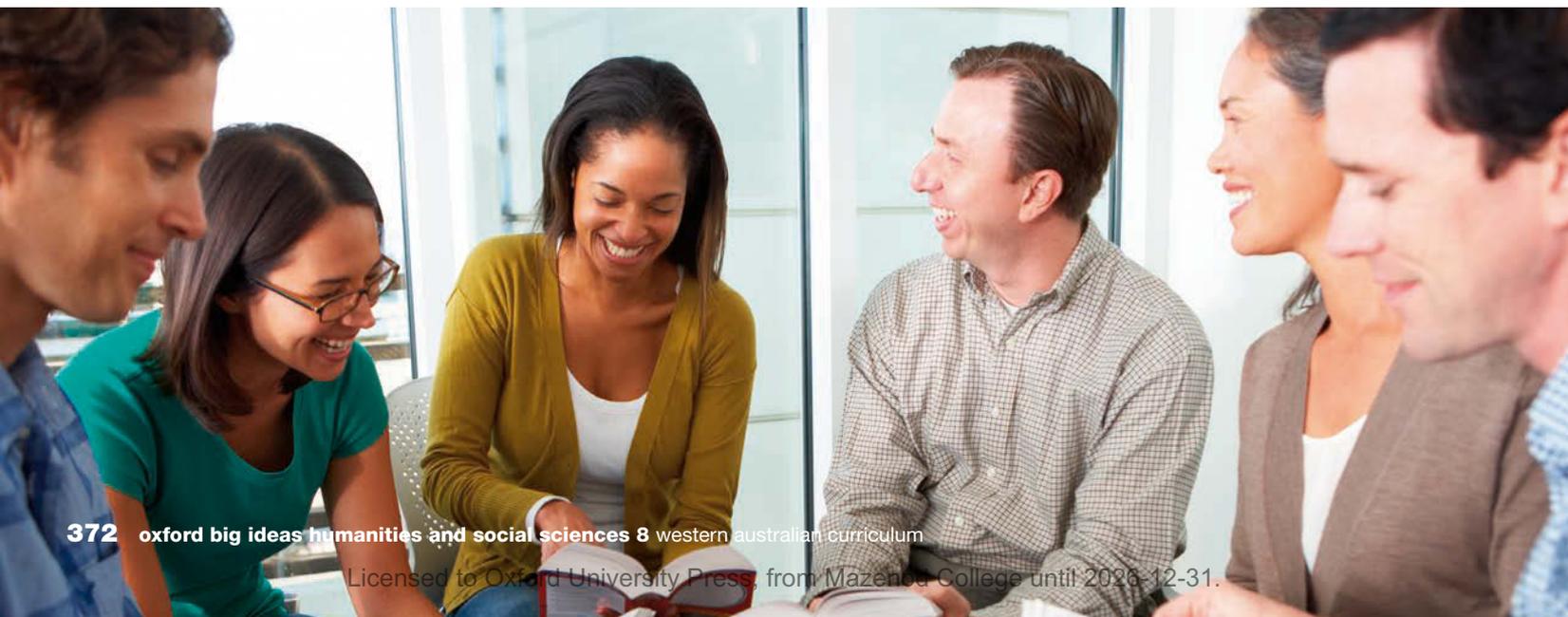
Unions in Australia

In Australia, workers are allowed to join trade unions. This means that people who work in the same industry (for example, health care, mining or construction) can become a member of a union to achieve better industry conditions. For example, a trade union might work towards things such as:

- wage increases
- better workplace safety
- fairer recruitment and dismissal procedures
- protection for harassment or discrimination
- any other workplace issues.

A union will often have officials or representatives that meet with and negotiate with employers on behalf of union members.

In Australia, the *Fair Work Act 2009* protects our freedom of association in the workplace by ensuring that we are free to choose whether or not we become members of a union, if we want to be represented by these associations, and if we want to participate in union-organised activities such as a strike or protest. This means that an employer or boss cannot stop their workers from being a part of a union in any way. It is against Australian law for a boss to fire, harass or discriminate against their workers for being part of a union.

Source 2 In Western Australia, people who work in health care can join HSUWA (Health Services Union of Western Australia).

Check your learning 15.3

Remember and understand

1 What is freedom of association?

2 In what way is our freedom of association protected in Australia (given that it is not officially protected by the Australian constitution)?

3 Identify one way freedom of association can be restricted by Australian law.

Apply and analyse

4 Why is it important for organisations such as unions to be protected by freedom of association?

5 Examine the following list of groups and organisation and identify whether or not the group's freedom of association would be protected or restricted by Australian law.

   a a group dedicated to prayer and religious discussion

   b a group that works together to pickpocket on busy streets

   c a social club that only allows able-bodied men to join

   d a trade union that negotiates better working conditions for its members

Evaluate and create

6 Think about the kind of industry you would like to join when you finish school. Find out if there is a union you could join as a worker in that industry. Develop a poster that outlines the purpose of this union and the kinds of activities it undertakes to reach its goals. (Hint: you should be able to find this information on the union's official website.)

15.4 Freedom of assembly

What is freedom of assembly?

Freedom of assembly refers to the right to peacefully gather or meet in public or private places. This may be in small or large groups, for any reason that might be religious, political or in celebration.

The freedom of assembly therefore gives us the right to protest. Protesting is a very important part of getting our opinions heard and persuading people who make decisions to consider the needs and wants of citizens. For example, people might protest about local issues such as the decision to shut down a local business. They might also protest about bigger ideas that affect the entire country, such as racism or immigration.

There are a number of ways people can peacefully protest, but which require freedom of assembly. These include rallies (a mass meeting), marches (where people walk or parade in a large group) or sit-ins (where people gather and refuse to move from a place) to make a point.

casestudy

Occupy Perth

In 2011, a group of people gathered in the United States's most famous financial district, Wall Street, to protest social inequality between the rich and the poor. People camped for months in a park to protest and draw attention to the 'one per cent' – the wealthiest one per cent of people in the world – who protesters believed to hold an unfair share of the world's total wealth. The gathering became known as Occupy Wall Street and quickly spread to other countries and cities, including Perth.

People who agreed with the ideas and views of the Occupy movement in the United States quickly developed the Occupy Perth movement in Australia. The movement staged a non-violent protest to coincide with the Commonwealth Heads of Government Meeting (CHOGM), a meeting that occurs every two years between the leaders of all Commonwealth nations.

The protesters were made up of a diverse group of people who all wished to voice their concern that the wealthiest one per cent of people in the world had too much control over society. Their ability to assemble together and express their views publicly let members of the Australian and other Commonwealth governments know that the problem of social inequality was not just a problem felt by citizens of the United States.

Source 1 The Occupy Perth movement was inspired by Occupy Wall Street and demonstrated against the power held by the richest one per cent of people in the world.

Freedom of assembly in Australia

Freedom of assembly is another human right that is protected in Australia by a treaty signed by the government. It is not protected by the constitution, but the Australian government follows the rules set out the by treaties on human rights, including the *Universal Declaration of Human Rights* and the *International Covenant on Civil and Political Rights (ICCPR)*. Australian citizens are able to complain to the UN Human Rights Committee if they believe they have not fairly received their right to assemble freely.

In Australia, public gatherings and demonstrations are a common form of protest for groups of people with common goals or complaints. In Australia, protests are often a good way for people to gain publicity for a cause because media outlets (including television stations, newspapers, and websites) report on them as news items. The bigger the protest, the more interesting the news item and the more coverage a protest will generally receive. This helps people to spread their opinions to a wider range of people than those who will witness the protest in person.

Recently, people around Australia have protested issues such as our country's policy on refugees and the rights of Aboriginal and Torres Strait Islander peoples. In 2015, the Western Australian state government announced it could no longer afford to fund all Aboriginal communities and as result would need to shut down over 100 remote Aboriginal communities in Western Australia. In response, people from all over the country gathered and protested against what was seen as destruction of culture and disrespect for Aboriginal communities. The protests were peaceful and had a big impact on decision makers. As a result of the protest, the state government sought advice from Aboriginal community leaders about how to better approach their problem.

Demonstrations or protests such as this show just how important it is for Australian citizens to have the right to protest and let their opinions be heard by government.

Bounds of the law

Freedom of assembly in Australia is allowed unless laws are broken. In some instances, protesters can become overly passionate, aggressive or even violent during a demonstration or march. As a result, our right to associate freely with others is restricted in some ways.

Some of the Australian types of laws that can limit freedom of association include:

- criminal law – For example, police can restrict criminal or terrorist organisations from gathering in order to reduce the risk of crime or harm to the general public. Protests that become violent are generally shut down by police to prevent damage to property or people coming to harm.
- public assembly law – For example, some state and territory laws give police the right to end a gathering if they believe it will become a riot, be violent or disturb the peace of a public place.

Check your learning 15.4

Remember and understand

1. What is freedom of assembly?
2. Why is our right to protest an important part of being in a democracy?

Apply and analyse

3. Examine the case study on Occupy Perth. What features of the 2011 protest in Perth meant that it was not restricted by our laws?

Evaluate and create

4. Using the Internet, research a protest or demonstration that has occurred recently in Australia. Develop a poster on the protest which addresses the following points:
   a. What led to the protest?
   b. What were the goals of the protest?
   c. Was the protest successful?
   d. How was the protest restricted or not restricted by the bounds of the law?

15.5 Freedom of religion

What is freedom of religion?

Freedom of religion is the right to believe in or practice whatever religion you want to. This freedom extends to all religions. It means that if a person wishes to practice any faith, including Christianity, Islam, Judaism, Buddhism, Hinduism, Jainism, Sikhism, Taoism or even no religion at all.

Freedom of religion in Australia

Australia is a multicultural nation that has attracted people from all over the world. These people brought with them their different customs, beliefs and religions. Australia's commitment to the freedom of religion has allowed people to practise whichever religion they choose, so long as it does not interfere with the rights of others or our laws. This tolerance for many people's beliefs is a core value of Australian society, one that allows us to live in harmony with one another.
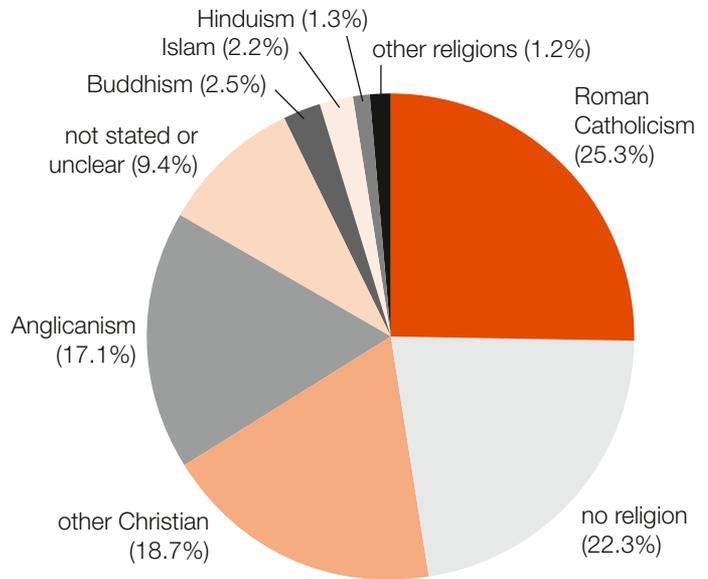
Source 1 This chart shows the different religions or faiths of Australians according to the 2011 census
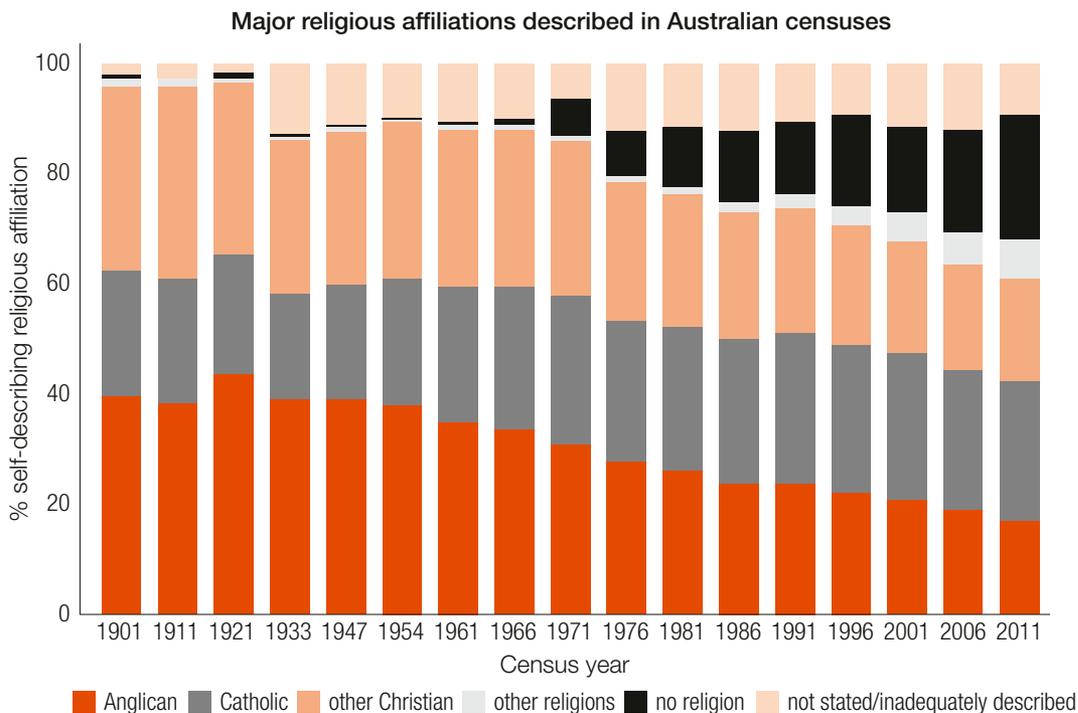
Source 2 This chart shows how many religions and faiths have been practised in Australia since 1901

Separation of church and state

One of the core principles of Australia's democracy is that it does not allow religious institutions to directly influence the decisions of government.

While Christianity is the most widespread religion in Australian society, the church has never been directly involved in running the country. This separation of church and state is known as **secularism** and is a key feature of Australia's identity as a nation. As a secular nation, Australia is able to encourage a diverse society that gives its people the freedom to choose their religious beliefs. Australia's public health, education and political institutions are all free from religious connections. This ensures that religious beliefs of one group of people are not forced onto Australians of other faiths. It also means that decisions about what is best for today's society can be made through open discussion. Despite being a secular nation, religions still influence the beliefs and decisions of many Australians who, as both voters and politicians, determine how the nation is governed.

While most nations around the world today adopt a secular system of government, some nations, such as Iran and Saudi Arabia, base their legal system on religious teachings.

Bounds of the law

In Australia, freedom of religion is considered to be an important part of our democracy. However, it is in some ways restricted by the law. This is done mainly through criminal law. The *Criminal Code (Cth)* can be seen to interfere with freedom of religion or expression of religious beliefs. For example, section 80.2C prevents people from encouraging or advocating terrorism. While this law protects society from potentially violent acts, it prevents people with extreme beliefs from expressing their religious view. This may be seen to limit religious expression and therefore restrict the right to freedom of religion.
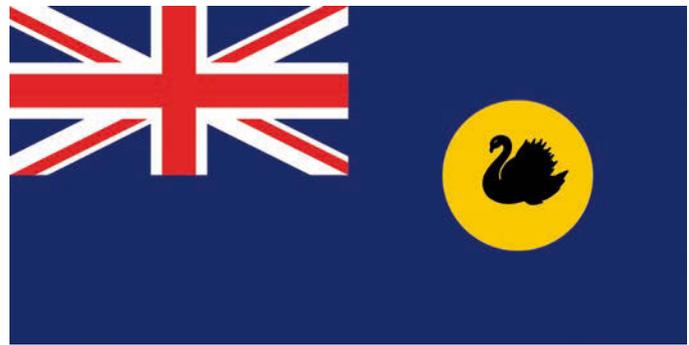
Source 3 The flag of Western Australia, like our national flag, reflects our loyalty to the Commonwealth, which has a strong Christian identity.

Check your learning 15.5

Remember and understand

1   What is freedom of religion?
2   What is 'secularism'?
3   Which two nations are examples of non-secular states?
4   Describe two benefits of having a separation of church and state.

Apply and analyse

5   Look at Source 1. List the faiths in order of highest to lowest number of followers in Australia.
6   Look at Source 2.
    a   Which affiliation has been increasing over the years?
    b   What has been happening to the proportion of Christian followers (including Catholic and Anglican) over the years?
7   Look at Source 3. What elements of the flag show Western Australia's identity as part of the Commonwealth?

15.6 Freedom of movement

What is freedom of movement?

Freedom of movement refers to a citizen's ability to freely move between states or regions within their own country. It also refers to our right to leave any country and re-enter our own country without interference from the government.

Freedom of movement in Australia

In Australia, we are allowed to move freely between the states and territories. As citizens, we are also allowed to leave and return to Australia whenever we like, however, **migrants** who are not citizens may have conditions placed on their visas. Freedom of movement is another right that is not included in the constitution. However, the government has agreed it is a basic human right owed to all citizens by signing the *International Covenant on Civil and Political Rights (ICCPR)*. This treaty developed by the United Nations outlines the rights that should be given to all people and states that:

- everyone has the right to liberty of movement within a country and freedom to choose where they live
- everyone has the right to leave any country, including their country of origin
- everyone has the right enter their own country.

    In general, the government has a responsibility to ensure that freedom of movement is not unreasonably restricted by anyone, including private persons or companies. This right extends to anyone who has legally entered Australia, not just those of us who are Australian citizens.

    For people who are not Australian citizens, international law allows the government to decide who can and cannot enter the country. There has been a lot of debate around this, as some people believe freedom of movement should extend to movement between any countries, especially for people seeking asylum or escaping danger in their home country.

Source 1 Australian citizens have the right to leave and re-enter Australia whenever they need to.

Bounds of the law

Freedom of movement sometimes conflicts with our laws and is therefore restricted for a number of reasons, for example to protect our health and safety.

    Some of the Australian types of laws that can limit freedom of association include:

- criminal laws – For example, an accused person waiting for their criminal trial would not be allowed to leave the country until their trial is over. A person in jail has their freedom of movement restricted completely.
- terrorism laws – The *Foreign Fighters Act* was introduced in 2014 to restrict Australians from travelling overseas to join or fight with terrorist organisations, and to restrict their re-entry into the country (if it is believed they will commit an act of terror in Australia).
- customs and border protection laws – For example, a person may be detained or quarantined to prevent the spread of disease if they are infected when returning to Australia.
- **citizenship** and passport laws – For example, people in Australia who are not citizens or permanent residents and are illegally in the country may be deported or sent home.
- laws restricting entry to certain areas – For example, people are not allowed to enter private property without permission.

Movement in North Korea

The people of North Korea have very few human rights. Ruled by one party and leader, citizens have no opportunity to vote and their right to express themselves or protest is severely restricted. Citizens are completely controlled by the government and those who disobey can be executed or placed into prison camps where they must work like slaves.

In North Korea, there is very little freedom of movement. For example, it is illegal for people to leave the country without permission from the government (which is extremely difficult to obtain).

The government even restricts peoples' ability to move within their own borders. For people who want to travel within North Korea, they must have a specific purpose, which they can then obtain permission to travel for. Those who do not live in the capital city, Pyongyang, are often denied access to enter and so cannot reach the resources and facilities there.

The North Korean government has also forced hundreds of thousands of people to move to poorer or inferior regions as a form of punishment.

Source 2 North Korean children line up for a military parade. These children will not be able to experience the same freedom of movement as we have in Australia.

Check your learning 15.6

Remember and understand

1 What is freedom of movement?
2 What is the *International Covenant on Civil and Political Rights (ICCPR)*?
3 Name three types of law that might restrict freedom of movement in Australia.

Apply and analyse

4 Examine the case study on movement in North Korea. Name three ways in which North Korea violates its citizens' right to freedom of movement.

5 What are the advantages and disadvantages of restricting people's movement in Australia?

Evaluate and create

6 Create a poster that outlines the right to freedom of movement and compares freedom of movement in Australia to one other country.

15.7 Active participation

In order for our democracy to function properly, it is important that people make their voices heard. While many people prefer to stay away from politics, it is important for us to make the most of our democratic rights. By ignoring politics or issues of national importance, people increase the chances of political decisions being made with outcomes that might go against their interests, values or beliefs.

Become informed

Democracy can only work if the people know about the issues that they are voting on. This can often be difficult as there are many powerful people who wish to promote their own political agendas. People rely on mainstream media outlets for news, yet these outlets often show a biased representation of political issues. To become informed we must think critically and consider a variety of different sources before we form an opinion.
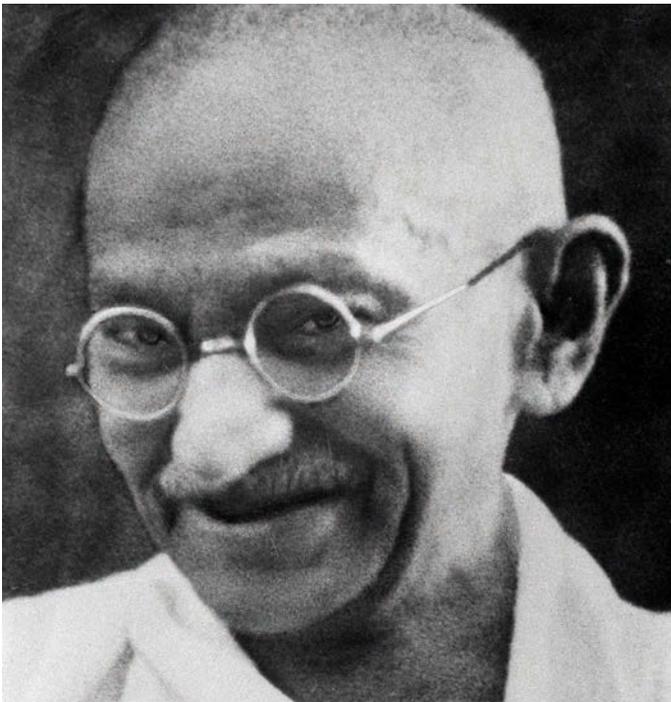
Source 1 As a result of leading India to independence, Mahatma Gandhi inspired non-violent movements for civil rights and freedom all over the world.

Voting

As informed citizens, we can participate in democracy by voting to elect the people who we feel will best represent us. Nearly all Western Australians who are aged 18 and over are eligible to vote. In fact, Australia's compulsory voting system means that all those who are enrolled to vote must do so or pay a fine. While this might seem unfair, it reflects the idea that voting is not only a right but a responsibility of our citizens. We vote for people to represent our opinions and beliefs at local, state and federal levels.

When we vote in an election, we are voting for a person who will represent our **electorate**. In Australia, we divide the country into 150 electorates, or separate geographical areas of the country, so that people in different areas who have different needs can be represented more equally. These 150 electorates each have an elected member of **parliament** (MP) who represents the interests of the people in his or her region. It is up to these elected representatives to voice the opinions of their electorate and fight for key issues in their community. The responsibilities of an MP as an elected representative might include:

* acting as a spokesperson for their electorate
* prioritising government activities and funding for the electorate
* dealing with concerns in the electorate on government matters.

One form of actively participating in our democracy is contacting our elected representatives. For example, you could write a letter to your local MP about an issue that you believe is important, such as equal rights or animal welfare, with the aim of convincing them to fight for the issue in parliament. You might even strengthen your argument by presenting your local MP with a petition with signatures of people who support you on the issue to show how much it means to the people the MP is representing.

Direct action

Simply complaining about things that negatively affect our society does not achieve much. People can make a difference by raising awareness about political issues through more **direct action**, also known as non-violent resistance. This can include protests such as marches or demonstrations, boycotts of products or services and strikes. These methods of direct action have been used in the past to gain attention for many different causes, and to try to influence the decision making of people in power.

One of the benefits of direct action is that it makes a person feel good knowing that they are helping to make a positive change to their society. Furthermore, you do not have to be of voting age to make your voice heard through direct action. Direct action has proven to be a very effective way of raising awareness about political issues throughout history.

Mahatma Gandhi used direct action to free India from the rule of the British Empire. Gandhi was different to other freedom fighters in that he advanced the cause of his people through non-violent resistance.
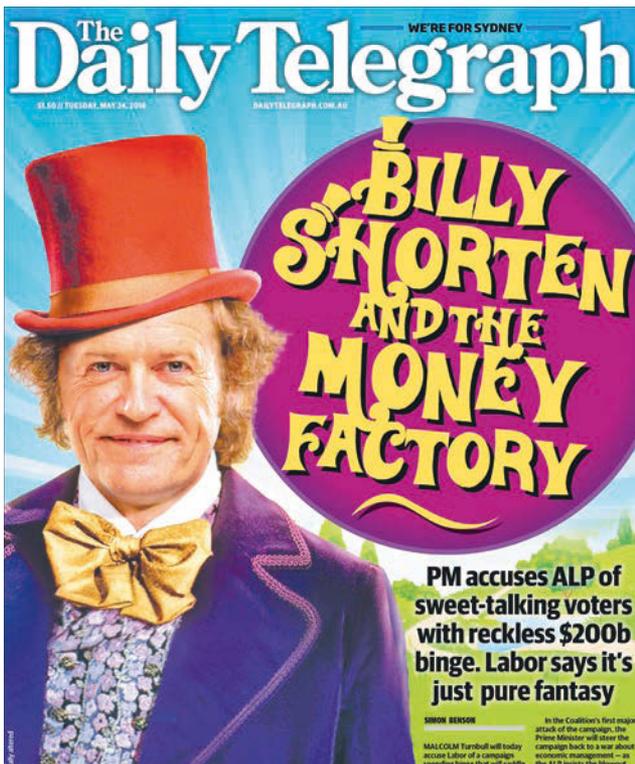
Source 2 Rupert Murdoch is a media magnate with strong political opinions that are often opposed to Labor party policies. His newspapers, which account for over half of all newspaper sales in Australia, attempted to influence the political opinions of their readers by lobbying against the Labor party during the 2016 federal election.

Lobby groups

Another way of raising awareness for issues is through lobby groups, sometimes referred to as interest groups. **Lobbying** involves working on behalf of a particular cause to influence political decisions. In Australia, there are many lobby groups who are working to influence public and government opinion on issues such as **asylum seekers**, domestic violence and animal cruelty.

Lobby groups might attempt to sway political decisions through media campaigns or by communicating directly with federal or state MPs and ministers.

Check your learning 15.7

Remember and understand

1   Why do you think being informed is an important part of a functioning democracy?
2   Explain three types of direct action.
3   How can lobby groups try to influence political decisions?
4   What are the responsibilities of an elected representative?

Apply and analyse

5   Look at Source 2. Who does the newspaper compare opposition leader Bill Shorten to?
6   Rank the listed forms of active **participation** from the one you think is most effective to least effective.
7   Do you see any problems with a newspaper presenting a biased opinion on political issues?
8   Gandhi used non-violent resistance. What do you think are the advantages of using non-violent resistance to advance a political cause?

Evaluate and create

9   Use the Internet to research Martin Luther King Jr. or Mahatma Gandhi and prepare a 200-word report on how they used direct action to overcome social injustice.

Petitions

Even though you may not be old enough to vote, you can still make your voice heard about issues that matter to you. One method of direct action that can help raise political awareness is through the use of petitions. A petition is a collection of signatures, identifying people who share a stance on a particular issue.

Petitions have been used throughout history to show a large amount of support for a cause. Large numbers of signatures have often persuaded politicians or groups to take up the cause of the petitioners. A petition can be started by anyone and has been used for centuries by people who wish to make their voices heard. These days, handwritten and online petitions continue to help political causes gain momentum.

In recent years, online petitions have become a popular form of direct action. Websites such as Change.org allow people to create a petition and share it via social media or email to as many people as possible. This allows people from all over the world to see and sign a petition, gaining many more signatures than is possible with handwritten petitions.

Barbara Wueringer began a petition on Change.org in response to the Western Australian state government's plan to catch or destroy sharks in close proximity to beachgoers as a strategy to reduce the number of fatal shark attacks in Western Australian waters. The petition asked the Australian senate to use their powers to prevent the killing of white sharks in Western Australia. By 2014, the petition had received over 90 000 signatures and was presented to the senate by elected representative Senator Rachel Siewert. The public pressure behind the petition played a major role in convincing the state government to end their strategy of culling sharks.

Source 1 People in Sydney signing a petition in support of a free vote on marriage equality on 31 May 2015

Source 2 Direct action, such as online petitions and public protest, played a major role in influencing the Western Australian government to end shark culling.

skill**drill**

Creating a petition

Before starting a petition you must become well informed on the issue at hand. You can expect that many people will only sign up to your petition if you can explain why it is an important cause. This will require you to research the issue in depth, as you explore all sides of the argument.

Step 1 Select a title

The title should be a simple and strong statement explaining exactly what you want to achieve with the petition.

Step 2 Identify who you are petitioning

Is your petition directed at a local politician, prime minister, CEO of an organisation or school principal? You need to clearly state the title and name of the person who you wish to receive the petition.

Step 3 Outline the reasons for signing the petition

Your petition should outline the main reasons for why people should sign the petition. This can be done in bullet points or a few short paragraphs.

Step 4 Get signatures

These days, a great way of getting signatures is by using social media to support your petition. Another traditional way is to approach people who you believe may be interested in signing the petition. A stand with a sign in a public place is an effective way of drawing people to you. Just make sure that you have the approval of your parents and teacher before you make any decisions about where to look for signatures.

Apply the skill

1   Use the Internet to research an issue that you wish to raise support and awareness for.

2   Create a petition using the steps above and see how many signatures you can get from the students at your school.

Extend your understanding

1   Use the Internet to research and write a 200-word report on one of the following historical petitions:
    • Yirrkala Bark Petitions 1963
    • Petition for Reprieve of Ned Kelly 1880
    • Bendigo Goldfields Petition 1853
    • Women's Suffrage Petition 1891 (Victoria, Australia).

Source 3 Online petitions are an easy way to reach lots of people.

15.8 Australia's national identity

What do you think of when you hear the word 'Australia'? People overseas might think of the Sydney Opera House, Uluru, kangaroos or '*Crocodile' Dundee*. But for those of us that live here, our idea of Australia might be a little different.

Our **national identity** is made up of our shared history and values along with our diverse traditions and cultures. We might all have different definitions of what it means to be Australian, but there are a number of common ideas that many of us will recognise.

Mateship and the Anzac legend

One of the many ideas that make up Australia's national identity is the concept of **mateship**. Mateship refers to the strong relationship between mates or friends, which is based on loyalty, support and the ability to rely on each other.

Another part of the Australian national identity is the Anzac legend, which began on 25 April 1915 during World War I's Battle of Gallipoli. Although the Australian and New Zealand Army Corps (the ANZACs) did not win the Battle of Gallipoli, the diggers (soldiers) showed great courage, humour and mateship throughout the war. These qualities became known as the Anzac spirit and part of the Anzac legend.

Since then, mateship and the Anzac legend has been important to Australian diggers in many conflicts and war. On Anzac Day each year, we remember the mateship of Australian soldiers and respect their commitment to the people they fought with.

Today, mateship is still an important part of Australian culture. Many of us can identify with the concept of mateship. For some people, it is working with team members on the sporting field. For others, it is helping out a friend or neighbour. While it may be part of our lives in different ways, mateship is an important part of the Australian national identity because it encourages us to work together and help those who need our support.

Source 1 Food items, such as pavlovas, can be considered part of the Australian national identity.

Source 2 The Sydney Opera House in New South Wales is an Australian icon that people in other countries easily recognise as being from Australia, even though it might mean very little to some people in Australia.

Source 3 The State War Memorial in Kings Park remembers the Western Australian men and women who have served Australia in war or conflict. The memorial is visited by over 40 000 people every year.

Our changing identity

Australia is a very young country. Although Aboriginal and Torres Strait Islander peoples have lived here for thousands of years, Australia has existed as a united, or federated, country since 1901. Since then, it has seen a lot of change.

Before Europeans arrived on this continent, our country was populated by many diverse Aboriginal nations and peoples. These groups of people did not own the land; rather they identified as its caretakers and looked after the land that provided them with everything they needed. After the British arrived, the population of Aboriginal and Torres Strait Islander peoples suffered great losses.

By the time Australia was federated in 1901, our country identified very strongly as a part of the British Commonwealth. Our population was mainly white and Christian, and our national anthem was 'God Save the King', the national anthem of the United Kingdom.

Today, Australia is made of many diverse people, cultures, and beliefs. Australia's national identity is evolving again to become a more multicultural society. Just by walking around somewhere like Northbridge in Perth, we can see how Australians are able to benefit from the music, food and customs of different cultures as part of our day-to-day lives in Australia.

The inclusion of people from a diverse range of societies has given Australia a sense of cultural diversity, which is an important part of our society and the Australian national identity.

Although Australians might come from a range of different backgrounds, having a shared sense of national identity and pride can help us to feel a sense of belonging.

Check your learning 15.8

Remember and understand

1 What is a national identity?
2 What is mateship?
3 How has the Australian national identity changed throughout history?

Apply and analyse

4 How would you describe the Australian national identity?
5 Name three important features or values that you think make up the Australian national identity.

Evaluate and create

6 Create a concept map that explores the idea of the Australian national identity. Your concept map should organise the ideas, values, customs or icons you associate with our national identity.

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15.9 Australia Day

On 26 January each year, Australians enjoy a public holiday in celebration of Australia Day.

Australia Day is the anniversary of the First Fleet's arrival in Sydney Cove in 1788. This was the first official voyage from Britain and involved eleven ships carrying convicts and supplies sailing to Australia to establish a colony here.

On Australia Day, many of us will attend an event or gathering with family and friends. Some of us will organise barbeques and pool parties with friends, some of us will watch Australia Day fireworks, and others will just enjoy the day off and relax at home. Yet Australia Day is not just about what we can do to with a day off.

What is Australia Day for?

Australia's Day exists to celebrate being Australian and living in Australia. It is an opportunity to think about our past and to consider how we will continue to live as Australians in the future.

There are many different perspectives about the value of Australia Day. Some think we do not need a national day, while others believe it is inappropriate to celebrate Australia on the day our country was colonised by Britain (see 15B Rich task on page 396).

One of the most important ideas on Australia Day is that we celebrate the way our country has changed. Today, Australia Day celebrations are as varied and diverse as the many cultures and people that take part.

Australian of the Year

On 25 January (the eve of Australia Day) every year, the following awards of Australian citizenship are announced in Canberra:

- Australian of the Year, which celebrates the achievement of Australian citizens who inspire us through their work
- Senior Australian of the Year, which celebrates Australians aged 65 and over who continue to achieve and make a difference

Source 1 Australia Day fireworks over Swan River, Perth.

- Young Australian of the Year, which celebrates young people between 16 and 30 years old who have already accomplished great things through their contribution to society
- Australia's Local Hero, which celebrates people making a difference in their local community.

These awards act to celebrate and thank Australian citizens who have gone above and beyond their usual responsibilities as citizens.

In Western Australia, local governments around the state announce their Citizen of the Year Awards. These awards give local communities around the state the chance to recognise citizens who help or improve their community in some way.

Source 2 Rosie Batty won Australian of the Year in 2015 for her campaign against domestic violence.

Citizenship ceremonies

Migrants to Australia can choose to become citizens after living in Australia for a certain period of time and meeting certain requirements. The final stage of becoming an Australian citizen is the citizenship ceremony. The ceremony gives our new citizens the opportunity to take the Australian Citizenship Pledge (see Source 3) and the Australian government the chance to welcome and celebrate its new citizens. While these citizenship ceremonies can happen throughout the year, those on Australia day are seen as particularly special.

Source 3 The Australian Citizenship Pledge

'From this time forward, I pledge my loyalty to Australia and its people, whose democratic beliefs I share, whose rights and liberties I respect, and whose laws I will uphold and obey.'

The citizenship ceremony is considered to be a special tradition of Australia Day because Australian citizenship symbolises our shared identity, which brings us together in our values and traditions. On Australia Day, we celebrate the fact that people want to be a part of our nation's identity and our future.

Once a person becomes an Australian citizen, they take on the **rights and responsibilities** that come with it. For example, they can vote in elections, run for election to government, travel using an Australian passport and experience the freedoms of living as an Australian.

Check your learning 15.9

Remember and understand

1 What is Australia Day and why do we celebrate on 26 January?
2 How do local governments in Western Australia recognise the achievements of its citizens on Australia Day?
3 Why do we have citizenship ceremonies in Australia?

Apply and analyse

4 Why might Australians celebrate Australia Day in different ways?

5 Suggest three ways you might celebrate Australia Day.

Evaluate and create

6 Do you think Australia Day is important? Write 150 words on why you think we should or should not celebrate our national day.
7 Think of someone you know of that you think deserves to be nominated for Australian of the Year or another one of our Australia Day awards. Write a letter to your local government that outlines the reasons why you think this person is a special Australian and deserves to be celebrated.

15.10 Australian values

Values are the beliefs, ideals and behaviours that we consider important. While we each have our own personal beliefs, our society as a whole has values that guide our behaviour. As Australia has developed, its people have fostered values such as freedom, equality, compassion, inclusion, responsibility and giving people 'a fair go'. These values are reflected by our laws, and the ideals of the majority of people within our society, allowing us to live in harmony.

Freedom

Freedom is being able to make our own decisions, without being controlled. In Australia, we can make decisions about our lives such as where we will live or what job we will do. As we have already learnt, Australians enjoy freedom of speech, whereby people can openly express their thoughts and opinions. However, this freedom is not protected by law in Australia; it is a privilege rather than a right written into the Australian constitution. Australia also promotes the freedom of religion, allowing people to practise their religions within the boundaries of the law. Unlike freedom of speech, this freedom is protected by our laws.

Yet we are not completely free to do anything we like. There is a lot of debate about what freedoms we should be allowed so that we do not harm other people. For instance, even though we are free to get new clothes for summer, we are not allowed to steal those new clothes from someone else. While Australians enjoy many freedoms, we have laws to guide us that help us live together in peace.

Source 1 In November 2015, anti-racism protestors clashed with anti-Islam protestors in Melton, Victoria.

Equality

Equality is when we treat everyone the same. It is an important part of any fair society that cares about making sure no one is discriminated against. Yet equality is difficult to achieve. While the government tries to treat all of its citizens equally in the eyes of the law, it has received criticism for discrimination against certain groups of people, such as same-sex couples. Economic inequality has increased in Australia as fewer and fewer people control more and more of the country's wealth. Nevertheless, giving everyone an equal opportunity to succeed is a value held dear by many Australians. This is why the government and many organisations aim to help the disadvantaged in our society.

Source 2 Each year on 21 March, Australians celebrate Harmony Day. On this day, we celebrate our diversity and send a powerful message that everyone belongs in our society regardless of how different they are.

A 'fair go'

A 'fair go' means that everyone deserves a fair chance to succeed. It is meant to apply to all people. This applies to access to education and health care, and the opportunity to work and earn a sufficient living, regardless of gender, race or socioeconomic status. It means that discrimination on any of these grounds is not acceptable.
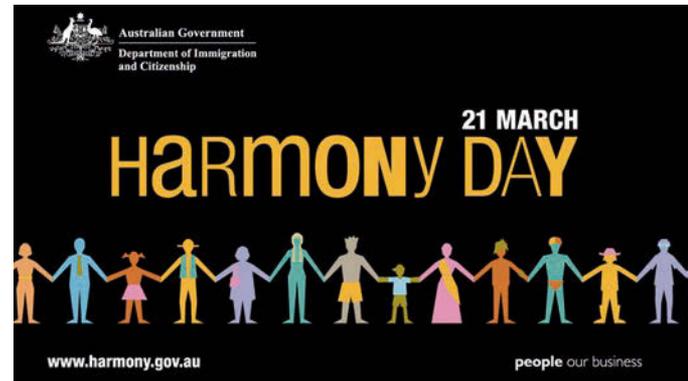
Compassion

Compassion is a human response to the suffering of others that makes us want to help or relieve that suffering. As people living in 'the lucky country', the majority of us live very comfortable lives compared to most of the world. Some Australians feel a responsibility to help those less fortunate and pressure the government to fulfill its responsibilities to people suffering in Australia and overseas. Our government can assist Australians in need by providing accessible medical services, education and aged care and disability services.

People's different levels of compassion and willingness to act on it have sparked great debate over what Australia's responsibility is in the global community. For instance, there are opposing views about how Australia should manage asylum seekers, people in extreme poverty and others in similarly desperate situations. Compassion is perhaps the most important value of any healthy society, as it influences people to help others who are experiencing extreme suffering.

Source 3   Many people risk their lives to come to Australia, but can then spend years in detention centres.

Source 4   Rallies against discrimination are often peaceful protests for a fair go for all people regardless of race, gender or socioeconomic status.

Inclusion

Everyone is different, but some people's differences are more noticeable or harder for others to understand. Unfortunately, it is easy to fear what we do not understand. Failing to overcome such fears can cause us to exclude people simply for being different, leaving them feeling isolated and ashamed of their uniqueness. It is important to celebrate our differences and include all kinds of people in our society, no matter what they look like or how differently they might choose to live. By including everyone, we are able to live in harmony together rather than in conflict or isolation.

Responsibility

Learning to be responsible means we must take ownership of our decisions and ensure that others do not suffer as a result of our behaviour. This is what holds people accountable for their actions. In Australia, the legal system is one way in which people are made to act responsibly. If a person commits a crime, they are likely to be fined or imprisoned. But often, it is our own understanding of what is right and wrong that makes us act responsibly. For example, after eating our lunch, if we throw our rubbish on the floor for someone else to pick up, we would feel guilty, so we place it in the bin. This is an example of being responsible, as we are considering the effects that our decisions have on others as well as ourselves.

Source 5 The failure of people to take responsibility for their effect on the environment is causing a great many problems for the planet and its people.

Check your learning 15.10

Remember and understand

1 What are values, and how are they reflected in our society?

2 Describe three values that are important to Australian society.

Apply and analyse

3 Why do you think Australia is called 'the lucky country'?

4 Do you think people should be free to do whatever they please? Why or why not?

5 How might values such as freedom, equality, a fair go, compassion, inclusion and responsibility make it is easier for us to live together?

6 Which Australian values do you think might also be valued by the rest of the world? Why?

7 a In Source 1, what freedom are these people exercising?

 b What freedom are they fighting for?

8 a People are different in many ways. Describe one difference that you have often observed.

 b How do you think you can help to make all kinds of students feel included at school?

9 a Why do you think responsibility is such an important value for our society?

 b List five things that you are responsible for at home and at school (such as making your bed or bringing the correct books to class).

 c For each of the responsibilities mentioned above, write what you think would happen if you did not fulfil your responsibilities.

Evaluate and create

10 Source 3 shows a detention centre for asylum seekers, many of whom have fled from war zones. Write a short story about the journey of a boy or girl your age who has fled from war-torn Syria in an attempt to start a new life in Australia.

15.11 Multiculturalism

Australia is one of the most culturally diverse nations in the world. It is made up of Indigenous Australians, migrants who were born overseas and the descendants of those who migrated to Australia over the past two centuries. All of these people carry with them a rich heritage and culture that has helped shape Australia's identity.

A history of multiculturalism in Australia

Up until the arrival of Europeans in 1788, Australia had been inhabited solely by Indigenous Australians for more than 50 000 years. Since then, we have seen waves of migrants come to Australia from all over the world.

Source 1 This postage stamp was issued to commemorate Australia Day in 1982. It shows an Indigenous Australian, a British colonist and a Muslim Australian.

1788	The first fleet arrives from Britain carrying Europeans to a continent inhabited by more than half a million Indigenous Australians.
1788–1868	Britain transports more than 160 000 convicts to Australia in order to ease their own overcrowded prisons.
1793–1850	Around 200 000 mainly English, Irish and Scottish people migrate to Australia voluntarily.
1850	The gold rush begins, attracting thousands of Chinese migrants.
1901–58	The 'White Australia policy' encourages migration to Australia from European nations (particularly English-speaking nations), while restricting migration from Asia.
1945	The government promotes the importance of migration through its 'populate or perish' attitude, under which it accepts more than 3 million European migrants in the fears that Australia will not survive with such a small population spread across an entire continent.
1970s	The first waves of refugees arrive from Asia, most of whom are people fleeing the war in Vietnam. To this day, the treatment of asylum seekers is a hotly debated political issue in Australia.
Today	There are more than 24 million people living in Australia, half of whom were either born overseas or have at least one parent who was born overseas.

Source 2 Timeline of migration to Australia

Expressing cultural identity

Australia's core values of freedom and inclusion allow for people to respectfully express their cultural identity without being persecuted. This has resulted in vibrant cities and towns across the nation, bustling with a diverse range of music, food, beliefs and customs that one would otherwise have to spend several lifetimes travelling the world to explore. From pizza to pho, Australia has slices of culture from more than 200 nations. As a result of our diverse society, Australia is also given the opportunity to learn about other cultures through community events such as food festivals, film festivals and traditional celebrations from other countries like Lunar New Year. It is this ever-changing and exciting mix of cultures that forms the Australian identity. We live in a multicultural nation that people from all walks of life can call home.

Source 3 Each year, many Asian Australian communities across the nation celebrate Lunar New Year with colourful festivities that entertain large crowds of people.

Check your learning 15.11

Remember and understand

1 When did the first Europeans settle in Australia?
2 How long have Indigenous Australians inhabited Australia?

Apply and analyse

3 Look at Source 1.
   a How does the stamp portray the Australian identity?
   b Why do you think the stamp shows the three individuals standing in that particular order?
   c When was the stamp released? Do you think it is still representative of Australia's multicultural identity?

Evaluate and create

4 Create a poster celebrating one of Australia's many cultures. You could use the Internet and the library to research information about the culture. You may wish to include:
   • customs
   • food
   • music
   • language
   • religion
   • famous Australians of that cultural background
   • significant historic events that caused that group of people to migrate to Australia
   • any other interesting information.

15.12 Indigenous Australians and the Australian identity

Australia's national identity is one that is marred by controversy. While some celebrate the legacy of the first Europeans as **pioneers** and **settlers**, others are more disturbed by the crimes that these Europeans committed against the Indigenous populations of Australia.

Acknowledging the past

The saying goes, 'History is written by the victors'. British Australia has often ignored the injustice done to the Aboriginal peoples through **colonisation**. Before the arrival of Europeans, Australia had long been inhabited by Indigenous Australians who were later killed or forced from their sacred lands and into servitude. Acknowledging this past has not been easy, while ignoring it has caused great suffering to the surviving Indigenous Australians. This has resulted in two very different perspectives on our nation's identity.

Source 1 Since the arrival of the Europeans in 1788, police frequently used neck chains and other restraints to arrest Indigenous peoples in the event of an offence. The use of neck chains was not completely banned until the 1940s.

Source 2 Governor Arthur Phillip hoists the British flag over the new colony at Sydney in 1788.

Reconciliation

For many people, truly recognising this part of our history is a necessary step towards properly defining the Australian identity. They argue that until we confront this issue, we will never be able to honestly promote the values that we want for our nation. In recent decades, efforts have been made by the Australian government to achieve reconciliation, notably when former Prime Minister Kevin Rudd made a formal apology to the Aboriginal peoples on behalf of the Australian Government.

1975	The *Racial Discrimination Act* is passed to help ensure Australians of all backgrounds are treated equally by the law.
1985	Uluru is handed back to its Indigenous owners.
February 1992	The Council for Aboriginal Reconciliation holds its first meeting in Canberra.
June 1992	The High Court hands down the Mabo decision, recognising the special relationship that Aboriginal and Torres Strait Islander peoples have with the land. The Court rules that Australia was never *terra nullius* (land belonging to no-one).
1996	National Reconciliation Week is launched.
1998	National Sorry Day is marked on 26 May.
2004	A memorial is built for the Stolen Generations in Canberra.
2008	Prime Minister Kevin Rudd formally apologises on behalf of the Australian Parliament to the Stolen Generations.

Source 3 Timeline of significant reconciliation events.

Despite such efforts, many people have different opinions about what more needs to be done in the way of reconciliation. Some people believe that Indigenous people should receive **reparations**, or payment, for the crimes they endured, while others believe that today's Australians are not responsible for these crimes and should not have to pay for them. There is a lot of debate around Australian icons, such as the flag and Australia Day, which ignore our nation's pre-British history.

© Brendan C Jones 1995

Source 4 Some people believe that the Australian flag should include Aboriginal symbolism. This flag, designed by Brendan Jones, is one example of what that may look like.

Check your learning 15.12

Remember and understand

1 What are the two different perspectives of our past that have affected our nation's identity?
2 What was one significant event that helped move Australia towards reconciliation?

Apply and analyse

3 Compare the flag in Source 4 to the official flag of Australia.
   a What are the differences and similarities?
   b Using the Internet, research what the symbols used in the two flags represent.
   c Which flag do you think better represents Australia today? Why?

Evaluate and create

4 Design an alternative to the Australian flag that you think best represents our nation's values.

#ChangeTheDate

Australia Day is the most significant day of Australia's national identity. It is marked by a public holiday in all states and is a time when many people get together to celebrate the wonderful lifestyle this country has to offer. For some, however, celebrating Australia Day on 26 January is both offensive and wrong. They form part of a growing number of people who are demanding that we change the date of Australia Day.

The date, 26 January, is the anniversary of the arrival of the First Fleet of British ships at Port Jackson, New South Wales in 1788. It marks the beginning of British rule of the Australian continent, and as a result, it is a day of great sorrow for Indigenous Australians. It was first celebrated in 1934 when people of European ethnicity formed a vast majority of the Australian population. Today, however, Australia is a far more multicultural society and has recognised many of the injustices experienced by Indigenous Australians as a consequence of the First Fleet's arrival. Many people believe that the date should be changed to something more respectful. They also believe that celebrating 'Invasion Day' goes against the values we want for our society.

People opposed to changing the date argue that it has become an important tradition that forms part of the Australian identity. Many of them believe that the nation we live in today was shaped by the arrival of the First Fleet and it should be remembered. People across Australia are exercising their democratic rights to voice their opinion on this divisive debate.

Source 1 People who are sympathetic to the plight of Indigenous Australians feel that 26 January represents British invasion of the continent.

Source 2 Many Australians are happy to celebrate the Australia Day public holiday on 26 January with a great sense of patriotism.

skill**drill**

Civic engagement: writing a letter to your local member of parliament or the prime minister

In our democracy, the role of politicians is to represent the people's opinions, concerns and interests. One way of ensuring your opinion is heard is by directly contacting your local member of parliament or the prime minister through an email or letter. Here are some tips:

- Before you write, research the topic that you are concerned about and make note of really important facts that will support your view.
- Make sure you use the correct title, for example, Ms Joanna Smith MP.
- Introduce yourself and the reason why you are writing.
- Politely write in your own words the main points you wish to share with the politician.
- Explain what you would like them to do about the issue.

- Sign off the letter with 'Sincerely' and your full name below it.
- Wait for a response and contact them again if you have not heard from them after a month.

Apply the skill

Write a letter to your local member of parliament or the prime minister discussing why you feel that the date on which we celebrate Australia Day should or shouldn't be changed. You may also wish to include whether 26 January should be recognised as a day of mourning, or propose a new date on which to celebrate Australia Day.

Extend your understanding

1. Using the Internet or an Australian calendar, make a list of all of the public holidays celebrated in Western Australia.
2. Research the historic significance of the days and identify how they are portrayed in the media and in popular culture.
3. How do these days form part of our national identity?

Source 3 Soldiers march through Melbourne on Anzac Day in memorial uniform each year on 25 April, a public holiday that is celebrated across Australia.

Law in action

An important part of any society is its legal system. The legal system creates and keeps the rules or **laws** that each member of society must follow. This is important when living with any group of people as it sets the boundaries for what is and is not acceptable. Imagine if you had no rules at home. How long would you last before things started to get chaotic? Any group of people will need some kind of system of rules, from family groups to schools to entire nations, to help people live together in harmony.

At the heart of Australia's legal system is the idea of **justice**, ensuring that all people are treated equally in the eyes of the law. In doing so, it helps to create a safer and fairer society where people behave in a way that does not intentionally cause harm to others.

16A

How are laws made and applied in Australia?

1 Who do you think is in charge of making a law?
2 Who do you think decides what happens when a law is broken?

Source 1 The statue of Lady Justice represents the idea that the law should treat all people equally and without bias.

16.1 Why do we need laws?

Every day of our lives, we are influenced by rules and regulations. From wearing a seatbelt when travelling in a car to buying a ticket to ride the bus, we come in contact with rules all the time.

The main reason we have laws is so that we can all get along. If there were no rules or laws at all, the world would become chaos because everybody would be able to do, say or take whatever they wanted. Society needs rules or laws to guide us. Most laws are created by the **government** for our own good (see Source 1).

Legal and non-legal rules

Rules do not just come from our government. There are many organisations and people who will create rules and regulations for the sake of organisation and protecting each other.

For example, schools and sporting clubs have rules. Some of these rules are **non-legal rules**, which means they are not enforceable by the government. For example, it might break your school's rules to be late for class, but you will not be arrested by the police for this. It would be up to your teachers, parents or principal to decide how you will be punished.

Laws, on the other hand, are **legal rules** made by law-makers. This means they can be enforced by the courts or police. For example, if you stole something from your school's canteen, you would not just be breaking your school's rules, you would also be breaking the law.

Source 2 Sports, including cricket, have rules to make sure the game is played fairly. These rules are known as non-legal rules.

The lawmakers involved in making our legal rules include **parliaments** (state and federal), local councils and the courts.

Source 1 Reasons for making laws

Reason	Example
Laws protect us.	Laws stop people from stealing or hurting each other.
Laws help us live peacefully.	Laws stop us from playing loud music very early in the morning.
Laws give us guidelines.	The law lets us know how old we should be before we can drive.
Laws settle disputes.	The law insists we must follow a process when presenting evidence in court
Laws allow us to punish people.	The law ensures that police are able to arrest people who are doing the wrong thing and that courts are able to punish them.
Laws protect our rights.	The law assures our right to vote.

Why do we obey the law?

There are a number of reasons why people obey the law. Many people understand that laws are there to protect us and that without them there is not much to stop someone who wanted to hurt, steal or exploit others. The law protects us from a world without rules, in which we are not all necessarily able to protect ourselves.

Another reason we obey laws is that we understand society needs laws in order to function peacefully. For example, we might not appreciate stopping for a red light when we are late driving somewhere, but we can understand the consequences of what would happen if we didn't stop. This idea can be applied to many laws. While we might not like it in theory, we understand that there is a need for it.

As a result, it is important for lawmakers to develop laws that citizens think are acceptable or understandable. This means people should understand why the law exists, and it should reflect their own values of right and wrong. For instance, if the government introduced a law that required us to wear sunglasses whenever we were awake, it is unlikely that many people would obey this law as there is no real need to wear sunglasses constantly. It would also be a very difficult law

Source 3 Internet piracy involves illegally downloading content, such as music, movies or television series, from the Internet, and is against the law. This is known as a legal rule.

for police to enforce, especially when people are in their own homes. In contrast, if people agree with or understand the need for a law, they are much more likely to obey that law.

We also obey laws because most of us do not want to get in trouble. If we are caught breaking the law, we can be punished. Depending on the law that is broken, people can be fined, jailed or required to do community service for breaking the law. The fear of punishment is supposed to be a **deterrent** from breaking the law, which means that it will discourage people from doing it.

Check your learning 16.1

Remember and understand

1. What is the difference between legal rules and non-legal rules?
2. Name three reasons that laws are created.
3. Give two reason why we obey laws.

Apply and analyse

4. Think about your week so far. List two legal rules and two non-legal rules that you would have been affected by.
5. Explain what you think society would be like without rules or laws.

Create and evaluate

6. In groups of three or four, come up with a list of non-legal rules you think should be applied in your school. Present your list of rules as a poster for your class.
   a. Create a list of rules for students (you might like to include rules about uniform, class times, homework).
   b. Consider what kind of punishments or consequences people would receive for breaking each rule. Would they all receive the same punishment?

16.2 Statutory law

Australia's laws can come about in two ways. **Statutory laws** are those that are made and passed by parliament. **Common law** is created when a judge has to make a ruling about a case that is not covered by statutory law.

Statutory laws can be passed by both state and federal parliaments. The state parliament can only pass laws affecting their own state, such as the legal driving age in that state. The federal parliament, on the other hand, can pass laws that apply to the entire nation, such as the rules about becoming an Australian citizen.

For example, the *Competition and Consumer Act (2010)* is a federal law that specifies what business behaviour is acceptable on a wide range of issues, from product safety and pricing, to the way in which a business competes in the Australian marketplace.

Passing a statutory law

Both federal and state parliaments follow similar steps to pass a statutory law. The following looks at how a **Bill** is passed through federal parliament.

Preparation of a Bill

A Bill is a formal document that is prepared as a draft Act, or law. It is proposed by a member of parliament (MP) when people feel the need to change an existing law or establish a new one. The Bill only becomes a law if and when it has been approved in the exact same form by both houses of parliament and the Governor-General.

Source 1 On 1 June 2015 Leader of the Opposition Bill Shorten introduced the Marriage Equality Bill, which proposed to amend the Marriage Acts current definition of marriage being exclusively between a man and a woman. The Bill was voted down in the House of Representatives by 98 votes against to 42 in favour.

First reading

After giving prior notice to parliament that a Bill will be discussed, the MP who is introducing the Bill will provide a copy of the draft Act to every other MP. At this stage, only the title of the Bill is read, giving the other members a chance to read the Bill in their own time.

Second reading debate

In the second reading, the member who introduced the Bill explains why the Bill has been introduced. The other members are then allowed to ask questions, make suggestions for changes and debate whether the Bill is the right way to tackle the issue that it aims to address. Because laws are such an important part of how our society functions, this debate can often get quite heated with members passionately arguing their different opinions on the issue. In the end, the members will vote on the Bill and any changes to it, which if passed goes on to the third reading.

Third reading

After having some more time to consider the details of the Bill and any changes resulting from the second reading, the House of Representatives will vote on the Bill. If the majority vote to pass the Bill, it will move to the Senate for consideration.

The Senate

Once it reaches the Senate, the Bill will go through the three reading stages again. The Bill will be passed to and from the upper and lower houses until both agree to any changes in the Bill, or until the Senate rejects the Bill completely.

The Governor-General

If the Bill is passed by both houses, the Governor-General as the Queen's representative will review and approve the law by giving the Bill **royal assent**. Assenting the law is usually just a formality, as none of the Queen's Governor-Generals have ever refused to assent a law in the past.
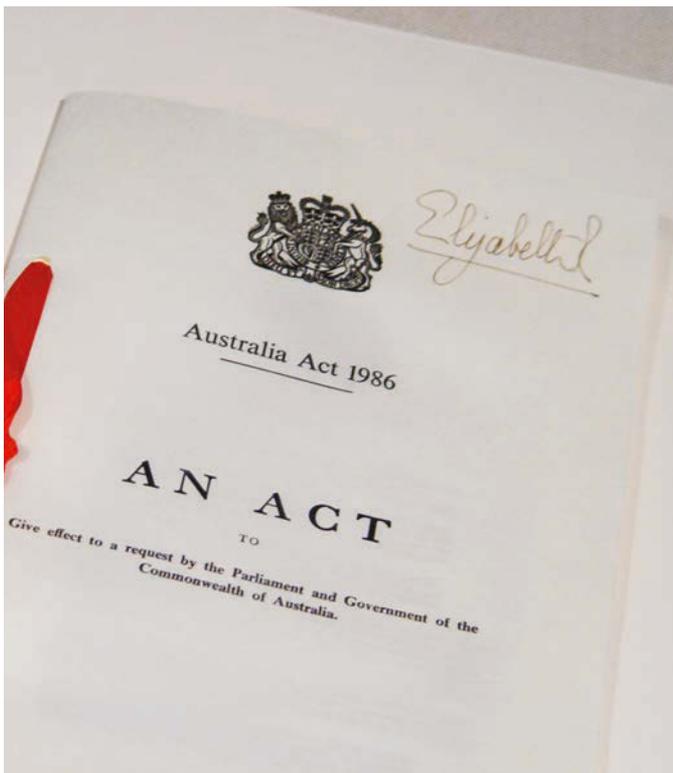
Source 2 The Australia Act 1986 was passed in the parliaments of both Australia and the United Kingdom. It eliminated any possibility of UK legislation affecting Australian law.

Check your learning 16.2

Remember and understand

1 What are the two types of laws in Australia and how do they come about?
2 Who can pass statutory laws?
3 What is the role of the Governor-General when it comes to passing a law?
4 Why do you think the Governor-General needs to provide a royal assent?

Apply and analyse

5 Why do you think that only the title of the Bill is read out in the first reading?
6 What is the purpose of a third reading if the members have already voted on the Bill during the second reading?
7 Look at Source 2. What was the purpose of the Australia Act 1986?

16.3 Common law

The role of a judge is to interpret the statutory laws passed by parliament and apply them to individual cases. New and unusual cases come up every day and, in some instances, statutory law is not clear about how a particular case should be dealt with. If an issue goes to court, a judge from a superior court must make a decision on how to resolve the issue in a just way. This decision sets a **precedent**, which in this context means that any similar cases in the future should be dealt with in the same way. While common law in many ways fills the gaps left by statutory laws, in some instances the parliament will pass law based on common law. This is known as codification.

The Supreme Court in each state, the High Court of Australia and the Federal Court are superior courts that can set a precedent. Once this precedent is set, all of the lower courts such as the magistrates courts, district courts and family courts must follow the precedent.

In Australia, most of our basic rights are protected by common law, since we do not have an official Bill of Rights. For example common law recognises people's right to not incriminate themselves, which means they do not have to testify or answer questions if they believe it will make them look guilty.

Source 1 The High Court of Australia is the nation's highest ranking court. Any decision it makes will set a precedent that all other courts must follow.

Check your learning 16.3

Remember and understand

1 What is the difference between common law and statutory law?
2 What is a precedent?
3 Which courts have the power to set a precedent?

Apply and analyse

4 Consider Source 2 and decide which court would be best suited to hear the following cases:

a a murder case
b a shoplifting case
c an armed robbery
d divorce proceedings.

5 Which court has the highest level of authority?

Evaluate and create

6 Create a poster showing the role and responsibility of each court.

High Court

Highest court in the land
- Comprises Chief Justice and six other judges
- Cases may be heard by three, five or all seven judges (full bench)
- Rulings by majority decision; they are binding
- Has jurisdiction for all cases involving the federal government
- Hears appeals of supreme and federal courts
- Only court that can interpret the Constitution

Commonwealth Courts

Federal Court of Australia
- Hears cases under federal laws (e.g. industrial relations, bankruptcy, taxation)
- Holds court sessions in all capital cities and some towns
- Has a Chief Justice (and sometimes other judges)
- Hears appeals from lower courts

State and territory courts

Supreme courts
- Hear most serious criminal cases (e.g. murder) and most complex civil cases
- Highest court in each state and territory
- Hear appeals from magistrates and county courts
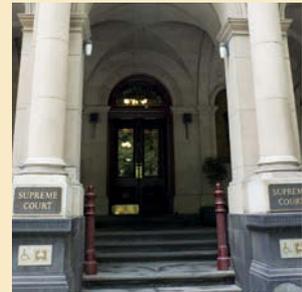
Family Court of Australia
- Hears family law cases (e.g. divorce, **custody** of children, **property settlement)**

Federal Circuit Court of Australia
- Set up in 1999 to share load of the Family Court and Federal Court
- Jurisdiction covers family law, **discrimination**, migration, privacy, copyright, etc.
- Holds hearings in all capital cities and some towns

Intermediate courts

District courts
- Hear more serious criminal cases and more complex civil cases
- Judge hears and decides civil cases
- Judge and **jury** for criminal cases; judge decides sentence
- Hear appeals from magistrates courts

Lower courts

Magistrates courts
- Hear minor civil, family law and criminal cases (e.g. small property claims, drink driving, domestic violence)
- No jury
- Magistrate hears and decides
- Also known as a summary proceeding

Source 2 Australia has many different courts. Each court has different roles, responsibilities and levels of authority.

16.4 Criminal law

Criminal law refers to the group of laws that have been put in place to protect us from harm. It is considered a **crime** when one of these laws is broken.

Criminal law can generally be divided into serious offences (such as murder) and less serious offences (such as damaging property or using public transport without buying a ticket). Serious offences are known as **indictment offences**, which means they must go to trial in court and will be punished more severely. Less serious offences are known as summary or **simple offences** and are generally dealt with quickly by the court or police.

When a person is caught or accused of a crime, there are two things the court will consider: a guilty act and a guilty mind. There must be a guilty act, which means that the law was broken (such as stealing a bike). There must also be a guilty mind, which means that the person accused of the crime intended to break the law (it wasn't just an accident).

In Western Australia, young people aged 10 to 17 must go to the Children's Court of Western Australia. If a person is under 10 years of age when they commit a crime, they are considered too young to take responsibility for a criminal act and will not go to court.

Going to court

When a person goes to court for a crime, it is referred to as a criminal trial or hearing. In court, the person who has been accused of the crime can also be known as the 'defendant'. The party who is appointed by the court to prove that the accused is guilty is known as the 'prosecution'. The prosecution is made up of legal professionals who are working on behalf of the state.

At the beginning of the court case, the accused will plead guilty or not guilty. This means they must declare to the court whether or not they committed the crime. If the accused pleads not guilty, the prosecution must then use the facts of the case, or evidence, to prove the accused is guilty **beyond reasonable doubt.** This means if there is a chance that the accused is innocent, they cannot be found

Source 1 The Supreme Court of Western Australia hears serious criminal matters.

key**concept:** Rights and responsibilities

The right to a fair trial

When a person goes to court for a crime, no matter who they are or what they have been accused of, they are treated as innocent until the court can prove they are guilty.

In Australia, we have the right to a fair trial or hearing if we have been accused of a crime. This means the following procedures must be followed in order for the trial to be legitimate:

- The accused or the **defendant** must be given the opportunity to be represented by a legal professional in court.
- All people are considered equal before courts and tribunals (they are not discriminated against in any way).
- The accused is given a fair and public hearing before a capable, independent and impartial or unbiased court or tribunal.
- The accused is treated as innocent until it can be proved beyond reasonable doubt that they are guilty.

These procedures are in place to ensure that justice is served in the courts and that innocent people are not punished for a crime that they did not commit.

For more information on the key concept of rights and responsibilities, refer to page 359 of 'The civics and citizenship toolkit'.

guilty and the court must let them go. Both the party representing the accused and the party representing the prosecution present a case to the court. This is known as the **adversarial system**. In this system, a judge or magistrate makes sure the trial is fought fairly and the rules of the court are followed.

The jury system

Serious criminal cases are heard in front of a jury. A jury is made up of a group of 12 to 18 random citizens who are selected to assist in deciding on the outcome of a trial. Once the jury has gone through the selection process, the prosecution and defence will present their cases and evidence to them. The jury must then decide whether or not the prosecution has convinced them that the accused is guilty beyond reasonable doubt. If they have not, and the defence has argued a better case, the jury is obliged to find the defendant not guilty.

Source 2 In Australia, more serious cases can be heard before a judge and jury. Juries are made up of citizens who are chosen at random to hear a case. At the end of the case, the jury must work together to decide whether or not the accused is guilty or not guilty.

Punishing crime

If the accused person is found guilty of a crime, they will be punished by the court. This is done for a number of reasons, including:

- to prevent the criminal from committing the crime again
- to deter other people from committing the same crime
- to show society that the crime is unacceptable and will not be tolerated.

Punishments for criminals vary based on the crime. For example, a person will not receive a life sentence in jail for intentionally breaking a window. Some punishments are outlined in Source 3

Source 3

Punishment	Description
imprisonment	An offender is sentenced to a set amount of time in prison. This is considered the most severe punishment in Australia and is the last resort as it takes away many of our freedoms or rights.
fine	An offender must pay money to the court or council.
community-based order	An offender can be ordered to a do a certain number of hours of unpaid work for the community. They might also be ordered to attend a number of counselling or self-help sessions, such as for anger management.
suspended sentence	An offender that has been given a sentence for imprisonment (2 years at the Magistrates Court or 3 years at the District or Supreme Courts) can have their sentence suspended. This means they do not have to go to jail for part or all of their sentence on the condition that they do not commit another crime during the suspension.
good behaviour bond	An offender can accept no punishment if they promise to behave for the duration of the bond (up to 12 months). This is usually the sentence given by the Children's Court.

Check your learning 16.4

Remember and understand

1 What is criminal law?
2 What is the difference between a simple offence and an indictment offence?
3 What is the adversarial system?

Apply and analyse

4 Why do you think children under the age of 10 do not go to court if they commit a crime? Do you think this is fair?
5 Give three reasons for why we punish people who are found guilty of crimes.

Evaluate and create

7 Look at today's news online or in a newspaper. Find an article about a crime that has been committed recently to answer the following questions. You should present your answers as a report (200–300 words in length).
   a What crime has been committed?
   b Is the crime an indictable or a simple offence?
   c How will the accused be punished or how have they been punished if found guilty? Do you think this punishment is reasonable? Why or why not?

16.5 Civil law

Civil law protects individuals. It typically deals with disputes between individuals (including corporations or government bodies) over an action (or lack of action) that results in loss or harm. Civil law generally aims to right the wrongs done by compensating or paying for the victim's loss.

If an individual has their rights infringed and suffers or is harmed as a result that individual can sue the other party for **damages.**

For example, we have the right to expect others to be careful in matters that affect us. If we are eating at a restaurant, we have the right to expect that the people preparing and serving our food are following safe food-handling procedures, so that we don't become sick when we eat that food.

Source 1 Monika Samaan was awarded 8 million dollars compensation after contracting severe salmonella (a type of food poisoning) from a KFC Twister. The salmonella poisoning left her brain damaged and unable to speak. KFC appealed the decision, claiming the Monika had not purchased the Twister on the same day that she ate it.

If we become sick from eating food that has been carelessly prepared, we can take action against the individual responsible. The point of taking people to court in this way is to come to a resolution in which the person who has been wronged is compensated, or paid in some way, for their suffering.

Civil disputes

There are many different types of civil disputes that might cause an individual take action (see Source 2).

When one party takes action against another, the civil action does not necessarily go straight to court. Sometimes the parties involved can negotiate a solution between themselves. Sometimes they may require mediation. Mediation is a method of resolving civil disputes and involves the assistance of an independent, third party to moderate discussion and help the parties resolved to reach a resolution. This form of dispute resolution can only be successful if both parties are willing to attend the mediation.

If a decision or solution cannot be reached through negotiation or mediation, the dispute may need to go to court. The person who takes the dispute or complaint to court is known as the **plaintiff**. The person who is being sued is known as the defendant.

Civil disputes use the adversarial system in court. Similar to criminal cases, the plaintiff (or party representing the plaintiff) must present a case that proves the defendant has caused them harm or loss. The defendant (or party representing them) also presents their case to the court. Both sides are allowed to present evidence and question witnesses in order to uncover the truth or prove that they are in the right.

The plaintiff is able to choose whether or not a jury is involved in the case.

Civil remedies

If the plaintiff wins the dispute, they are entitled to a **civil remedy**. The civil remedy is the method by which the defendant must return to the plaintiff to his or her original position before the dispute

occurred. A civil remedy usually takes the form of money, known as damages. For example, if a person was injured as a result of someone's carelessness and had to pay medical expenses, the defendant might have to pay for the cost of those medical expenses and any other losses suffered.

Unlike criminal law, the aim is not to punish the wrongdoer by any more than is needed to repair the damage done to the victim. Civil law cases are judged on the **balance of probabilities**. This means that the judge will support the claim if it is more likely than not that the defendant caused the plaintiff harm.

Types of civil disputes

Family law
- Includes disputes over births, marriages, divorces and caregiving.
- For example, disputes can occur when deciding who will have custody of children after a divorce

Contract law
- Includes disputes concerning the legal arrangements and agreements between parties. Breach of contract is one of the most common forms of civil dispute.
- For example, disputes can happen over a contract to buy a house.

Tort law
- A tort is a breach of duty imposed by the law.

Defamation
- Occurs when an individual damages the reputation of another individual, either by **slander** (spoken **defamation**) or **libel** (written defamation).
- For example, an individual might spread rumours about a competitor in business in order to gain more customers. This damage to the competitor's reputation is considered defamation.

Nuisance
- Occurs when an individual unreasonably interferes with another person's ability to freely enjoy or use their land.
- For example, an individual might cause excessive noise, odours or vibrations.

Trespass
- Occurs when an individual directly, intentionally or without permission interferes with another person's property.
- For example, an individual might intentionally dump waste on another person's property without permission.

Negligence
- Occurs when an individual or organisation fails to take proper care to avoid injury or loss to another individual.
- For example, local councils must ensure that the playgrounds in their community are safe and properly maintained to avoid injury to those who use them.

Source 2 There are many types of civil disputes.

Check your learning 16.5

Remember and understand

1 What is civil law?
2 What are the three major types of civil disputes?
3 Name three ways in which civil disputes can be resolved.
4 What do we mean when we refer to a plaintiff suing for 'damages'?

Apply and analyse

5 What might be a disadvantage of negotiation or mediation in solving civil disputes?
6 What is the difference between criminal law and civil law?

Evaluate and create

7 Draw a cartoon that shows at least three torts taking place in your school. (Hint: You might want to draw your cartoon on a large piece of poster paper to fit everything in.)

16.6 Aboriginal and Torres Strait Islander customary law

Traditionally passed down by word of mouth, the **customary law** of Indigenous Australians varied between nations and language groups just like their languages and other customs. These customary laws have developed over generations to determine a system of order and discipline for Aboriginal and Torres Strait Islander peoples.

The Dreaming

The laws Aboriginal peoples live by were not created in the same way as our written laws. Their rules come from the **Dreaming**. Also known as the 'Creation time' or '*Nyitting*' among the Noongar people, the Dreaming is at the centre of many Aboriginal peoples' beliefs and cultures. It refers to the time when the spirit ancestors created the Earth and all its living things. Dreaming stories laid down the rules for people to live by, including the social and moral order that allowed people to live together peacefully.

These rules included guidelines on what food could be eaten, how food could be shared, who a person could marry, and what people's roles and responsibilities in the community were. They were not written down in a constitution, but were instead passed down from generation to generation by word of mouth. Children were taught about the Dreaming through stories passed on by **elders**. These stories served as lessons that were an important part of learning about culture and Country (the land they lived on and respected).

One customary law that is very different to current Australian law is the idea of land ownership. Many of the different groups of Aboriginal peoples did not believe in the idea of owning land, which was first introduced by Europeans when they arrived in Australia and claimed ownership of the land. Aboriginal peoples saw the land as a sacred thing to look after, not own. Some Aboriginal peoples refer to themselves as the 'custodians' (or caretakers) of the land.

This belief is reflected in the relationship Aboriginal people have with their Country. They respect the land that provided for them and are careful to maintain their environment rather than destroy it.

Disputes and elders

Traditionally, Aboriginal nations and communities did not answer to a government like we do today. Instead, everyone took part in the running of the community. In particular, elders played a very important role in maintaining order. Elders led by example, passing down the stories and laws of the Dreaming to the younger generations.

A person did not just become an elder as they aged. Rather, elders were often highly respected members of the community who had a deep understanding and knowledge of traditions and laws.

If there was a problem or dispute, people could take their issue to the elders for advice or

Source 1 Noongar men in Perth. Noongar people, like many Aboriginal groups in Australia, base their laws on the Dreaming stories that are passed down from generation to generation.

resolution. Sometimes elders would be required to punish a person who had broken the law. The type of punishment a person received would depend on their crime (as it still does today). The threat of punishment also aimed to deter people from committing a crime. Punishments of different nations could include:

- shaming or public ridicule
- exclusion from the community
- physical punishment (such as spearing)
- death (reserved for the worst crimes)

Customary law today

Customary law still has major significance for many of Australia's Aboriginal and Torres Strait Islander peoples. While it has not been officially recognised as Australian law, there have been some legal developments made to recognise it alongside our current legal system.

An example of this is the 1998 Northern Territory case of Galarrwuy Yunupingu and Michael McRostie. Yunupingu is a senior Gumatj elder of the Yolngu people, responsible for upholding Yolngu law. Taking photographs is against Yolngu law, so when McRostie, a photographer, took photographs of Yunupingu's family and Country without permission, Yunupingu took the camera off McRostie to destroy the pictures. In doing so, he knocked the photographer, who was still attached to his camera by a strap. When McRostie took Yunupingu to court for assault and criminal damage, a judge found that Yunupingu was well within his rights take the camera off McRostie in order to fulfil his responsibilities as elder and protector of Yolngu country and law. The case against Yunupingu was dismissed in favour of customary law.

Check your learning 16.6

Remember and understand

1 What is customary law?
2 What is the Dreaming?
3 How have customary laws been passed on from generation to generation?
4 What role do elders play in many Aboriginal communities?
5 How does the current government's idea of land ownership differ from traditional Aboriginal ideas of land ownership?

Apply and analyse

6 What kind of information could people learn from the Dreaming that would help them to function or live in a community?
7 Why might a court apply customary law to make a legal decision rather than criminal law? Refer to the case of Galarrwuy Yunupingu in your answer.

Evaluate and create

8 Copy the Venn diagram below into your workbook and use it to help you compare Indigenous customary laws and punishments with modern-day Australian laws and punishments. Place the things you know about the two systems that are unique in the left and right circles. Place the things common to both systems in the middle section.

Indigenous customary laws and punishments

Modern Australian laws and punishments
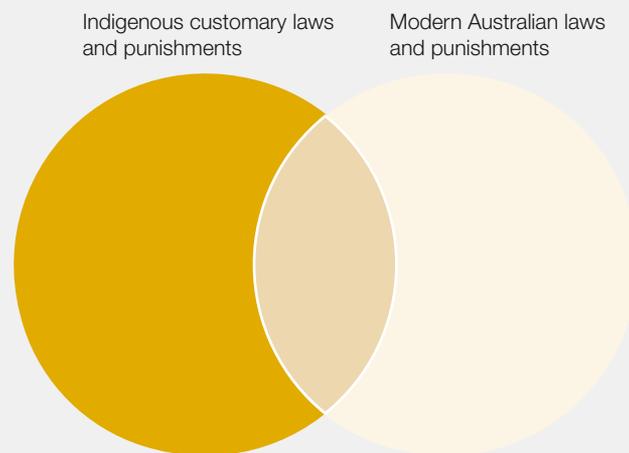
School bullying

Bullying has become a significant problem in schools across Australia. Government research suggests that around one in four students are affected by bullying. Victims of bullying are far more likely to have serious mental health problems even after they leave school.

Bullying involves repeatedly making someone feel less valuable. There are three main types of bullying:

- verbal – using words to hurt another person's feelings, such as teasing or name-calling
- social – hurting someone's reputation or relationships by spreading rumours about them or excluding them from group activities
- physical – hurting a person's body or property by kicking, punching, pushing them or breaking their belongings.

Bullying can happen anywhere at any time. Around one in five people aged eight to 15 experience cyberbullying or bullying over the Internet or mobile phones. Access to mobile phones and social media, such as Facebook or Twitter, has made the problem worse than ever. This has left many Australians demanding tougher laws on bullying and government funding to develop programs to fix the problem.

Source 1 Sending hurtful text messages to or about another person is a form of cyberbullying.

Source 2 If you are experiencing or have witnessed bullying, be sure to notify your parents or a teacher at the school so that they can help stop the bullying from happening in the future. You can also call Kids Helpline on 1800 55 1800 for a friendly chat about any problems that you might be having.

Drafting a Bill

On pages 402–403, we looked at how a law is made from a proposed Bill. Now we will look at how a Bill is drafted before it is presented to parliament. A Bill often requires many drafts before it is ready to be presented.

Step 1 Identify the problem that you would you like to address; for example, bullying.

Step 2 Decide whether the Bill will change an existing law or if it will be a completely new law.

Step 3 Write a short title that reflects what the Bill is about and why it is being proposed.

Step 4 Write a detailed list of rules that would help fix the problem.

Step 5 Write who would be responsible for enforcing those rules.

Step 6 Write what the penalties would be for not following the rules listed.

Step 7 Write a list of definitions explaining what any tricky words mean. This way the Bill can be easily understood by everyone.

Apply the skill

1 In groups of three to four, use the steps given to prepare a draft Bill to help solve the issue of bullying (for Step 2, assume there is no existing law related to bullying).

2 Propose your draft Bill to the class. Allow the class members to make suggestions as to how the Bill could be changed.

3 Make the suggested changes that the majority agree on and take a class vote on whether the Bill should be passed or not.

Extend your understanding

1 Have you ever experienced or witnessed bullying? Write a diary entry explaining how it would or did feel being the victim of bullying.

2 Use the Internet to research another issue such as marriage equality or the treatment of asylum seekers. Use the information to prepare a draft Bill on changes to the law you would like to see made on the issue you have chosen. Present the draft bill to your class as you have done with your anti-bullying Bill.

Source 3 Before being presented to parliament, a Bill goes through several drafts.

Glossary: Geography

A

annotated visual display (AVD) a way of presenting the final results of a research project, incorporating images, graphs, notes and explanations in a poster-style format

arch a natural feature, usually formed from rock, that forms a bridge-like arc as a result of erosion

B

backwash the backwards movement of sea water down a beach after a wave has broken

bar graph a graph that shows information as a series of horizontal bars

blowout dune a horse-shoe-shaped disturbance in a sand dune system

BOLTSS a mnemonic (memory device) for remembering the essentials of a map: border, orientation, legend, title, scale and source

bore (also called an Artesian well) a drilled well that brings water up from deep in the ground

breakwater a wall that is built out into the sea to help prevent erosion

C

cardinal points the four main directions: north, south, east and west

cave a hollow space along the coast produced by the action of the waves

census a 'head count' or audit of the number of people living in a particular place at a particular time; information collected during a census can often include age, occupation, income, etc.

change a key concept in geography: the dynamic nature of all processes on Earth, whether slow or fast, small or large

choropleth map a map that shows particular data or characteristics, such as population density, by using different shades of the same colour (e.g. light green to dark green) or different colours to show variation

climate graph a combination column and line graph that shows the rainfall and temperature of a given place; also known as a climograph

column graph a graph showing information as a series of vertical columns

compass an instrument with a magnetic needle that points to the north; used for navigation

compass bearings a precise way of giving compass directions, such as 135° (south-east)

compound column graph a column graph that has subdivided columns for further comparison of groups

constructive wave a gentle wave that deposits material and builds up beaches

contour lines lines drawn on a map that connect points at the same height to show the height and steepness of land

CSIRO Commonwealth Scientific and Industrial Research Organisation; Australia's national science agency

D

decentralisation the process of encouraging population growth and job creation in suburbs and smaller regional towns or cities rather than in central areas of major cities

deposition the laying down of solid material which has been eroded and transported from another part of the Earth's crust

destructive wave a strong wave that wears away coasts and removes material

direction a way of orienting a map, usually shown by the use of compass points, such as north

dot distribution map a map using dots or other shapes to show the location of a particular feature

E

eastings the gridlines that run vertically on a topographical map

ecosystem a term used to describe the way in which the living organisms (such as plants and animals) in a particular area interact with the non-living organisms in that area (such as water, rocks and climate)

environment a key concept in geography: a specific place on Earth and all the things, both animate and inanimate, that are there

Equator an imaginary line that runs around the middle of the Earth separating the Northern Hemisphere from the Southern Hemisphere

erosion the wearing away of the Earth's surface by wind, water or ice

ethnicity the background, nationality or culture of a person or group of people

F

feature a distinctive landform or characteristic of the landscape, either naturally occurring or made by humans

fieldwork geographical study that takes place outside the classroom at the site of inquiry

flow map a map that shows movement (such as that of people or goods) from one place to another

forced migration the forced movement of people from one place to another because of war, famine or violence

G

GIS Geographic Information System; a software application designed to capture, store, manipulate, analyse, manage and present all kinds of geographical information

groyne a constructed barrier that juts out from a beach into the water, made to prevent erosion of the beach from the power of destructive waves and longshore drift

H

headland a steep cliff jutting out into the sea

hot spot a point not on a plate boundary where there is tectonic activity

I

infrastructure   the facilities and services necessary for any community, city or country to function (e.g. buildings, electricity, roads, airports and water supply)

interconnection   a key concept in geography: the relationship between all things, both animate and inanimate, and all processes, both natural and human

internal migration   the movement of people within a region or country

international migration   the movement of people between countries

L

lagoon   a shallow stretch of water which is partly or completely separated from the sea by a narrow strip of land

lahar   a type of mudflow or debris flow

landform   a natural geographical feature or shape that appears on the Earth's surface (e.g. dune, hill, valley, beach or cave)

landscape   a section of the earth's surface made up of a variety of geographical features (known as landforms) that define and characterise it; landscapes can be natural (e.g. coastal landscapes and mountain landscapes) or built (e.g. neighbourhoods and cities)

landslide   large-scale movement of soil, mud, rocks or snow carried by the force of gravity downhill

latitude   imaginary lines running east–west around the Earth's surface, parallel to the Equator, used to work out location and direction

lava   the molten material that flows from a volcano

line graph   a graph that displays data as a line

longitude   imaginary lines running north–south around the Earth's surface, from the North Pole to the South Pole, used to work out location and direction

longshore drift   the process which moves sediment in a zigzag pattern along a beach by wash and backwash of waves approaching the shore at an angle

M

magma   the hot liquid (molten) rock beneath the surface of the Earth

magnetic north   the physical place on Earth, near the North Pole, to which a magnetised needle points

mantle   the soft layer of hot rock between the crust and the core of the Earth

map   a simplified plan of an area shown from directly above the area

megacity   a city with a population of more than 10 million people

migration   movement of people to a new country or area

N

natural process   a natural action, change or function that brings about a result in the Earth's surface (e.g. erosion)

northings   the gridlines that run horizontally on a topographical map

O

orbit (waves)   the circular movement of water beneath the surface, creating waves

overlay map   a map on some type of transparent paper or layer that is placed over a base map, used to show the relationship between features or events on the Earth's surface

P

physical map   a map that shows the locations and names of physical features of the Earth, such as mountains and rivers

pie graph   a graphical way of presenting data; a circle is divided up into segments to represent the distribution of data

place   a key concept in geography: a part of the Earth's surface that is identified and given meaning by people

plan view   a way of showing something as if the viewer is looking down on it from above; a bird's-eye view

political map   a map that shows the locations and names of built features of the Earth, such as cities, roads, dams and railways

population density   a measurement of the number of individuals per unit area (e.g. 1500 people per square kilometre)

population pyramid   a graph that displays the percentage of males and females in a region by age-group

primary data   data for a geographical inquiry that was collected in the field by a geographer conducting the inquiry (e.g. survey data, hand-drawn maps or photographs)

Prime Meridian   an imaginary line of longitude that runs from the North Pole to the South Pole; longitude is defined as 0° at the Prime Meridian

pull factor   positive factor that pulls people to a certain place

push factor   negative factor that pushes people away from a certain place

pyroclastic flow   a fast-moving and dangerous mixture of hot gas and rock that is ejected from a volcano

Q

qualitative data   any information that can be recorded in words; for example, Uluru is very large

quantitative data   any information that can be recorded as numbers; for example, Uluru is 3.6 kilometres long

R

refraction   the process by which the direction of a wave is changed when it moves into shallow water

refugee   a person who moves to another country because of a natural disaster or to avoid persecution

rip current   a strong, narrow flow of surface water, away from the shore, that returns water brought ashore by waves

rural   a term used to describe an area located outside cities and towns, such as farming or agricultural areas

S

sand dune   a hill or mound of sand formed by wind deposition on the landward side of a beach

scale   a key concept in geography: the level at which a geographical inquiry takes place – personal, local, regional, national or global

scale (mapping)   a system that indicates how the distances on a map are represented in the real world (e.g. written scale, line scale, ratio scale)

secondary data   data used for a geographical inquiry that was not collected by the geographer conducting the inquiry (e.g. textbooks, atlases and government websites)

seawall   a wall built close to or along a shoreline to prevent erosion or damage by destructive waves

shield volcano   a volcano characterised by gentle eruptions that emit runny lava over a wide area

slum   a settlement within a city where the inhabitants have inadequate housing and poor access to basic services

space   a key concept in geography: the way things are arranged on the Earth's surface

spit   a curved build-up of eroded material that forms at the mouth of a river

stack   a part of a cliff that has separated from the mainland as a result of the erosive effect of waves

subduct   what happens when a denser oceanic plate meets and is pushed down below a lighter continental plate

suburb   an area beyond a city centre, with medium-density housing

suburbanisation   the process of growing cities outwards by building new housing estates and businesses away from the central business district

sustainability   a key concept in geography: the ongoing capacity of Earth to maintain all life

swash   the movement of water up the face of a beach after a wave has broken

T

tectonic activity   processes that tend to build up the various features of the Earth's crust (e.g. types of mountain building, volcanic action, folding and faulting)

tectonic plate   one of the immense, slowly moving pieces that make up the earth's surface (or crust) and that carry the continents and oceans

thematic map   a map that shows details about a particular topic, such as land use or the distribution of resources

tombolo   a deposit of sand linking an island to the mainland (or to another island), formed by longshore drift

topographic map   a map that shows the shape of the land, its relief and landforms

training wall   a wall built to force water into a specific channel, usually built at a river's entrance into a large body of water

tsunami   a giant ocean wave caused by an underwater earthquake

U

urban   a term used to describe a built-up area such as a city or town

urban renewal   the process of taking areas of land in a city that are no longer being used and redeveloping them

urban sprawl   the growth of a city onto productive farming land on the city fringes

urbanisation   the process of social and economic change that takes place as increasing numbers of people move from rural areas (e.g. farms) to urban areas (e.g. cities)

V

voluntary migration   the movement of people from one place to another of their own free will

vulcanologist   a scientist who specialises in the study of volcanoes

W

weather map   a map that shows conditions in the earth's atmosphere, such as air pressure, wind speed, wind direction, and warm and cold fronts

Glossary: History

A

anatomy   the study of the human body

Anglo-Saxon   a term describing a Germanic people who settled in Great Britain in the 400s CE; they drove the local Celtic people to the land's extremities

artefact   an object, small or large, made or changed by people

B

barbarian   a term first used by ancient Romans to describe someone living outside their borders; an uncivilised person

Battle of Hastings   an important battle that took place near the English town of Hastings on 14 October 1066; fought between the English troops of the Anglo-Saxon King Harold Godwinson and the Norman troops of Duke William of Normandy; the Norman troops were victorious and Duke William was crowned the new king of England

bias   a pre-set view about someone or something that is not altered by the presentation of facts and opinions to the contrary

Black Death   a deadly plague that spread across Asia, Europe and Africa during the fourteenth century

blood letting   the deliberate cutting of someone to cause bleeding; this medieval practice, often performed by barbers, was seen as a treatment and cure for illness

buboes   the blackened, swollen, pus-filled lymph nodes evident on the body of someone with the bubonic plague

bubonic plague   an infectious disease caused by a bacterium carried by the fleas of rats and mice, and which quickly kills those who contract it; visible symptoms include buboes

bushido (pronounced be•shee•doh)   the code of behaviour of the Japanese samurai warrior that required honour, loyalty (even to death), good living, thrift and martial arts skill

C

catapult   a weapon that worked like a giant slingshot; it hurled large rocks and sometimes the infected bodies of people and animals over the wall of a city an army might be laying siege to

Catholic Church   the only Christian Church in Europe until the **Protestant** Churches began to break away from Rome in the 16th century

cause and effect   a key concept in history: the link between what causes an action, or what motivates someone to act a certain way, and the outcome of that action

census   a 'head count' or audit of the number of people living in a particular place at a particular time; information collected during a census can often include age, occupation, income, etc.

chain mail   a form of armour (like a long T-shirt) made up of hundreds of interlinking metal rings

charter   a formal document in which someone in authority (e.g. medieval lord) states that certain rights or responsibilities are granted to others

chronology   a record of events in the order they took place

commission   to order and provide financial support for the creation of a work of art, building, etc.

conquistador **(pronounced con•kees•ta•dor)**   a Spanish word for a soldier or conqueror

contestability   a key concept in history: the idea that an interpretation or hypothesis may be challenged or left open to debate because of a lack of evidence or different perspective

continuity and change   a key concept in history: the recognition that while many things change over time (some quite drastically), other things continue (even if in modified forms)

courtier   a man who is part of the household or staff of a royal family

C

Crusades   a series of wars fought by Christians and Muslims between 1096 and 1291 CE over control of the Holy Land

D

Danelaw   an area in north-east England (which includes the city of York) that the then king of the Kingdom of Wessex, King Alfred, gave to the Vikings in exchange for stopping their raids of the region

dynasty   a period of rule by successive members of one extended family

E

empathy   a key concept in history: the ability to understand what happened in the past from the perspective of the people living at the time

emperor   someone who rules an empire; namely a group of countries and/or areas often speaking different languages and having different cultures, but centrally ruled

empire   a group of countries and/or areas, often having different languages and cultures, ruled by a central power or leader

evidence   a key concept in history: the information or clues discovered by asking specific questions about a historical source

excommunication   a religious punishment that involved cutting someone off from being part of the Church community and all that this entailed from a spiritual point of view (e.g. being able to participate in communion, confession, gaining entry to heaven)

F

feudalism   a set of legal and military customs that served to organise the society of medieval Europe; under feudalism, a lord gave a fief to a vassal in exchange for loyalty and support

fief (pronounced feef) usually a plot of land granted to a vassal by a lord in return for the vassal's loyal support

flagellants a group of radical Christians during the Black Death who whipped themselves to gain God's forgiveness for their sins

G

guild a group of people all working in the same trade (e.g. butchers, tailors, cobblers) who band together for their common interests

H

heresy doing or saying something regarded by the medieval Catholic Church (and by some other faiths) as being in serious conflict with its teachings

hierarchy a way of organising people or groups of things so that the most important is at the top, with the others ranked underneath in decreasing order of importance

Holy Land the territory in today's Middle East now mostly made up of Israel and parts of Palestine

hypothesis a considered opinion, theory or statement, based on research and evidence, about something that has not been proven (hypotheses in plural)

J

jester a medieval comedian who joked and 'played the fool' at occasions such as banquets and fairs; he typically wore a multi-pronged floppy hat with bells on it

K

khan (pronounced karn) the title given to a leader of a Mongolian community (and during the 13th century, to the head of the Mongol Empire)

kingdom a region ruled by a king or queen

knight a medieval warrior of Europe, who typically pledged his services to a lord (sometimes the king) in exchange for a fief

L

longhouse a Viking house, characterised by its long shape; often built into mounds of earth (for insulation); it sheltered the extended family and their animals

longship a type of ship used by the Vikings to transport warriors on attack-and-raid missions; longships had shallow hulls, making them speedy and easy to manoeuvre; they were often decorated with mythical creatures

lord a wealthy monarch or noble; under feudalism, one who exchanged fiefs for the sworn loyalty of vassals

M

Magna Carta a document signed in 1215 by England's King John and his barons; they forced him to sign it as he was abusing his power towards his people; it meant that the king would thereafter be expected to rule according to feudal law

manuscript in the medieval sense, a document written by hand (usually by monks)

medieval another name for the Middle Ages

minstrel a medieval singer and musician who typically wandered around the countryside performing at events (often as part of a small group); unlike troubadours, minstrels did not necessarily create the music and songs they performed

moat a wide band of water surrounding a built structure such as a castle; it provided some protection in case of attack; access across the moat was via a drawbridge, which was drawn up in case of attack

monarchy a type of government ruled by a monarch (king or queen)

monk a man dedicated to the religious life

N

New World a term that started being used by Europeans in the late 1400s for the new lands (the Americas) being discovered

nomadic a tribe or community that moves from place to place to get food and pasture for livestock

Normans a group of people descended from Vikings who settled in a region of northern France which became known as Normandy

nun a women dedicated to the religious life

P

pandemic a term used to describe the spread of an infectious disease across an entire country, a large region, or even worldwide; an epidemic on a much larger scale

patron someone who devotes some of their wealth, time and interest to developing the skills of others (usually in the arts)

peasants in medieval times under the system known as feudalism, peasants were the lowest members of society; peasants were poor and had very few rights; they often lived on feudal manors working for feudal lords as farmers and labourers

perspectives a key concept in history: the way that a person or particular people view some aspect of the past; some perspectives will reflect one's prejudices, fears or uncertainties; others, their age, gender or education

pilgrimage a journey made by someone who travels to a place of religious significance in the hope this will see prayers answered or sins forgiven

primary source a source of historical evidence that existed or was created at the time being studied

Protestant a member of one of the new Christian Churches that developed during the Reformation

R

Reformation a movement that began in Europe in the 16th century when the scholar–monk Martin Luther publicly challenged the Catholic Church; it shifted the balance of power in Europe away from dominant control by the Church

regent a person who rules in place of the monarch who is temporarily absent from the country (maybe fighting a war), or who is too young or sick to rule

Renaissance   a period in Europe's history between the late 12th and 16th centuries that saw a revival of culture and learning; a French term meaning 'rebirth'

Roman Catholic Church   the only Christian Church in Europe until the Protestant Churches began to break away from Rome in the 16th century

S

samurai   a Japanese medieval warrior

Scientific Revolution   a change in thinking among 16th and 17th century European scholars that placed a new focus on the laws of the natural world (rather than on a world dominated by religious belief)

secondary source   a source of historical evidence made or written after the time being studied

seppuku **(pronounced sep•oo•koo)**   a ritual suicide common among Japanese samurai who felt they had been dishonoured; this involved self-disembowelling (cutting open the belly)

serf   a medieval peasant who worked on the manor of a feudal lord

siege   a military strategy used to weaken a castle, a town or city by cutting it off from the outside world

significance   a key concept in history: something or someone who is either important to people in the past, or who deeply affected a large number of lives; it also describes something relevant discovered about someone or something that sheds new light on an issue

Silk Road   a network of trade routes stretching west from China to the Mediterranean Sea; it was the main means by which silk was introduced to the West

society   a group of people who organise themselves to best survive in their environment

source   an item of historical evidence of any sort

steppe (pronounced step)   an expansive stretch of grassland (without trees) typically found in places such as Siberia and Mongolia

T

Tatar (pronounced tah•ter)   a member of an ethnic group whose members can be found today in countries such as Turkey, Uzbekistan, Kazakhstan, Ukraine and Azerbaijan

timeline   a graphical representation of events over a set period of time, arranged in the order in which they occurred

treason   the act of betraying one's own country or ruler

troubadour   a medieval musician and poet who both wrote and performed songs that were typically about romantic love

V

vassal   under feudalism, a person who offered his loyalty and service to a lord in return for his protection and the granting of a fief

Glossary: Economics and business

A

allocation and markets   a key concept in economics and business: allocation is how we distribute scarce resources among producers; markets are the exchange of resources (or goods and services) among buyers and sellers

audit   a detailed investigation and check of whether the records of a business are accurate

Australian Competition and Consumer Commission (ACCC)   the federal government authority in charge of enforcing the *Competition and Consumer Act (2010)*

C

circular flow model   a model that illustrates the interdependent relationship between businesses and consumers in a market economy

competitor   a rival business who makes products in the same market

Consumer Protection   the regulatory body that aims to make a fair and competitive marketplace for businesses and consumers in Western Australia

consumer   a person who buys buy things to use

E

economic performance and living standards   a key concept in economics and business: economics performance is the evaluation of an economy, or measuring how well it is going, by measuring it against a number of economic objectives (such as unemployment level); living standards is the level of wealth, material goods, comfort and life necessities available to people living in a geographical area

economics   the study of how people and society use resources to satisfy their needs and wants

employee   a person who work for a business

employer   a business who employ workers to produce goods and services

employment   having a job that returns an income for the work provided

ethical consumers   people who make an effort to purchase goods and services that do not have a negative impact on other people, animals or the environment

export   sending goods to another country

express warranty   a promise about the quality of a good or service that consumers rely on when they purchase the good or service

extended warranty   a promise about the quality of a good or service beyond its expected performance or normal warranty

externalities   the impacts that economic activities can have on people who are not involved in the activity

F

factors of production   economic resources, which are divided into four categories: land, labour, capital and entrepreneurship

federal   government and legislation belonging to the Commonwealth of Australia

financial year   a yearly period used by accountants and economists; the Australian financial year run from 1 July to 30 June

G

goods and services   a term used in economics to describe all products sold or traded within an economy; goods are items (such as books and pens) and services are activities performed by others (such as cleaning and visits to the doctor)

Gross Domestic Product (GDP)   the total value of goods and services produced in a country over a year

I

importer   a business that bring in products made overseas to sell in the Australian market

import   bringing in goods from another country

inflation   the general increase in prices of goods and services

interdependence   a key concept in economics and business: the way participants in an economy (such as individuals, businesses and governments) rely on each other to provide or trade the goods and services they cannot produced themselves

interest   the cost of borrowing money from a bank, a person has to pay the bank interest on top of the original amount borrowed from the bank

L

labour   the skills, knowledge and effort provided by a worker

landlord   the owner of a house who leases it out to a tenant in exchange for rent

law of demand   when prices rise, the quality demanded decreases and when prices fall, the quality demanded increases

law of supply   the higher the price that a good or service can be sold for, the higher the quantity that suppliers are willing to produce

lease   a contract that allows a person to use a property for a period of time, usually in exchange for rent money

M

making choices   a key concept in economics and business: the way consumers make choices about what they buy to satisfy their needs and wants

manufacturer   a business that produces a good and sells it to retail businesses who then sell the goods on to the end customer; for example, Nike is a manufacturer of sportswear while Rebel Sport is a retail business that sells Nike and other brands' products to customers

market   the exchange of goods and services among buyers and sellers

market forces   changes in supply and demand that affect how much people are willing to pay for or sell their goods and services

O

outsourcing   obtaining goods and services from outside suppliers in order to reduce costs

P

price mechanism   the way price can affect the supply and demand of goods and services

producer   a person or business who makes and sells things for a profit

product safety recall   when a product is faulty or dangerous and a business must notify consumers and organise for all of those products to be returned to the business

profit   the amount of money earned by a business after all of its expenses have been paid for

R

regulatory body   an organisation that monitors or oversees a certain aspect of an industry in order to protect those affected by it

rent   the money paid by a tenant to live in a house owned by a landlord

resource allocation   the way we distribute scarce resources to producers and consumers

resources   natural or made materials that can be used to produce goods and services; in economics, resources can be divided into four categories, known as the **factors of production**

S

scarcity   a key concept in economics and business: the problem of people having unlimited wants and needs, but limited (or scarce) resources to support those needs and wants

self-esteem   the opinion a person has about themselves or how they feel about themselves

social responsibility   the duty to conduct business in a manner that benefits people, the community or the environment

specialisation and trade   a key concept in economics and business: specialisation is a method of production where a business or area focuses on the production of a limited scope of products or services in order to gain greater degrees of efficiency within the entire system of businesses or areas; trade is activity of buying, selling or exchanging goods and/or services between people and/or countries

strategy   a plan for achieving goals

survey   a series of questions that are asked to a group of people to gather information about what most people think

T

taxes   money that the government collects from the public to pay for public goods and services

tenant   a person who pays rent in exchange for living in the house owned by someone else

U

unemployment rate   the percentage of people who are unemployed out of all the people who are able to work

W

wage   the amount of money that a worker is paid based on the work that they provide

warranty   a written guarantee to the purchaser to repair or replace the purchase if necessary within a specified time

workforce   the group of people who are employed

work–life balance   the relationship between a person's work (career and ambition) and lifestyle (family, health and leisure) and how they impact on one another

Glossary: Civics and citizenship

A

adversarial system   a system used in legal hearings or trials where two parties (such as the prosecution and the defence) present their case to an independent person or group such as a judge and jury

asylum seeker   a person who has fled his or her country due to a fear of prosecution and has applied for protection in another country

Australian constitution   a document that describes the rules, or laws, that govern Australia and defines its structure, and its citizens' rights

B

balance of probabilities   a principle used when judging civil law cases; the judge decides which side is more likely

beyond reasonable doubt   the standard of proof required in a criminal case; if there is any chance that the accused is innocent, they cannot be found guilty

Bill   a proposed law

bounds of the law   limits on freedom of speech, association, assembly, religion and movement to avoid breaking the law

C

censor   to suppress free speech or other information

citizenship   a term used to describe the act or status of being a citizen of a society or country

civics   the study of the rights and responsibilities of citizens within a society or country

civil law   law that protects individuals, typically dealing with disputes over an action that results in loss or harm

civil remedy   a process used to restore the victims of a civil offence to the position they were in prior to the offence

colonisation   the large-scale migration of people to a new location where they take control

common law   law created when a judge makes a ruling about a case that is not covered by statutory law

crime   an act that breaks an existing law, is harmful to an individual or society as a whole and is punishable by law

custody   the care and supervision of a child which a court may award to one of the parents following a divorce or separation proceeding

customary law   traditional laws of Aboriginal and Torres Strait Islander peoples

D

damages   a **civil remedy** where the court orders the defendant to pay an amount of money to the plaintiff (the person whose rights have been breached)

defamation   a type of civil action where one party makes false statements that causes another party to lose their reputation

defendant   the person who has been accused of a crime in a criminal case or the person against whom a civil action is taken in a civil case

democracy   a key concept in civics and citizenship: a system of government in which the people have the power to determine how they will be ruled, and elect a parliament to make and implement laws on their behalf

democratic values   a key concept in civics and citizenship: attitudes, values or beliefs that represent the system of democracy

deterrent   something that is meant to discourage people from breaking the law

direct action   public protest used to influence decisions, such as striking, demonstrations or boycotts; also known as non-violent resistance

direct democracy   a system of government where citizens meet together to make laws for their society

discrimination   treating someone differently because of their race, sex or other characteristics

Dreaming   a belief system at the centre of all Aboriginal cultures, which has different meanings for different Aboriginal groups; it gives meaning to everything, including creation, spirituality, family, the land and the law; the Dreaming sets the rules governing relationships between the people, the land and all other things for Aboriginal peoples

E

electorate   a designated geographical area that is represented by an elected member in parliament

elder   a key person and keeper of cultural and spiritual knowledge within Aboriginal communities

G

government   the elected members of parliament who make decisions for a nation or state; in Australia, the government is made up of the party or coalition that has won a majority of seats in the lower house of parliament; the lower house of federal parliament is the House of Representatives and the lower house of the Victorian state parliament is the Legislative Assembly

I

indictment offence   a serious offence heard before a judge and jury

J

judiciary   the courts that upload the rule of law

jury   a group of people who are required to decide on a guilty or not guilty verdict for a case

justice   a key concept in civics and citizenship: the quality of being just; the concept of justice is based upon many differing viewpoints and ultimately states that people and society should behave in a way that is fair, equal and balanced for all

L

laws   formal **legal rules** that are designed to govern the way in which people behave and act so we can all live together in one peaceful and united society

legal rules   **laws** that govern the way people behave and act so they can live together in one peaceful and united society

libel   the legal term for damaging someone's reputation in written form

lobbying   making requests to politicians or groups for their assistance in trying to influence a change in the law

M

mateship   the strong relationship between mates or friends, which is based on loyalty, support and the ability to rely on each other

migrant   a person who has chosen to live in another country

multiculturalism   the way in which people of many different cultures, races and religions live peacefully with one another as equals

N

national identity   a sense of a united nation, made up of a country's shared history, values and culture

non-legal rules   regulations made by private individuals or groups that only apply to the members of that particular group

P

parliament   the national or state law-making body that is made up of elected representatives in both the upper and lower houses with a head of state; in Australia, the national parliament is referred to as the Commonwealth or federal parliament

participation   a key concept in civics and citizenship: the way in which individuals as good citizens take part in and make a contribution to society

pioneer   a person who is among the first to explore or settle a new country or area

plaintiff   the party that initiates or commences a civil action against another party

precedent   a previous case or example that is used as a guide for making a decision when similar circumstances arise

property settlement   the division of property such as assets, liabilities and financial resources

R

reparations   providing payment or support to those who have been wronged

representative democracy   a system of government where citizens vote for representatives to make laws on their behalf

rights and responsibilities   a key concept in civics and citizenship: the entitlements and obligations associated with citizenship, which are a are a cornerstone of modern democracies; citizens has both rights (such as freedom of speech, the right to vote) and responsibilities (such as the requirement to vote in elections, pay taxes, perform jury service)

royal assent   approval given by the Governor-General as a representative of the crown for a Bill to become official law

S

secularism   the separation of church and state that prevents religion from being directly involved in the affairs of the government

settler   a person who is among the first to settle in an area that was previously unoccupied

simple offence   a minor offence heard and determined in the lower courts, also known as a summary offence

slander   the legal term for verbally damaging someone's reputation

statutory laws   laws that are made and passed by parliament

U

union   an organisation that represents and protects the rights of employees

W

Westminster system   a key concept in civics and citizenship: the parliamentary system of Australia, which originates in the United Kingdom

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