Humanities

Victoria

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Pearson Humanities Victoria 7–10

Engaging students of all levels

A new series designed to support Victorian students and teachers with comprehensive curriculum coverage of history, geography, economics and business, civics and citizenship. It's been created to engage and captivate students of all levels as they learn about humanities, to help them reach their full study potential.

Student Book

A visually engaging spread-based design, with each chapter featuring images, illustrations, infographics and source materials to engage and captivate all learners. The **student book** includes self-contained skills toolkit chapters for each discipline covering key concepts and skills. All core chapters are supported by additional worksheets, solutions, teaching strategies, instructional rubrics, chapter tests and online interactives.

Lightbook Starter

We know you want to check the readiness of your students and keep track of their progress. With **Lightbook Starter**, you get an innovative digital learning and assessment resource that prepares students and assesses against outcomes. It's all about helping you guide your students and helping them take control of their learning.

Student Reader+

Reader+ is our next generation eBook. Students can read, take notes, save bookmarks and more—anywhere, anytime. Integrated resources and interactive activities enhance and extend the learning experience, helping to engage students and give them choice and flexibility in their learning.

Teacher Reader+

Teacher Reader+ aids lesson preparation by combining student book page references with a wealth of teacher support, to help you meet the demands of the Victorian Curriculum for humanities.
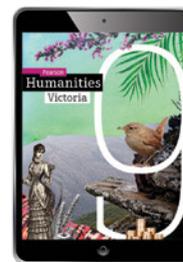
As the world's learning company, we're inspired by the way education changes lives.

We're creating innovative products and services to help all learners stay on the path to a better education.

Contents

Contents *continued*

How to use this book

Student resources

Pearson Humanities Victoria 9 uses subtle learning strategies to introduce, reinforce, differentiate, deepen and accelerate learning. The student resources provide a comprehensive coverage of the **Victorian Curriculum for the humanities** and are fully supported by an innovative digital offering. Elective chapters are available in print, digital or through customisation, and all the content chapters are fully supported by Lightbook Starter and Student Reader+ resources. Students are set for success with this complete solution for humanities learning!

Be set

The **chapter opening page** sets the context for the chapter by engaging students through ideas that get them thinking about the content and concepts to come. The key vocabulary for each chapter is presented in the **chapter glossary**, which helps students to prepare for discipline-specific terminology. The stunning chapter-opening imagery and overview questions help to frame students' thinking about the chapter before they begin.

Be engaged

The spectacular **photos**, **illustrations**, **maps**, **timelines** and **infographics** are relevant and purposefully selected to build students' understanding of the text. A dedicated series **literacy consultant**, Dr Trish Weekes, has helped to craft the content so that it is accessible and contains enhanced scaffolding and explanation for students. The content's design is also geared towards **improving readability and navigation** of the text, and the maps include inset **locator maps** to aid students' understanding of physical geography.

Be skilled

Each **skills builder** outlines a subject-specific method or technique for students to master; they are instructive and self-contained, and step students through key skills to prepare and build student fluency and application. **Toolkit chapters** for each discipline cover key concepts and skills from the Victorian Curriculum and are tailored for Level 9. There are also additional graphic organisers and useful templates available for students via the Student Reader+.

Be extended

The **case study** units relate to a specific event or location, and are written to extend students' knowledge and understanding. The **spotlight** boxes focus their attention on a place, an issue or a concept relating to the unit; they are designed to develop students' knowledge and understanding of the ideas and processes that are central to the Level 9 study of the humanities.

Be progressed

The student book **activities** reinforce key understandings and extend students beyond the text by involving them in a variety of learning experiences; they are crafted using Bloom's taxonomy to cater for the full range of learning abilities to move learners towards what they are expected to know and to help them consolidate that knowledge. Many of the activities are based on the stimulus material presented in the chapters, to facilitate the development of the skills.

There are handy icons in the student book to indicate the best time for students to engage with the corresponding **Lightbook Starter** assessment module. These formative assessment modules link back to overview questions at the start of the chapter

Lightbook Starter

The **Lightbook Starter** is a cutting-edge **formative** and **summative** assessment platform, containing **complementary sets of questions** for reviewing the student book's units and chapters. These digital questions serve as an alternative or additional assessment opportunity for students who enjoy the benefits of **instant feedback**, **hints** and **auto-correction**. Students and teachers can enjoy the visibility of learning through a progress tracker that shows each student's achievement against selected curriculum learning outcomes.
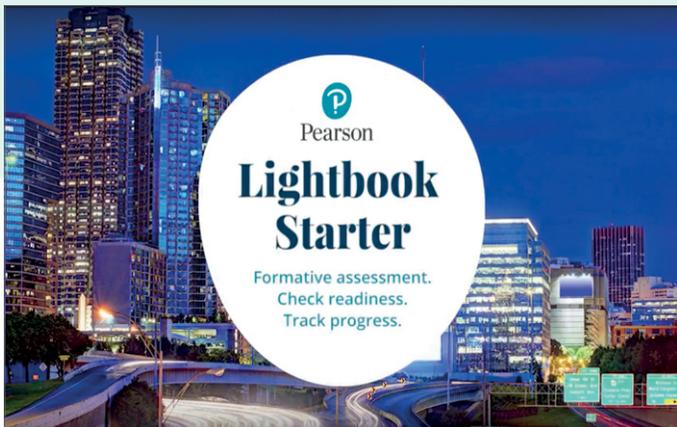
Be ready

The **before you begin** section includes useful preparatory material and questions to **activate** the **prior knowledge** of students and to establish their knowledge baselines. In addition, the expected **learning outcomes** present the key knowledge of the chapter in a student-friendly manner.

Be assessed

A variety of **interactive question types** with **hints** and **solutions** help students to check their understanding of what they are learning; these tools provide scaffolding and guidance to students so that they can confidently attempt review questions in class or at home. The module reviews are useful as a revision device to help students identify their areas of weakness or as a **formative assessment** to inform teachers in their lesson planning. The Lightbook Starter can also be used by students to check their understanding throughout the chapter; students benefit from the Lightbook Starter's **auto-corrected** responses that re-teach key concepts and provide them with instant feedback.

Be in control

The Lightbook Starter enables teachers and students to use a digital assessment tool as an alternative or addition to the questions in the student book. The Lightbook Starter's structure mirrors the overview questions in each chapter opening of the student book so that it provides a **fully integrated approach to digital assessment** and feedback.

Be reflective

An integrated set of **reflection** questions supports students in considering their progress and future areas for focus. Students are frequently prompted to reflect on what they've learnt, and how they've worked.

Be tracked

Students can enjoy seeing progress through the learning outcomes that are updated instantly in the **progress tracker**; the progress tracker **teacher dashboard** shows where the learners are in their learning and is mapped to Victorian Curriculum content descriptors.

Teacher Reader+

The **Teacher Reader+** makes lesson preparation easy by combining additional teaching strategies and ideas for class activities along with differentiation and EAL/D support. Suggested solutions are also included, as well as all the answers to the student book activities.

Be prepared

The **chapter resource summary** for each chapter provides an easy reference point and overview for teachers; there are also categorised activity references for each student book unit to help make tailored lesson planning easier. Full **answers**, including suggested alternative solutions, to all the activities are also supplied. Further, each unit's **learning objectives** are clearly stated.

Be supported

The **teacher guide** offers a range of ideas to introduce students to and engage them in each new topic, as well as to spark and activate their prior knowledge in the subject area. There are skills continuum rubrics also available for each separate discipline. Further, students can be encouraged to track their progression on the continuum throughout their learning.

Be differentiated

The **differentiated rich task worksheets** help learners to increase their fluency in using specific skills and to demonstrate their understanding of key concepts. The rich tasks are differentiated along three complexity levels to support different entry points for students. There is an accompanying **rubric** for each task that teachers can give students upfront to more explicitly to define their goals.

Be report-ready

The students' understanding can be tested by using the ready-made **Lightbook Starter chapter assessment**. This **summative assessment** can be assigned by teachers; alternatively, teachers can use the **printable and editable chapter test** format available via the Teacher Reader+.

Student Reader+

Reader+ is our next generation eBook. Students can read, take notes, save bookmarks and more—anywhere, anytime.

Be equipped

Integrated resources and interactive activities enhance and extend the learning experience, helping to engage students and give them choice and flexibility in their learning.

History toolkit

The transition from traditional, locally based societies to large, urbanised industrial nations was a key feature of the modern era. Australia's experience has reflected many of these broad changes. The story of the making of the modern world and Australia's part in it has been told by different people in different ways. Historians must **analyse** and evaluate the many sources of evidence to construct an accurate account of what occurred, using their judgement about what the evidence tells us. Historical accounts are never unchallengeable.

OVERVIEW QUESTIONS

1A What do historical sources of evidence say about the making of the modern world?

1B How do historians interpret contested events?

1C How do you construct a strong historical argument?

GLOSSARY

analyse to break down into parts and study the interrelationships of those parts

contention an argument or point of view, expressed simply and directly

contested the subject of debate or controversy

corroboration confirming information in a source by finding supporting evidence elsewhere

ephemera items intended to be used only for a short time

evaluate judge the accuracy or reliability of a source

graphic organiser a visual display demonstrating relationships, concepts or ideas

historical evidence primary or secondary sources used to interpret the past

historical interpretations views of people after the period of study, usually found in secondary sources

historical perspectives views of people in the period of study, usually found in primary sources

nuanced argument an argument that acknowledges complexity or contradiction

1.0.1 A historian leading students on a tour of the Shrine of Remembrance in Melbourne

Examining sources of evidence

1.1.1 Depression-era breadline statue, Franklin Delano Roosevelt Memorial

What is historical evidence?

There are many historical sources: documents, buildings, artwork, even **ephemera** such as train tickets. These sources provide information about the past. However, sources only become **historical evidence** when they are used by someone, usually a historian, to interpret the past. A single source might be used as evidence of more than one thing.

For example:

```
Letters from the Great Depression are
donated to a library
        ↓
One letter details the experience of
living on the 'susso' (sustenance
payments)
        ↓
One historian uses the letter as
evidence of Australia's welfare state,
while another uses it as evidence of
social impacts of the Depression
        ↓
The remaining letters are not used as
evidence by anyone and remain
simply 'sources'
```
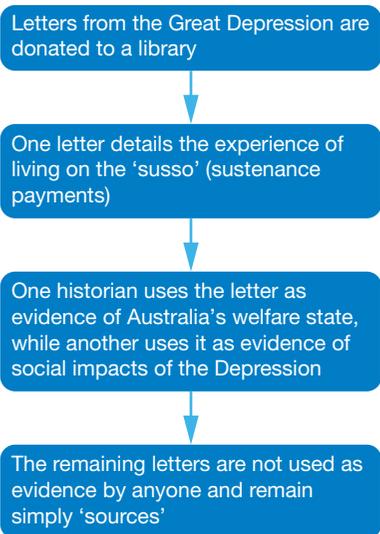
Examining sources with ADAMANT

When you are examining a source thoroughly, it is useful to follow a series of steps. Ideally, you should go through the same set of steps with each source you examine. The steps should allow you to extract as much information as you can out of the source. The ADAMANT method addresses the key components of a source.

➤ **A**uthor/creator: Who created the source? Was the author part of a particular institution or group?
➤ **D**ate: When was the source produced? What was the context? Were there any events that might have shaped the subject matter?
➤ **A**udience: Who was the source originally created for?
➤ **M**essage: What information or view is being presented?
➤ **A**genda: What might the author's motivation have been for creating the source? Does the source express a particular point of view?
➤ **N**ature: What type of source is it? (For example, diary, news report, declaration, speech, survey results, photograph or cartoon.)
➤ **T**echniques: How does the author communicate the message? Does the author use imagery, symbols or expressive language? If so, why?

Here we will use the ADAMANT method to examine a painting by Welsh artist Penry Williams in Source 1.1.3.

Did you know?

Wales was an enthusiastic participant in the Industrial Revolution. Although the country was fairly slow to modernise, by 1851 it was the world's second most industrialised nation, behind England. Welsh industry included lead, copper and coal mining, ironworks, slate quarrying and wool production.

The artist Penry Williams (1802–1885) was famous for his paintings of industrial landscapes in Wales. He is celebrated in Wales as a man of humble origins who went on to become a major artist.

1.1.2 *Cyfarthfa Ironworks Interior at Night*, Penry Williams (1825)

Author/creator: Penry Williams, a Welsh artist from a working-class background

Agenda: To depict effects of industry on ordinary life; abundance of pollution may suggest an awareness of environmental damage

Date: 1800s, when around two-thirds of Welsh families were supported by industrial jobs

Nature: Painting

Audience: The general public of Wales and beyond

Techniques: Lighting romantic but accentuating pollution; modern ironworks and smoking chimneys contrasted with pre-industrial stone bridge, a man on a horse, trees

Message: Ironworks are shown emitting pollution from several chimneys; their night operation suggests high output

1.1.3 Examining a source using the ADAMANT method: *Industrial Landscape, Wales, 19th Century*. Artist Penry Williams.

Activities

Remembering and understanding

1 Explain the difference between a historical source and historical evidence.

2 State whether the following sources are being used as evidence or not, explaining your reasoning:

   a You find your great-aunt's diary when cleaning out her house after she dies.

   b You donate the diary to a local museum.

   c The museum displays the diary in an exhibit on local history.

   d A historian cites the diary in an academic paper about women's employment in Australia.

3 What is the purpose of using the ADAMANT method to examine sources? What is the value in considering the date and context of a source?

Applying and analysing

4 Examine Source 1.1.2 using the ADAMANT method.

Historical skills

5 How might a piece of ephemera, such as a train ticket or a phone bill, contribute to an understanding of continuity and change?

1.2 Evaluating sources

Corroboration

After examining a source in depth, you should **evaluate** the source (judge its accuracy or reliability) to decide how useful it is. A key part of this is **corroboration**. Corroboration means finding other sources that verify the information in your source. Using corroborated sources strengthens your conclusions, allowing you to make a sound historical argument.

A simple way to corroborate sources is to create a Venn diagram like Source 1.2.2 about the sources you have examined.

1.2.1 Historians must evaluate a range of sources of evidence before coming to a conclusion

Red = Weak Evidence

Amber = Fair Evidence

Green = Strong Evidence

Information in **Source 1**

Information in **Source 2**

Information in **Source 3**
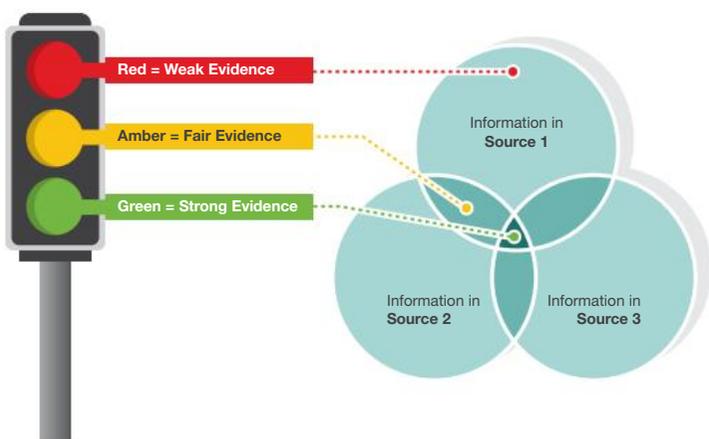
1.2.2 The corroboration method

Reliability

1.2.3 Australian Prime Minister Robert Menzies, Declaration of War broadcast, 3 September 1939

After corroborating a source, a historian judges how reliable it is. Some sources are, by their nature, more reliable as sources of evidence than others.

One example is the audio recording of former Prime Minister Robert Menzies declaring on 3 September 1939 that Australia was at war with Germany. It would be hard to argue that Menzies did not say, 'we are … as a great family of nations involved in a struggle which we must at all costs win and which we believe in our hearts we will win.' The recording, the transcript and the many witnesses confirm that he said it. However, we must take care to verify all sources of information, particularly now that fake websites, including front websites for political organisations, and image manipulation are common online.

Scandinavian historians Sebastian Olden-Jørgensen and Torsten Thurén have developed guidelines for judging the reliability of sources.

Human relics such as fingerprints are more credible sources than narratives

The closer a source is to the event it describes, the more reliable it is

Strong indications of the originality of a source increase its reliability

An eyewitness is more reliable than second-hand testimony

If a number of independent sources contain the same message, the credibility is high

Sources with low tendencies towards bias are more reliable

Sources where the creator has no direct interest in a particular outcome/agenda are more reliable

1.2.4 Olden-Jørgensen and Thurén's guidelines for source reliability

Did you know?

Historian Sam Wineburg and his colleagues at Stanford University are so concerned about misleading sources of information online that they do extensive studies on how students assess the accuracy of websites. One of their techniques is to provide students with a website that looks official and objective but which is in fact a front for a political organisation. They rate how well students check the 'About' pages and corroborate information with other sources. One of their findings is that students have difficulty distinguishing between subtle advertising and news items.

1.2.5 Some students have difficulty assessing the accuracy of websites

Did you know?

There are different schools of thought among historians. These include cultural history, Marxist history, revisionist history, liberal history, 'big' history, 'counterfactual' history and feminist history. 'History from below' attempts to show history from the point of view of ordinary people rather than the powerful.

Activities

Remembering and understanding

1 What is corroboration and why do history students and historians need to practise it? Why are some historical sources more reliable than others?

Applying and analysing

2 Find one similarity and one difference between the corroboration method and Olden-Jørgensen and Thurén's method of assessing reliability.

Historical skills

3 Give three pieces of advice to students about using online historical sources as evidence.

Contrasting perspectives

Historians often have to deal with contradictory evidence. Not everyone from the past had the same opinion about what was happening. Many events were **contested** (the subject of debate or controversy) at the time and continue to be contested today.

Historical perspectives are the views of people from the past about what was happening at the time. They are generally found in primary sources. Sometimes, two primary sources will present conflicting views about an event but both can be substantiated with evidence. In other words, both are reasonably reliable but express very different opinions. How does a historian decide which one is more convincing?

Two sources on the Cold War between the United States and the Soviet Union after World War II provide a good example.

US perspective	Soviet Union perspective
'We shall not realize our objectives … unless we are willing to help free peoples to maintain their free institutions and their national integrity against aggressive movements that seek to impose upon them totalitarian regimes … The free peoples of the world look to us for support in maintaining their freedoms.' (Speech by US President Harry Truman, 1947)	'The foreign policy of the United States, which reflects the imperialist tendencies of American monopolistic capital, is characterized in the postwar period by a striving for world supremacy. This is the real meaning of the many statements by President Truman and other representatives … ; that the United States has the right to lead the world.' (Telegram to Soviet leadership from Nikolai Novikov, Soviet ambassador to the USA, September 1946)

GLOSSARY

imperialist tendencies attempts to control other countries

monopolistic capital dominance based on commercial power

national integrity control of or protection of one's nation

totalitarian regimes governments that control all aspects of daily life

After researching the topic in depth, a student-historian might handle the contradictory accounts like this:

President Truman's view that 'the free peoples of the world look to [the US] for support in maintaining their freedoms' was contested by Nikolai Novikov, the Soviet ambassador, who interpreted the US approach as 'a striving for world supremacy' on account of its 'imperialist tendencies.' Such accounts highlight the stark ideological and political differences between the US and Soviet Union during the Cold War. Evidence supporting the US perspective is [X] … while evidence supporting the Soviet perspective is …[Y]. Ultimately, it is clear that … [Z].

Note how the student-historian considers the evidence to support each perspective [X and Y] before reaching her own conclusions [Z].

Contrasting interpretations

Historical interpretations are opinions on an event that are expressed well after the event occurred. Interpretations are generally found in secondary sources, particularly history books.

As with historical perspectives, interpretations may conflict with each other. It can be difficult to decide which one is more convincing. Historians' debates about the 1915 Gallipoli campaign provide a good example.

> The Gallipoli campaign was the beginning of true Australian nationhood. When Australia went to war in 1914, many white Australians believed that their Commonwealth had no history, that it was not yet a true nation, that its most glorious days still lay ahead of it. In this sense the Gallipoli campaign was a defining moment for Australia as a new nation.

Frank Bongiorno

> For those who believe the Australian nation was born at Gallipoli and that Australian values are to be found in the Spirit of Anzac, it must come as a surprise that our nation builders … were laying down our national ideals during the long peace that preceded World War I.

Marilyn Lake

After researching the topic in depth, the student-historian might approach the different interpretations like this:

> Marilyn Lake challenges the traditional view, as put by Frank Bongiorno, that the Australian nation was forged from the Gallipoli experience. Lake points to ways in which 'national ideals' existed well before World War I. Evidence supporting Lake's interpretation is … [X]. Evidence supporting Bongiorno's interpretation is … [Y]. Having considered a range of primary source evidence and interpretations, it is clear that … [Z].

Note the way the student-historian briefly introduces both interpretations, finds evidence pertinent to each [X and Y] and then constructs her own argument based on a review of both primary source evidence and historical interpretations [Z].

Activities

Remembering and understanding

1 Why might historical sources sometimes contradict each other?

Applying and analysing

2 On the face of it, which appears more convincing, the US perspective or the Soviet perspective on the Cold War? What further evidence would you need before making a judgement?

Historical skills

3 Working in small groups, research one of the following events. What different historical perspectives or interpretations might there be about the event?

   a Abraham Darby built the first blast furnace for melting metals in Shropshire (1709).

   b Australian bushranger Ned Kelly writes the Jerilderie letter (1879).

   c South Australian women are among the first women in the world to be given the vote (1895)

   d The landing of ANZAC soldiers at Gallipoli (25 April 1915).

1.4 Constructing a historical argument
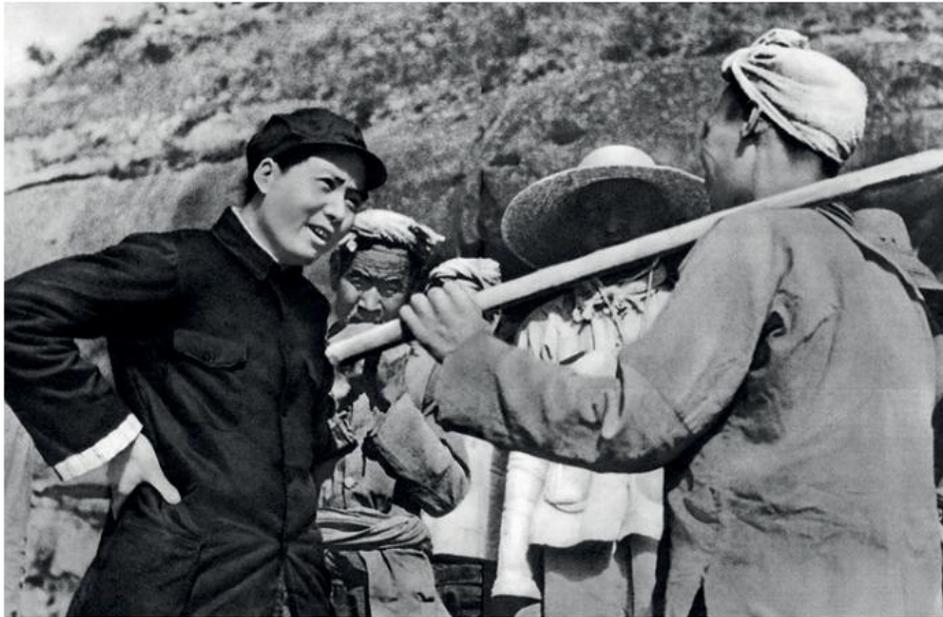
1.4.1 Mao Zedong speaks to a farmer near the city of Yan'an, 1930s

What is a historical argument?

A historical argument is an opinion about the past that draws on evidence from a range of credible sources. Unlike a summary or a description, an argument seeks to convince its audience of a point of view. For example:

Description	Argument
The Chinese Revolution of 1949 saw the Communists seize power from the Nationalists.	The Chinese Revolution of 1949 was caused by the Communist Party's ability to persuade the people that it could protect and provide for them better than the Nationalists could.

You should be able to state your **contention** (main argument) in a single sentence. You should also present a **nuanced argument**. This is an argument that recognises contradictions and complexities. For example:

Standard argument	Nuanced argument
Mao Zedong used repression to stay in power.	Mao Zedong used direct and indirect methods of control to maintain authority, including a cult of personality and policies designed to create social division.

A strong historical argument will include consideration of historical thinking concepts.

Chronology	Historical sources as evidence	Continuity and change	Cause and effect	Historical significance
What happened when?	What do primary and secondary sources tell us?	What was disrupted and what stayed the same?	Which factors caused which events?	How important was the event at the time and how important is it now?

1.4.2 Historical thinking concepts

1.4.3 The Eternal Flame at the Shrine of Remembrance, Melbourne

Analysing the question

In most cases, when you are asked to construct a historical argument you will be given a question to respond to. Let's look at an example.

Why did the majority of Australians enthusiastically support the decision to go to war in 1914?

Before launching into a response, analyse the question carefully. For example:

'Why' requires an examination of a range of causes and contributors to Australians' enthusiastic support for the decision.	Confirm it was the majority of Australians. What proportion didn't support the war?

Why did the majority of Australians enthusiastically support the decision to go to war in 1914?

What did 'support' look like?	What were the key dates in 1914?

Observations about the question:

➤ it asks about the *context* of the war
➤ the word 'enthusiastically' suggests *emotional engagement* rather than simple conformity—this is a cue to discuss Australians' *sense of connection* to the British Empire and their *naivety* about war
➤ it does *not* require discussion of the post-1914 period
➤ a *nuanced response* would attempt to *engage with minority views* about the war, although briefly.

Planning your response

Once you have analysed the question, you should plan your response.

Research your topic using reputable sources such as history books, encyclopedias, library and museum collections and online archives.

⬇

Brainstorm your main arguments and list the key sources of primary and secondary evidence.

⬇

Create a concept map to visualise how your response will appear. (The structure will depend on the required format, e.g. essay, oral presentation.)

Activities

Remembering and understanding

1 How does a historical argument differ from a summary or a description?

Applying and analysing

2 Identify a disadvantage of creating a historical argument without writing a contention first.

Historical skills

3 Provide one more example of a standard argument versus a nuanced argument.

1.5 Presenting a historical argument

Essays

A common way of presenting a historical argument is an essay. An essay provides an opportunity to explore ideas in depth, to engage with multiple sources of evidence and to construct a nuanced argument.

As discussed in Unit 1.4, you should go through a number of steps before writing an essay: write a contention, consider historical thinking concepts, analyse the question, conduct research and plan your response. Once you have done these, you are ready to begin writing.

An essay is sometimes described as being like a journey.

INTRODUCTION	BODY OF ESSAY	CONCLUSION
Here is where we are going	We are in transit	Here is the destination
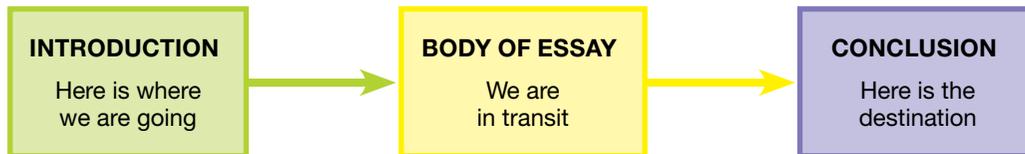
Sample essay plan

A plan is vital before you begin writing an essay. Here is how you might approach planning an essay on the question analysed in Unit 1.4.

Why did the majority of Australians enthusiastically support the decision to go to war in 1914?

Contention	*Most Australians enthusiastically supported the decision to go to war because of loyalty to Britain, social expectations and economic considerations.*
Introduction	*Following Britain's declaration of war on Germany on 4 August 1914, the majority of Australians willingly joined the war effort for three primary reasons: Australians felt a strong sense of loyalty and cultural connection to the 'mother country' and had already provided supported in a number of conflicts; connected to this was a high level of social expectation and pressure in favour of enlisting; and economic pressures provided an incentive to join up.*
Paragraph 1	*In 1914, Australia wished to support the British Empire for cultural and practical reasons. Points to discuss:* • *a large percentage of the population was of British descent* • *emotional and cultural attachment to Britain (for most)* • *reliance on Britain for defence* • *previous support of British conflicts, e.g. New Zealand 1860s, the Sudan 1885, Boer War 1899–1902, China 1900* • *Prime Minister Cook: 'If the old country is at war, so are we'* • *Charles Bingham, veteran: 'England was the mother country … we were so tied to Great Britain that when she was in trouble it was just automatic [to help].'*
Paragraph 2	*Following on from the sense of support for Britain was a social expectation that people would enlist and support the war. Points to discuss:* • *20 000 signed up in the first six weeks; over 52 000 had enlisted by the end of 1914* • *people gathered together, often singing 'Australia Will be There'—recruitment posters showed bushmen, farmers, sportsmen saying, 'Show the enemy what Australian sporting men can do!'*
Paragraph 3	*In addition to genuine enthusiasm to support the war, there were also economic contributors. Points to discuss:* • *drought of 1914–15: 'We haven't had any rain for months so I thought I would join the army' (Robert Antill, 1914)* • *relatively low wages* • *high unemployment* • *guaranteed income of six shillings per day.*
Conclusion	*Australians' enthusiastic support for the decision to go to war in 1914 was due to a combination of cultural, social and economic influences. While there was some opposition to the war among groups such as anarchists, pacifists and socialist trade unionists, most of these groups supported the war once Australia became involved. However, the harrowing experiences of many came to temper the enthusiasm for war significantly.*
Bibliography	*Cite all sources used in this format:* *—Beaumont, Joan. Broken Nation: Australians in the Great War (Crows Nest, NSW: Allen & Unwin, 2013)* *—Holbrook, Carolyn. 'Nationalism and War Memory in Australia,' in Walsh and Varnava (eds), Australia and the Great War: Identity, Memory and Mythology (Carlton, Victoria: Melbourne University Press, 2016), 218–39.*

1.5.1 An essay is a common way of presenting a historical argument

Presentations and debates

When presenting a historical argument in the form of an oral presentation or class debate, follow the advice on constructing an argument given in Unit 1.4. Use the appropriate format for the points of your argument, such as a slideshow presentation or palm cards. For a debate, you will need to research the rules of debating online or consult your teacher.

Graphic organisers

A **graphic organiser** can be a useful addition to a slideshow presentation. Graphic organisers can convey complex information in a succinct and engaging way. They are used increasingly in history, particularly cause-and-effect webs, Venn diagrams, annotated timelines, continuums and T-charts. You will find many examples in this book and online.
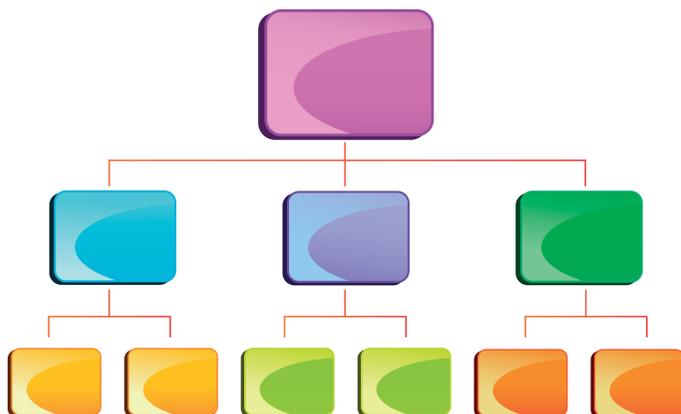
1.5.2 Graphic organisers are a useful tool for studying history

Did you know?

These tips can help you to give an engaging presentation.

- Rehearse (and time) your talk beforehand
- Start in an unexpected way
- Include a personal story or observation
- Use visuals such as graphic organisers
- Speak to your audience, not at them
- Finish with an original point for the audience to think about.

Activities

Remembering and understanding

1 Explain the difference between an essay's introduction, body paragraphs and conclusion.
2 What details are required in a bibliography and why do you think these are important?

Applying and analysing

3 Create a graphic organiser showing the key points from the sample essay plan. Do not include any sentences.

Historical skills

4 Identify examples of the use of historical evidence in the sample essay plan.
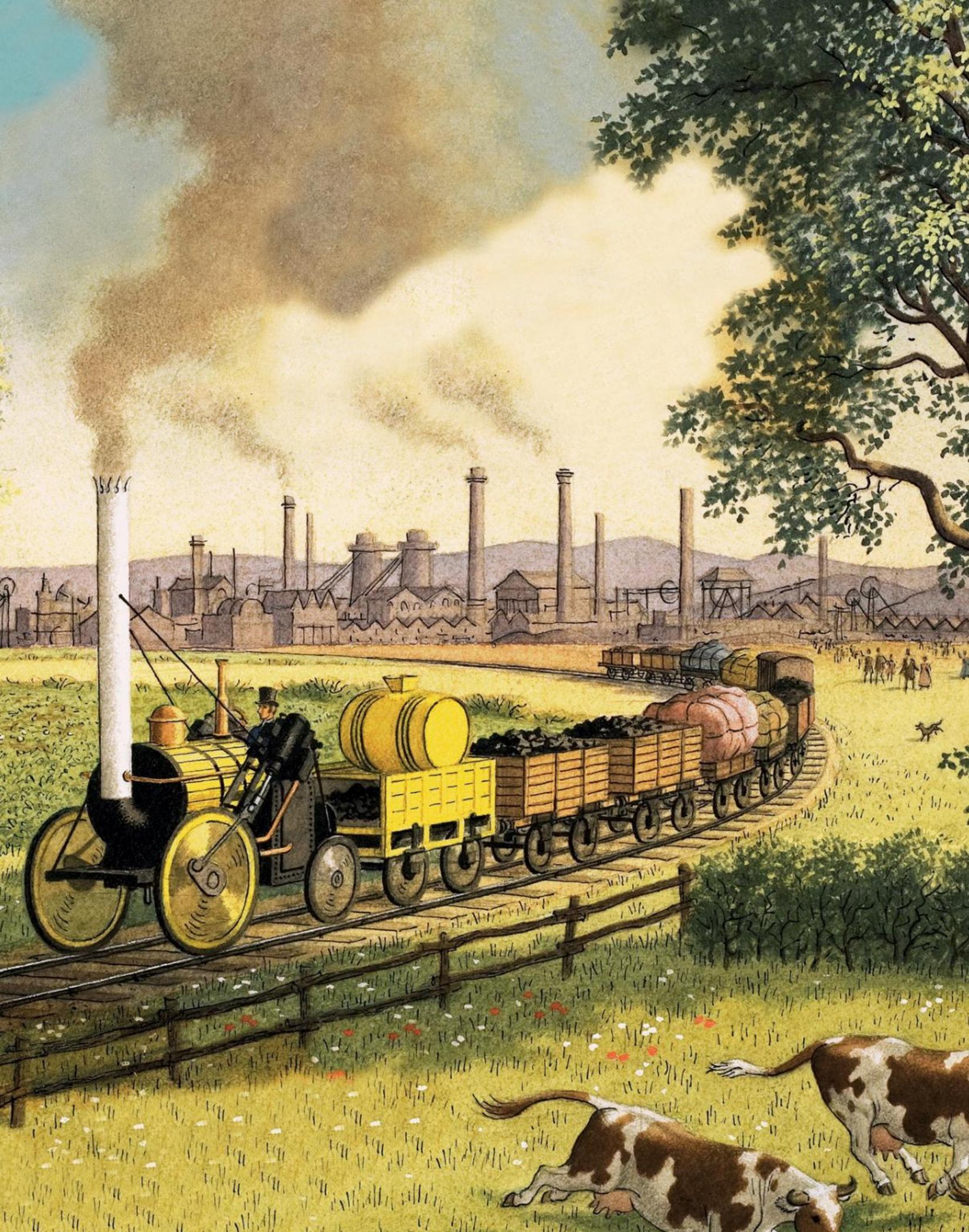
The Industrial Revolution

2

The Industrial Revolution, which began in Britain in about 1760, saw a number of dynamic factors—innovations in technology, new business practices, population growth and increasing world trade—combine to cause both an explosion in industrial output and massive upheaval in people's lives. The Industrial Revolution was a significant part of the making of the modern world, leading to economic expansion and an age of consumption.

OVERVIEW QUESTIONS

2A How did new ideas and technological developments lead to change in this period?

2B What were the changing features of the movements of people at this time?

2C Why did technological developments lead to change in economic, political and social ideas?

LS↗ Before you begin

GLOSSARY

abolitionist a person who favours the abolition (ending) of a process such as capital punishment or slavery

convict a person convicted of a crime

chattels personal possessions or property

economic depression a long period of poor economic performance

emigration the process of leaving one's country of birth to settle permanently in another country

enclosure a process lasting from the 1500s to the 1800s of enclosing formerly common (shared) lands and creating large, privately owned farms

gross domestic product (GDP) the value of all the goods and services produced within a country in a given period of time, usually 1 year

monopoly when a business or government has exclusive (complete) control over a product or service

New World the name given to North and South America by the Europeans

penal colony a place where convicts were transported to serve out their sentences for crimes committed in their home country

redundant a person, product or service that is no longer required

slave someone who is the property of another person

steam engine engine driven by steam pressure produced by boiling water

transportation the complete removal of prisoners from their home country for a number of years, or potentially for the rest of their lives

turnpike gates erected on roads by local residents that travellers had to pay to pass through

2.0.1 The new steam trains made transportation of goods much easier

The Industrial Revolution

The modern world was created by the events that occurred during and after the Industrial Revolution. In this chapter we look at what caused the Industrial Revolution and how it fundamentally changed people's lives. While not all the changes were positive, the impacts of the Industrial Revolution continue to shape our lives today.

A view of Sheffield in England in 1874, which was typical of the many industrial towns during the Industrial Revolution
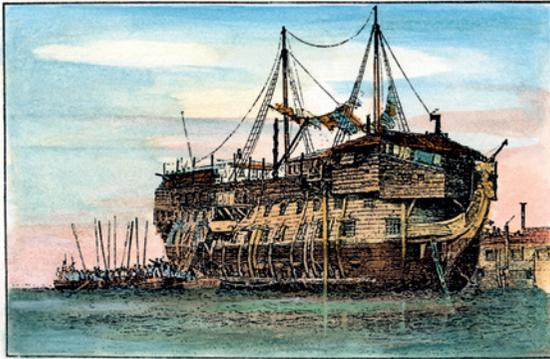
A prison ship being used to house convicts before their transportation to Australia

| AD | 1700 | 1710 | 1720 | 1730 | 1740 | 1750 | 1760 | 1770 | 1780 |

1701
Seed drill produced

1707
Turnpike Act is passed

1709
First blast furnace

1712
Atmospheric steam engine built

1733
Flying shuttle patented

1764
Spinning jenny invented

1779
Spinning mule invented

A monument by artist Clara Sornas in the former slave market in Stone Town, Zanzibar. Here African prisoners were sold to slave traders from Britain and other nations.

Ploughing with a team of horses, 1880s ▶

1784
Threshing machine invented

1790
More efficient steam engine invented

1819
Cotton Factories Regulation Act sets minimum working age of 9

1825
First passenger railway opens

1781 1790 1800 1810 1820 1830 1840 1850 **AD**
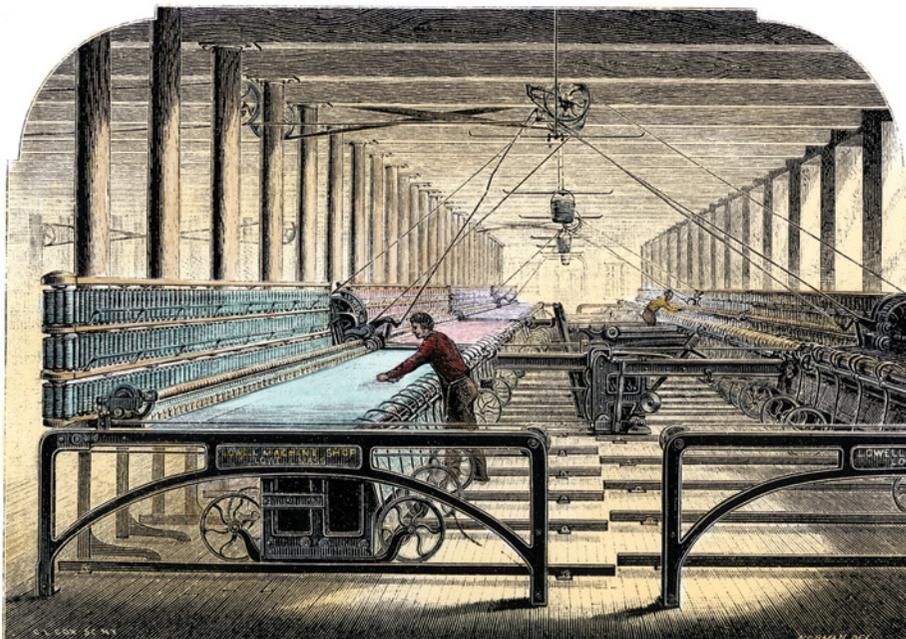
1840
British warships defeat China in the Opium Wars

1842
First commercially available fertiliser sold

◀ A cotton mill became the first factory in 1771

The agricultural revolution in Britain

A growing business

Many historians regard changes in agriculture in eighteenth-century Britain as the beginning of the Industrial Revolution. There was a direct relationship between agricultural changes and the Industrial Revolution. New ideas and technologies enabled farmers to produce more food. More food allowed the population to grow, as shown in Source 2.1.1. More people meant more workers to fill factories, and more consumers for the goods that the factories produced. In turn, more factories produced more machines, which helped farmers grow more food, which led to an even higher population.

Finding a starting point for this spiral of increasing demand is difficult. There is agreement that an important factor was the **enclosure** of common land. This meant that land that had previously been shared by farmers was now fenced off (enclosed) and owned privately. This process had been going on for at least 100 years before the Industrial Revolution, and resulted in fewer but larger and more-efficient farms. The other major factor was a series of technological breakthroughs.

Sowing the seeds

Prior to the eighteenth century, planting seeds meant scattering them by hand along shallow trenches in the soil called furrows. This was quite wasteful because many seeds did not end up at the required soil depth, or were too spaced out or too crowded. In Europe, only about one in five seeds grew into a plant that could be harvested.

The seed drill

The answer to planting seeds in a better way was the seed drill. This was a tube-like device that poked a hole in the soil to the ideal depth and then released a seed. Simple seed drills had been in use since 3000 BC, but it wasn't until 1701 that the English inventor Jethro Tull produced a refined version of this old idea, and seed sowing in Britain was transformed (see Source 2.1.2).

Tull's horse-drawn seed drill cut furrows, deposited seeds through hollow tubes and then smoothed the soil over them with a device called a harrow which was attached to the rear of the seed drill. This not only made sowing much faster, it also assisted with weeding. This is because weeds growing next to crops planted in neat rows can be easily and efficiently dug up with a tool called a hoe. This can be done without damaging the plants that form the crop.

2.1.1 The impact of the Industrial Revolution in Britain

1701

1911

Newcastle

Leeds

Liverpool

Manchester

LONDON

Bristol

Newcastle

Leeds

Liverpool

Manchester

LONDON

Bristol

Area of map

N

0   200 km

KEY
Population density per 1.6 sq km

Under 64

65–256

257+
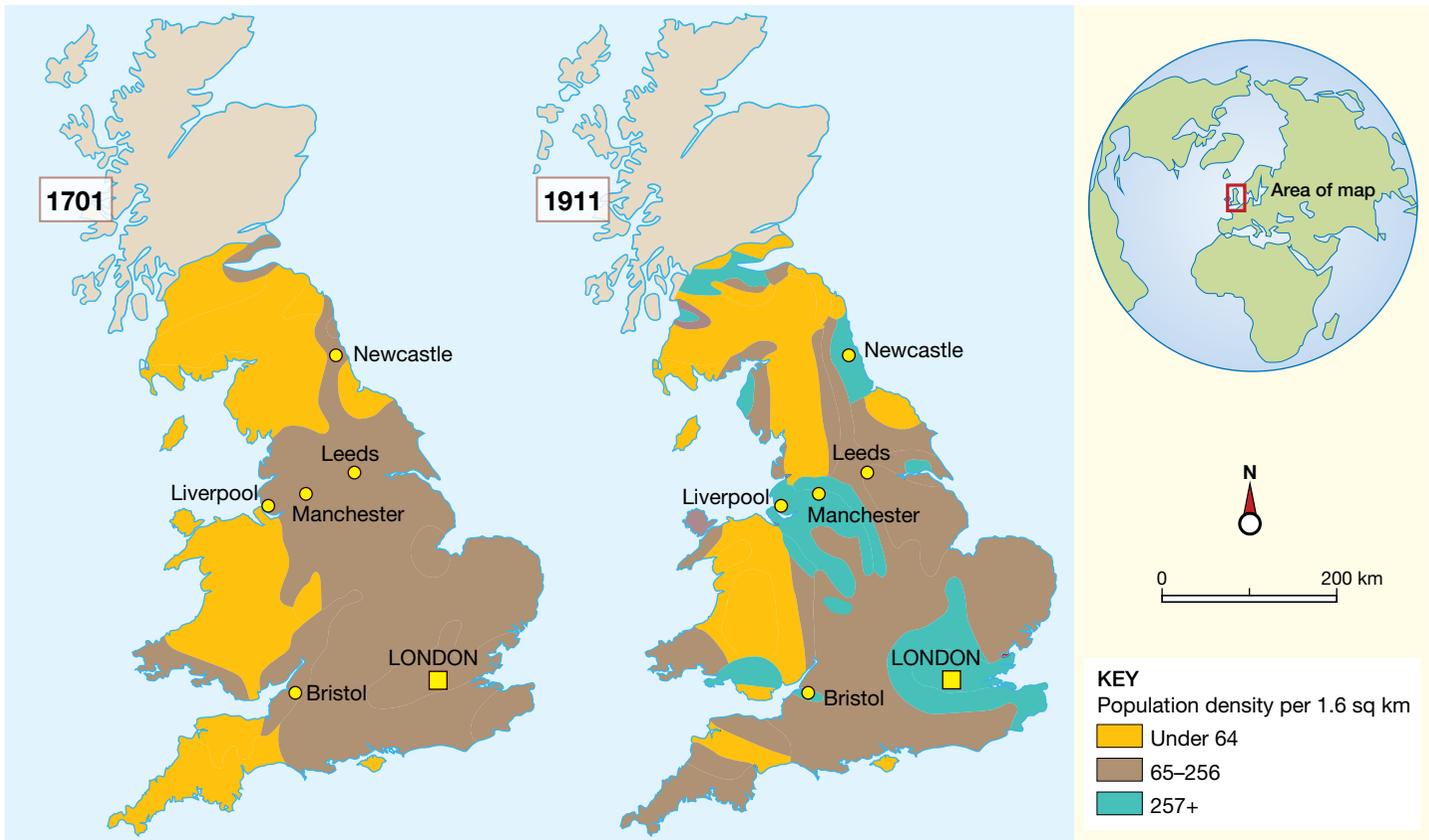
2.1.2 A seed drill by Jethro Tull, *Diderot Encyclopédie*, Paris c. 1780

The threshing machine

Threshing is the process of physically separating the grain (the part of the crop that farmers want) from the stalks on which is has grown (which can be discarded or used as animal food or fuel). Invented in 1784, Meikle's first threshing machine was about the size of a piano, and cereal stalks had to be fed into it by hand. The design was gradually improved until the invention of the combine harvester, which travels through cereal crops, cutting stalks and separating grain at the same time.

The Swing Riots

The threshing machine's impact was so great that it is credited with causing the Swing Riots of the 1830s. Before the invention of the threshing machine, hundreds of workers were needed to thresh. The automation of the threshing process reduced that number to just a handful. Vast unemployment resulted, and some of those unemployed people formed gangs who roamed the countryside. These gangs were responsible for destroying more than 100 threshing machines. Authorities responded by hanging nine rioters (hence the name Swing Riots) and transporting 450 of the rioters to Australia.

Fertiliser use

During the seventeenth century, scientists came to understand how fertiliser helps plants grow. This led to the invention of synthetic (manufactured) fertilisers. These combined naturally occurring substances such as sodium nitrate, phosphate and potash, which were more effective fertilisers when mixed together. English agricultural scientist John Lawes developed a phosphate-rich substance which he called superphosphate. Superphosphate became the world's first commercially available fertiliser (which means it could be bought and sold in large quantities) in 1842.

A turning point

Historians estimate that in 1720, a typical British farm yielded (produced) 19 bushels of wheat per acre (a bushel of wheat weighs just over 27 kilograms). By 1850 this had risen to 30 bushels, thanks to agricultural innovations such as those described above. Increases in yield were essential to support a population that grew from nearly 9 million in 1800 to nearly 17 million in 1851.

2.1.3 A poor man, surrounded by his family, is shown being tempted to join in the Swing Riots by a devil-like figure holding a burning torch

Activities

Remembering and understanding

1. Why do many historians regard the enclosure of common land as the start of the Industrial Revolution?
2. What is superphosphate, and why was it important to the agricultural revolution in Britain?

Applying and analysing

3. Identify and explain the key changes that occurred over time in Britain as a result of the agricultural revolution.
4. Study Source 2.1.1 and describe the changes in population density.

2.2 The beginning of the Industrial Revolution

King coal

For thousands of years wood fires had provided the energy needed by Britain's homes and workshops. However, by the 1700s the area of Britain's forests was shrinking, meaning wood had to carried from further away. This increased the time and costs involved. Coal, which produces three times as much energy as wood when burned, has been used as a fuel by humans since prehistory. But coal was not widely used because it was too hard to dig out of the ground.

Horse versus steam

One of the reasons coal was too hard to mine in large quantities was because of the groundwater in the mine shafts. By the early 1700s, horse-powered pumps were draining groundwater from mine shafts up to 30 metres deep. This was important for keeping the mines operational. Beyond 30 metres, the inflow of groundwater into the mines was too much for the pumps to handle. However, the first commercially viable **steam engine**, invented by Thomas Newcomen in 1712, did the work of twenty horses and could pump water from hundreds of metres underground (see Source 2.2.1). This meant that the output of coalmines rapidly increased. The engine enabled coal to be mined from much deeper underground, providing a plentiful and cheap energy source that would literally fuel the Industrial Revolution.

In Britain, coal was plentiful and located close to the sea, from where it could be moved to cities by boat (then the most efficient form of transport). By 1790, Scottish inventor James Watt's steam engine had replaced the older Newcomen engine. Due to an apparently inexhaustible (seemingly limitless) supply of cheap energy, Britain was ready to lead the world into the Industrial Age.

Power from ideas

The century leading up to the Industrial Revolution was known as the Enlightenment, or the Age of Reason. During that time, many vital scientific discoveries were made. For example, Isaac Newton found out how gravity worked and Robert Boyle identified the physical properties of air and gas. But more than just individual discoveries, this period produced the idea of progress. The Enlightenment was a time when society started to question religious explanations for the world and increasingly believed that the world was controlled by human will and reason. Enlightenment thinkers claimed that life could be made better through positive change and that people did not have to accept old ways of doing things.
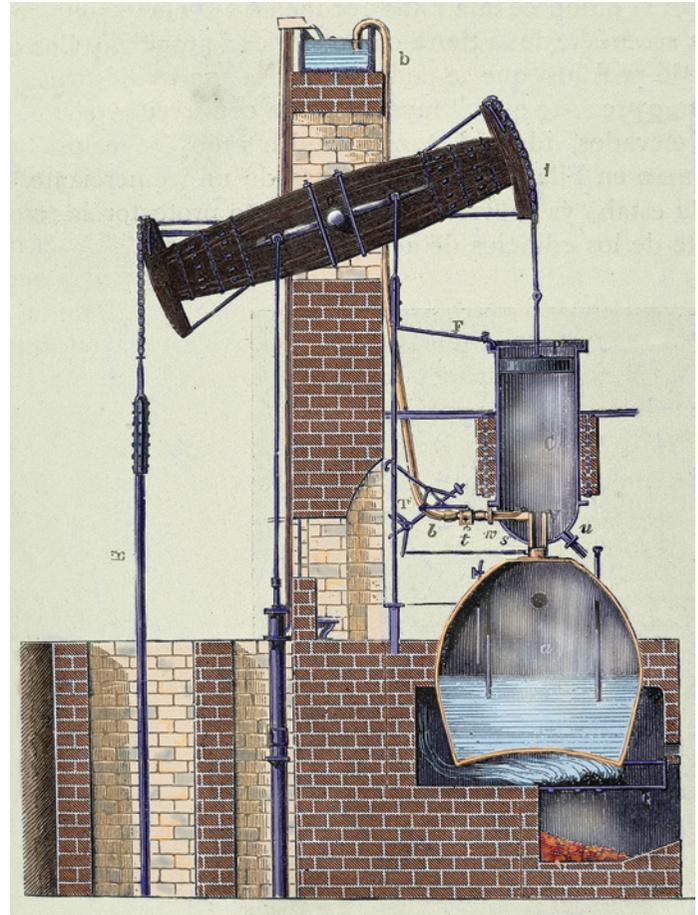
2.2.1 The atmospheric steam engine, invented by Thomas Newcomen in 1712

Freedom to make money

At the beginning of the Industrial Revolution, Britain was a more liberal and democratic society than most of Europe. The British were relatively free to think and do what they wanted compared to people in countries still dominated by dictatorial (absolute) monarchs or conservative churches. In Britain these freedoms also allowed people to become entrepreneurs. This meant that a person could set up and operate a business with the aim of becoming rich.

Two men who took advantage of this situation were Matthew Boulton, who owned an engineering works in Birmingham, and a self-taught Scottish scientist named James Watt. Together they formed Boulton & Watt, which built increasingly efficient steam engines. Initially, Boulton & Watt supplied steam engines to the coal-mining industry. Steam power soon spread into industries such

as distilling (manufacturing alcoholic spirits), flour mills, paper manufacturing, and cotton and iron mills, as other entrepreneurs saw the opportunities this new power source presented. The output of these industries massively increased as a result.

Power from the people

These expanding industries needed a cheap labour force, and Britain had a surplus of workers due to the enclosure of formerly common land. In late medieval times, farming peasants had cultivated small strips of land that they owned, and shared large areas of common land with other farmers for activities such as grazing. But from the 1500s, in a drive for efficiency, this system was gradually replaced. Common land was fenced off by rich landowners and worked for their personal benefit. Many farming peasants who could not survive on the land they owned were forced to find new sources of income. Many left their farms to find jobs in the rapidly expanding industries.

Enclosure, for better or worse

Some historians have argued that the enclosure process, which was supported by Acts of Parliament, was little more than ongoing theft of land from villagers by wealthy landowners. Others have argued that Parliament's enclosure Acts had little impact, because land enclosures had been happening for centuries before the Acts were passed. The trend towards individual ownership of land was inevitable because it was more productive. Either way, enclosure meant that a large number of former farmers converged on the cities and the emerging factories seeking work.

'But I do not think that this necessity of stealing arises only from hence; there is another cause of it, more peculiar to England.' 'What is that?' said the Cardinal. 'The increase of pasture,' said I, 'by which your sheep, which are naturally mild, and easily kept in order, may be said now to devour men and unpeople, not only villages, but towns; for wherever it is found that the sheep of any soil yield a softer and richer wool than ordinary, there the nobility and gentry, and even those holy men, the abbots not contented with the old rents which their farms yielded, nor thinking it enough that they, living at their ease, do no good to the public, resolve to do it hurt instead of good. They stop the course of agriculture, destroying houses and towns, reserving only the churches, and enclose grounds that they may lodge their sheep in them.'

2.2.2 Sir Thomas More describes the early impact of land enclosure in *Utopia*, published in 1516

2.3 Inventions of the Industrial Age

Spinning wheels and shuttle looms

At the beginning of the Industrial Revolution, cloth was produced in almost the same way as it had been for hundreds of years. Small groups of people in their homes or in workshops used spinning wheels and looms to produce cloth. Spinning wheels created thread from cotton fibre or wool. The thread was then stretched over a loom and a shuttle (a pencil-like piece of wood) was used to weave the thread into cloth by hand. This process was labour-intensive and time-consuming. It is often referred to by historians as the domestic system, as much of the work happened in people's homes.

The flying shuttle

In 1733, John Kay patented the flying shuttle. (A patent is a licence that restricts others from copying an invention.) The flying shuttle was a loom that had a shuttle tugged along grooves by a cord. The shuttle shot back and forth in a fraction of the time it took to move the shuttle by hand. This meant that cloth could be woven much faster, and could be wider because the operator was not restricted by the width of their arms.

The spinning jenny

In 1764, James Hargreaves invented the spinning jenny. This was a spinning wheel with eight smaller wheels instead of one, allowing the operator to spin eight threads at once. The spinning jenny rapidly increased the rate at which thread could be made.

2.3.1 The flying shuttle was a textile loom but it took its name from the part shown here. The shuttle was thrown backwards and forwards by the weaver.

The first factory

Richard Arkwright installed a water frame, a spinning machine powered by a water wheel, in a cotton mill in Cromford in 1771. He then added weavers and their machines and created the world's first factory. Arkwright's cotton mill was also the first to introduce a continuous process. This meant that raw materials such as cotton or wool arrived at the factory and, after a series of operations, were turned into a product. A continuous process meant that rates of production rapidly increased.
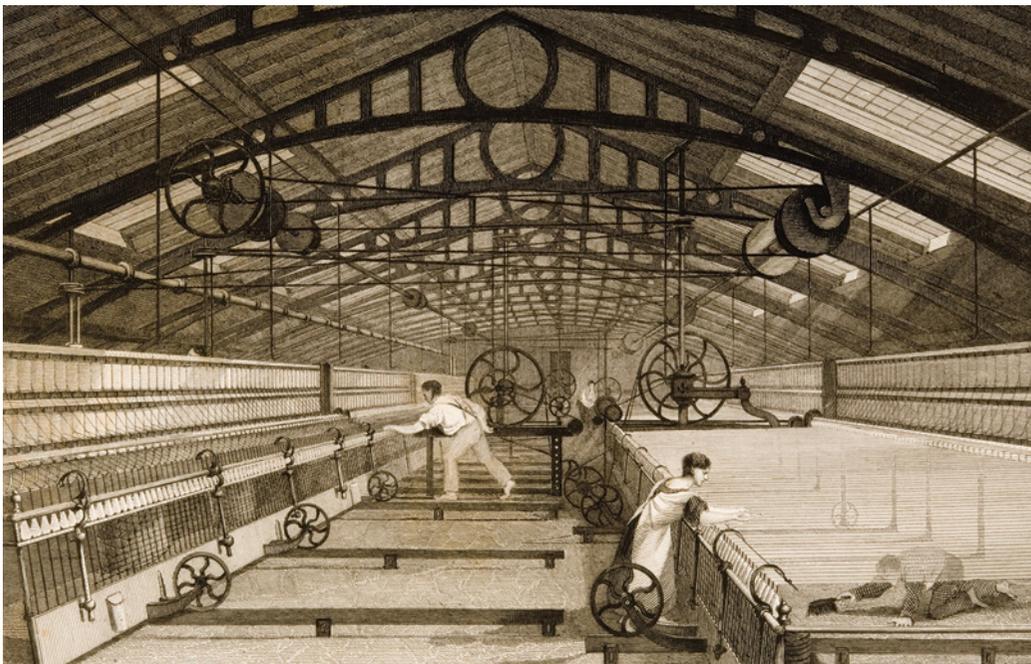
2.3.2 Workers using Crompton's spinning mule at a cotton mill in the 1830s, in an engraving by J. Tingle

Metallurgy

Due to the widespread availability of coal, there were also breakthroughs in metallurgy. Metallury means working with metals, and includes refining, alloying (mixing) and shaping metals. Abraham Darby built the first blast furnace in Shropshire in 1709. This furnace produced coke, a concentrated form of coal. Coke enabled Darby to heat metals to higher temperatures than had ever been achieved before, and at a lower cost than by burning coal. This in turn enabled him to produce a pig iron, which was then refined (improved) to make wrought iron and cast iron. This iron was used for pots and pans, steam engines and the famous Iron Bridge over the River Severn (see Source 2.3.3).

Steam

A steam-powered device was first described by the ancient Greek mathematician Hero of Alexandria in the first century AD. But the first practical application of the idea had to wait until 1698, when Thomas Savery marketed a steam pump, which was used in waterworks and mines. Unfortunately, its power output was poor.

In 1712, Thomas Newcomen produced the world's first commercially successful steam pump. It was safer and more powerful, working at around 5 horsepower units (meaning that it could do the work of five horses). It could pump water out of coalmines hundreds of metres deep. This made it possible to access greater quantities of coal, thus providing the Industrial Revolution with its main power source.

Watt's improvements

In 1778, Scottish engineer James Watt perfected a new engine design that was five times more efficient and used about 75 per cent less coal than Newcomen's steam pump. Watt's partnership with ironworks owner Matthew Boulton to build and sell their new machine lasted 25 years and made both men rich, in part because of clever marketing. The machines, which were over 7 metres tall and had to be housed in a building, could be paid off in instalments over three years using money that the mining company saved on the cost of mining coal.

The locomotive

Various people had the idea of using steam to power rail or road vehicles, but the size and weight of engines had made this impractical. In 1804, British inventor and mining engineer Richard Trevithick invented the locomotive. It was built at an ironworks in South Wales and was used on the world's first railway line. The first passenger railway opened in 1825, using a locomotive designed by George Stephenson. In 1829, Stephenson built his famous Rocket locomotive, and in 1830 the Liverpool and Manchester Railway opened.

2.3.3 *Picturesque Views of the River Severn* by Samuel Ireland, c. 1795, shows the world's first iron bridge, built over the River Severn in 1781

Activities

Remembering and understanding

1 Why was the blast furnace a significant invention of the Industrial Age? Write a short paragraph answer giving at least two reasons.
2 Sketch a flow chart that includes the different steps in the development of steam pumps.

Applying and analysing

3 Construct a Y-chart that explores what the inventions of the Industrial Age would have sounded like, looked like and felt like. Make sure you cover all the inventions described in this unit, as well as inventions selected from other units in this chapter.

Evaluating and creating

4 Create an annotated visual display showing the key developments in textile production during the Industrial Revolution. Use main headings and subheadings to organise your ideas.

LS 2A
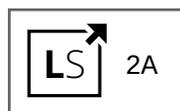
2.4 Important social changes

Progressive Britain

Although eighteenth-century Britain may seem harsh and unequal to us, compared to other nations at the time it was progressive. This means that society was beginning to change. In Britain, there was the comparatively equal application of the law, in that the law applied equally to all people, no matter their position in society. It was considered most newsworthy when, in 1760, Lord Ferrers was hanged for murdering his servant.

> ... astonished to discover that the tolls on the new turnpikes were paid regardless of rank and without remission for noblemen.

2.4.1 Extract from *Londres* by Pierre-Jean Grosley, 1770, translated by Thomas Nugent and published in 1772 under the title *A Tour to London; Or New Observations on England and its Inhabitants*, by M. Grosley

A class in the middle

The rise of a middle class of people is one important development associated with the Industrial Revolution. A middle class is a group between the titled upper classes and the mega-rich (who often used their wealth to buy titles and become part of the upper class), and the lower classes, who were desperately poor. This middle class included shopkeepers, craftspeople, doctors, clerks and lawyers (see Source 2.4.2). What they had in common were marketable skills (skills that could be used to gain employment) which
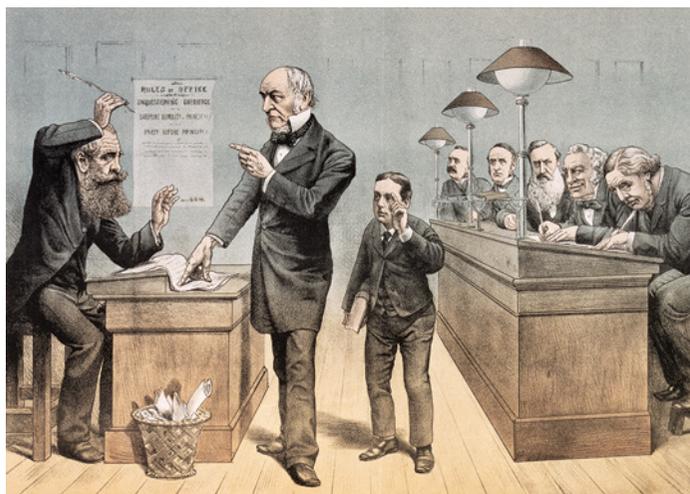
2.4.2 Clerks, members of Britain's 'middling class', Tom Merry, 1 May 1886

brought them a higher income than the lowest workers received. However, unlike the very rich or holders of inherited fortunes, the members of the middle class were dependent on others to buy their services so they could maintain their positions.

A nation of shopkeepers

The rise of the middle class in Britain affected the character of the nation. Because the middle class had to work for a living, they contributed new ideas to the debates about the issues of the time. Members of the middle class would have held strong views on a wide range of topics, especially issues that were related to business, including transport, town planning and trade. It was this idea that Napoleon, the emperor of France between 1804 and 1814, ridiculed when he allegedly described the English as 'a nation of shopkeepers'.

Law and order

Crime wave

The enclosure of common lands that drove families off their farms and into cities not only created workers to fill the factories, but also increased the number of people driven to crime by desperation. During the medieval period, most people lived in villages under the jurisdiction (authority) of the nobility who owned their land and made every decision. As people moved to cities, they became virtually anonymous. Because of limited accountability and desperate living conditions, crime became a means of survival. Prior to 1749, there was no official police force and authorities merely posted rewards for criminals. The hope was that acquaintances (people they knew) would report them in order to claim the reward. In this new urban environment, fear of crime became widespread.

Fear was also fuelled by stories that were common at the time of factory workers rioting over feelings of dislocation and inequality. There were more than 100 riots over food prices in thirty British counties between 1756 and 1757, as well as violent industrial disputes. In one case, weavers near Bristol attacked a fellow weaver for 'working under price', dunked him in a river and beat him so severely he lost an eye.

Harsh penalties, prison hulks and riots

Crime rates increased dramatically in the late eighteenth and early nineteenth centuries. As a result, prisons became overcrowded. The government's response was to increase penalties, so that relatively minor theft could be punished by death.

2.4.3 This petition, from Lancaster in 1790, called for a rally of clergy, freeholders, merchants and traders at the Manchester court house to protest against 'The very great and truly alarming increase of robberies of every kind'

The use of the death penalty for minor crimes was not very effective, however, because juries would not convict (find guilty) and judges would not condemn (sentence to death) in any but the clearest cases. However, between 1800 and 1827, 2243 men and ninety-five women were hanged in Britain. The average number of executions per year was eighty; however in 1801, 219 people were hanged. The major crime was against property: theft, burglary and highway robbery.

The use of hulks was a temporary solution to the problem of overcrowded prisons. These once-proud warships, with their masts removed (so they could not be sailed away) were tied up in harbours and became floating jails. This was an expensive and unsightly solution, and it also created fear among the middle and upper classes, who were worried about a possible uprising by prisoners who were desperate to escape from the hulks.

Eventually, authorities had to find a better solution to dealing with spiraling crime rates and large numbers of prisoners. In the end, the British government settled on a policy of **transportation**, which was the complete removal of prisoners from their home country for a number of years, or potentially for the rest of their lives.

Dear wife it dose not troble me to much Being Confined hear as Being parted from you and my dear Child Dear wife we are among a deal a differnd Soarts of peple But If I live to Serve my time oute as I trust In god I Shall you may depend upon it I Shall Returne to Ingland and then I hope we Shall Spend the Remander of our Days in this world in love and happyness togater.

2.4.4 Thomas Holden, who was sentenced to 7 years' transportation for taking an illegal oath to fight for workers' rights, writing to his wife from the ship that would take him to Australia

Did you know?

A temporary solution to the problem of overcrowded British jails was the use of hulks. A hulk was an old ship that could no longer be sailed. They could be up to 65 metres long, as long as as six buses, and could hold up to 300 convicts. Between 1776 and 1795, nearly 2000 out of almost 6000 convicts held on hulks died, the majority from diseases such as typhoid and cholera.

Activities

Remembering and understanding

1   Examine Source 2.4.1. Identify an aspect of British society that led visitors to conclude that Britain was a progressive society.

2   Sketch a social pyramid that represents the class structure of Britain at the time of the Industrial Revolution. Annotate your pyramid with key facts about the different groups within each of the social classes.

Applying and analysing

3   How did the British authorities respond to the increasing fear of crime, and what were the consequences of their policies in both the short and long term?

4   In an extended paragraph, describe the outlook and mentality of the up-and-coming middle classes and explain how this affected the course of Britain's development.

Evaluating and creating

5   In a short essay, evaluate the role of the Industrial Revolution in the creation of a crime wave in Britain in the late eighteenth and early nineteenth centuries.

2.5 Living and working in towns and cities

Growth of towns

The Industrial Revolution brought significant changes to Britain's economy and society. With the development of machines and steam power, factories were able to produce large quantities of goods more quickly and cheaply. Poor people from rural districts flocked to the towns to work, which led to the development of suburbs. These were areas of housing in close proximity to the factories where men, women and children could find work. Despite this, in 1788, an estimated 1 million people lived in poverty.

Growth of cities

The mass movement of people from rural areas to the cities in search of factory work is referred to as the rural–urban migration (the movement of people from country areas to cities). Factory work was hard but it guaranteed a regular income. With the decline of traditional industries under the domestic system, due to competition from big factories, many rural workers ended up as unskilled factory labourers in English cities such as Liverpool, Leeds and Manchester.

The fastest growing city during the Industrial Age was London (see Source 2.5.1). Between 1760 and 1815, London's population is estimated to have grown from 750 000 people to 1.4 million. This made London the largest city in the world at that time. Overcrowded and unhygienic, the city became home to an enormous working class who were paid wages that were barely enough to survive on.

2.5.2 *The Poor of Whitechapel*: an etching showing the slums of London during the Industrial Revolution
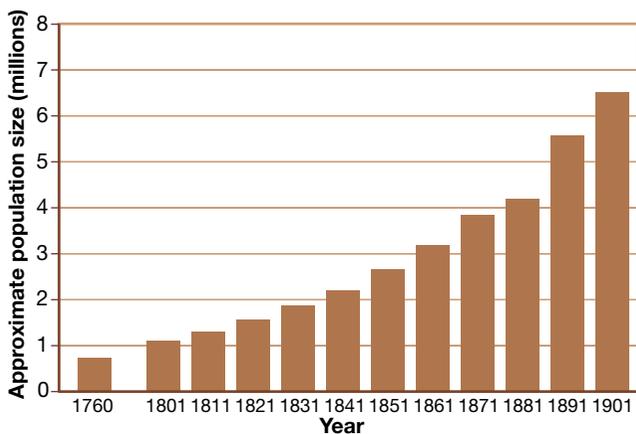
2.5.1 Population growth of London during the Industrial Revolution

The tenements

Many of the people who moved to big cities like London had no option but to live in crammed tenement blocks (houses or buildings divided up in to separate living quarters) close to the factories where they worked. Houses in the tenement blocks had been built very quickly and there was limited government regulation of building requirements. As a result, homes were very close together and poorly constructed. They were often damp, poorly ventilated and freezing in winter. Privacy was virtually impossible, as several families occupied each house. Very few toilets and a lack of sewer plumbing created an unhygienic living environment, which bred diseases such as typhus and cholera. Many of these newly developed areas of housing became slums due to overcrowding, disease, excessive consumption of alcohol and malnutrition.

2.5.3 Hogarth's illustration displaying England's addiction to alcohol, particularly beer, 1751

Did you know?

In the books *The Hobbit* and *The Lord of the Rings*, by the famous British academic and author J.R.R. Tolkien, the hobbits' Shire can be viewed as a celebration of English life before the Industrial Revolution. The character Saruman represents technology and modernity. When he starts ripping up trees and replacing them with mining pits and smoky forges, Saruman turns away from the 'good' side towards the 'dark' side of industrialisation.

Working families

Before the Industrial Revolution most families lived in rural villages, farming small plots of land or working in trades such as carpentry or blacksmithing (making and repairing things made out of iron). Their children learned the skills they would need by watching and helping their parents in their work. But, because of a number of factors, many farming families were forced off their land. At the same time, factories, mines and mills sprang up offering work for families who desperately needed it.
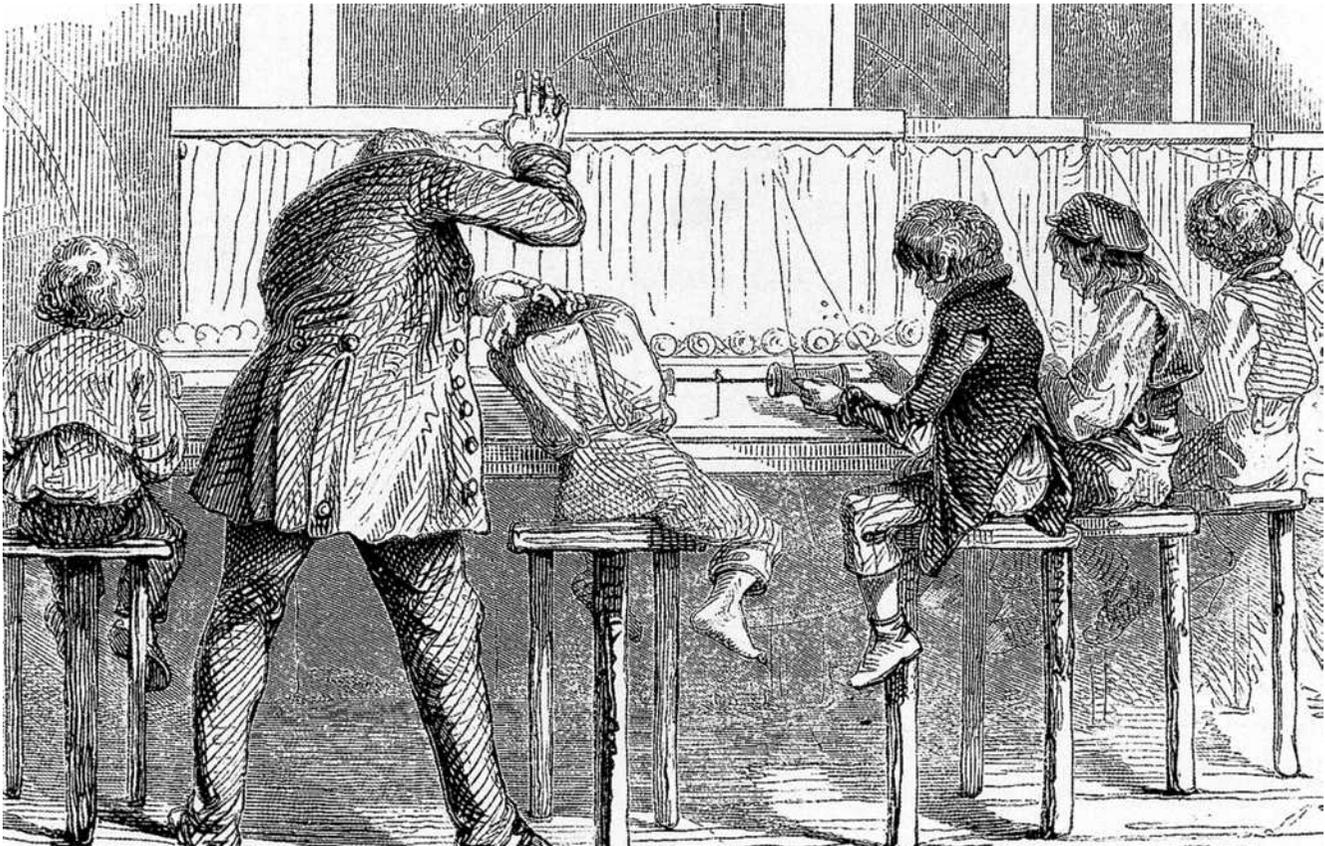
2.5.4 Children working on bobbins (cylinders around which yarn or thread is wound) in London, from an engraving in an 1848 issue of the French magazine *Les Musée des Familles* (Museum of Families)

Factory conditions were dangerous and the working day could be 12 to 14 hours long. Rules about the safe use of machinery did not exist. This resulted in high rates of injury and death among workers. It was common for factories to employ children as young as 7 or 8 to perform tasks requiring small hands and nimble fingers.

With the growth in the number of steam engines in Britain, the demand for coal also grew. Coalmines could now be as much as 2 kilometres deep. With little more than a pick and a candle, miners could spend up to 12 hours a day hewing (cutting) coal.

Child labour

Children worked 12 to 16 hours each day. It was reported that some 5-year-olds were taken away from their homes by mill owners who lodged them in crowded sheds near the factory gates and kept them at work for as long as they could stay awake.

Starting as young as 5 years old (although the average was around 10—see Source 2.5.5), children would work alongside their mothers in coal, lead and tin mines, breaking, sorting and washing ore and transporting it to the surface. The women and children were paid less than the men who did

the digging. Overall wages were so low that families needed the combined wages of husband, wife and children just to survive.

It is discovered that a child, when 10 years old, can learn to make a stocking in a few weeks, & that he can be taught the art perfectly by paying a master 1s per week for 2 years, the child re-ceiving, in the meantime, all his earnings, ex-cept that 1s. ... Parents have no longer any control over their children but, on the contrary, are dependant upon, & governed by, them. Boys and girls leave the homes ... of their fathers, Thò of the same trade, & work & lodge with others in the same village, whenever it is more agreeable to them to do so than to remain under the parentage roof the consequence of which is that, partly to keep them out of greater mischief, & partly to re-tain some benefit from their labour parents allow their children, while at home, to please themselves in everything.

2.5.6 Extract from a letter written to Sir Robert Peel, c. 1829, describing the stocking-making industry that was flourishing in Leicestershire, and discussing the effect of child labour on children's behaviour

2.5.5 Boy coalminers, c. 1895

Physical deformities and death

Many children suffered lifelong injuries due to their working conditions. Long hours of standing up and repetitive work crippled their bodies. Most machinery in cotton mills did not have safety guards, so children could lose a hand if it was crushed by a machine or have their scalp ripped off if their hair be came caught.

As a result of working in mines and factories, children often died young and parents suffered their loss for the rest of their lives. Beyond the death of each child worker was a lifetime of grief for parents and siblings.

> Up to twelve or thirteen years of age, the bones are so soft that they will bend in any direction. The foot is formed of an arch of bones of a wedge-like shape. These arches have to sustain the whole weight of the body. I am now frequently in the habit of seeing cases in which this arch has given way. Long continued standing has also a very injurious effect upon the ankles. But the principal effects which I have seen produced in this way have been upon the knees. By long continued standing the knees become so weak that they turn inwards, producing that deformity which is called knock-knees and I have sometimes seen it so striking, that the individual has actually lost twelve inches of his height by it.

2.5.7 Dr Samuel Smith gave evidence to the 1832 Parliamentary committee into child labour. The committee was chaired by Michael Sadler, who had earlier attempted to introduce a Bill regulating mill working conditions.

The life of a chimney sweep

Work for children could be very dangerous, and this was especially true for chimney sweeps. The parents of these boys had to pay their employers to take them on as apprentices. However, so many of the boys died that laws were passed to ensure that employers did not receive their final instalments until after the boys had finished their apprenticeships. The final payment was considered to be an incentive for employers to keep their sweeps alive.

Still, many died—most commonly from cancer of the scrotum (caused by coal dust collecting in the folds of their skin), burning and suffocation. It was also common for boys to get stuck in chimneys, despite their employers' policy of feeding them as little as possible to keep them thin.

2.5.8 Boy chimney sweeps still covered in soot eating their evening meal, England, 1861

Calls for reform

Many people were horrified by the dire working conditions that some children were forced to endure. This led to campaigns to introduce better protections for children working in factories and mines, as well as calls to ban the use of child labour altogether. Several Parliamentary inquiries were held and these served to heighten public protests and put pressure on politicians to act.

Eventually, the British Parliament passed laws to regulate child labour, starting with the *Cotton Factories Regulation Act* of 1819. This law set the minimum working age at 9 and the maximum working hours at 12 per day. But these regulations were easily evaded by employers because there were no inspectors to see that they were enforced. In 1833, the Regulation of Child Labour Law was changed to create paid factory inspectors, and in 1847 the *Ten Hours Act* limited working hours for women and children to 10 hours per day. These were important changes which meant that working conditions in factories and mines began to improve.

Did you know?

- During the Industrial Revolution girls in Britain worked as harriers in coalmines. It was the harrier's job to carry the coal to the surface. They did this by pulling a cart, using a chain secured around their waist. This did permanent damage to a girl's pelvic bone and led to difficulties in childbirth, which often resulted in death for both mother and infant.
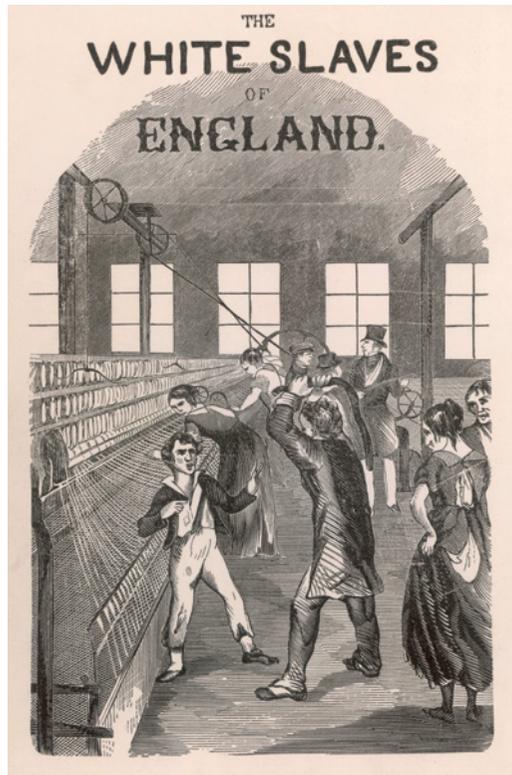
2.5.9 Pamphlets such as this one from 1853 played an important role in raising awareness and support for the campaign against child labour in England

Dangers of the job for adult men

> Some I have seen with red eyes and green hair; the eyes affected by the fires to which they are exposed, and the hair turned green by the brass works.

2.5.10 Writer Robert Southey observed workers in a metal foundry, Birmingham

It would be a lot longer before working hours and conditions improved for adult men. Coalminers worked such long hours in increasingly deep pits that rather than go home and clean up before sleeping, some slept as well as worked underground. Some men fell ill with the fatal black lung disease (pneumoconiosis), caused by coal dust irritating their lungs. Miners risked sudden death each day from explosions or the collapse of pit props, which were the braces designed to support the roof of the mine shaft. Sometimes, pit props were viewed as an expensive luxury which mine operators could not afford or would not pay for. Instead, sections of coal were left unmined to form pillars (columns) to hold up the roof, which increased the risk of the mine caving in.

2.5.11 Miners fleeing a collapsing mine, 1863

Machines under attack

Many workers resented the fact that machines were transforming their lives. Before the Industrial Revolution, cloth workers and knitters were skilled tradesmen who took pride in their work. They jealously guarded the traditional privileges of belonging to their own guilds (similar to a union of workers). In the 1750s, spinners attacked machines known as jennies. In the 1770s hosiers (manufacturers of stockings, socks and tights) smashed Arkwright's stocking frames and in 1776 a mob of armed rioters destroyed machinery and set fire to a factory.

2.5.12 Luddites smashing a spinning jenny in a factory

After the passing of a new set of *Combination Acts* in 1800, making trade unionism illegal, opposition became more organised and what became known as Luddism erupted.

The strange story of Ned Ludd

Ned Ludd was one of the most celebrated and demonised characters in England in the first decade of the 1800s. He is said to have been a simple fellow living in the village of Anstey, near Leicester. According to a 20 December 1811 article in *The Nottingham Review*—for which there is no independent verification—Ned Ludd was either being 'whipped for idleness' or 'taunted by local youths' when he smashed two knitting frames in a 'fit of passion'. News of the incident, said to have happened around 1799, spread until it became common in the district to joke whenever machinery was damaged, 'Ned Ludd did it.'

By 1811, opposition to poor wages and working conditions exploded in a series of attacks by groups of rioters in armed parties. These groups were directed by commanders who the newspapers regularly called 'General Ludd'. The people who formed these groups came to be known as Luddites.

The name 'General Ludd' started appearing at the bottom of pamphlets, in letters threatening factory owners and in songs. Unsurprisingly, 'the dread name Ludd' was mentioned with fear at the dinner tables of the rich. Working men believed that to disobey an order given on the authority of General Ludd was to risk immediate death. Even nannies telling bedtime stories would keep children in line by telling them, 'Otherwise Ned Ludd will get you!' Today, the term 'Luddite' refers to a person who is uninterested in or opposed to new technology or further industrialisation.
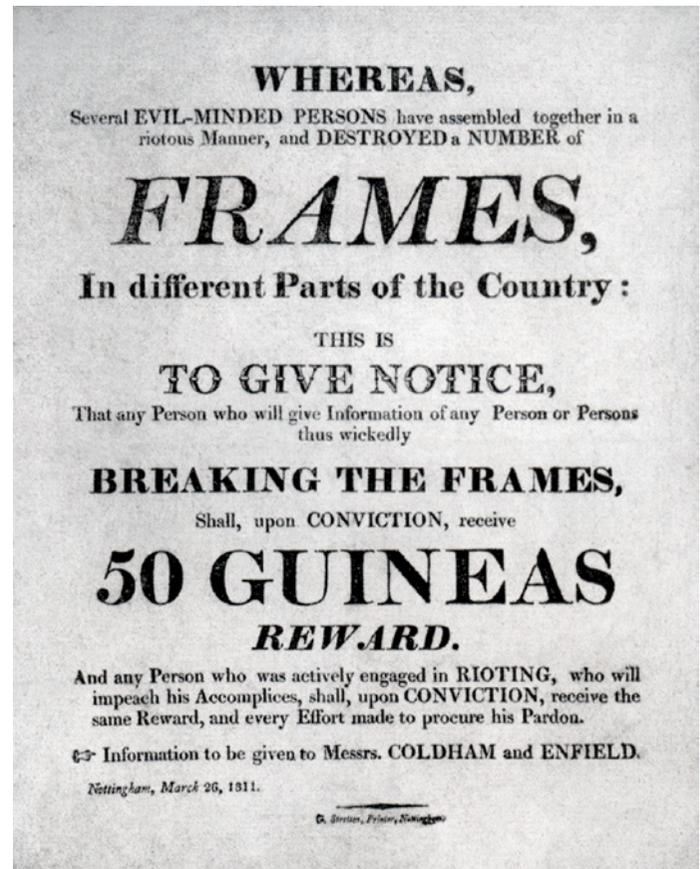
2.5.13 Reward poster issued to encourage people to inform against Luddites in Nottinghamshire

Activities

Remembering and understanding

1 Identify at least four dangers associated with working in mines.
2 What was the purpose of the *Combination Acts* and how did ordinary workers respond?
3 Who was Ned Ludd? Was he General Ludd? Explain.

Applying and analysing

4 Construct a cartoon strip or storyboard of five or six frames to illustrate child labour during the Industrial Revolution. Make sure you cover both the physical and emotional/psychological aspects of children's lives.

5 Examine Source 2.5.13. In what ways do the design and wording of this poster encourage people to inform against Luddites in Nottinghamshire? Identify and discuss at least three ways.

Evaluating and creating

6 Today, the term 'Luddite' has a negative connotation, meaning a person who fears technology and wants things to stay the same. Explain whether or not this corresponds with the original ideas of the Luddites. Use examples from historical and contemporary sources to support and develop your argument.

2.6 Short-term impacts of the Industrial Revolution

Building roads

The state of the roads

Before the Industrial Revolution, the roads of England during the Georgian period (1714–c. 1830) were considered a national disgrace. For example, the 5-kilometre-long road between central London and the London suburb of Kensington was thought to be impassable due to the amount of mud. The poor condition of the roads stood in the way of economic growth.

> ... deep Ruts full of water with hard dry Ridges [in winter, roads were full of mud] which rises, spues and squeezes into the Ditches.

2.6.1 From William Connor Sydney's 'England and the English in the eighteenth century', *The Social History of the Times*, 1891

The *Turnpike Act*

A major factor in the transformation of Britain's roads was the *Turnpike Act* of 1707. The *Turnpike Act* enabled residents to maintain roads running through their districts by putting up **turnpikes**—gates made of pikes (metal bars)—and charging money from strangers who travelled through them. This created an incentive for local people to maintain the roads. But improvement was gradual. Some travellers complained that they were charged on roads that had not been properly repaired. Anger at the *Turnpike Act* is shown in Source 2.6.2. However, by 1770 the turnpikes offered a genuinely national network of relatively efficient transport.

Did you know?

When the King of Spain visited England in 1703, a 60-kilometre journey through the countryside took him 40 hours, during which time his group did not get out of their coaches except when they overturned or got stuck in the mud.

2.6.2 The Welsh rebelled against paying turnpike tolls during the so-called Rebecca Riots of 1839–1843. John Leech, published 1843.

REBECCA AND HER DAUGHTERS.

In the 1720s the major regional cities of Manchester, York and Exeter were over three days' journey from London, but by 1780 they could be reached in 24 hours. Because it was easier for goods and people to travel between cities, trade expanded as a result.

Hunger and malnutrition

For centuries, chronic (long-term) hunger and malnutrition were the norm for average people. Until 1750, life expectancy in Britain was about 35 years, mainly due to malnutrition. At the same time, the better-fed citizens of the North American colonies were much taller and had a life expectancy of 45 to 50 years.

The Malthusian Trap

It was the British scholar Reverend Thomas Malthus who identified the pattern that had limited the growth of nations for centuries. His theory became known as the Malthusian Trap. As soon as a nation produced a surplus of food, the population would grow until it used up the available supply. Then, as soon as a bad crop or some other disaster occurred, people would starve and the population would decline.

Breaking free

During the course of the Industrialisation Revolution, Britain broke out of the Malthusian Trap. Better transport by road and canal meant that farm produce could be carried to markets in greater amounts and more cheaply. Famine was reduced because the failure of crops in one area could be overcome by transporting food in from other areas. The development of the railways, in the 1830s, further increased the efficiency of transport. As a result of these significant changes, in highly developed nations today—for the time being at least—famine is a thing of the past.

2.6.3 A representation of the poor of Whitechapel, displaced by the Industrial Revolution, Gustave Doré, 1872

Inequality

An unintended outcome of people's ability to travel with greater ease was that they saw more of the nation in which they lived. They also heard stories from others who travelled. This helped people to understand some of the differences (or inequalities) which existed between people and places, especially in terms of wealth and wellbeing.

'God's own appointment'

For centuries, inequality between classes of people had been accepted as—in the words of one clergyman—'God's own appointment'. According to this view, each group in society had their place and their 'lot in life' was God's will. Therefore, it was the role of poor people to be physical labourers and to work on the farms and in mines and factories.

The Industrial Revolution saw the gap between rich and poor grow increasingly wide. Successful entrepreneurs were making fortunes and the middle classes could barter (trade) their skills for decent salaries. Many farmers, however, were left starving as a result of land enclosures, and craftspeople suffered too, when they were made **redundant** (no longer required) by machines (see Source 2.6.4).

THE POOR MAN'S FRIEND.

2.6.4 This cartoon suggests that death would be preferable for an ill or aged worker, compared to the workhouses of the Industrial Revolution. Cartoon, John Leech, *Punch*, London, February 1845.

Poverty

Many people who were not living in poverty believed the problems of the poor were not caused by lack of a proper income. Instead, they blamed issues such as vice (immoral or wicked behaviour), drunkenness, gambling and excessive sexual indulgence. Based on this belief, it followed that workers should not be paid more because, as the Scottish physician George Fordyce wrote, they would merely spend it drinking. According to Fordyce, workers who had spare money would spend it on alcohol. The views of Fordyce and others like him were challenged by many, including the campaigning cleric John Wesley (see Source 2.6.5).

> ... that in a town's backstreets he found poor folk half starved with cold and hunger, but not one of them unemployed who was able to crawl about the room. So wickedly, so devilishly false is that common objection: They are poor because they are idle.

2.6.5 John Wesley writing in 1753

Economic growth

Today, highly developed economies grow at about 2 per cent per year. The powerhouse economies of India and China grow at more than 5 per cent per year. Therefore, it might be surprising to learn that Britain's economy grew by only 0.5 per cent per year or less during the Industrial Revolution (see Source 2.6.6).

What seems like a low growth figure, however, must be compared with what went before it. According to the University of California economist Gregory Clark, before 1760 the average rate of economic growth in Britain was very close to zero. He estimates economic growth between 1000 and 1500 at about 0.02 per cent per year. Economic growth between 1500 and 1750 was just 0.045 per cent per year.
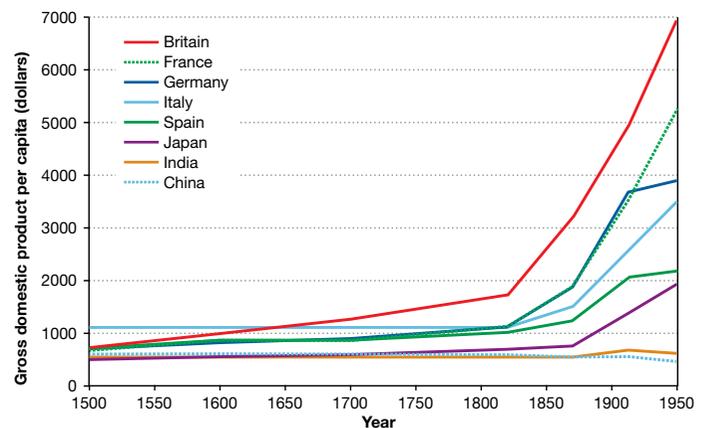
2.6.6 This graph shows the gross domestic product per capita of Britain and some European and Asian nations between 1500 and 1950

A growth rate in Britain of just under 0.5 per cent between 1760 and 1860 was a substantial improvement. This meant that wages, allowing for inflation, rose by 55 per cent. This increase in the rate of economic growth was significant enough to mark the period of the Industrial Revolution as a unique time for the world economy.

Trade unions

During the Industrial Revolution, entrepreneurs and business owners brought machines together in a single building, such as a factory, and made employees work together for specified shifts. They did this to increase efficiency and to make more money. But it had an unintended outcome. Workers were able to band together to push for improvements to their working conditions more easily in the new factories than when they worked in their own homes. Workers recognised that they could achieve more by banding together. These groups were called trade unions. Workers realised that if all or most of them stopped working at the same time—during what is known as a strike—they could stop a factory from operating and force employers to listen to their demands.

Reforms

In the face of increasing collective action by workers, the British government saw trade unions as a threat and passed the *Combination Acts* of 1799 and 1800. These laws aimed to prevent workers from joining trade unions (known as combinations) and taking strike action. Offenders could be punished by three months in prison.

The master is 'naturally tempted to by his Situation to be proud and over-bearing, to consider his People as the Scum of the Earth, whom he has a right to squeeze whenever he can; because they ought to be kept low, and not to rise up in Competition with their Superiors', while workers were led to think 'it no crime to get as much Wages, and to do as little for it as they possibly can, to lie and cheat, and do any other bad Thing; provided it is only against their Master, whom they look upon as their common Enemy'.

2.6.7 Measures like the *Combination Acts* were criticised by the Welsh economist, political writer and churchman Reverend Josiah Tucker from the viewpoint of both worker and employer

Despite these laws, workers continued to band together to demand better conditions and pay. This included the Luddite protests in 1811 and 1812. The *Combinations Acts* were finally repealed in 1824 and 1825.

By the 1870s, trade unions had grown in strength and number, including the emergence of nationwide organisations. Union membership grew from 100 000 in the 1850s to 1 million by 1870. The *Trade Unions Act* of 1871 legalised the creation of such groups, although it still placed restrictions on their right to take strike action.

Activities

Remembering and understanding

1 In your own words, explain the Malthusian Trap.
2 Provide examples of how British society was affected by issues such as hunger, poverty and inequality during the Industrial Revolution.

Applying and analysing

3 Examine Source 2.6.2. How did the Welsh view the turnpikes? Answer in an extended paragraph, with direct reference to the source.
4 Examine Source 2.6.4. What does the illustrator include in this representation to help us to understand the plight of this worker? Identify four things and explain their significance.

5 Examine Source 2.6.6.
   a What evidence does it provide that Britain led the Industrial Revolution?
   b What evidence does it provide about the impact of the Industrial Revolution worldwide?

Evaluating and creating

6 Create a PMI (Plus, Minus, Interesting) chart to contrast the different attitudes to the poor and beliefs about poverty that were communicated in this unit. Write down positive attitudes or beliefs, negative attitudes or beliefs and other interesting information. Evaluate the extent to which contemporary attitudes to poverty are similar or different.

2.7 The British Empire and raw materials

Sea strength

During the Industrial Revolution, Britain's growing empire, shown in Source 2.7.1, fed industry with materials and new markets. In return, industry gave the British Empire the technologies it required to navigate, exploit and conquer a large portion of the world. The result was the largest free trade area in the world (where trade was allowed without any restrictions), serviced by a commercial shipping fleet that grew from 3300 vessels in 1702 to 9400 in 1776.

This commercial shipping fleet flooded Britain with goods. This in turn fed the further growth of industry and the British population—which expanded, from 6 million people in 1760 to 9 million people in 1801. Economic dependence between Britain and its colonies (based on trade in imports and exports) meant that Britain needed to build a powerful navy to protect its economic interests. The British Navy played a key role in guarding the shipping lanes between Britain and its colonies.

Sugar rush

In 1640, British settlers on the Caribbean island of Barbados, who had failed in their attempts to grow cotton or tobacco, found sugar cane growing in their place. Sugar cane was required to make sugar and only grew in the tropics, so a huge enterprise developed to feed Europe's appetite for sweetened foods. The labour needed to grow such large amounts of cane soon outstripped the available population. In response to the labour shortage, traders started shipping in **slaves** (people who are the property of another person) from Africa. In total, about 6 million slaves were forced into labour in the Caribbean and North American sugar industry over the next 100 years. The result, along with death and misery for the slaves, was a British **monopoly** (complete control over a product) on sugar that lasted a century (see Source 2.7.2 and Unit 2.8).

2.7.1 An 1850 map celebrating the British Empire—marked in pink—and its diverse peoples

2.7.2 Slaves cut ripe sugar cane in the British colony of Antigua in the West Indies, in a painting by William Clark, 1823

Britain and France at war

During the Napoleonic Wars (1803–1815), the British Royal Navy blocked French trade with the Caribbean. As a result, France's supply of sugar ran low. In response, French ruler Napoleon Bonaparte poured resources into a new method of making sugar, using sugar beet, which could grow in Europe. This eventually led to a sugar beet industry that produced sugar more and more cheaply. By 1850 the price of sugar had fallen so low in Europe that ordinary people could afford it for the first time.

A worldwide marketplace

By 1815, Britain had the most powerful empire in the world. The Royal Navy protected trade routes that enriched Britain and generated taxes. This in turn helped pay for an even bigger navy. At home in Britain, children and adults of the Industrial Revolution worked in factories for very low wages that left them malnourished and living in squalor. Slaves died in droves in North America and the Caribbean harvesting sugar and tobacco, which was carried back to Britain for massive profits.

Imports included sugar from the West Indies, tobacco from North America, spices from India and tea from China. Merchants were able to invest in this trade

2.7.3 In a cartoon from 1798, Napoleon Bonaparte wrestles with a British sailor, a 'Jack Tar', for world domination

with little interference from the government, producing three main effects:

➤ spectacular economic growth
➤ fortunes for lucky investors
➤ slavery and human suffering.

Case study: The violent history of tea

An imbalance of trade

By 1800, the British were importing nearly 6 million tonnes of tea a year from China. However, the British paid heavily because the Chinese wanted silver rather than goods in exchange for the tea. Pottery, woollen apparel and scientific instruments were offered for trade by the British but were declined by Emperor Qian Long (see Source 2.7.4). Over a period of 50 years, Britain bought £27 million worth of goods from the Chinese, and sold just £9 million of British products to them. The British needed to find a product the Chinese wanted in order to reverse the trade imbalance (a trading relationship that favours one side more than the other; in this case, it was the Chinese).

> We possess all things and of the highest quality [and] I set no value on strange and useless objects.

2.7.4 Emperor Qian Long in a letter to King George III

The British solution

The British solution was to import the addictive drug opium, which was made from poppies, and then to export it to China. The British had a ready supply of opium from the recently conquered Indian Bengal. There were willing British businessmen ready to be part of the opium trade, such as William Jardine and James Matheson, who set up a trading company named Jardine, Matheson & Co® in 1832.

Emperor Yongzheng had banned the sale and smoking of opium in China in 1729 but demand for the drug remained. Jardine and Matheson, as well as other British traders, set out to exploit that demand (meaning that they tried to make money out of the situation). British authorities did nothing to stop British entrepreneurs in the opium trade, because taxes on the traders' profits raised millions of pounds for the British Treasury. The Chinese government was not happy with this arrangement. In 1839, Emperor Daoguang declared a war on drugs and had his soldiers raid warehouses operated by British traders, confiscating approximately 20 000 chests of opium.

First Opium War

The British entrepreneurs were outraged when they learned that their opium had been seized. In response, William Jardine sailed to London and lobbied the then Foreign Secretary, Lord Palmerston (which means that Jardine tried to convince Lord Palmerston to do something about the situation). Lord Palmerston saw China's actions as a threat to Britain's balance of payments. The Royal Navy was mobilised to aid the opium traders, arriving at the Pearl River Delta in June 1840 with a fleet of sixteen warships. Opposing them was a far larger Chinese fleet. However, the British were equipped with a new ship made of iron, the *Nemesis*, which could fire exploding rockets up to 2 kilometres. The Chinese, with their sailing junks (traditional Chinese ships) and canons, were wiped out. The naval battle and the subsequent bombardments were estimated to have killed 25 000 Chinese and sixty-nine British sailors.

Unequal treaty

In 1842, the Chinese signed a treaty with Britain in which they opened five ports to foreign trade. They also paid compensation for money lost to the opium traders during the war and gave the port of Hong Kong to Britain for the following 155 years. It was a humiliating loss for the Chinese.

> Textbooks from elementary school, to middle school to high school, to university highlight the wrong doings of the so-called imperialists. We have become part of what they call the Patriotic Education Programme, to educate Chinese youths like me so that we remember what you have done to us.

2.7.5 Dr Zheng Yangwen, University of Manchester, in 2014 talking about Chinese youth being educated about the impact of Britain's imperialism on China

2.7.6 The *Nemesis* destroying Chinese junks in Anson's Bay in 1841, depicted in a print by Edward Duncan, 1843

Activities

Remembering and understanding

1 Why did Britain require an increasingly powerful navy in the late eighteenth and early nineteenth centuries?

2 Using information from this unit, list six characteristics that support the claim that Britain's was the most powerful empire in the world by 1815.

3 Who were William Jardine and James Matheson?

Applying and analysing

4 Examine Source 2.7.1. How is the relationship between the British and the populations they colonised or enslaved represented? Are these representations accurate and fair? Discuss.

Evaluating and creating

5 Create a storyboard that illustrates the sequence of events leading to Britain's war with the Chinese over opium.

6 Explain your understanding of the way Britain conducted itself in China during this time. The Chinese place significant emphasis on this period in their history. Why do you think that is the case?

The Industrial Revolution and slavery

Movement of slaves

The slave trade was a very profitable business. It was driven by profit-hungry business owners who used free slave labour in the production of sugar, tobacco and cotton. Ships sailed from Europe to West Africa with manufactured goods that were traded for slaves. Slaves were delivered to the Americas before the ships returned with commodities produced on the slave plantations, such as cotton and sugar, outlined in Source 2.8.1. The movement of these people resulted in tragedy: the loss of identity, the loss of culture and alienation from the basic rights of humanity.

KEY
- cotton
- sugar
- tobacco
- coffee
- rice
- mining
- West Africa slave trade regions
- slave trade routes

NORTH AMERICA

New York

Charleston

New Orleans

0.5 million people

EUROPE

0.3 million people

To Europe

NORTH ATLANTIC OCEAN

WEST INDIES

4.5 million people

CENTRAL AMERICA

0.2 million people

PACIFIC OCEAN

0.5 million people

Lima

SOUTH AMERICA

5 million people

Rio de Janeiro

Buenos Aires

Senegal
Sierra Leone
Slave Coast

AFRICA

Congo

SOUTH ATLANTIC OCEAN

Angola

Area of map

N

0   2000   4000 km

2.8.1 Movement of slaves out of Africa, 1650–1860

Trade in human cargo

Between the mid-1500s and the late 1800s, more than 11 million African people were taken, against their will and by force, to the **New World** and sold as slaves. Expanding European empires needed a workforce to help build their new colonies, and a solution was found along the west coast of Africa. In exchange for manufactured goods such as gunpowder, woollen cloth and copper wire, African leaders provided men and women as slaves.

In the years before it was banned in 1807, the slave trade was the second highest earning trade for Britain. During the 1760s, Britain sent forty slave ships a year to the west coast of Africa, with London bankers financing the trade. Slave captain Thomas Phillips wrote that people jumped from their boats in chains to drown rather than leave their country as slaves.

I saw him take a gun, a piece of cloth, and some lead for me, and then he told me that he must now leave me there, and went off. This made me cry bitterly, but I was soon conducted to a prison, for three days, where I heard the groans and cries of many, and saw some of my fellow captives. But when a vessel arrived to conduct us away to the ship, it was a most horrible scene; there was nothing to be heard but the rattling of chains, smacking of whips, and the groans and cries of our fellow men. Some would not stir from the ground, when they were lashed and beat in the most horrible manner. I have forgot the name of this infernal fort.

2.8.3 *Thoughts and Sentiments on the Evil and Wicked Traffic of the Slavery and Commerce of the Human Species*, by Ottobah Cugoano, 1787. Ottobah Cugoano was captured in present-day Ghana. He was sold into slavery in the West Indies but was later bought by an English merchant and freed.
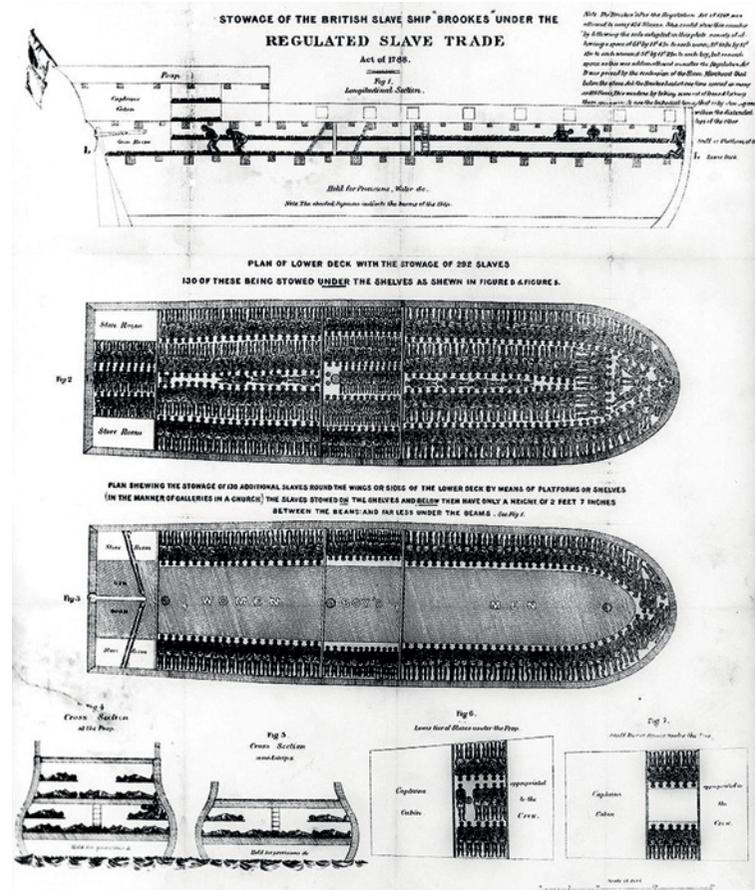
2.8.4 Diagram of the English slave ship *Brookes*, regulated by the *Slave Trade Act* of 1788. Slaves were treated as chattels (possessions) and forced to travel in inhumane conditions. Slave ships were instructed to carry the maximum number of slaves possible in order to maximise profits from their sale.
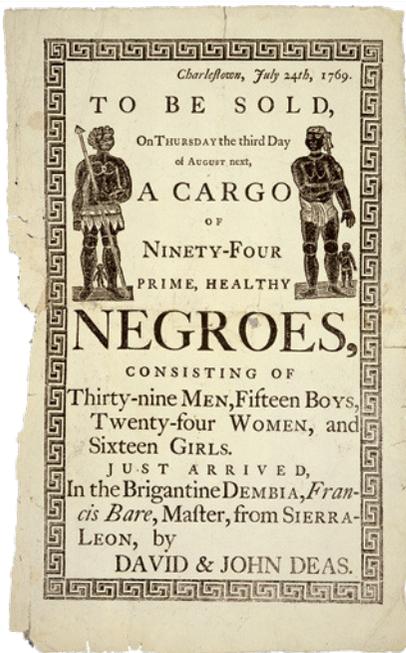
Poster advertising the sale of a shipment of slaves, Charlestown, North America, 1769

Slaves as chattels

When transatlantic slavery to the Americas commenced in the late 1600s, it was not the first time slavery had occurred. What was new was the distinctive racial character of this slavery, which focused almost exclusively on one group of people, namely Africans. What had begun as a profit-driven enterprise by Europeans solidified over time into a Eurocentric (European-focused) ideology. Western economic prosperity flourished during this time. The Industrial Revolution improved trade due to the increased ability to manufacture and trade goods. It was widely accepted in British and American societies that slaves were **chattels** (personal possessions or property) to be exploited economically and degraded culturally. This view was supported by British law.

Abolition movement

In 1776, the United States Declaration of Independence stated that 'all men are created equal'. This statement would challenge many Americans who saw their nation as hypocritical because of the way that it accepted slavery. The right to 'life, liberty and the pursuit of happiness' was being denied to slaves, most of whom were African Americans. Anti-slavery campaigns had begun in America during the 1760s, and in 1788 they began in Britain.

Key abolitionists

In England, it took William Wilberforce 30 years of pushing an anti-slavery message in Parliament to see the abolition (ending) of the transportation of slaves. The Bill was finally passed in 1791 and implemented in 1808. A key **abolitionist** (person in favour of the end of slavery) in America was William Lloyd Garrison, who ran a publishing firm that pressed for slaves to be immediately emancipated (set free). Another key figure was Frederick Douglass. He was a former slave who lectured around the world and was highly esteemed by the African American community.

> But could I be heard by this great nation, I would call to mind the sublime and glorious truths with which, at its birth, it saluted a listening world … It announced the advent of a nation, based upon human brotherhood and the self-evident truths of liberty and equality … Apply these sublime and glorious truths to the situation now before you. Put away your race prejudice. Banish the idea that one class must rule over another. Recognise the fact that the rights of the humblest citizen are as worthy of protection as are those of the highest, and your problem will be solved.

2.8.6 Frederick Douglass, former slave, commenting on the persistence of racial prejudice in the United States, 1894

The legacy of slavery

Slave populations

The movement of slaves worldwide resulted in millions of people relocating across the globe, taking with them their culture and beliefs. The decision by slave traders and business people to make short-term economic gains by exploiting Africans as cheap labour has left a stain that history cannot erase. The Industrial Revolution, which produced significant advancement in Western civilisation, was fuelled by slavery (see Source 2.8.7). It would be many more years before the longer-term consequences of slavery (see Source 2.8.8), such as racial prejudice and the deprivation of equal human rights for Africans, would be fully understood.
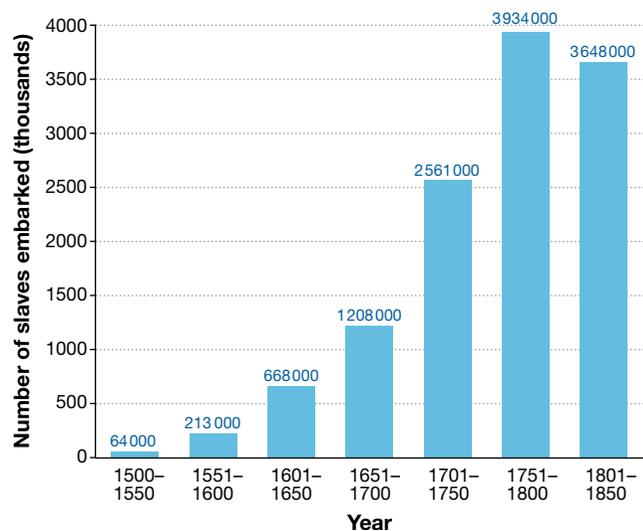
2.8.7 The transportation of slaves corresponds with the Industrial Revolution

2.8.8 Immediate and longer-term consequences of transporting African slaves to the Americas and the impact on Africa, the Americas and Britain

	Africa	Americas	Britain
Immediate consequences	• Millions of people were removed from African countries. • African countries remained underdeveloped compared with Western nations. • African countries lost much of their independence due to increasing economic ties with Europe.	• Economic growth fuelled by the production of key commodities, especially cotton. • The invention of the cotton gin in 1793 led to increased production of cotton and a demand for slaves. Two-thirds of slaves were involved in this industry. • Slavery provided a large workforce that catapulted the American nation forward economically. Africans were excellent workers, highly capable and skilled in farming.	• Enormous economic benefits. Slavery was the second largest trade in Britain at the time. • Cotton from the Americas fuelled the production of textiles, the main industry of the Industrial Revolution. • Cloth produced in the textile industry was the most popular trading item for purchasing slaves.
Long-term consequences	• With many of their producers and consumers enslaved, African countries fell behind other nations economically. They became reliant on an external market of slave trading and gained nothing in return. • Weakened politically with the 'Scramble for Africa'. By 1914, the African continent had been divided up and colonised by Europeans. Only Liberia and Ethiopia remained uncolonised. • Racial prejudice was widespread. Colonialists believed indigenous people were incapable.	• Dependence on the cotton industry and African slaves as a form of cheap labour. • Slavery became a contentious issue that contributed to the secession of states and the Civil War 1861–1865. • The introduction of African culture, music, beliefs and values. • Millions of Africans living in America. Between 1492 and 1820, five times more Africans were moved to the Americas than Europeans. • Most of America's great enterprises began with the use of African slave labour. • Racism became engrained in American society. The Jim Crow laws were enacted 1876–1965, mandating segregation (separation) of African Americans and Americans of European backgrounds in public spaces.	• Profits from the Americas continued to flow into Britain even after the slave trade was abolished in Britain in 1791. • Increased consumption of commodities such as sugar. • Issues of racism, although this was not as prevalent as it was in the Americas.

Activities

Remembering and understanding

1 What did slave traders provide to African leaders in exchange for slaves?
2 Who financed the slave trade in Britain? What did this mean in practical terms?
3 Define the term 'emancipation' in your own words.

Applying and analysing

4 What reasons would African leaders have for trading their own people into slavery?
5 Why do you think the British government supported the African slave trade?
6 Examine the sources and the information provided in this unit to do the following activities.
   a Take notes on your observations of the treatment of African people under slavery.
   b Use your notes to write a paragraph that describes the conditions faced by Africans as they crossed the Atlantic to become slaves in the Americas.
7 Why do you think such poor treatment of slaves was allowed to continue for so long?
8 Why do you think racism existed in the United States when its people so strongly supported the Declaration of Independence?

Evaluating and creating

9 Imagine what it was like to be a person who was captured in West Africa and sent to the Americas as a slave. What would it be like to know you could never go home or see your family again? Create a diary entry that reflects your thoughts and feelings.

Industrialisation in Australia

Establishing a penal colony

London's overpopulation, high unemployment and poor living conditions meant that crime was a regular occurrence. The most common crime was theft and the most common items stolen were basic foodstuffs such as bread. With prisons already overcrowded, the British Parliament introduced laws allowing for the transportation of **convicts** to the American colonies. This lasted until 1776, when American colonists declared their independence from British rule.

This forced the British government to look for an alternative option. A short-term solution, which involved keeping prisoners in old ships called hulks on the River Thames, was losing support. The prison hulks were decrepit (worn out; in some cases, the ships were slowly rotting). Sickness and death were rife on the hulks. On 24 March 1786, action was finally taken following a prison riot on a hulk at Plymouth. Home Secretary Lord Sydney ordered arrangements to be made to establish a **penal colony** in Australia. The distance of Australia from Britain was seen as an advantage, ensuring that convicts were transported far away from British shores. Australia also provided opportunities for Britain to secure supplies of flax and timber (both of which were important in shipbuilding) and to establish trade routes with China.

The eleven ships which left Britain in 1787 to found the penal colony in Australia became known as the First Fleet. The First Fleet carried 759 convicts. The journey to Australia took eight months, sailing down the north-west coast of Africa and across to Brazil before visiting Cape Town and heading across the Southern Ocean to New South Wales. Over time, many other convict ships would follow. Between 1788 and 1868, approximately 160 000 people were transported (sent) as convicts from Britain to Australia.

Emigration to Australia

One benefit of the Industrial Revolution was improvement in transportation, such as the building of better roads, new railways and faster ships. This influenced the movement of people by improving the ease, safety and speed of moving from town to town, and from country to country. While the First Fleet took about eight months to sail to Australia from Britain, by 1901 this journey could be made in a month.

Did you know?

One benefit of the scientific advances made during the Industrial Revolution was that nutrition was better understood. By the time the First Fleet sailed in 1787, scurvy—a disease most common in sailors and resulting from lack of vitamin C, which caused delirium and bleeding gums—had almost been eliminated. The diet aboard ships improved so much that, in general, when the 'human cargo' of the First Fleet arrived in Sydney in 1788, they were in better shape than when they left England.

2.9.1 A case of scurvy recorded by Henry Walsh Mahon from his time aboard the convict ship *Barrosa*, 1841
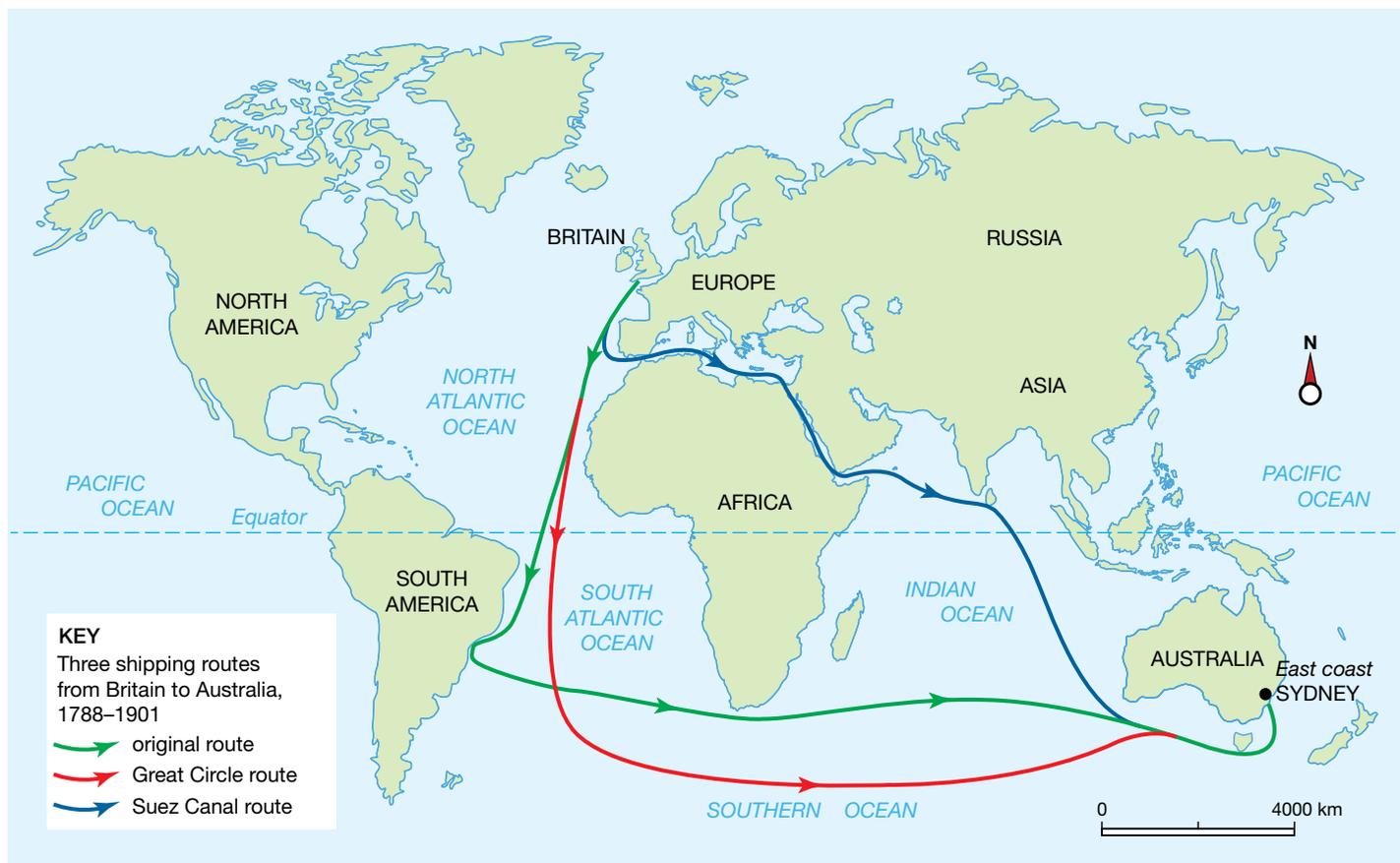
2.9.2 Movement of convicts and free settlers from Britain to Australia, 1788–1901

Few free people (people who were not convicts) moved to Australia in the early days of colonisation. Free settlers often had to fund their own transport. As a result, only a few government, military and wealthy families made the journey. By 1820, however, Australia was looking more enticing as farmers began to flourish and more land became available inland for sheep grazing. **Emigration** (leaving one's country of birth to settle permanently in another country) increased significantly in the 1850s because of the discovery of gold, sparking a wider movement of people from many different countries. The Irish Potato Famine of 1845 to 1852 also saw greater numbers of British people emigrating worldwide, with 1.75 million coming to Australia over the next 50 years. The movement of people to Australia between 1788 and 1901, both convicts and free settlers, is shown in Source 2.9.2.

Industrialisation in Australia

By the early nineteenth century, and under British rule, the young colony of New South Wales began to industrialise. In 1812, the colony's first turnpike (toll road) was opened between Sydney and Parramatta, and in 1813 the first steam mill was established on Darling Harbour.

Traders from near and far

In 1813, the monopoly on trade to and from Australia, which had been held by the British East India Company, was abolished. Vessels belonging to many different companies and nations began trading through Australian ports, among them whaling ships from the United States of America. From 1842, after the first Opium War forced the Chinese to open up some of their ports to Western trade, shipping to Australia grew again, as clippers started making round-the-world trips between Europe, the United States of America, Australia and China.

The clipper

Clippers were sailing ships, sometimes with iron hulls. Clippers dominated the carrying of cargo and passengers between Australia and the rest of the world for most of the nineteenth century (see Source 2.9.3). In 1854, the clipper *Red Jacket* set records by sailing from New York to Melbourne in 67 days, and then back to Liverpool in 73 days. By contrast, the fastest vessel of the First Fleet took 250 days to travel from Portsmouth to Sydney Cove, a roughly comparable distance.
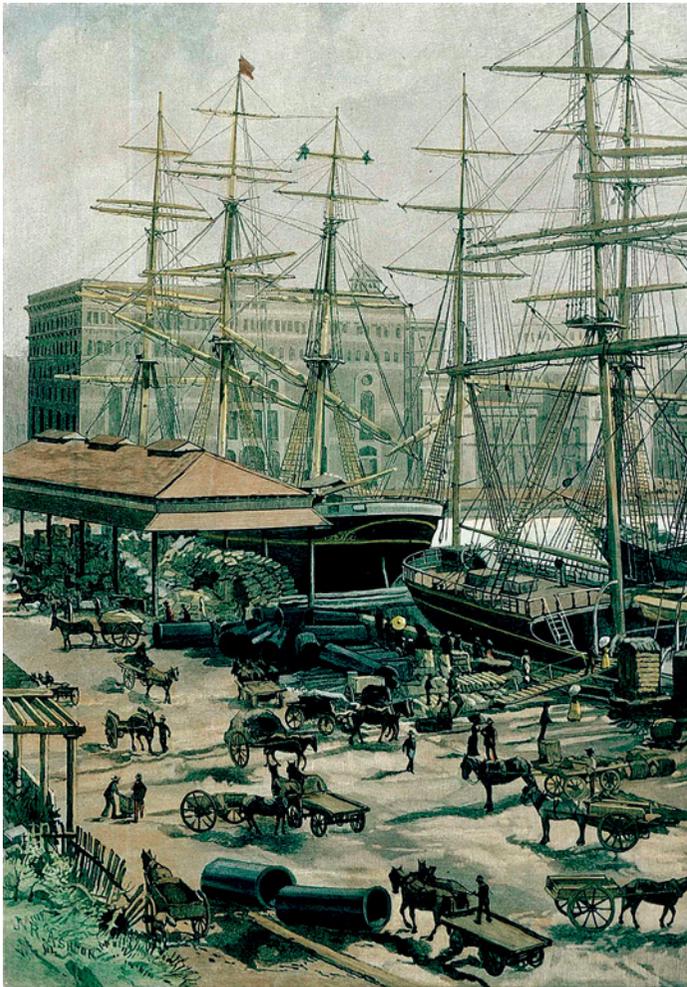
2.9.3 A bustling Circular Quay in Sydney in the 1880s

A hybrid economy

Australia's economy remained mostly pastoral (relating to livestock and agriculture) throughout the nineteenth century. By 1850, nearly half the wool used in British mills came from Australia. The technological and industrial infrastructure needed to transport, process and ship the products produced by Australia's farms and stations continued to grow. In this way, Australia developed a hybrid economy, meaning that it was comprised of different elements.

Growth in mining

From the 1850s, mining also started to become an important industry. Coal had been dug up around Newcastle since the colony's early days, but output had been small. Coal production in Australia increased after the gold rush in California began in 1849. Newcastle had the closest coal to the west coast of the United States of America, and this encouraged the growth of an important export industry.

A golden future

By the end of the Industrial Revolution, commonly agreed to be around 1850, Australia was well on the way to becoming an urbanised and industrialised society. But rather than slowing down, its population and the building of infrastructure exploded from 1851, with the start of the Victorian and New South Wales gold rushes.
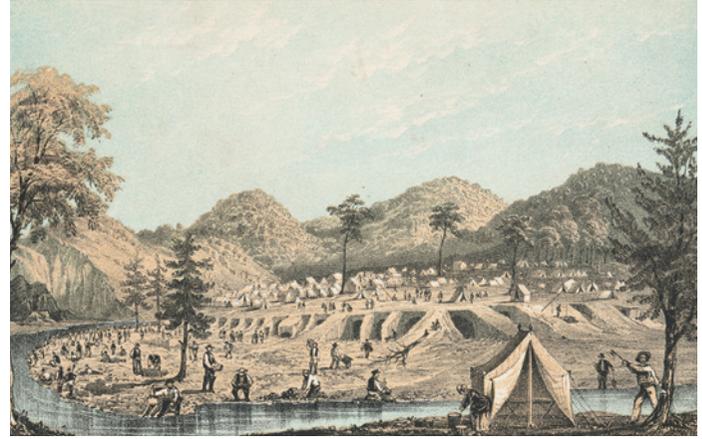
2.9.4 *Sheep Station Point, River Turon gold fields NSW*, W.L. Walton, published 1853

Making a new life in Australia

Owning land was highly unlikely for many people in England. The thought of acquiring property and becoming wealthy attracted those who could afford the sea passage (the cost of a ticket to sail) to Australia. The discovery of gold in the 1840s soon led to an increase of emigrants from Europe and China attempting to 'strike it lucky'.

Food production increased as the population of Sydney grew, but people still wanted to import the things they missed from England such as tea, sugar and tobacco. Entrepreneurs imported everything the colony could not make for itself, and many of them became very rich. As well as the importers, there were also the producers.
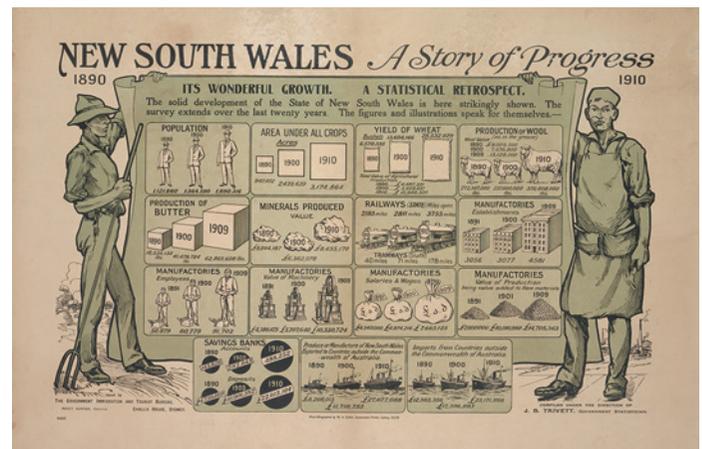
2.9.5 Government advertisement

Growth of a working class

With a rapidly developing economy, Australia experienced a long boom (a long period of economic growth) from 1850 to 1890. This was a period marked by relatively high wages and good working conditions. Australia was referred to at this time as the 'working man's paradise'. Since more workers were required than there were available, skilled workers were paid especially well. Fearing that cheap foreign workers might be used to replace them, Australian workers were at the forefront of calls for a ban on non-European immigration.

In 1890, however, an **economic depression** (a long period of poor economic performance) began, leading to business closures and rising unemployment. The failure of a series of Great Strikes at this time showed that strike action alone was not enough to protect higher wages and better conditions. This lead to workers forming trade unions.

Egalitarianism

The term 'egalitarianism' comes from the French word *egalité*, which means social and political equality. It was popularised during the French Revolution with the slogan '*Liberté, egalité, fraternité*'. After the revolution, careers in the government and the army were given to those most capable of performing the job rather than those of noble birth. This concept is referred to as meritocracy, because people are appointed to important positions based on their merit.

Emergence of Australian egalitarianism

Throughout the nineteenth century, Australia developed a far less rigid class system than Britain. Opportunities for advancement attracted new settlers from Britain, many of whom had never owned land. Such opportunities led to greater social mobility in Australia compared to Britain.

Main features of egalitarianism

LS↗ 2B

Equal opportunity
Same opportunities for everyone from birth, for example universal education and the right to vote

Tall poppy syndrome
Criticism of those who act and think that they are superior to others

Diversity
Acceptance of difference between people, for example racial, gender or cultural differences

Main features of egalitarianism

Social mobility
Anyone should be able to get ahead in life if they try hard enough

A fair go for all
Help for those who, due to circumstances, are less well off

Meritocracy
Positions should go to the most able rather than the wealthiest or those from an aristocratic family

2.9.6 Main features of egalitarianism

The emergence of capitalism

Capitalism

Capitalism is an economic system based on competition between sellers. Capitalists are individuals who invest their money, time and effort into an idea or activity designed to make a profit. Capitalism has driven technological change, resulting in economic growth, employment and increased personal wealth for the majority of people in Western society. The emergence of capitalism is an important theme arising from our studies of the Industrial Revolution and the years leading up to it.

The 'Protestant work ethic'

In 1905, German sociologist Max Weber explained the origins of capitalism in *The Protestant Ethic and the Spirit of Capitalism*. Weber believed that capitalism emerged during the Reformation of the sixteenth century, when Protestant Christianity had made a virtue out of hard work and profit-making, while Catholicism tended to value religious work as being more important.

2.10.2 A statute of Adam Smith in Edinburgh, Scotland

Main features of capitalism

Invention
Developing new products and services that will offer benefits to potential buyers

Innovation
Seeking to improve existing products and services to attract customers

Main features of capitalism

Profitability
Maximising profits and minimising costs

Growth and expansion
Finding new markets for existing products

Entreprenuership
Taking a calculated risk by investing money and time into an idea in the hope of making a profit on the investment

2.10.1 Main features of capitalism

Responses to capitalism

Adam Smith's *Wealth of Nations*

Adam Smith was a Scottish philosopher and economist who wrote at the time of the Industrial Revolution (see Source 2.12.2). He was the first to propose the concept of **gross domestic product (GDP)** (the value of all the goods and services produced within a country in a given period of time, usually one year) as a way of measuring a nation's wealth.

Smith's view was that, through trade, the needs of everyone could be satisfied because:

➤ workers earn income by selling their skills and labour
➤ business owners earn profits by producing what customers need
➤ buyers acquire a good or service that improves their quality of life.

Karl Marx's *Das Kapital*

First published in 1867, Karl Marx's *Das Kapital* offered a critical view of the development of capitalism (see Source 2.10.3). He argued that capitalism contained the seeds of its own destruction, meaning that it was a system that would eventually destroy itself. According to Marx, as more and more workers were driven into poverty, eventually the whole system of capitalism would collapse, as the mass of workers would rise up in revolution and take ownership of businesses.

International capitalism

The search for natural resources, foreign products, cheap labour and new markets led to the expansion of the British Empire around the globe. Until 1813, the very powerful British East India Company controlled all of this business. Portugal, the Netherlands and France also had large companies with monopolies over trade in their empires. These monopolies played a major role in developing the markets for slaves, spices, cotton, tea and many other goods that were unavailable in Europe.

Making capitalism fairer

Many working people responded to the growing power of capitalists by forming trade unions to push for better conditions and pay for workers. Over time, governments in both Britain and Australia sought to regulate capitalism by introducing laws to make it a fairer system for workers, largely in response to campaigns led by trade unions. Examples include:

➤ the introduction of the 8-hour working day
➤ the introduction of a minimum wage
➤ improvements in workplace safety
➤ taxes on business in order to provide benefits to society.

Despite Marx's predictions about its collapse, capitalism survived a number of major challenges during the first half of the twentieth century. These included World Wars I and II, the rise of communism and the Great Depression.

Capitalism today

Capitalism has continued to grow in the years since the Industrial Revolution ended. The development of shipping containers, large container ships and global positioning systems (GPS) has made it much easier to move large amounts of manufactured goods around the world. From the 1980s, governments have been committed to reducing tariffs (taxes on imports) and making international trade easier. E-commerce, through websites such as eBay® and Amazon®, has further stimulated trade between buyers and sellers in different countries.
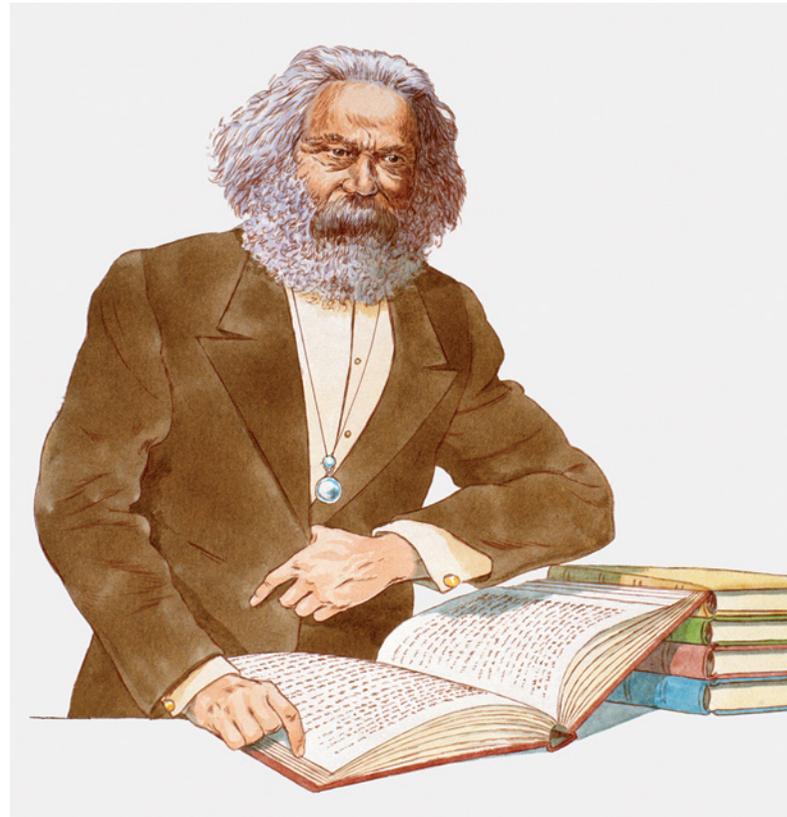
2.10.3 Karl Marx, author of the influential critique of capitalism *Das Kapital*

Activities

Remembering and understanding

1 What were the two major periods of history that gave rise to capitalism?

Applying and analysing

2 What major challenges has capitalism survived in the twentieth century?

3 Using the information in this unit, create a PMI (Plus, Minus, Interesting) chart for capitalism.

Evaluating and creating

4 Create an imaginary conversation between Adam Smith and Karl Marx, showing their different perspectives towards capitalism.

Long-term impacts of the Industrial Revolution

Population

Perhaps the most dramatic and lasting change caused by the Industrial Revolution was the explosion in the global population. Our species evolved some 200 000 years ago. By 1 AD, historians estimate that the worldwide human population was about 150 to 200 million people, rising to about 300 million by the year 1000.

During the next seven or eight centuries, population growth was around 0.1 per cent per year. By the mid-eighteenth century the world's population is estimated to have been between 700 and 800 million people, about 6.5 million of whom lived in Britain.

By 1851, census figures show the British population had risen to 27 533 755—more than a fourfold increase in 100 years. As more nations adopted the medical and industrial innovations of the Industrial Age, the world's population grew from about 1.3 billion in 1850 to just over 7 billion today. As shown in Source 2.11.1, the numbers are expected to continue to rise until at least 2040.
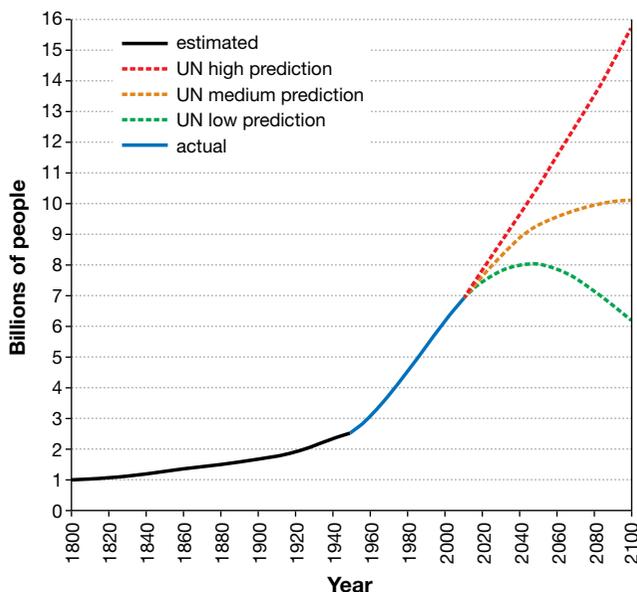
2.11.1 World population and projected population from 1800 to 2100 based on United Nations projections and US Census Bureau historical estimates

The worst of times

As the world's population grew and work became more industrialised, cities expanded, resulting in crowding, poverty and disease. From the 1830s, these changes were the subject of lively public debate.

The view that tends to dominate today is the negative one, due to the continuing popularity of the works of Charles Dickens, Romantic poets such as William Blake (who wrote of Britain's 'dark satanic mills') and Mary Shelley, whose 1818 novel *Frankenstein* was a warning about the dangers of the scientific and industrial age.

Birth of socialism

The inequality between people produced by the Industrial Revolution was a major force in the creation of socialism. This is a political ideology that opposes a free market society and instead believes that wealth should be allocated according to people's needs. One of socialism's founders was Friedrich Engels, whose father sent him to Manchester in 1842 to work at a family-owned cotton mill. The 22-year-old Engels observed the lives of the city's workers and published *The Condition of the Working Class in England* in 1845. The book was highly critical of workers' living conditions. Engels argued that rural workers' quality of life and wellbeing were much better before the introduction of machinery and their move to towns to work in the factories (see Source 2.11.2).

In 1848, Engels and Karl Marx published *The Communist Manifesto*. This book united socialist political parties around the world in the belief that the free market economic system, as demonstrated by Britain's Industrial Revolution, meant suffering for ordinary workers and was bound to collapse. *The Communist Manifesto* went on to influence the politician and political theorist Vladimir Lenin, who led the 1917 Bolshevik Revolution in Russia.

The best of times

Others, including historian Emma Griffin of the University of East Anglia, look beyond the image of nineteenth-century cities as depressing places—dark, crowded and full of disease, where people died young. Griffin claims it is easy to forget that rural life at the time could be stifling. People lived in close proximity to their extended family, and their employer knew about everything they did during and after work. Cities not only offered work opportunities but cultural experiences that were not always to be found in rural areas.

When rural people arrived in the expanding cities, their journals and letters often expressed isolation and loneliness, says historian Lawrence Goldman of the University of Oxford. But this feeling lessened as city dwellers developed new forms of community beyond the traditional family and village, such as trade unions, friendly societies and Methodist churches, which boomed in the early 1800s.
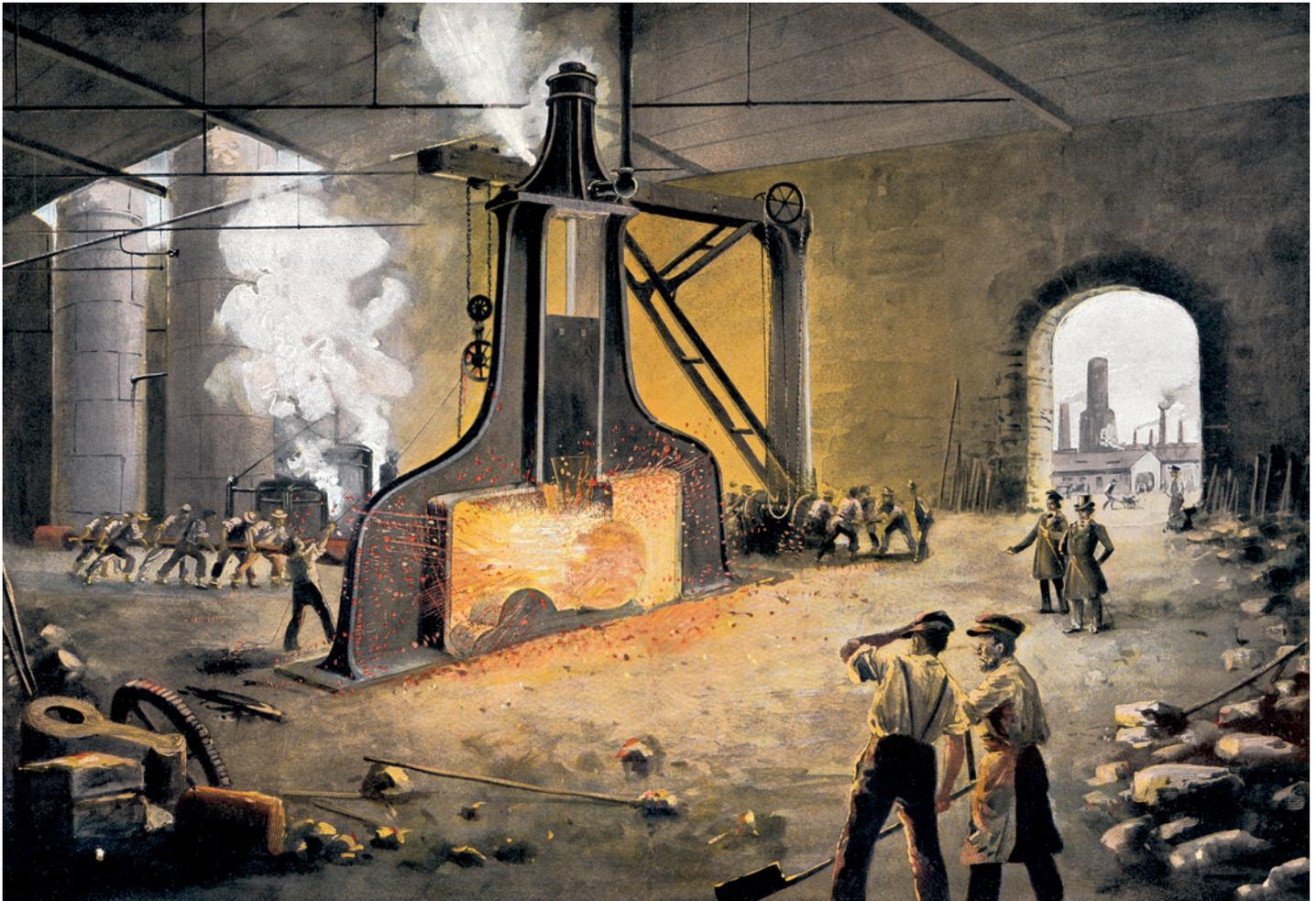
2.11.2 James Nasmyth's patent steam hammer, 1843

Not everybody moved to cities (or stayed in them) out of desperation. Large cities such as Manchester were exciting places where much was happening.

The second Industrial Revolution

The second Industrial Revolution was a continuation of the first. It saw the industrial and economic processes that had begun in Britain spread to Western Europe, the United States of America and Japan. Its culmination came in the early twentieth century with the Ford Motor Company® using an assembly line to produce its Model T car.

The assembly line

The first step in the assembly line was the use of machine tools. These were machines that mass-produced inter-changeable parts for other machines. This meant that if one part broke, it could be fixed or replaced using spare parts.

The inspiration for the Ford Motor Company's ground-breaking assembly line came from a 'disassembly line' at a Chicago meat-processing plant. Animals were slaughtered and their carcasses carried on a powered conveyor belt past a line of workers. A visiting Ford employee noticed that by repeatedly carrying out one cutting action, workers performed faster and did a more precise job. Taken together, the actions of all the workers produced a fully butchered carcass.

It did not take a lot of imagination to see that by reversing this process, a hugely complex item such as a car could be built faster by relatively low-skilled workers (see Source 2.11.3). It took years to perfect the process, but by 1913 Ford was producing a car in 1.33 hours, about nine times faster than the 12.5 hours it had taken in 1908.

Paint it black

The assembly line was so efficient that it produced an unforeseen problem—paint did not dry fast enough! Faced with a bottleneck in manufacturing, Ford opted to paint all the Model Ts 'Japan black', the paint that dried the fastest. This led company owner Henry Ford to joke that customers could get the Model T in any colour they liked 'as long as it's black'.

2.11.3 Workers at Ford's Michigan assembly line in 1913

The impact of mass production

Mass production meant that craftspeople were replaced by workers carrying out simple and often mind-numbing repetitive tasks. The upside was that goods were produced cheaply and in vast numbers, leading to more jobs and cheaper goods. The cost of a Model T, for example, dropped from $825 in 1908 to $575 in 1912, allowing more Americans to own cars. This transformed society in many ways. For example, because workers could commute more easily from where they lived to where they worked, vast residential suburbs began to be build beyond crowded inner cities.

Consumerism

The simple machines of the early Industrial Revolution planted the seeds of consumerism. A consumer society is one in which the purchase of material goods is encouraged and success is measured in terms of growth in the gross domestic product (GDP). In consumer societies, a recession (in which the GDP fails to grow) is bad news. Most people who live in more economically developed countries have jobs that pay enough to eat well, and to buy fashionable shoes and clothing, cars, mobile phones and other electronic equipment (see Source 2.11.4).

Did you know?

One of the first attempts to implement a mechanised assembly line was made in 1797, when businessman Eli Whitney won a contract from the US Government to make 10 000 muskets (a type of gun). Previously, craftspeople had made each gun separately, producing its parts by hand using files, saws and other tools. As a result, each gun was unique, and if it broke another skilled person was needed to make a replacement part to fit that particular gun.
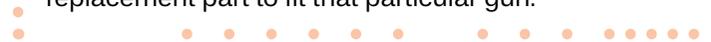
Need for speed

Thanks to the radio, telephones, television and the internet, it is easy to think that communication consists of words or digital data sent along wires or in waves to anywhere in the world in a fraction of a second. But in the 1700s, information only travelled as fast as a person could travel in a day. For thousands of years, the maximum speed of communication was that of a horse.

2.11.4 A print advertisement announcing the new 1929 Frigidaire® refrigerator

This changed during the Industrial Revolution. In response to the demand for freer and more efficient trade, networks of turnpike roads, canals and eventually railways were built. One unintended consequence was that rural people, who used to travel only a handful of miles beyond their villages in their lifetimes, saw more of the world and were exposed to new ideas.

Industrial society's need for speed led to the invention of the electric telegraph in the 1840s, and the internet in the 1990s. But as in the 1700s, there are unintended consequences of unrestricted communication. For example, the internet has expanded our relationships but has produced cyber bullying and websites promoting terrorism.

Environmental costs

One downside to industrialisation and consumerism is environmental pollution. In the period 1700 to 1800, environmental pollution was mainly limited to regions where mills churned out coal smoke. Problems could also be reduced at the local level by the introduction of cleaner technologies. But worldwide, the level of carbon dioxide in the atmosphere, produced by burning coal and other fossil fuels, has risen dramatically since the Industrial Revolution.

The majority of scientists believe this to be a significant contributor to global warming.

Some people believe that part of the solution is for people to dramatically reduce their energy consumption, even if this means fewer luxuries or having to pay more for energy. Means of reducing energy consumption include carbon taxes or emissions trading schemes, which make it more expensive to buy the most polluting forms of energy. Others argue that government intervention (such as regulations and laws) to force people to use less energy will just hurt the poorest members of society and do no good, as developing nations will carry on industrialising.

Some people see a solution in the type of innovation that produced the Industrial Revolution in the first place. As fossil fuels become harder to extract and more expensive, it will become increasingly profitable for business people to develop and market alternative energy sources such as solar, wind and wave power.

Activities

Remembering and understanding

1. Define 'the second Industrial Revolution'.
2. Identify some statistical data that demonstrates the effect of the Industrial Revolution on population.

Applying and analysing

3. Examine Source 2.11.4. Based on how the 1929 Frigidaire is represented visually and in written text in this source, who might be persuaded to buy it and for what reasons? Share your thoughts in an extended paragraph.
4. Construct a T-chart that contrasts the evidence presented in this chapter about whether the Industrial Revolution led to the 'best of times' or the 'worst of times'. Review the evidence and express your own opinion in an extended paragraph.

Evaluating and creating

5. Imagine that it is 1930 and that you have been asked to create a feature newspaper article about the Model T Ford. Describe a range of perspectives, including those of Henry Ford, an assembly-line worker and a person who has just bought a Model T car.

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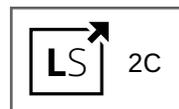
COLLINS STREET
TOWN OF MELBOURNE

Australia 1750–1918 3

Mark Twain, the famous American writer who toured Australia in 1895, wrote:

> Australian history is almost always picturesque; indeed, it is also so curious and strange, that it is itself the chiefest novelty the country has to offer. It does not read like history, but like the most beautiful lies; and all of a fresh new sort, no mouldy old stale ones. It is full of surprises and adventures …

The documented history of Australia during the period of 1750 to 1918—telling of exploration, gold rushes and bushrangers, and of the input of people from diverse backgrounds from all parts of the world—certainly supports Twain's view. But countless historical sources also reveal a past of extreme violence, injustice and enduring dispossession suffered by Australia's first peoples because of European colonisation. From these tumultuous colonial beginnings, a sense of national identity began to emerge and the modern nation of Australia began to take shape.

OVERVIEW QUESTIONS

3A What were the causes of European settlement of Australia and what effect did it have on Aboriginal and Torres Strait Islander peoples and the Australian landscape?

3B What were the significant events during this period and what ideas influenced the development of Australian society?

3C How did patterns of continuity and change affect the ways of life, political and legal institutions, and cultural expression around the turn of the twentieth century?

3D Why is it important to consider the different experiences and perspectives of non-Europeans, as well as different historical interpretations, when analysing this period of Australian history?

3.0.1 *Collins Street, Town of Melbourne* by W. Knight, 1839

GLOSSARY

diaspora the dispersion or spread of a people from their original homeland

egalitarianism the idea that all people are equal and deserve equal rights and opportunities

homogeneous consisting of parts or people that are similar to each other or of the same type

Kanaka a Pacific Islander taken (often forcibly) to work as a labourer in Australia in the late 1800s, especially in the sugar and cotton plantations of Queensland

Kulin the nation of five Aboriginal language groups living in Victoria: the Wathaurong, the Dja Dja Wurrung, the Woiwurrung, the Boon Wurrung and the Taungerong

larrikinism rebellious and disrespectful behaviour

manifesto a public declaration of intentions

martial law when normal government is suspended and authorities use military power to control society

nationalists people who believe their country is superior to others

referendum a vote to change the Constitution of Australia. In order to be passed, a referendum must be agreed to by a majority of the people and a majority of the states.

reprisals acts of retaliation (revenge) against others, often as a punishment by military forces

smallpox a contagious viral disease that was feared in the past but has since been eradicated

squatters settlers who claimed land by grazing their vast flocks of sheep on it; they often became very wealthy and powerful

telegraphs system for transmitting messages along a wire over long distances

tubers the thick underground part of a stem of certain food plants (such as a potato)

LS Before you begin

Timeline

Australia 1750–1918

This chapter explores the often tragic, sometimes heroic, history of Australia during the period from 1750 to 1918. From the settlement of the Australia's first colonies, a sense of national identity started to emerge and the modern nation of Australia began to take shape.

▼ Federation referendum leaflet, 1899

To the Australian Born.

No people in the world have been so manifestly marked out by destiny to live under one Government as the people of this island continent ; but no people with so little reason have been so disunited in their public actions.

The Vote on Tuesday next will determine whether we will continue as we are, a cluster of petty provinces, each waging a wasteful competition with the other by means of hostile tariffs and railway rates ; or whether we shall have the courage to accept the responsibility cast upon us by our heritage of this great Continent.

"A Continent for a People, a People for a Continent," was Mr. Barton's fine expression of a noble hope four years ago. If Australians are true to themselves this hope will be realised on June 20th.

All the difficulties in the way of Union vanish if we look at them as Australians, and not as the inhabitants of any single province. There should be no more difference between, say Victoria and New South Wales, than there is in Great Britain between Somerset and Yorkshire.

Australia is our home. Our aspiration is to make Australia great.

If this is "sentiment" it is also "hard sense." No Nation has ever played a worthy part in the world unless it has had confidence in its own future.

A Nation's Greatness does not depend upon Acreage of Territory or Material Wealth, but on the nobleness of the thoughts by which its people are inspired ; and of all the impulses to noble deeds which history records there is none more universal or more potent than this sentiment of Nationality.

Let us become a Nation

and establish in the Southern Hemisphere a POWER which makes for Peace and Order in the sight of other nations, and which will prove to men of every race that the descendants of Britons in AUSTRALIA HAVE NOT LOST THEIR CAPACITY FOR SELF-GOVERNMENT.

75 000+ BC
Aboriginal peoples are living in parts of Australia

1500–1600 AD
Macassan fishermen (from present-day Indonesia) sail the waters of northern Australia and trade with Aboriginal and Torres Strait Islander people

BC | **75 000+ BC** | **1 AD** | **1500** | **1600** | **1700** | **1800** | **1850**

1606
Dutch explorer Willem Janszoon becomes first European to map parts of the Australian coast

1770
British naval officer Lieutenant James Cook charts the eastern coast of Australia and claims 'New South Wales' for the British crown

1788
The First Fleet arrives at Sydney Cove and establishes the first British colony in Australia under the command of Governor Arthur Phillip

1835
The settlement of Melbourne is founded at the site on the Yarra River where John Batman landed seeking land for settlers from Van Diemen's Land (Tasmania)

◀ Bakery Hill on 1 December 1854: *Swearing Allegiance to the 'Southern Cross'*, by Canadian artist and digger Charles Doudiet

1851

The Port Phillip District officially becomes the colony of Victoria (later the state of Victoria); gold discovered in Victoria sparking the Gold Rush

1854

Gold miners protesting licensing and other laws build a stockade at Eureka lead in Ballarat. After a short, fierce battle with government police and troopers, six police and at least twenty-two miners are killed.

1901

The Federation of Australia unifies all the colonies of Australia (which become states) under a federal government

Australian propaganda poster (1916) to encourage the enlistment of men to fight with Britain against Germany and its allies

1914–1918

Australia enters World War I as part of the British Empire fighting against Germany and its allies (including Turkey) the Australian Infantry Force takes part in campaigns in Gallipoli, France, Belgium and Palestine. It suffers enormous casualties and an entire generation is scarred.

1851   1900   1910   1920   AD

1880

Ned Kelly, the bushranger who with his gang terrorised northern Victoria and southern New South Wales, is hanged in Melbourne

1886

The 'Half-Caste Act' in Victoria serves to further deny the rights of Aboriginal peoples and enables the further destruction of their culture and communities
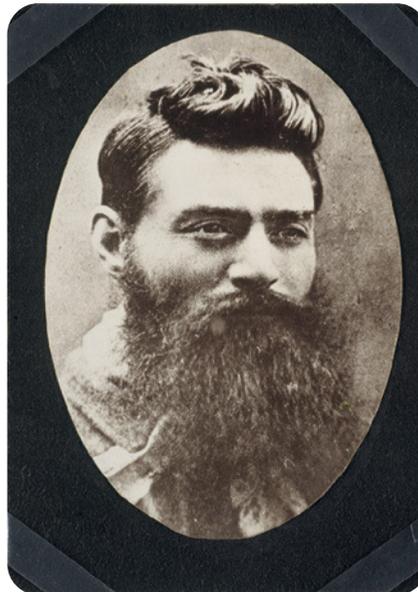
1902–1912

New legislation is passed which reflects Australian society's progressive social standards towards some people, but also its racist and discriminatory policies towards others

Portrait of Ned Kelly the day before he was hanged on 11 November 1880. This is the most famous image of Kelly. Charles Nettleton, photographer, 1880.

The 'discovery' of Australia?

One of the problems with many older history books and textbooks that were written from a non-Indigenous perspective is that they often begin the history of Australia with the arrival of the First Fleet. Sometimes, these histories began by looking at James Cook's 'discovery' of Australia in 1770. Both perspectives are incorrect.

Aboriginal and Torres Strait Islander peoples have been living in Australia for well over 60 000 years—and there is archaeological evidence to suggest they have inhabited parts of Australia for as long as 80 000 years. At the time of European settlement, the Australian Indigenous population consisted of more than 250 language groups spread over the entire continent, and they had their own distinct cultures, beliefs and ways of life. Aboriginal and Torres Strait Islander peoples are the world's oldest continuing culture and no understanding of Australian history is possible without a full appreciation of their rich cultures.

The belief held by many people that Cook 'discovered' (or was the first European to observe) Australia in 1770 is also historically inaccurate. The first European ship used to chart the Australian coast and encounter Aboriginal people was the *Duyfken*, captained by Dutchman Willem Janszoon, who in 1606 explored parts of the coast of present-day Western Australia. Between 1606 and 1770, an estimated fifty-four European ships from a range of nations, including Holland, Spain and France, had made contact with the Australian coastline. Abel Tasman, a Dutch sailor, charted parts of the north, west and south coasts of Australia, which at the time was known as New Holland—which shows how prevalent the Dutch influence was at this time.

Imperialism and colonisation

Driven by the desire to find wealth and to spread their influence over other parts of the world, European powers competed for access to new lands throughout the Asia–Pacific region. Imperialism (the belief that powerful nations are entitled to conquer new territories to build an empire) was often achieved through the invasion of lands first occupied by indigenous peoples. Colonisation (when an area is taken away from its original people and inhabited by foreign settlers) usually followed the 'discovery' of these 'new' lands.

Therefore, when Englishman Lieutenant James Cook charted the east coast of Australia in 1770, the British were keen to claim this 'new land' to try and prevent their European competitors

3.1.1 Map showing Indigenous Australian language groups
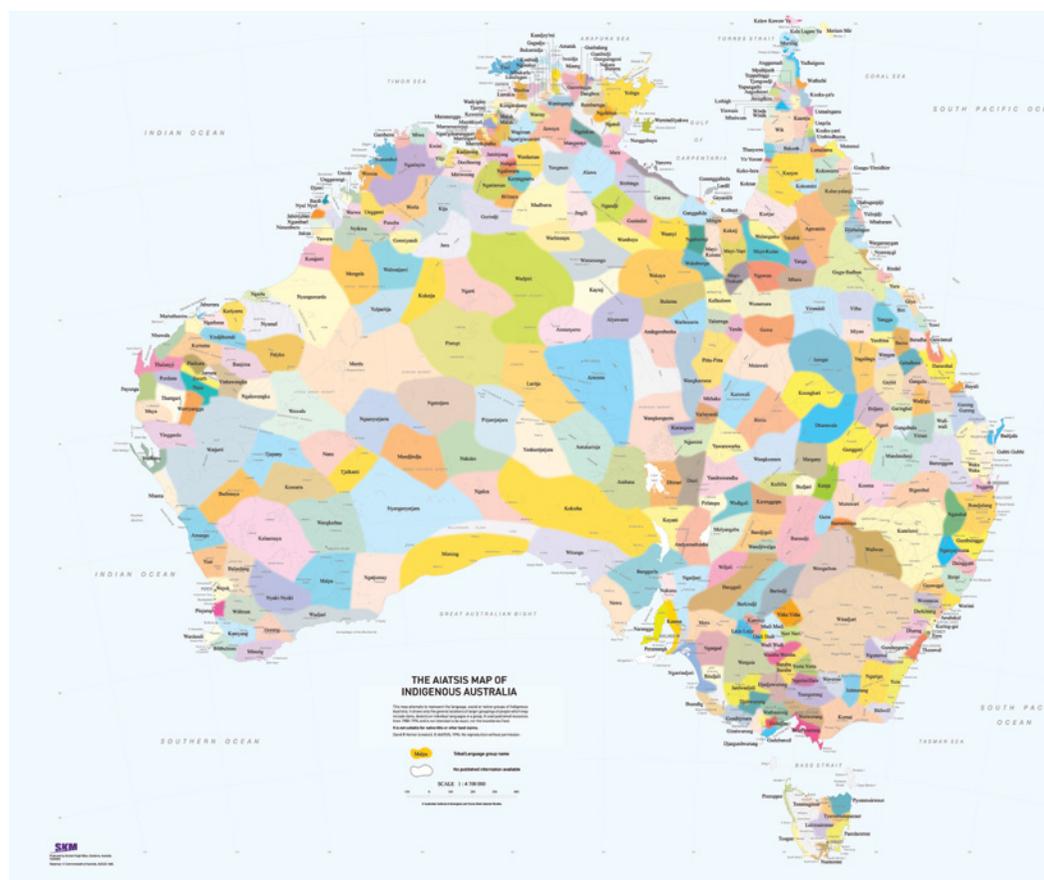
claiming it for themselves. Cook claimed the east coast for the British king, George III, naming it New South Wales. While he made maps, and observed the local Aboriginal people along the way, his mission was not to establish settlement in Australia.

Why did the British decide to colonise Australia?

Five years after Cook's journey mapping the east coast of Australia, the British colonies in North America rose in revolution against the British Crown. This was a major concern to Britain. Not only were the American colonies important as a source of trade and taxation—Britain had also been transporting its convicts (people convicted of crimes and imprisoned) there because of the severe overcrowding of prisons in Britain. With the War of Independence (1775–1783), Britain could no longer send convicts to North America.

In 1779, Joseph Banks, the botanist (scientist who studies plants) who had travelled with Cook to New South Wales, suggested Australia as an alternative place for transportation. It was also suggested that the new colony could be a useful base for British trade interests in the Asia–Pacific region. Eventually the British government settled on Botany Bay as the site for a colony, and the British Home Secretary, Lord Sydney, selected Captain Arthur Phillip of the Royal Navy to lead the fleet and to be the colony's first governor.

Spotlight

Terra Nullius and dispossession

The concept of terra nullius (Latin for 'land belonging to nobody') was a principle used by imperialist powers to justify the claiming and occupation of territories across the world—but it conveniently ignored the fact that there were people already on the Australian continent. When James Cook explored the east coast of Australia, he believed that a treaty with the local inhabitants was unnecessary because they were so few and showed no sign of European land 'ownership', such as agricultural crops, fenced livestock or permanent houses. Since he could find no obvious political authority to deal with, Cook felt justified in claiming the entire landmass of Australia on behalf of the British Empire. This was despite the fact that he had explored just a small and very narrow section of the east coast.

On 26 January 1788, with the arrival of the First Fleet, Governor Arthur Phillip formalised the British colonisation of Australia with a flag-raising ceremony at Sydney Cove (see Source 3.2.1). This taking of the traditional owners' land without any prior agreement or compensation is referred to as dispossession. New South Wales Governor Richard Bourke's proclamation in 1835 that all the colony's land was the property of the Crown, and that settlers could not purchase from or bargain with the Aboriginal people, further reinforced the legal notion of terra nullius.
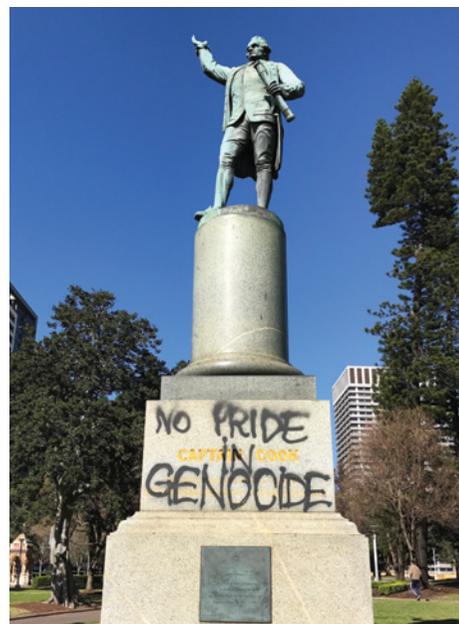
3.1.2 A statue of James Cook, with the inscription 'Discovered this territory 1770', stands in Sydney's Hyde Park. It has been vandalised several times by people protesting the celebration of Australia Day on 26 January.

3.2 Early settlement

3.2.1 *The Founding of Australia. By Captain Arthur Phillip R.N. Sydney Cove, January 26th 1788*, by Algernon Talmage, 1937

The First Fleet

Captain Arthur Phillip and the First Fleet, made up of eleven ships and approximately 1350 people, arrived in Australia after a 20 000-kilometre, 3-month-long journey from Portsmouth, England, via Tenerife in the Canary Islands, Rio de Janeiro (Brazil) and the Cape of Good Hope (South Africa). Landing at Botany Bay on 18 January 1788, it was decided that the area was unsuitable for settlement, and the fleet moved northwards to a cove in Port Jackson, landing on 26 January 1788. The new site had everything the settlers needed: deep water close to the shore, shelter and fresh water. Phillip named the site Sydney Cove, after Lord Sydney, the British Home Secretary. Today this date is celebrated as Australia Day, marking the beginnings of European settlement. It is the focus of much recent debate, with opponents labelling it 'Invasion Day' in recognition of the dispossession of Aboriginal and Torres Strait Islander peoples.

Early days of the colony

The First Fleet was ill-prepared for settlement, and the soil around the newly named Sydney Cove was not rich enough to sustain crops. The new colony relied upon both the development of farming lands around Parramatta, 25 kilometres to the west, and also on trading food with local Aboriginal clans. The Second Fleet's arrival in 1790 assisted with badly needed food and supplies. The Second Fleet was known as the Death Fleet because 278 of the convicts and crew died on the voyage. Many convicts aboard were critically ill and of no use as workers.

The colony experienced many other difficulties in those early years. One major problem was the disproportionate ratio of men to women. There were approximately four men to every woman, and this caused issues in the settlement for many years, both in the rate of reproduction needed to sustain the colony and in the terrible treatment of women.

In the early days of the colony, the relationship between the British and the local Aboriginal people was mostly peaceful. Governor Phillip encouraged the interaction between the two groups which was based on trading for food and water, and useful tools and materials such as axes and cloth.

Spotlight

Bennelong

Woollarawarre Bennelong was a Wangal man of the Eora nation. Captain Arthur Phillip captured Bennelong in 1789 to help him communicate with the surrounding Aboriginal groups. He was the first Aboriginal person to reside among the British settlers, adopting their language, customs and dress (see Source 3.2.3). He travelled to Britain in 1792, returning three years later to live once again with his own people.

3.2.2 A 1790 portrait of Woollarawarre Bennelong

> His powers of mind were certainly far above mediocrity. He acquired knowledge, both of our manners and language, faster than his predecessor ... He willingly communicated information; sang, danced, and capered, told us all the customs of his country ... Love and war seemed his favourite pursuits; in both of which he had suffered severely.

3.2.3 The above account of Bennelong was written by Watkin Tench, a British marine and a member of the First Fleet. Tench wrote a first-hand account of the voyage and the subsequent settlement of Sydney.

Unfortunately, many cordial relations became hostile as the Aboriginal people realised that the land and resources they depended on were being threatened by the continuing presence of the colonisers. Between 1790 and 1810, Aboriginal people of the Eora group in the Sydney area, led by a warrior called Pemulwuy, fought a campaign of armed resistance against the colonisers.

The development of the colony of New South Wales

From 1788 until 1823, the Colony of New South Wales was a penal colony. This meant that the inhabitants were mainly convicts, British marines, and their wives and families. Free settlers started to arrive in 1793, and in 1823 the British government established a Legislative Council (an early form of parliament) and a Supreme Court.

Initially, land was occupied by **squatters**, settlers who often became very rich and powerful by claiming the grazing land with their vast flocks of sheep.

The Port Phillip District

Further south, attempts were being made by the British to settle in the land now known as Victoria. The first attempt at settlement was made at present-day Sorrento in 1803, but the harsh conditions forced the group to move on to Van Diemen's Land (now known as Tasmania), where they eventually settled Hobart in February 1804. The Henty brothers landed in Portland Bay in 1834, and soon after John Batman settled on the site of Melbourne in early 1835. The Port Phillip District was officially sanctioned (authorised) by the British government and the government in Sydney in 1837, and the first immigrant ships carrying free settlers arrived at Port Phillip in 1839. In 1851, the Port Phillip District separated from New South Wales and became the Colony of Victoria.

The government, realising it needed to regulate the occupation of land, began to charge the squatters annual grazing fees. From the 1860s, laws were introduced in Victoria and New South Wales to allow people to select land for farming and small-scale use. In this way, much of the land that had previously been home to Aboriginal people was parcelled off and occupied by Europeans.

3.2.4 *Sydney* by John Eyre, 1810

The Batman treaty

In 1835, John Batman travelled from Van Diemen's Land (Tasmania) in search of new pastoral land. He signed a 'treaty' with representatives of the **Kulin** peoples of Victoria to 'purchase' 600 000 acres of land between what is now Melbourne and the Bellarine Peninsula, near Geelong. (The Kulin nation is made up of five Aboriginal language groups living in Victoria: the Wathaurong, the Dja Dja Wurrung, the Woiwurrung, the Boon Wurrung and the Taungerong.)

Some historians question the validity of Batman's 'treaty'. Because the Kulin peoples saw themselves as caretakers of the land, the concept of ownership represented by the treaty was unfamiliar to them. The people of the Kulin nation did not have a written culture, so the signing of a document would also have been foreign to them. Some historians believe that the representatives of the Kulin nation who met with Batman were extending a welcome to country to the visitors, in accordance with their own traditions. To the Kulin peoples, the treaty did not represent a deal to hand over their ancestral lands.

Events such as the signing of the Batman treaty led Governor Bourke to issue his proclamation in 1835 that all land belonged to the Crown and could not be separately claimed, taken or purchased from Aboriginal inhabitants by any settler.

The growth of the Australian colonies

Between 1788 and 1859, Britain established six Australian colonies—though one of them, South Australia, was initially called a province to show that it was not a convict colony but a place for free immigrants. The six colonies were not constitutionally connected to each other (this occurred in 1901 with Federation) but instead were connected to Britain. Each colony had a parliament, courts and a constitution, and the laws of each were subject to the laws of the British Parliament and the British courts.

Did you know?

- For many hundreds of years, people in Europe believed there must be a land in the south of the world that would balance the known world in the north. They called this hypothetical land Terra Australis (Latin for 'south land'). As European explorers began to map this land, gradually the continent and its true size and shape were revealed.
- The British explorer Matthew Flinders popularised the name 'Australia', derived from the earlier Latin term, in the early 1800s.

3.2.5 A depiction of Batman's meeting with representatives of the Kulin nation at Merri Creek

INDONESIA

EAST TIMOR

INDONESIA

PAPUA NEW GUINEA

0   200   400 km

N

Darwin

NORTHERN TERRITORY

Control of the Northern Territory was granted to South Australia in 1863. The Northern Territory was separated from South Australia in 1911.

QUEENSLAND

WESTERN AUSTRALIA

The settlement of Brisbane was founded in 1825. Queensland was separated from New South Wales in 1859. In 1862 the area of Queensland was increased.

SOUTH AUSTRALIA

Brisbane

Perth

NEW SOUTH WALES

The Colony of New South Wales was founded as a penal colony in 1788 after the landing of the First Fleet at Sydney Cove.

Adelaide

Sydney

Canberra

The new Swan River Colony was officially proclaimed in 1829. In 1849 the colony was proclaimed a British penal settlement and the first convicts arrived in 1850.

VICTORIA

AUSTRALIAN CAPITAL TERRITORY

Melbourne

The Australian Capital Territory was established in 1911. In 1913 Canberra was named the national capital.

The British province of South Australia was established in 1836. In 1842 it became a Crown colony and in 1861 its area was extended to its present boundary. South Australia was never a British convict colony.

TASMANIA

Hobart

The Colony of Van Diemen's Land was established in its own right in 1825. Its name was officially changed to Tasmania on 1 January 1856.

There was a failed attempt at establishing a penal colony at Sorrento in 1803. The Henty brothers settled in Portland Bay in western Victoria in 1834. Melbourne was founded in 1835 at the site of John Batman's landing. Formerly known as the Port Phillip District, the Colony of Victoria was separated from New South Wales in 1851.

3.2.6 The foundation of the six Australian colonies and the eventual creation of six states and two territories

Activities

Remembering and understanding

1 Why was Port Jackson chosen as the site for the new settlement?

2 Describe the early years of the settlement of Sydney and the problems that the young colony faced.

Applying and analysing

3 Watkin Tench's description of Bennelong (see Source 3.2.3) provides an insight into relations between British and Indigenous people in the early settlement of New South Wales.

   a How are such sources useful to historians?

   b What are the limitations of this source in understanding this period and the feelings, attitudes and actions of both European and Indigenous people?

4 Why do many historians question the meaning of the Batman 'treaty' to the Aboriginal people who signed it? Consider the differences in concepts of land ownership, as well as cultural differences, between the Aboriginal people and the Europeans.

Evaluating and creating

5 Research the establishment of the Colony of Victoria (formerly known as the Port Phillip District). Create a timel ine of ten key historical dates between 1800 and 1901. Include a brief explanation for each date and some visuals to illustrate your timeline. What events are of particular importance in the history of Victoria? How do you choose what should be included and what should be left out? Compare your timeline with a partner's and discuss the reasons for your choices.

Impact on Aboriginal and Torres Strait Islander peoples

European settlement completely changed the ways of life of Aboriginal and Torres Strait Islander peoples. Initially, Aboriginal people avoided the new settlers; as contact increased, disease and violence followed. The new arrivals brought with them diseases such as smallpox and measles to which the original inhabitants had no resistance. **Smallpox** (a contagious viral disease) killed half of the Aboriginal people in the Sydney area within the first year of European settlement.

3.3.1 *Victorian Blacks—Melbourne tribe holding corroboree after seeing ships for the first time* (1890s) by Aboriginal artist Tommy McRae (c.1835–1901)

European and Indigenous views of land use and ownership were very different. Aboriginal people were dispossessed from their lands by land grants given to the new settlers. The Europeans constructed permanent buildings, fenced large areas of land, farmed huge numbers of animals and cleared trees for the planting of crops. As the colonies across Australia expanded, settlers more often came into conflict with Aboriginal people. The Aboriginal people responded to the loss of their traditional land by killing the European livestock for food, which in turn led to **reprisals** (acts of retaliation) by the settlers.

Disease

European settlement exposed the Aboriginal people to diseases to which they had no immunity. These diseases included influenza, smallpox and tuberculosis. More Aboriginal people were killed by these diseases than by any other cause in the early years of European settlement in the Port Phillip District. It is probable that smallpox had arrived in the area of Port Phillip Bay before settlement, brought there by the beginning of the nineteenth century by sealers (seal hunters) and whalers who hunted along the coastline and had interactions with the Aboriginal peoples.

Spotlight

Port Phillip District

The presence of European settlers in the Port Phillip District (present-day Victoria) after 1835 had major consequences for the Aboriginal people living there. The most devastating of these was the introduction of deadly diseases, but other outcomes included:

- the loss of traditional hunting and ceremonial grounds
- the destruction of, or separation from, their usual sources of food
- the damaging changes to their traditional ways of life.

KEY

- Dja Dja Wurrung
- Wathaurung
- Taungerung
- Wolwurrung (Wurundjeri)
- Boon Wurrung

Other territories labelled in red

3.3.2 Map showing Aboriginal groups of Victoria. The Kulin nation is comprised of the five language groups in the centre of the map.

3.3.3 *Bushman's Hut* from *The Australian Sketchbook* (1864) by S.T. Gill

Loss of sources of food

The Kulin territory of present-day Victoria consisted of vast grassy plains. The numerous species of plants with **tubers** (thick underground part of the stem) that grew there were a staple of the Aboriginal diet. The arrival of the Europeans and the pasturing of tens of thousands of sheep on these plains quickly lead to the native plant species being eaten and the delicate soil trampled and eroded by the livestock. Once destroyed, the native vegetation did not quickly regenerate.

Changes to lifestyle

As the township of Melbourne grew, it offered an abundant new source of food for Aboriginal people. Large groups of Aboriginal people began to gather around the settlement, on the lookout for gifts of food from the Europeans. Due to the increasing difficulty of sustaining themselves with traditional sources of food, Aboriginal people quickly developed a dependence on European food. The introduction of ingredients such as flour and sugar to their diet contributed to their ill health, causing diseases such as diabetes. Alcohol and tobacco dependence among Aboriginal people was also an increasing problem.

Loss of culture

With increasing numbers of Europeans taking up land across the Port Phillip District, it became harder and harder for Aboriginal people to gain access to the important cultural sites where they conducted their ritual and spiritual ceremonies. Around Melbourne, police kept Aboriginal people from entering what had become private (European) land. From the 1840s to the 1860s, the remnants of the Kulin clans tried to create permanent camps within areas that had meaning for them, but the government broke them up if they were too close to the town.

Impact of violence and conflict

Violence and conflict between Europeans and Aboriginal people occurred across Australia, including the well-known massacre of Aboriginal people at Myall Creek in New South Wales in 1838. A group of European settlers tied up a group of Wirrayaraay people and murdered them, later burning their bodies. Reports indicate that at least twenty-eight bodies were sighted, but the final death toll has never been confirmed. The Myall Creek massacre was different from other massacres of Indigenous people because seven British subjects were tried, convicted and hanged for their part in the murders. As a result, many European settlers became even more opposed to Aboriginal people, and later crimes were more carefully hidden from the authorities.

3.3.4 *The Avengers* (c. 1869) by S.T. Gill shows Europeans creeping up to ambush a camp of Aboriginal people

Frontier violence

Mass murders of Aboriginal people by non-Indigenous people occurred at many sites across the colonies, and were recorded as late as the 1920s, including the Forrest River massacre in Western Australia in 1926. The early years of settlement in the Port Phillip District were no different. The number of Aboriginal people killed in the frontier period in Victoria (prior to the gold rushes of the 1850s) is uncertain but some historians state that it could easily be between 1000 and 2000. There are 105 documented cases of conflict in the western district of Victoria that resulted in Aboriginal deaths. In several incidents Europeans also were killed, but the ratio of Aboriginal deaths to European deaths was as high as thirteen to one. In many of these episodes Europeans started the conflicts, often as retribution for the killing of a European or (more commonly) the stealing of stock by Aboriginal people for food.

The Faithfull massacre

One of the most terrible and least understood events that occurred in the Port Phillip District was the Faithfull massacre (also referred to as the Battle of Broken River) and its aftermath. The conflict took place in the north-east of the Port Phillip District near Benalla in April 1838. Historians have found it very difficult to piece together exactly what happened because only European accounts of the conflict exist, and much of what occurred went undocumented or was kept quiet.

A group of unsupervised convicts driving stock from New South Wales for the Faithfull brothers crossed paths with a gathering of Aboriginal people. There had been increasing reports of Aboriginal violence towards Europeans across the district as a response to European settlement, so it is likely that both parties were nervous and on edge. The Aboriginal group was preparing for ceremonies, and in a violent clash (it is unknown how or why it started), eight of Faithfull's men, and possibly one Aboriginal man, were killed. Following this incident, however, there were revenge attacks by Europeans on local Aboriginal groups.

Near this site on Wednesday, April 11, 1838, eighteen of George and William Faithfull's men were attacked and their drays [horses] were plundered [stolen] by Aborigines. Eight of the Faithfulls' men and one Aborigine died.

Erected by the Benalla and District Historical Society

3.3.5 The inscription on the memorial stone placed near the presumed site of the Faithfull massacre, near Benalla, in north-eastern Victoria

These attacks resulted in the deaths of many—some say up to 100—Aboriginal people. Much later, George Faithfull, who was in one of these revenge parties, admitted to firing his double-barrelled shotgun more than sixty times into groups of attacking Aboriginal people.

Europeans and the environment

As the new settlements grew, settlers began to explore further afield in search of grazing and pastoral land. The effects of settlement on the environment have been diverse, long-lasting and extremely damaging. The introduction of sheep and cattle to grasslands led to erosion. The hard hooves of livestock compacted the soil, restricting the growth of native species of plants, particularly grasses. The introduction of exotic species (non-native animals) diminished native vegetation and led to the local extinction of some animal species. Cats and foxes prey on small native animals, and rabbits destroy pastures, both by burrowing and consuming the plant species.

The clearing of forests changed the face of Australia. The demand for timber in Victoria during the gold rush period of the 1850s—for buildings, constructing mine shafts, as fuel to burn—caused the destruction of vast areas of old-growth forest. This led to increased soil erosion, degraded water quality in streams and the loss of habitat. Aboriginal people were no longer able to maintain their traditional fire management of the natural environment. Without fire-stick farming, the vegetation across Australia changed, and grasslands were replaced with dense scrub that was of no use to animals.

Acclimatisation Societies

Many new settlers wanted to make their new home in Australia more like their old home in Europe. One way they could achieve this was by importing plants and animals from the old country. The Acclimatisation Societies were groups of people who joined together in the mid-1800s to bring in plants and animals from Britain and elsewhere, to 'improve' the Australian environment. By 1900, hundreds of new plant species had been introduced by European settlers. While some species, such as wheat and other grains, have become important crops, many introduced plants have become invasive and some are now a major threat to the native landscape.

The rabbit did not take long to become a pest in Australia. Rabbits contribute to soil erosion through excessive grazing of native flora. They destroy crops and boost the numbers of feral foxes and cats by providing them with a reliable food source. Other introduced species such as sheep and cattle have had an impact on the environment, but have also provided an important source of income for the nation through products such as wool, meat and milk.

Sir,--Amongst the numerous ways proposed to destroy rabbits there is one I have not seen mentioned, and that is to turn out domestic cats amongst them. These cats increase very rapidly in a wild state ... The cost of collecting cats in Melbourne ... and sending them to the rabbit country will, I am sure, be small in comparison to the good they will do if sent there.

3.3.6 A letter to the editor of *The Australasian*, March 1881, suggesting a solution to deal with the rabbit problem. This solution became popular through the second half of the nineteenth century in Australia but it did not achieve its aims—and led to more environmental problems.

Activities

Remembering and understanding

1 Identify three major ways that European settlement affected Aboriginal and Torres Strait Islander peoples.

2 Read the plaque in Source 3.3.5. What aspects of the Faithfull massacre are not mentioned on this plaque? Whose perspective is missing?

Applying and analysing

3 The introduction of exotic species of flora and fauna to Australia by European settlers had a devastating effect on native species and the environment in general. How does the letter to the editor in Source 3.3.6 demonstrate early settlers' lack of understanding about Australia's fragile environment?

Evaluating and creating

4 Research the history of conflict and violence between Europeans and Aboriginal people in eastern Australia by visiting the Colonial Frontier Massacres in Eastern Australia 1788–1872 page on the University of Newcastle website: search for the 'colonial massacres map'.

- Explore the website. Focus on the interactive map and the interactive timeline.
- Read the material on the 'Introduction' page. How have the historians involved in this mapping project assembled their data? What sources did they use?

LS 3A
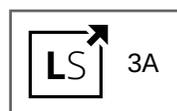
3.4 Gold, the Eureka Stockade and the growth of Marvellous Melbourne

The discovery of gold in Australia

In 1851, Edward Hargraves discovered gold near Bathurst in New South Wales. He had spent time on the Californian goldfields in the United States of America, and noted that Australia had similar geological features to California. Hargraves believed this meant that gold would be plentiful in Australia as well. In a few years, Hargraves was proved right—in a big way. The discovery of enormous quantities of gold across Australia (except for South Australia) radically changed the economic and social conditions of the nation.

The gold rushes

Over 370 000 immigrants arrived in Australia in 1852 alone, providing a huge boost to the economy and changing the way society was structured almost overnight. Many of these immigrants came in search of gold. During the 1850s Victoria produced more than a third of the world's gold output. In only two years the colony's population increased from 77 000 to 540 000. Because so many people were travelling to and from the goldfields, the 1850s also witnessed the construction of the first railway and the operation of the first **telegraphs** (which transmitted messages over long distances).

Changing social order

The sudden influx of people and wealth from the start of the gold rush had a dramatic impact on the way colonial society was structured. The painting *Digger's Wedding in Melbourne* by S.T. Gill from 1869 (see Source 3.4.1) captures the spirit of the age, where ordinary people sometimes struck immediate wealth on the goldfields. At first glance we see a picture of a couple and their friends celebrating in

3.4.1 *Digger's Wedding in Melbourne, 1869*, by S.T. Gill

their finery while sipping champagne in an impressive horse-drawn carriage. But this painting was actually designed to show something more. By identifying the party as 'diggers', the artist was also revealing how much the gold rushes had turned society on its head, creating an environment where the previously poor (and less educated and less respectable) members of society suddenly had power after striking it rich. For many of the conservative 'respectable' members of society, this was a terrifying prospect, threatening what had once been their unquestionable position at the top of colonial society, and therefore their power and influence. The rules that everyone had lived by for generations were changing, and you no longer needed to have been born into the upper classes to be wealthy and powerful.

People from all over the world

The Australian gold rushes brought a huge influx of people with a range of different skills and professions. Most of these new arrivals were British, Scottish, Irish, Welsh and Chinese (see Source 3.4.3). There were also New Zealanders, Americans, French, Italian, German, Polish and Hungarian people. In 1861, Chinese immigrants made up 3.3 per cent of the Australian population, still the highest level it has ever been. According to historical records, of the approximately 40 000 Chinese people who came to Australia, only a handful were women. Most of the Chinese diggers were under contract to businessmen who had paid for their passage to Australia. Once on the goldfields, they worked until their debt was paid off.

3.4.2 A Chinese gravestone in the Old Ballarat Cemetery
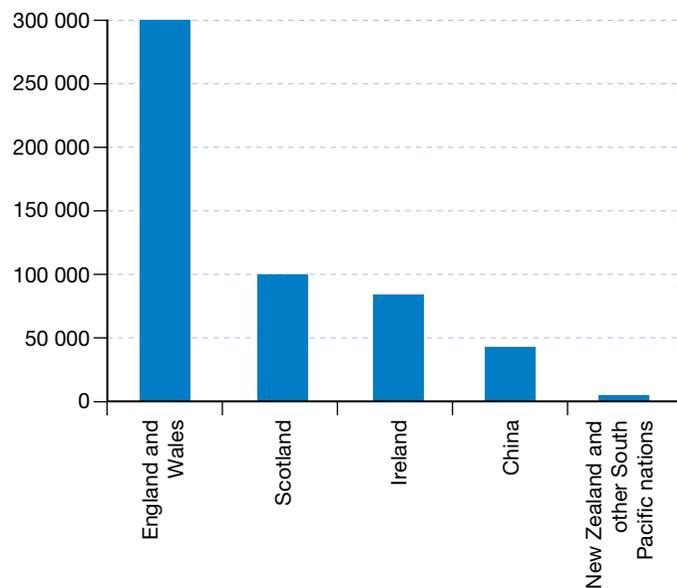
3.4.3 Immigrants to Australia between 1851 and 1860. During this period, 60% of all immigrants to Australia went to the Colony of Victoria. In addition to those mentioned in the graph, people from Germany, Italy and North America also made the journey in search of gold.

The presence of Chinese people in Australia led to racial tensions and sometimes spilled over into acts of racism and violence. The worst violence against Chinese miners occurred at the Lambing Flats camp in central New South Wales. European diggers were angry about the Chinese presence (and jealous that the Chinese miners' hard work often resulted in success) and a number of riots took place. The most serious riot occurred on 14 July 1861, when approximately 2000 European diggers attacked the Chinese miners. Although they tried to get away from the aggressive mob, over 250 Chinese miners were badly injured and most lost all of their belongings. Although most Chinese gold miners returned to China once the gold rushes began to slow, many died on the goldfields, and Chinese graves can be found scattered throughout the old gold towns of Victoria.

The Eureka Stockade

Law and order was maintained on Victoria's Ballarat goldfields by the Gold Commission's police force. All miners needed to have a valid licence to legally work on the goldfields. Many miners felt angry at having to pay money for an activity that was often all hard work with no reward. The diggers (miners) also believed that the authorities did little to provide services for people on the goldfields, and thought that the police were corrupt, favouring some people and discriminating against others. In 1854 the new governor, Charles Hotham, set up licence checks twice a week to enforce the licensing laws. Tensions began to boil over as opposition to the licences increased.

Timeline to rebellion

1854

11 November — 10 000 diggers meet to demand the release of some miners who had been arrested. The gathering calls for the abolition of the mining licence and the vote for all men. (At the time, only wealthy people and landowners had any say in the colony's Parliament.)

29 November — A larger meeting takes place. The diggers display their Eureka flag (see Source 3.4.4) and publicly burn their mining licences. In response, the Gold Commissioner orders a licence hunt for the following day.

30 November — Another mass burning of licences takes place at a meeting on Bakery Hill. Under the leadership of Peter Lalor, the diggers march to the Eureka diggings (named after the Eureka gold lead), where they build a rough stockade. The stockade consists of a makeshift wooden barricade about an acre in size. Inside the stockade, around 500 diggers take an oath on the Eureka flag, and over the following two days they gather weapons to defend the stockade.

3 December — Police troopers, along with professional soldiers who have been brought to Ballarat to support them, launch an attack on the stockade early in the morning. The diggers are outnumbered and the battle is over in 20 minutes. Twenty-two diggers and five troops are killed. Peter Lalor escapes the scene with a badly injured arm (which will later need to be amputated).

6 December — **Martial law** (when authorities use military power to control society) is declared. A commission into the goldfields is appointed the next day. Thirteen diggers are committed for trial, but all will be acquitted (found not guilty) in February 1855.
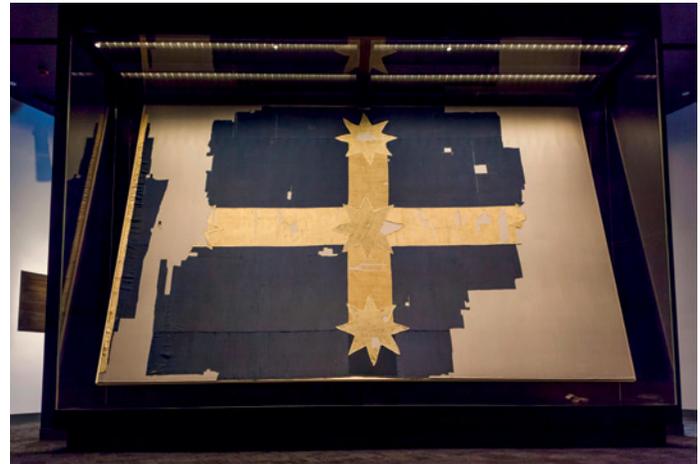
3.4.4 The remains of the Eureka Flag, currently displayed at the Museum of Australian Democracy at Eureka (MADE) in Ballarat. Damage caused by insects and from people taking pieces of the flag as souvenirs mean that 40% of the flag is missing. The flag was based on the constellation of the Southern Cross. The Southern Cross flag has since been used in Australia as a symbol of protest by organisations and individuals of all political beliefs.

3.4.5 After the Eureka Stockade, the government offered a reward for the leaders of the rebellion. Peter Lalor's name is incorrectly spelt 'Lawlor' in the poster, which suggests the correct pronunciation of Lalor.

3.4.6 The battle at the Eureka Stockade, as depicted in *Eureka Stockade Riot, Ballarat* by J.B. Henderson, 1854

The legacy of the Eureka rebellion

In March 1855, the Gold Fields Commission handed down its report. The government adopted all of its recommendations and all of the diggers' demands were met. The miners no longer had to pay a monthly fee, but instead were only taxed on the amount of gold they found. The gold licence, which had cost miners £1 per month, was abolished and replaced by a miner's right, costing £1 per year. The miner's right gave diggers the right to mine gold and the right to vote in elections for Parliament. The hated Gold Commission was replaced by a system of mining wardens, which made administration of the goldfields fairer and more just.

As a consequence of Eureka, Ballarat miners were given eight representatives on the Legislative Council of Parliament, and in 1855 Peter Lalor became the first Member of the Legislative Council (the Colony of Victoria's Upper House) for the seat of Ballarat. He went on to have a long career in politics.

The Eureka rebellion is considered by many historians to be the birthplace of Australian democracy, because the key outcomes of the uprising were freedom of speech, the right to vote and a commitment to political equality. The Eureka rebellion is unique in Australian history because it is the only example of armed rebellion that has led to reform of unfair laws and conditions.

Marvellous Melbourne

Melbourne began its existence as an illegal settlement on the banks of the Yarra River when a group from Van Diemen's Land (Tasmania), led by John Batman, crossed Bass Strait in May 1835 in search of new pastures for their livestock. It was illegal because the British government maintained strict controls over settlements and access to land at the time. Batman, representing a group of pastoralists called the Port Phillip Association, claimed that he had signed a treaty with Aboriginal leaders to access the land. Three months later another group of settlers from Van Diemen's Land, a party organised by John Pascoe Fawkner, entered the Yarra River and established the first permanent settlement. The Governor of New South Wales, Richard Bourke, called Batman's treaty illegal and declared the settlers to be trespassers, but after just two years, more than 350 people and 55 000 sheep had moved into the new settlement. The tide of progress, and the steady rise in population that followed, could not be halted.

The gold boom

The discovery of vast reserves of gold across Victoria in 1851, and the boom that quickly followed, brought rapid progress and also problems to the town. Melbourne's wharves were constantly busy with the arrival of cargo and new migrants. Melbourne grew from a sleepy community of 50 000 in 1850 to a mature city of over 125 000 people by 1861, complete with gas street lighting, piped water and well-planned city streets.

As reflected in Source 3.4.1, gold had turned society upside down. The painting captures the spirit of the age, where ordinary people sometimes found immediate wealth on the goldfields. Social status was no longer reliant on being a land owner or having noble birth—now it could be instantly achieved with wealth. The authorities of the new colony feared the social disorder that could result.

Magnificent official buildings such as the Customs House, Post Office, Treasury and Parliament House were constructed using the new wealth from the goldrush to project the power and authority of the government.

By 1880, the merchants of Melbourne had created a commercial centre that was the envy of Australia. In just a few decades the population had exploded to over half a million people. Citizens of all classes were proud of their city, and the enormous wealth generated from Victoria's goldfields had spread to a large part of Melbourne's population.

In 1885 British journalist George Sala wrote that he found Melbourne 'a really astonishing city, with broad streets full of handsome shops and crowded with bustling well-dressed people'. He noted that the gold rushes had enabled the people of the colony to make Melbourne 'what she is, magnificent and marvellous.'

It wasn't only the very rich who prospered. Many of the better tradesmen benefited from the boom and moved upwards on the social ladder. With the shortage of skilled labourers they could demand more money and better working conditions.

Did you know?

Names originally proposed for the settlement included Bearbrass and Batmania. On a visit in March 1837, Governor Bourke decided to name the city Melbourne after the British Prime Minister William Lamb, the second Viscount of Melbourne, who lived in the village of Melbourne in England.

'Smellbourne'

In other ways, Melbourne was less than marvellous. In the 1880s, without a proper sewerage system (work did not begin until 1891), human urine and faeces flowed through the streets in open gutters. Diseases such as diphtheria and typhoid were common. Critics rechristened the city 'Smellbourne', and people attacked the less appealing consequences of the city's growth such as **larrikinism** (rebellious and disrespectful behaviour), bad manners and a seemingly all-consuming obsession with sport.

Not marvellous for all

Victoria's population was overwhelmingly Anglo-European, and people who were not of European heritage were disadvantaged. This included Chinese people and Aboriginal people. There were close to 1000 Chinese people living in Melbourne in 1880 but few of them enjoyed the benefits of the city. As in other parts of Australia, the general population believed that the Chinese should leave the country. Aboriginal people also did not benefit from the improved social and financial situation in Melbourne. Only two Indigenous people were recorded as living within Melbourne and its suburbs in 1877.
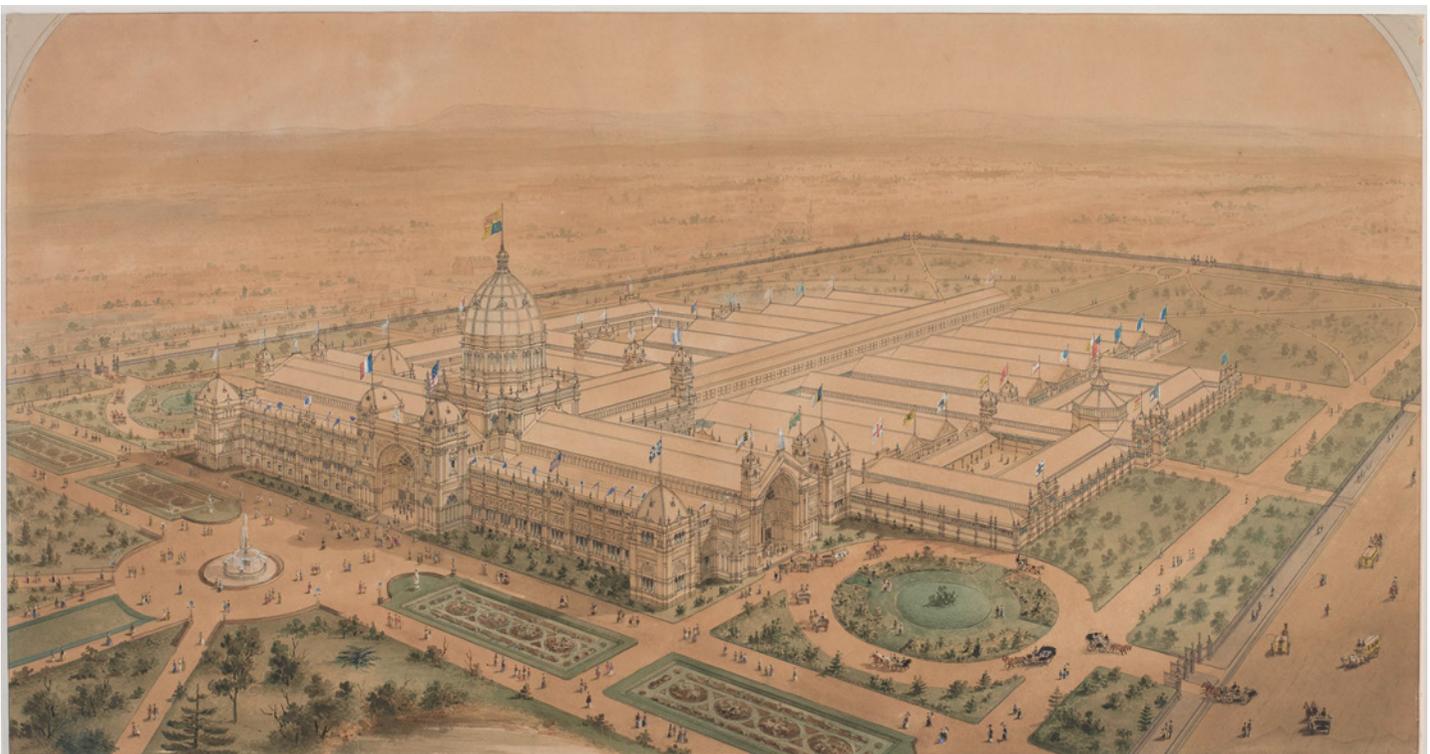
3.4.7 *The Royal Exhibition Building, Melbourne, 1880* by Joseph Reed

3.4.8 The Parliament of Victoria in Spring Street is a legacy of 'Marvellous Melbourne' and the economic boom of the Gold Rush

Activities

Remembering and understanding

1 a Who is credited with having discovered gold in Australia?

b What year was gold discovered?

2 What different nationalities from across the world did the Australian gold rushes attract?

Applying and analysing

3 Analyse the painting in Source 3.4.1.

a How has the artist depicted the group?

b What are they doing?

c Why might this scene have offended and frightened 'respectable' members of Melbourne society?

4 How can it be claimed that the events at the Eureka Stockade led to the birth of Australian democracy? Consider the changes that were made as a consequence of the rebellion.

Evaluating and creating

5 Research Melbourne's International Exhibition in 1880–81 or its Centennial International Exhibition in 1888–89.

a What was the purpose of these events?

b Identify the types of displays that were presented and the aspects of colonial life that were celebrated.

6 As well as their political and social consequences, the gold rushes in Victoria also transformed the environment. Explore the ways in which gold mining activities altered the landscape and affected the local Aboriginal peoples' ways of life. Prepare a presentation that outlines and illustrates these changes.

Women in Australian history

Settler women played a central and critical role in the life and growth of colonial Australia, as both convicts and free settlers. As well as mothers, wives, sisters and daughters, they were workers and business owners, nurses, teachers, farmers, missionaries and nuns, artists, writers, naturalists, community and charity workers and advocates for social change. Women also played an active part in key historical events, including at the Eureka Stockade.

However, the role and experiences of European women in colonial Australia have traditionally been overlooked, both by contemporary observers and historians. Our understanding of their experiences, stories and perspectives has been greatly limited as a result. It is also important to recognise that while European women have often been overlooked in Australian colonial history, the stories of Aboriginal and Torres Strait Islander women are almost non-existent.

Women's stories from colonial Australia

As the Port Phillip District population grew through the 1830s, free settlers as well as convicts were sent to Victoria to help ease a labour shortage. As had been the case in the early years of the Sydney settlement, men outnumbered women by approximately seven to one, and as a result women were often placed in vulnerable positions in the new settler society.

Most of the women in the early days of the Port Phillip District were unmarried free settlers, who were needed as house servants and for other domestic duties. As single women, they needed to support themselves financially. If they fell pregnant or lost their jobs, there were not many safety nets to assist them. Society at the time viewed unmarried mothers as immoral. The women were blamed for their own predicament and got very little sympathy. Many women who experienced misfortune ended up living on the streets, forced into prostitution or relying on on charitable organisations to survive.

A woman's perspective of the goldfields

Published in 1853, Ellen Clacy's *A Lady's Visit to the Gold Diggings of Australia in 1852–53* offers a rich account of life in colonial Victoria from a woman's perspective (see Source 3.5.2). She describes the scene in Melbourne, which had begun to boom with the discovery of gold. Her stories focus on European settlers and make only passing references to Aboriginal people and other non-Europeans. Most of Clacy's account describes her journey to and from the goldfields north-west of Melbourne, past Mount Macedon and Kyneton (and lurking bushrangers) to life on the diggings at Forest Creek (near Castlemaine).

3.5.1 *The Girls the Diggers Left Behind, and What They Had to Do*, by William Strutt. Artwork depicting women in colonial Australia is rare.

all nations, classes, and costumes are represented there. Chinamen, with pigtails and loose trowsers; Aborigines, with a solitary blanket flung over them; Vandemonian [Tasmanian] pickpockets, with cunning eyes and light fingers ... the successful digger in his blue serge [type of fabric] shirt ... to the fashionably-attired, newly-arrived 'gent' from London, who stares around him in amazement and disgust.

...

Whilst in Victoria, I met with a great variety of emigrants, and I was much struck by the great success that seems to have attended on almost all of those who came out under the auspices [support or guidance] of Mrs. Chisholm. No one in England can fully appreciate the benefits her unwearied exertions have conferred upon the colonies. I have met many of the matrons of her ships, and not only do they themselves seem to have made their way in the world, but the young females who were under their care during the voyage appear to have done equally well.

3.5.2 Extracts from Ellen Clacy's *A Lady's Visit to the Gold Diggings of Australia in 1852–53*

3.5.3 Portrait of Caroline Chisholm by Thomas Fairland, 1852

Caroline Chisholm (1808–1877)

The Mrs Chisholm in Ellen Clacy's account is Caroline Chisholm, who was born in England in 1808. She arrived in Australia in 1838 and set up a home in Sydney for other women who had emigrated. Much of Chisholm's work focused on improving life on the ships that brought people to Australia. She started a loans scheme to bring poor children and families to Australia, and worked to reunite convict families who had been separated when a parent was transported to Australia, leaving their children alone in Britain.

After gold was discovered in Victoria in 1851, the colony experienced a large influx of immigrants both from other Australian colonies and from overseas. Chisholm recognised that such a massive upheaval in population would place a great strain on support services for the diggers and their families, and she created programs for affordable accommodation on the way to the diggings. In November 1854, Chisholm wrote to the Chief Secretary's Department, seeking government support for her proposal to construct ten shelter sheds along the route to Castlemaine. The sheds were erected at Essendon, Keilor, Keilor Plains, The Gap (near Sunbury), Gisborne, Black Forest, Woodend, Carlsruhe, Malmsbury and Elphinstone in 1855. Chisholm's recommendation that people be charged 1 shilling (equal to 12 pence) for a bed and 2 pence for a meal can be better understood when you consider that a loaf of bread cost 7 shillings in Melbourne in 1851.

I beg to call your Excellency's attention to the great want of accommodation along the line of Road for the wives and families of Diggers, as well as all newly arrived Immigrants who may wish to make their way into the interior in search of more profitable employment than they can find in Melbourne. If some more reasonable mode were adopted ... we should not have so many wives and families left as they are now unprotected, or hear complaints from the unemployed walking the streets of Melbourne. I propose therefore to attempt to remedy this evil by establishing respectable Homes along the line of Road where for 1/- [1 shilling] per night Beds could be procured by Travellers and for 2d. [2 pence] each meal they should have conveniences for cooking, the use of crockery and a sheltered place for taking their meals seperate [sic] from their Bed rooms. These Encampments I would propose to have at such distances from each other that females could walk from one to the other without fatigue ...

3.5.4 Letter from Caroline Chisholm to the Chief Secretary's Department, 1854. Note the use of [sic] to acknowledge the spelling error—'seperate' instead of 'separate'. This is a common device used in extracts and quotes.

Held in high regard

As we can see from Clacy's account, Chisholm and her work were well-known in the Australian colonies. Newspaper accounts and letters to the editor from the time show how highly she was regarded in the community.

Her strength lies in her practical common sense and undeviating [unchanging] truthfulness. She never allows herself to be carried away by the temptation to say something fine ... or witty ... It is these qualities—enthusiastic yet practical ... far sighted and sanguine [optimistic], yet patient and laborious—that have united all parties ... in her favour, and enable her to live down calumny [false statements about someone, slander] ...

3.5.5 Extract from an article published in the *Sydney Morning Herald*, Tuesday 18 April 1854

Aboriginal women in colonial Australia

Historical references to individual Aboriginal women in colonial Australia are exceedingly rare. The general attitude among European settlers at the time was that Aboriginal people were inferior. Aboriginal women were treated especially badly from the earliest days of European colonisation, when sealers, whalers and fishermen at times forcibly abducted, raped and abused them. Since settlement—and as recently as the mid-twentieth century—Aboriginal women and girls were separated from their families and employed as poorly paid domestic servants in conditions often not much better than slavery.

Most settlers believed that Aboriginal and Torres Strait Islander peoples would become extinct before too long. History, of course, shows that this was not the case—Aboriginal and Torres Strait Islander peoples survived the colonial period and remain the longest surviving cultures on Earth.

Trugernanner (c.1812–1876)

Perhaps one of the best known Aboriginal women from the colonial era was Trugernanner (Truganini), who was misleadingly called the 'last Tasmanian' Aboriginal woman. Trugernanner's mother was killed by sailors, her uncle was shot by a soldier, her sister was abducted by sealers, and the young man she was going to marry was murdered. Trugernanner was a member of the Flinders Island settlement of Aboriginal people, who had been forcibly removed from the island of Tasmania.

Although Trugernanner was only small in build, she was a courageous woman—a negotiator and spokesperson for her people, who proudly maintained her traditional way of life. In December 1878, Trugernanner's body was exhumed by the Royal Society of Tasmania and placed in the Tasmanian Museum, where it was on public display between 1904 and 1947.
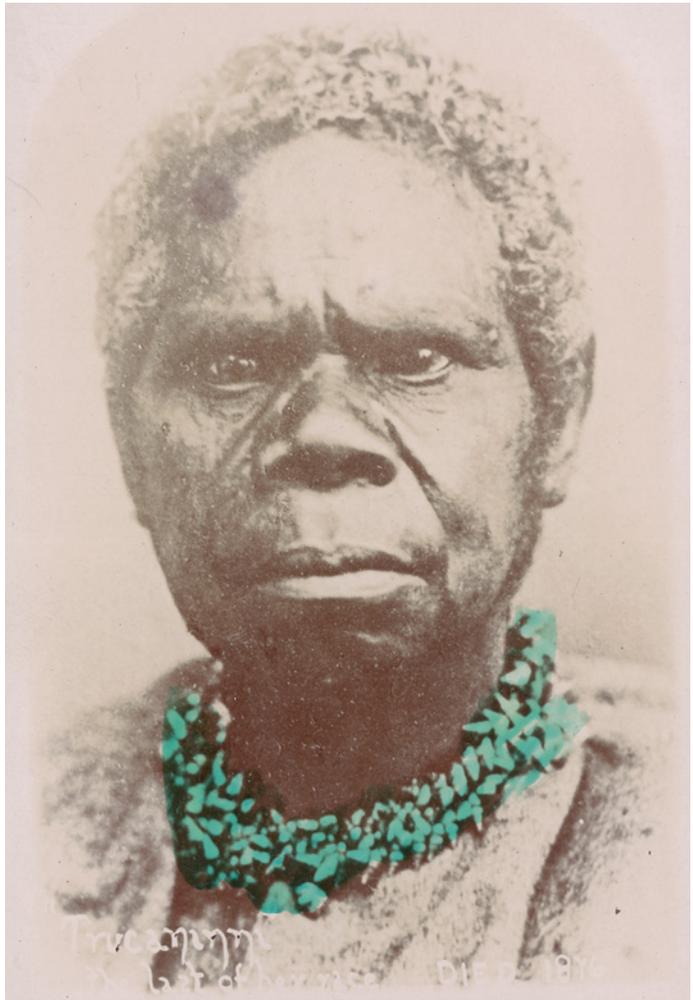
3.5.6 *Truganini: Full-face portrait*, C.A.Woolley, 1866

In their words

Much of what historians know about the lives of Aboriginal women in Victoria in the colonial era comes from their letters to colonial officials or their responses to government inquiries, which have been recorded and kept in archives. In Victoria in the second half of the nineteenth century, the rapidly diminishing Aboriginal population was forcibly relocated to missions and reserves across Victoria (see Source 3.5.7).

The living conditions on these stations were increasingly a source of concern for the wider non-Indigenous population, many of whom sympathised with the suffering of the Aboriginal people and supported better conditions for the people living on missions and reserves.

3.5.7 The main Aboriginal reserves and missions in colonial Victoria in the late 1800s

Caroline Morgan

Caroline Morgan was born around 1848 into the Loddon tribe. She moved to Coranderrk, an Aboriginal reserve near Healesville (one of the eight main Aboriginal reserves in Victoria) as a young woman. She is known to have had at least ten children, four of whom died during childhood.

In November 1881, Caroline Morgan gave evidence at a royal commission inquiry into the management of Coranderrk station.

An extract of Morgan's evidence is given in Source 3.5.8. She mentions the Stricklands, who were the Christian missionary managers of Coranderrk at the time. Captain Page was then secretary and inspector of the Board for the Protection of Aborigines, a government body that regulated every aspect of the lives of Aboriginal people and caused much suffering with its policies.

This is my evidence. Coranderrk, November 16th 1881. I have asked Mrs. Strickland for a pair of blankets for my sick boy. She told me that she must write to Captain Page first. Then I told her, must my little boy be perishing with the cold till you get a letter from Mr. Captain Page? She told me she had orders only to give a pair of blankets for every hut. Then I told her, what must I do then, I have three beds? Then she told me that she did not know.

When my poor sick boy was very bad he was longing for eggs; so my husband tried in the neighbourhood and could not get any; so my sick boy was dying. He asked Mr. Strickland to send to Mr. Captain Page for some eggs; so Mr. Strickland said he would see. So when Mr. Strickland came up and visited him, the sick boy asked him again about the eggs, and Mr. Strickland said, 'Well, my boy, if I send to Captain Page he would laugh at me for the idea of sending for eggs to town from up country.

3.5.8 Statement of Caroline Morgan to a royal commission into the management of Coranderrk station in November 1881, from *Letters from Aboriginal Women of Victoria 1867–1926*

Activities

Remembering and understanding

1 What were some of the effects on women of the disproportionate number of men in early colonial Australia?

2 Why was Caroline Chisholm held in such high esteem by her fellow citizens?

3 In what ways is her work remembered today?

Applying and analysing

4 Why do you think that the roles and experiences of women in the past have been neglected by traditional historical accounts?

5 Identify the colonial attitudes that were held by Europeans towards Aboriginal people that are illustrated by the story of Trugernanner's life and death.

Evaluating and creating

6 Research the system of Aboriginal reserves and missions that was established in colonial Victoria.
   a Why was this system created?
   b Who ran this system?
   c What effects did this system have on Aboriginal society and cultures?
   d How did the Aboriginal people who inhabited these stations respond?
   e Write a research report that focuses on one of the reserves or missions (perhaps one located nearest to where you live).

3.6 A growing sense of nationalism and identity

By the late 1880s, the majority of people living in the Australian colonies had been born there, although over 90 per cent were of British and Irish origin. Most thought of themselves as Australian Britons, and while many were fiercely proud **nationalists** (people who believe their country is superior to others), they still felt deep loyalty to Britain and the British Empire. Some more radical nationalists, however, advocated that Australia should be independent from Britain, saying that Australia represented a chance to leave the Old World and its inequality and class divisions behind.

3.6.1 *Bailed Up* by Tom Roberts perfectly captures Australia's summer heat. Roberts painted it in 1895, 30 years after the hold-up of a Cobb & Co coach it was based on.

A common theme expressed in nationalist art, music and writing in the late nineteenth century was the bush myth, which positioned Australians as tough, intelligent, pioneering people who had carved a unique civilisation out of the bush. In reality, even at the end of the nineteenth century Australia was one of the most urbanised societies in the world.

Australian impressionism

The Heidelberg School of Australian painting, inspired by the European impressionist movement, emerged in the 1880s. These artists were among the first to demonstrate a distinctive Australian style and deal with distinctive Australian themes. Previously, artists had painted the landscapes of Australia through a romantic European lens—either unwilling or unable to depict the very different flora, fauna and light that typified Australian landscapes. Artists such as Tom Roberts, Arthur Streeton, Charles Conder and Frederick McCubbin reflected the distinctive Australian national identity that was emerging towards the end of the nineteenth century.

Although they are not as well known, female painters were also part of this emergence of new artistic expression, including Clara Southern, Jane Price, Jane Sutherland, May Vale and Elizabeth Parsons.

3.6.2 Arthur Streeton's *The National Game* from 1889 depicts Australian Rules football
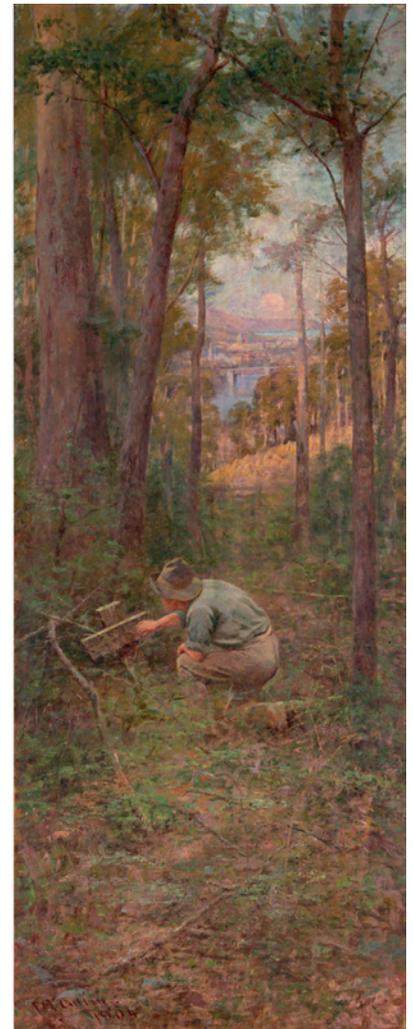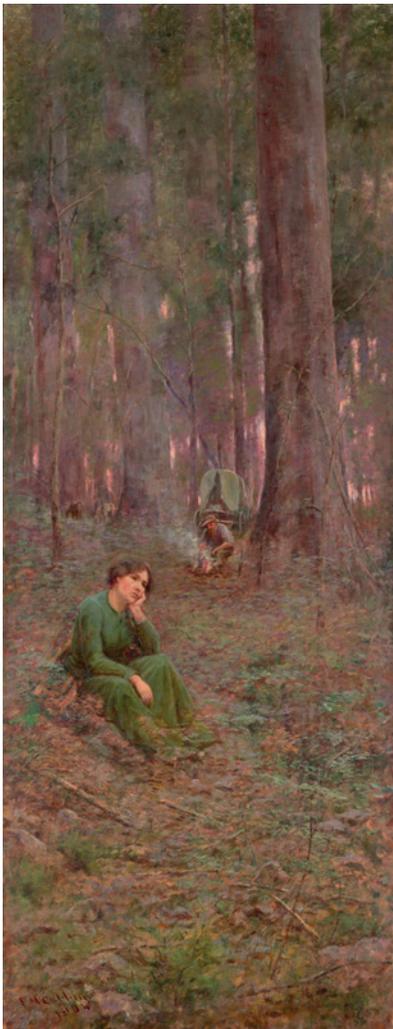
3.6.4 *The Pioneer* by Frederick McCubbin (1904)

Australian literature

Like their painting contemporaries, writers Henry Lawson (1867–1922) and Banjo Paterson (1864–1941) celebrated the Australian values of resourcefulness, independence and **egalitarianism** (the idea that all people are equal and deserve equal rights and opportunities) in their stories and poems. Like the Heidelberg School painters, they emphasised how a life in the bush had forged these distinctly Australian traits.

Henry Lawson (1867–1922)

Henry Lawson was born in 1867 on the Grenfell goldfields in New South Wales. His father was a miner and his mother, Louisa, was an early advocate of women's rights.

By the 1890s, Henry Lawson had established his reputation as a short-story writer and poet with 'The Drover's Wife' and 'Up the Country'. Lawson was a frequent writer for the Sydney newspaper *The Bulletin*, which was known as a champion of egalitarianism, unionism and Australian nationalism. His writing in *The Bulletin* helped create the image of the Australian bushman as the perfect example of national values. Lawson wrote about the bush life that he knew, often with a sense of pessimism, attacking the typical idealised view of the bush.

Sons of the South, awake! arise!
Sons of the South, and do.
Banish from under your bonny skies
Those old-world errors and wrongs and lies.
Making a hell in a Paradise
That belongs to your sons and you.

Sons of the South, make choice between
(Sons of the South, choose true),
The Land of Morn and the Land of E'en,
The Old Dead Tree and the Young Tree Green,
The Land that belongs to the lord and the Queen,
And the Land that belongs to you.

Sons of the South, your time will come—
Sons of the South, 'tis near—
The 'Signs of the Times', in their language dumb,
Fortell it, and ominous whispers hum
Like sullen sounds of a distant drum,
In the ominous atmosphere.

Sons of the South, aroused at last!
Sons of the South are few!
But your ranks grow longer and deeper fast,
And ye shall swell to an army vast,
And free from the wrongs of the North and Past
The land that belongs to you.

3.6.5 'A Song of the Republic' by Henry Lawson appeared in *The Bulletin* in 1887. It captures the awakening of patriotism and nationalism in Australian society and is an early expression of an Australian national identity.
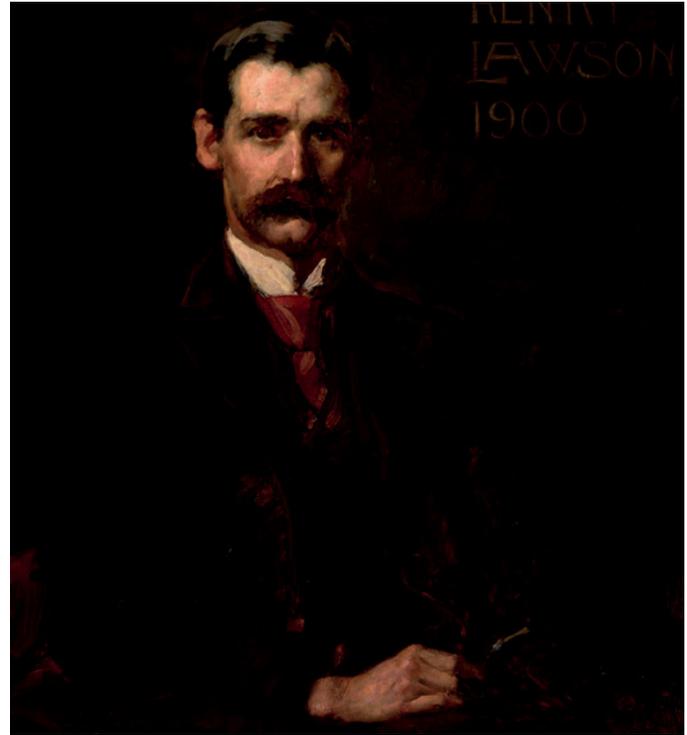
3.6.6 Henry Lawson painted by John Longstaff, 1900

A.B. 'Banjo' Paterson (1864–1941)

Andrew Barton Paterson, known as 'Banjo', was born in 1864 in Orange, New South Wales. As well as writing poetry, Paterson was a solicitor, journalist, war correspondent and soldier in World War I. He was a contemporary of Lawson, but Paterson's poetry, such as 'The Man from Snowy River' and 'Clancy of the Overflow', depicted a far more romantic version of Australian bush life, celebrating the horsemanship and outdoor skills of Australian men. The song 'Waltzing Matilda', which he wrote in 1895, is arguably his most famous work.

3.6.7 A.B. 'Banjo' Paterson

There was movement at the station, for the word had passed around
That the colt from old Regret had got away,
And had joined the wild bush horses—he was worth a thousand pound,
So all the cracks had gathered to the fray.

All the tried and noted riders from the stations near and far
Had mustered at the homestead overnight,
For the bushmen love hard riding where the wild bush horses are,
And the stock-horse snuffs the battle with delight.

3.6.8 Extract from 'The Man from Snowy River' by Banjo Paterson

Paterson's poem 'The Geebung Polo Club' illustrated the humour and the spirit of larrikinism that were also becoming associated with the Australian character.

It was somewhere up the country, in a land of rock and scrub,
That they formed an institution called the Geebung Polo Club.
They were long and wiry natives from the rugged mountain side,
And the horse was never saddled that the Geebungs couldn't ride;
But their style of playing polo was irregular and rash—
They had mighty little science, but a mighty lot of dash:
And they played on mountain ponies that were muscular and strong,
Though their coats were quite unpolished,
and their manes and tails were long.
And they used to train those ponies wheeling cattle in the scrub:
They were demons, were the members of the Geebung Polo Club.

3.6.9 Extract from 'The Geebung Polo Club' by Banjo Paterson

Activities

Remembering and understanding

1 What myth lay at the heart of the emerging sense of Australian identity in the late nineteenth century?
2 Identify four of the painters who belonged to the Heidelberg School of Australian impressionist painters.

Applying and analysing

3 Closely analyse each of the paintings shown in sources 3.6.1 to 3.6.4. Which groups in society are depicted in these scenes? Who is left out of them? How is this information important in identifying what views and values were held by the artists?
4 Read 'A Song of the Republic' by Henry Lawson in Source 3.6.5.

a What might the 'old-world errors and wrongs and lies' be?
b Which lines hint at Lawson's republican (democratic) streak?
c Which major group in society is overlooked in this poem?

Evaluating and creating

5 Imagine it is your job to promote colonial Australia. The colonial authorities want people from overseas to be aware of the Australian landscape and its people's abilities, character and values. Create a poster or digital presentation that uses the words of Banjo Paterson, together with one (or several) paintings of the Heidelberg School, to use in your promotional campaign.

LS 3B
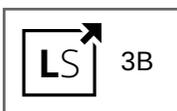
Ned Kelly: Fast Facts

- Born Edward 'Ned' Kelly in June 1855 in Beveridge, Victoria

- The eldest son of John 'Red' Kelly and Ellen Quinn's eight children

- Growing up, he was often in trouble with the law, charged with assault and theft

- The Kelly and Quinn families saw themselves as victims of police persecution; members of both families had extensive criminal records

- He saved another boy from drowning when he was a child, for which he was awarded a green silk sash in recognition of his bravery

- His famous last words 'Such is life' were probably never uttered; according to some sources, his final words were more like 'Ah well, I suppose it has come to this'

- Hanged in Melbourne Gaol on 11 November 1880

3.7.1 *Death of Constable Scanlon* by Sidney Nolan (1946). Nolan painted a whole series of Ned Kelly works. He described the Kelly saga as 'a story arising out of the bush and ending in the bush'.

How Ned became an outlaw

On 15 April 1878, a police trooper named Fitzpatrick went to Mrs Ellen Kelly's home to arrest her son Dan Kelly on horse-stealing charges. Fitzpatrick claimed that another son, Ned, had shot him, although it is possible that Ned was not even home because neither Ned nor Dan was arrested. Instead, Mrs Kelly was arrested and charged with involvement in the attempted murder of Fitzpatrick. She was tried at Beechworth and convicted, with the judge, Sir Redmond Barry, sentencing her to imprisonment for three years. (The same judge was to sentence Ned to death just two years later.) Rewards of £100 were offered for the apprehension of Ned and Dan Kelly, who went into hiding in the Wombat Ranges near Mansfield. They were joined by their friends Joe Byrne from Beechworth and Steve Hart from Wangaratta. The Kelly Gang was born.

A police sergeant named Kennedy and constables Lonigan, Scanlon and McIntyre set out to capture Ned and Dan, and camped at Stringybark Creek. While Kennedy and Scanlon were out on patrol, the Kelly Gang surprised Lonigan and McIntyre at the camp, and when Lonigan drew his revolver Ned shot him dead. McIntyre surrendered. Kennedy and Scanlon then returned to the camp, and in an exchange of shots Ned killed Scanlon and mortally wounded Kennedy (Ned later shot him in the heart, claiming it was an act of mercy). McIntyre escaped to nearby Mansfield and reported the killings.

On 15 November 1878 the Victorian government proclaimed the gang outlaws and offered rewards of £500 for each gang member, dead or alive. In the months that followed, the Kelly Gang committed several more crimes—including the armed robberies of banks in Euroa, in Victoria, and Jerilderie, just north of the Murray River in New South Wales. At the Jerilderie hold-up, Ned gave a written statement of over 8000 words to a bank teller.

3.7.2 Charles Tait's 1906 film, *The Story of the Kelly Gang*, was the world's first full-length feature film

While the originals of this letter and an earlier letter he had sent to Donald Cameron, a member of the Victorian Parliament, have been lost, copies were made by a clerk in the Crown Law department. Known as the Jerilderie letter and the Cameron letter, these documents give Ned Kelly's explanation of and justification for his conduct.

The Jerilderie letter

The Jerilderie letter is Ned Kelly's rambling 8000-word **manifesto** (public declaration of intentions), in which he justified his crimes and protested against what he viewed as unfair police bullying of him and his family. Kelly admitted to crimes but claimed he was forced into them by a corrupt police force. He also demanded that squatters share their property with the poor, and ended the letter with a violent threat against all who would oppose him: 'I am a Widow's Son, outlawed and my orders must be obeyed'. Written in 1879, the letter was dictated to Joe Byrne (who had neater handwriting). When Ned gave the letter to the bank teller during the hold-up in Jerilderie, he told him to have it published. The bank teller, however, passed the letter on to the police in Melbourne. Eventually the letter was rediscovered and presented at Kelly's trial in 1880. Although the Jerilderie letter uses rough language and lacks grammar or punctuation, it is a very colourful historical document and a useful piece of evidence to help us evaluate Ned Kelly's personality and actions.

I am recorded a horrid brute because I had not been cowardly enough to lie down for them under such trying circumstances and insults to my people certainly their wives and children are to be pitied but they must remember those men came into the bush with the intention of scattering pieces of me and my brother all over the bush and yet they know and acknowledge I have been wronged and my mother and four or five men lagged innocent and is my brothers and sisters and my mother not to be pitied also who was has no alternative only to put up with the brutal and cowardly conduct of a parcel of big ugly fat necked wombat headed big bellied magpie legged narrow hipped splawfooted sons of Irish bailiffs [sheriff's officers] or English landlords which is better known as Officers of Justice or Victorian Police who some calls honest gentlemen but I would like to know what business an honest man would have in the Police as it is an old saying It takes a rogue [dishonest person] to catch a rogue and a man that knows nothing about roguery would never enter the force …

3.7.3 Extract from Ned Kelly's Jerilderie letter

Capture of the Kelly Gang

After years of successfully escaping police attempts to catch them, the Kelly Gang allowed themselves to be cornered in a final showdown with police in Glenrowan, Victoria, in June 1880. Kelly hoped this confrontation would attract more citizens to join him in a rebellion against an unjust system, but this did not eventuate. The gang took over the Glenrowan railway station and moved the railway staff to the Glenrowan Inn, where they took the guests hostages and planned to ambush the police. They had prepared for the encounter by making armoured suits from donated and stolen mouldboards from ploughs. Many in the pub sympathised with Kelly, and the gang spent the night singing songs with their prisoners while waiting for police reinforcements to arrive from Melbourne. A local schoolteacher who managed to escape the inn alerted police to the gang's plans and their whereabouts, so the police were able to surround the gang with their weapons drawn.

3.7.4 Ned Kelly's armour, displayed at the State Library of Victoria

At around dawn, Ned Kelly appeared outside the hotel in his suit of armour. He was shot and fell to the ground wounded. Police started a fire in the hotel to smoke out the remaining gang members. Joe Byrne was shot and killed, while Steve Hart and Dan Kelly died in the fire. Ned Kelly was the only gang member to survive.

Execution

On 28 and 29 October 1880, Kelly was tried for the murder of Constable Thomas Lonigan at Stringybark Creek. He was found guilty and the judge, Redmond Barry, sentenced him to death. Despite strong public demand for the government to offer him a reprieve, Kelly was hanged at the Melbourne Gaol on 11 November 1880. While Ned Kelly was undoubtedly a feared criminal who robbed and murdered, he also had many sympathisers who believed that he was an example of the Australian spirit—an underdog who sought to challenge the bullying and discrimination by the authorities. Some people interpret the historical evidence such as the Jerilderie letter as telling the story of a young man forced into crime by a situation beyond his control, while others even feel that Ned Kelly was a revolutionary leader who planned to set up a republic free from the oppressive regime of the Victorian colony.

Ned Kelly: Examining the evidence

Ned Kelly is almost certainly Australia's best-known colonial figure and to many people he is a folk hero. He has been immortalised in Sidney Nolan's paintings and mythologised in different ways in literature and film. Kelly has arguably risen above his bushranging persona and today is a symbol of a romantic and rebellious aspect of the Australian national identity.

How would you write the story of Ned Kelly and his place in Australian history if you were writing his biography? Would your account be sympathetic to Kelly and the reasons he gives for his actions? Or would it paint him as a police killer and a common criminal? Examine the four pieces of historical evidence and complete the questions that follow each source.

Activities

1 Examine the extract from Ned Kelly's Jerilderie letter (see Source 3.7.3).
   a What justifications does Kelly give for killing the policemen?
   b How does he describe the Victorian police and authorities?
2 Examine the following extract from an interview with Ned Kelly after his capture, published on Saturday 14 August 1880 in the Hobart *Mercury*.

> If my life teaches the public that men are made mad by bad treatment, and if the police are taught that they may not exasperate [irritate] to madness men they persecute and ill-treat, my life will not be entirely thrown away. People who live in large towns have no idea of the tyrannical [cruel and oppressive] conduct of the police in country places far removed from Court. They have no idea of the harsh and overbearing manner in which they execute their duty, or how they neglect their duty and abuse their powers.

   a What lessons does Ned Kelly wish might be learned from the story of his life?
   b How does Kelly describe the police conduct in regional places?
3 Examine the following extract from the *Minutes of evidence taken before Royal Commission on the Police Force of Victoria, together with appendices*,

23 March 1881. This government inquiry was conducted to analyse the 'outrages' conducted by the Kelly Gang between 1878 and 1880.

> 10. In cattle stealing and horse stealing?—Yes.
>
> 11. And that the Kellys had been engaged in that for a length of time?—For years. Before proceeding further, I wish to point out to the Commission the very great difficulties which beset the police in various directions. The Kellys, as is well known, had an enormous number of sympathizers in the district, and after their outrage there is not the slightest doubt that a great many respectable men were in dread of their lives, and were intimidated by a fear of the consequences from giving any information whatsoever to police. Not only their lives and those of their families were in danger, but their cattle, and sheep, and horses, and property were liable to be stolen or destroyed; in addition to which there is not the slightest doubt that there was an enormous number of tradesmen in the district who were so benefited by the large increase of police, and by the consequent expenditure, that they were only too glad that their unpleasant business was protracted for so many months. I may also state that a great many of the local papers never lost an opportunity of attacking the police in the most unjustifiable manner and on every possible occasion; and remarks of that kind, as I think any sensible man must be aware, were not only calculated to do the police a great deal of harm, but to prevent their receiving material assistance from anybody.

   a What does this response allege about the ways in which the Kelly Gang exerted control over the people in their local community?
   b Which other group does the respondent identify as having caused harm to the police?
4 Examine the following newspaper report of the execution of Ned Kelly in the Adelaide *Express and Telegraph*, 11 November 1880.

> This morning the last survivor of the notorious Kelly gang paid the penalty of his crimes on the scaffold. For nearly two years Edward Kelly and his associates, after their brutal murder at Mansfield of the constables sent in pursuit of them, managed to

set the law at defiance. In looking back on the career of the gang it is impossible to find any one mitigating trait in the conduct of the members, and society is to be congratulated that no false sympathy has been allowed to interfere with the course of justice. It is needless to recall the incidents of the drama of crime in which Edward Kelly and his followers were the actors. Suffice it to say that their career was a remarkable one. Theirs was no ordinary success; immense plunder, comparatively speaking, came into their possession, and they long and successfully evaded capture. But as Sir Redmond Barry in delivering judgment said with trenchant force, when pointing out what a warning their career should be to thoughtless and inconsiderate young men who might be so foolish as to believe that it is Brave of a man to sacrifice the lives of his fellow-creatures in order to carry out his own wild ideas—'A felon, who has cut himself off from all the decencies, all the affections, charities, and obligations of society, is as helpless and degraded as a wild beast of the field'.

a What tone does this article take when referring the Kelly Gang?

b What did the judge Sir Redmond Barry compare Ned Kelly to?

5 Using the sources provided and any other materials you can locate, build a picture of Ned Kelly and his actions over the two-year period from 1878 to 1880.

a To what extent do you feel Ned Kelly and his gang were justified in their actions? Could it be said that Ned was a hero for the oppressed in his community?

b To what extent do you believe that Ned and his gang were simply villains who committed a series of crimes against innocent people?

c Whose perspectives are depicted in each of the sources of evidence? Whose perspective are missing? Why is this important when considering the value of such sources as historical evidence?

d Looking beyond the events of 1878 to 1880— what evidence exists to demonstrate that Ned Kelly has been elevated to the status of a folk hero for many modern Australians?

3.7.5 In 1980 Australia Post® produced a stamp and envelope set titled 'The Siege Of Glenrowan—Centenary 1980' to commemorate the capture of Ned Kelly 100 years before

Activities

Remembering and understanding

1 What historical evidence exists that suggests Ned Kelly was a brave youth?

2 Why were Ned Kelly and his gang declared outlaws?

Applying and analysing

3 What colourful (descriptive) phrases about the police did Ned Kelly use in the Jerilderie letter? What does this tell you about his opinion of the law enforcement of the day?

4 How does the creation of films and artwork since Kelly's death illustrate the effect that his life and actions have had on Australian society?

Evaluating and creating

5 Conduct further research into Ned Kelly. Using online resources such as Trove® (the National Library of Australia's online search engine for primary and secondary documents), search for additional primary sources to use as evidence to help prove your contention that Kelly was either a hero or a villain.

Write an extended persuasive response detailing your findings (and citing your historical evidence) to convince the reader of your contention.

Developments leading to Federation

Living in the city

An influx of immigrants during the Australian gold rushes led to the rapid development of Melbourne, Sydney and Adelaide. By 1888, Melbourne was the largest city in Australia and the second largest in the British Empire.

The 1850s to the 1890s was a boom period during which Australian workers became the best paid and the least overworked in the world. Labour shortages meant that employers were forced to offer high wages to attract workers and Australia earned a reputation as a 'working man's paradise'. These benefits, however, were mainly for the workers who had skilled jobs rather than those who were unskilled and on lower incomes.

Housing booms in Sydney and Melbourne in the 1880s led to the creation of new outer suburbs connected by road, rail and tramway. At the close of the nineteenth century, almost two-thirds of Australia's 3.76 million people lived in urban centres.

Self-government for the colonies

In 1842, some voting rights were introduced in New South Wales. By 1850, the New South Wales government was given the power to create its own constitution. Victoria became a self-governing colony in 1855. Self-government was gradually achieved in all the colonies (see Source 3.8.1) and eventually full male suffrage (voting rights) was established.

3.8.1 Dates that Australia's colonies achieved self-government

Date	Colony
1842	New South Wales
1855	South Australia
1855	Victoria
1855	Tasmania
1858	Queensland
1890	Western Australia

Life in Australia's cities and rural areas was very different from what it had been a century earlier. New cities had been established and vast areas of bush turned into agricultural land. Australia's cultural identity was strengthening. Some people began to argue that the colonies should unite to form one nation. A speech by the New South Wales premier, Sir Henry Parkes, at Tenterfield on 24 October 1889 is often referred to as the birth of the Federation movement.

Federation meant the unification of all colonies as one nation and the creation of a federal government and parliament.

> The great question, which we have to consider, is whether the time has not now arisen for the creation on this Australian continent of an Australian government and an Australian parliament.
>
> To make myself as plain as possible, Australia has now a population of three and a half millions, and the American people numbered only between three and four millions when they formed the great Commonwealth of the United States. The numbers are about the same. Surely what the Americans have done by war, Australians can bring about in peace.

3.8.2 An extract from the Tenterfield Oration by Sir Henry Parkes, 24 October 1889

Joining the colonies together

Although there were many compelling reasons for Australian nationhood, not all people agreed that Federation was a positive step.

The two largest colonies, New South Wales and Victoria, were bitter rivals and many of the smaller colonies resented the attitudes of the larger colonies.

Reasons for Federation

➤ *Australian nationalism*—Nationalism (the loyalty and devotion to a nation) began to emerge and people believed the colonies should federate to form one distinct nation.

➤ *Immigration restriction*—There was a widespread belief that immigration should be restricted to people from Europe. Becoming one nation would mean that immigration could be more effectively controlled by a central government.

➤ *Security and defence*—A national defence force was seen as a more effective way of dealing with potential threats.

➤ *Free trade*—Trade barriers and tariffs (which are similar to taxes) existed between the colonies and many traders wanted these abolished.

➤ *Improved communications*—By 1880, all capital cities were connected by telegraph, and a telephone cable had been laid between Sydney and Melbourne. Federation was seen as continuing this trend.

> *Need for a single rail network*—Each colony used different rail gauges (the width of the track differed) and federating would mean standardisation.

> *Support from Britain*—Britain was encouraging responsible government because managing such a large empire was proving costly and problematic.

Reasons against Federation

> *Protectionism*—Protectionism refers to a set of economic policies that protects local industry from external competition. In the colonies, high tariffs were imposed on goods bought from other colonies to encourage people to buy locally. Those against Federation argued that removing protection would mean local businesses would suffer.

> *Loss of colonial power*—Many colonies wanted to retain their own power. Smaller colonies were concerned that larger colonies would dominate and larger colonies did not want to have their taxes spent on the smaller ones.

> *Distance between the colonies*—Transport methods were still slow and some of the more remote colonies (such as Western Australia) could not see any benefits to Federation.

> *The labour movement*—Trade unions had secured many benefits for workers and were concerned a federal government would overturn them.

> *Cheap labour*—Many non-European immigrants had provided cheap labour for Queensland. Sugar-cane farmers feared Federation would restrict immigration.

Discussions about Federation were put on hold when the economic depression of the early 1890s occurred, but were revived again in 1897. The timeline outlines the steps to Federation.

The Commonwealth of Australia officially came into existence on 1 January 1901, when all six former British colonies became the member states of a new and independent nation.

3.8.3 Anti-Federation cartoon, *Daily Telegraph*, 1899

The colonies decide

1891
Sir Henry Parkes resigns as premier of New South Wales and asks Edmund Barton to lead the Federation movement in the colony. Federation leagues are established.

31 July 1893
Seventy-four delegates gather at Corowa on the New South Wales–Victorian border for a people's conference to discuss Federation. It is agreed that each colony shall elect ten representatives to a Constitutional Convention, which will be responsible for creating a draft federal constitution that will be put to a referendum.

1897–1898
A second constitutional convention is held over three meetings between 1897 and 1898 in Adelaide, Sydney and Melbourne and is attended by the majority of colonies. Queensland (which fears an end to cheap Pacific labour) and Western Australia (which wants to look after its own interests) do not attend. New Zealand has considered but decides against joining with Australia in a federation.

March 1897
The basic principles of a federal constitution are agreed at the first meeting of the second constitutional convention in Adelaide in March 1897. Government will consist of a bicameral (two-house) parliament based on Britain's Westminster system. New federal laws will be proposed in the Lower House (the House of Representatives), and the Upper House (the Senate) will be a house of review. Each state will be allowed an equal number of senators regardless of size. The British monarch will be the official head of state.

June 1898
Voters from New South Wales, Victoria, Tasmania and South Australia participate in referendums and the majority of voters in total from all four colonies accept the draft constitution. The referendum is not carried because voters in New South Wales do not support the draft constitution.

January 1899
Colonial premiers agree to amend the draft to address New South Wales's concerns. Queensland's support is gained.

20 June 1899
A second referendum is held in every colony except Western Australia. A clear majority 'yes' vote is recorded in all five voting colonies.

5 July 1900
The British Parliament passes the Commonwealth of Australia Constitution Bill, giving approval for the creation of a new Australian nation.

31 July 1900
Western Australia agrees to federate.

1 January 1901
The Commonwealth of Australia officially comes into existence.

3.8.4 The Melbourne Arch, which appeared in Federation celebrations in Sydney in 1901

THE ONLY WAY.

3.8.5 Federation was seen as one of the best ways to prevent the feared 'invasion' of non-European foreigners, especially from Asia

AUSTRALIAN TIT-BITS

A PLAIN CASE.

SERVICE (able seaman).—" Well, mates, you wouldn't federate when I wanted you to; but if yonder craft comes this way, Federation or no Federation, you'll have to work together."

3.8.6 Pro-Federation poster. Supporters of Federation argued that Australia would be better able to protect itself if the colonies stood united.

Activities

Remembering and understanding

1 Where was most of Australia's population living by the end of the nineteenth century?

2 Why had Australia earned the reputation as a 'working man's paradise' by the end of the nineteenth century?

3 Examine Source 3.8.1.
   a Which colony was the last to receive self-government?
   b Explain why you believe it was later than the other colonies.

4 Why were the voters of Western Australia reluctant to join an Australian federation?

Applying and analysing

5 Examine Source 3.8.3 and summarise the argument presented in the cartoon in your own words.

6 Examine the timeline of Australian Federation. What does it tell you about the difficulty of governing Australia and dealing with state issues?

Evaluating and creating

7 Imagine you are one of the following people and argue your case for or against Federation:
   • a wealthy Victorian industrialist in favour of protectionism
   • a trade unionist in Western Australia
   • a Queensland sugar-cane farmer
   • a business person who travels by rail
   • a senior military officer worried about the threat posed to Australia by foreign powers such as Japan and Russia.

8 Create a mind map using mind map software that shows the progress towards Federation in Australia. Use different colours, words and images of relevant people, places and events.

3.9 The Australian Constitution and its impact

Rules governing the new nation

The Australian Constitution is an important written set of rules that determine the way in which the Australian nation and its states are governed. When the Constitution came into effect on 1 January 1901, the Commonwealth of Australia also came into existence.

A constitution for all Australians?

The Australian Constitution was intended to unite Australia, but not everyone was included in the agreement. Aboriginal and Torres Strait Islander people, for example, were specifically excluded from the Australian Constitution.

Aboriginal and Torres Strait Islander peoples and the Australian Constitution

The 1901 Constitution that joined the colonies together and formed the Federation of Australia did not permit the federal government to count Aboriginal and Torres Strait Islander peoples in any census (count) of the population. The Constitution also did not allow the federal government to make any laws affecting Aboriginal or Torres Strait Islander peoples. This was seen to be a state responsibility (see Source 3.9.2).

> **51** The Parliament shall, subject to this Constitution, have power to make laws for the peace, order, and good government of the Commonwealth with respect to:–
>
> ... (vi) The people of any race, other than the aboriginal people in any State, for whom it is necessary to make special laws.
>
> **127** In reckoning the numbers of the people of the Commonwealth, or of a State or other part of the Commonwealth, aboriginal natives should not be counted.

3.9.2 Sections 51 and 127 of the original Australian Constitution

3.9.1 *The Opening, Commonwealth Parliament* by Charles Nuttall, 1901–1902 depicts the first federal parliament held in the Royal Exhibition Building, Melbourne in 1901

In 1902 the Federal Parliament passed the *Franchise Act*, which, among other things, clarified who could vote in federal elections. Although Aboriginal men in Victoria, New South Wales, South Australia and Tasmania were able to vote in state elections, the *Franchise Act* was interpreted in such a way as to exclude any Aboriginal person from voting in federal elections. Therefore, the Australian Constitution and the laws it helped to create effectively meant that Aboriginal and Torres Strait Islander peoples were not counted in the census of the population and could not vote in federal elections.

In a referendum in 1967, Australians voted to include Aboriginal and Torres Strait Islander peoples in the census to give the federal government the power to make laws for Indigenous Australians. The referendum saw the highest 'yes' vote ever recorded in a federal referendum, with 90.77 per cent of the people voting for the change. The whole of section 127 was removed from the Constitution and the words 'other than aboriginal people in any State' were removed from section 51. The 1967 referendum did not give Indigenous Australians the right to vote; this had been granted before the federal elections in 1962.

Women and the new nation

The 1902 *Franchise Act* gave women the right to vote in federal elections and the right to stand for election in the new federal Parliament. Women such as Vida Goldstein, Nellie Martel and Mary Ann Moore-Bentley stood for federal election in 1903. South Australia and Western Australia had already given women the right to vote, in 1895 and 1900 respectively. Those states that had not given women the right to vote—Victoria, Queensland, New South Wales and Tasmania)—were forced to catch up.

It was not until 1921 that the first woman was elected to an Australian parliament. Edith Cowan served in the Western Australian Legislative Assembly until 1924. She was a leading suffragette and a passionate advocate for women's and children's rights. The first women in the federal Parliament were Dame Enid Lyons (who later went on to be appointed to the Cabinet) and Dorothy Tangney, who were both elected in 1943.

3.9.3 Edith Cowan is depicted on the Australian $50 note, which entered circulation in 1995
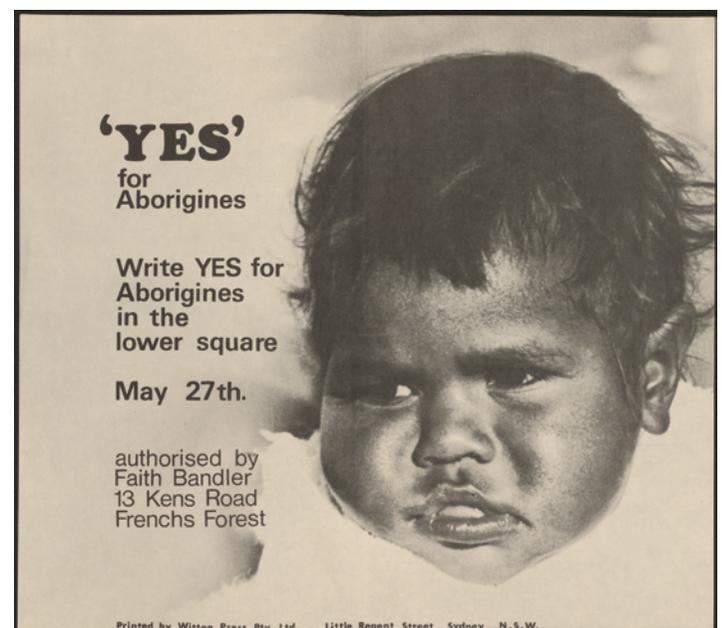
3.9.4 'Yes' vote poster, 1967 referendum, State Library of NSW

The White Australia policy

The first two laws passed by the new Parliament formed the basis of what became known as the White Australia policy, which was designed to maintain the racial purity of the new nation. Throughout the nineteenth century most Australian colonists believed that people from British or European heritage were superior to those of other backgrounds. The view was that the race should be kept 'pure', and that foreigners were likely to pose a threat to wages and working conditions.

On 17 December 1901, the *Pacific Island Labourers Act* was passed, allowing for the deportation of Pacific Islander people from Queensland.

Six days later, on 23 December, the *Immigration Restriction Act* was passed, effectively prohibiting the entry of all non-Europeans to Australia. Rather than being explicitly banned, all non-Europeans were to be given a fifty-word dictation test in any European language. This test gave the White Australia policy a look of respectability. It allowed the government to claim that its basis for exclusion was an immigrant's level of education rather than their race.

> Prime Minister Edmund Barton: 'I do not think that the doctrine of the equality of man was really ever intended to include racial equality. There is no racial equality. There is that basic inequality. These races are, in comparison with white races ... unequal and inferior.'
>
> Attorney-General Alfred Deakin: 'Unity of race is an absolute essential to the unity of Australia.'
>
> Billy Hughes: 'Our chief plank, is of course, a White Australia. There's no compromise about that. The industrious coloured brother has to go—and remain away!'

3.9.5 On a White Australia: Prime Minister Edmund Barton, Attorney-General Alfred Deakin and future prime minister Billy Hughes

Racism and keeping Australia 'pure'

Apart from nationalism, Australians were concerned that allowing non-Europeans to enter the country would compromise living standards. Australians feared that Asian immigrants would work hard for lower wages and lesser conditions, which would then force the rest of the population to do the same. Another reason for restricting immigration to those of European descent was a fear that large groups of people from Asian countries would overrun Australia. The argument was that these people would support Asian countries in the event of a war and Australia's defence would be compromised.

End of the policy

In 1934, customs officials tried to prevent Egon Erwin Kisch from entering Australia by giving him a dictation test in Scottish Gaelic. Kisch was an anti-Nazi activist from Czechoslovakia who came to Australia to attend an anti-war congress. On arriving, Kisch refused to take the discriminatory test. A legal team took his case to the High Court, where they proved that the customs official administering the test was unable to speak Scottish Gaelic himself, even though he had been born in Scotland. While the situation seemed absurd to many observers, parts of the set of laws that formed the White Australia Policy would remain in effect until the 1970s.

THE YELLOW-TRASH QUESTION.
Asiatic Invader: "Better you catchee 'nother piecee box."

3.9.6 Political cartoon on the White Australia policy, *The Bulletin*, 1901

Did you know?

Under the *Immigration Restriction Act* of 1901, immigration officers could make a migrant sit a fifty-word dictation test in any European language the officer chose. The dictation test was intended to help immigration staff filter out 'nonwhite migrants', as non-Europeans were referred to at the time. Very few migrants were allowed to pass—prior to 1909, only fifty-two people were granted entry to Australia from 1359 tests. After 1909, no migrants passed the test. The Act also enabled the deportation of 'undesirables' (people who didn't fit the image of the new nation). 'Nonwhite' people who had come to Australia before 1901 were required to sit the dictation test to remain in the country. These discriminatory immigration laws, which were part of what became known as the White Australia policy, were finally abolished in 1973.

Social legislation

Protecting workers

In the decades after Federation, the new federal Parliament was responsible for the introduction of social reforms that were among the most progressive in the world.

In 1904, the Australian Labor Party took office, becoming the first national labour government anywhere. Party leader John Watson could only form a minority government by gaining the support of the Protectionists, led by Alfred Deakin. During his four months in office, Watson introduced the Conciliation and Arbitration Bill into Parliament. In December 1904, the Bill was passed and a Commonwealth Conciliation and Arbitration Court was established.

The main role of the court was to prevent industrial disputes by mediating between representatives of the employer and the trade union. When this failed, the court would act as an umpire to bring about a settlement to the dispute. Importantly, the court also had the power to create an award (industry-wide set of conditions) which applied to all workers.

The Harvester Judgment

The federal government was not able to create legislation that would protect workers because the Constitution did not give it the power to intervene in wages and working conditions. Therefore, the government encou raged individual employers to be fair by waiving (cancelling) a federal excise tax if workers were paid 'fair and reasonable' wages.

In October 1907, the new court heard the case of H.V. McKay, the owner of Sunshine Harvester Works, after Mr McKay applied for a remission of the duty. That is, he believed his workers were being paid 'fair and reasonable' wages so he applied to waive the excise tax he paid on the machinery he exported overseas. His application was opposed by the trade union representing his workers, which argued that the workers were being underpaid at 36 shillings (equivalent to around $163 today) per week.

The court needed to define 'fair and reasonable' wages. The new court's president, Henry Higgins, heard the case, which was to become known as the Harvester Judgment. He took into consideration what a worker would need to be paid to support a family with food, clothing, health and transport, and decided that 7 shillings per day (42 shillings per week) was a reasonable minimum wage.

This was more than Mr McKay was paying his workers and he was ordered to pay £20 000 in excise duty. Mr McKay refused to pay and took his case to the High Court of Australia. He won the case but his reputation was damaged and the minimum wage was applied to later cases.

The case was important because it was an increase of more than 25 per cent in the average unskilled wage of the time and it took into account the idea of paying workers what they needed to live on rather than what a business was prepared to pay.

> ... is a wage of 36s. per week fair and reasonable, in view of the cost of living in Victoria? I have tried to ascertain the cost of living—the amount which has to be paid for food, shelter, clothing, for an average labourer with normal wants, and under normal conditions. Some very interesting evidence has been given, by working men's wives and others; and the evidence has been absolutely undisputed ... The usual rent paid by a labourer, as distinguished from an artisan, appears to be 7s.; and taking the rent at 7s., the necessary average weekly expenditure for a labourer's home of about five persons would seem to be about £1 12s.5d.

3.9.7 Excerpt from Justice Higgins's judgment in the Harvester case, 1907

3.9.8 Postcard advertising the Sunshine Harvester Works

Did you know?

In 2018, Fair Work Australia set the minimum wage at $18.29 per hour or $694.90 per 38-hour week for adults (before tax is deducted).
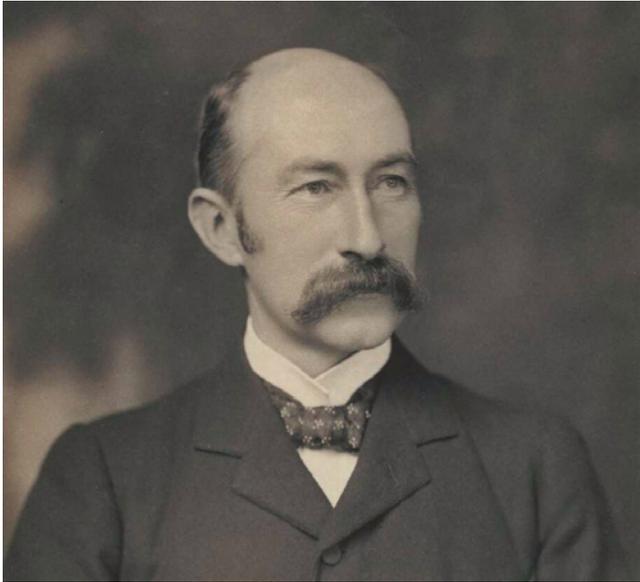
3.9.9 Justice Henry Higgins

Other important legislation

In the decades after Federation, the new federal Parliament passed several new laws designed to improve the lives of injured workers, new mothers and older people. Such social legislation was virtually unheard of anywhere else in the world.

3.9.10 Important Australian social legislation passed in the first two decades after Federation

Act	What it did
Invalid and Old Age Pension Act, 1908	Introduced the payment of a pension of 10 shillings a week to those over the age of 65 or who were prevented from work due to a disability
Workers Compensation Act, 1912	Paid compensation to any federal government employee who was injured or made sick through their work
Maternity Allowances Act, 1912	Paid £5 to every woman considered part of the Commonwealth of Australia on the birth of a child; worth more than two weeks' pay at the time

'A social laboratory'

In the early 1900s, Australia had an international reputation as the 'social laboratory of the world', particularly in the areas of workers' rights, social welfare and women's suffrage (voting rights). American suffrage leader Carrie Chapman Catt noted that the Australian nation 'would become a great democracy where self-government would be carried on with such enthusiasm, fervor and wisdom that they would give lessons in methods and principles to all the rest of the world'.

Activities

Remembering and understanding

1 Examine Source 3.9.2. Summarise sections 51 and 127 of the Constitution in your own words.
2 In which city was the first parliament of the newly federated nation held?
3 Examine Source 3.9.4 and complete the following questions.
   a What is the message of this poster?
   b Why has this particular photograph been used?
   c Explain whether you believe the poster is likely to have been influential.
4 In your own words, summarise what the Harvester Judgment was about.
5 Identify three groups that benefited from the new social legislation passed in the first decades after Federation.

Applying and analysing

6 Write a paragraph comparing the way in which the rights of women and Aboriginal and Torres Strait Islander peoples were affected by the new nation's early legislation.
7 Examine Source 3.8.7. What did Justice Higgins consider in order to determine a 'fair and reasonable' wage for workers?

Evaluating and creating

8 Examine Source 3.9.6 and answer the following questions.
   a How is Australia represented by the artist?
   b In what ways is Australia's geographic isolation depicted in this image?
   c Who is the threat that the artist believes Australia faces?
9 Create a PMI (Plus, Minus, Interesting) chart for the introduction of the new social legislation in Australia following Federation. Also consider the groups that would not benefit.

LS 3C
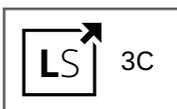
The experiences of non-Europeans in colonial Australia

Australia today is famous for being a multicultural nation whose people come from every corner of the world. After the landing of the First Fleet and up to 1918, however, Australian society was far more **homogeneous** (consisting of people who are similar to each other). Aboriginal and Torres Strait Islander peoples had been so dominated, persecuted and marginalised that by the start of the twentieth century, Australia's identity had been created in the image of people of European heritage, based on mainly British cultures, traditions and institutions. Any account of Australian history, however, would be incomplete if it did not explore the contributions and experiences of non-European people in Australia during this period.

A new life in Australia

From 1850 to 1900, approximately 7 million people left China in search of opportunities in South-East Asia, the United States of America, Canada and Australia. This mass exodus was the beginning of what is today known as the Chinese **diaspora** (the dispersion or spread of a people from their original homeland). It is estimated that up to 90 000 Chinese migrants came to Australia during this period. Other non-Europeans who came to Australia included:

➤ approximately 62 000 South Pacific Islander people, who worked on the sugar-cane fields in far north Queensland

➤ approximately 3000 Japanese people, who came to Broome in Western Australia as pearl divers

➤ approximately 2000 Afghans, who came to South Australia as camel drivers.

The Chinese experience

The majority of Chinese people arrived during the Victorian gold rushes of the 1850s and were instantly disliked by European settlers. On the goldfields, the Chinese people organised themselves into large groups with each person having an allocated role. These groups meant they had limited contact with the other diggers, thus avoiding trouble with the European miners.

Competition between European and Chinese miners, however, often led to conflicts over pieces of ground thought to contain gold. Many European miners distrusted the Chinese miners simply for being different—and resented their success, which was achieved through very hard work. Rumours spread about Chinese opium addiction, disease, gambling and general immorality. Anti-Chinese Leagues were established throughout Victoria and later New South Wales to pressure governments into restricting Chinese

3.10.1 'Outside, Sir! Outside!' This cartoon, from the publication *Punch*, 2 June 1888, highlights the widely held view in Australia that Chinese people were not welcome.

immigration. In 1855, the Victorian government passed a law to limit Chinese migration and imposed an arrival tax on all Chinese migrants. The Chinese miners' experience was marked by violence and intolerance. One of the worst incidents occurred in Buckland River in 1857, when a group of European miners attacked a Chinese camp, known as Chinaman's Flat, burning tents and stores. Four Chinese miners lost their lives at the hands of the mob.

Quong Tart

Quong Tart was a leader of the Chinese community in New South Wales in the 1880s and 1890s. His story stands as a startling exception to the racism and exclusion that was usually extended at that time to anyone in Australian society who was not from a European background. He came to Australia as a 9-year-old boy to meet his uncle on the goldfields near Canberra, and he went on to make his fortune in gold. Afterwards, he established a business as a tea merchant and restaurateur in Sydney.

Quong Tart lived and interacted closely with Anglo-Australians, joining their associations and sporting clubs and supporting their charities. He even learned how to play the bagpipes and

3.10.2 Quong Tart in front of his famous tearooms in Sydney, c. 1890s

wore a Scottish kilt. He was a popular and well-loved Sydney identity who mixed with the social elite of Sydney as easily as he did with Chinese merchants and labourers. He worked hard to protect the Chinese people who were living in the colony and acted as an interpreter for them to ease their integration into society. He campaigned the government to stop the importation of opium, a drug commonly used by the Chinese which was damaging their communities. In 1886, at the age of 36, Quong Tart married 21-year-old Margaret Scarlett with whom he raised a family of four daughters and two sons.

Tragically, he was the victim of a violent physical attack in 1902 (it was believed to have been a robbery gone wrong), and he never fully recovered from the experience. When he died in 1903, thousands of people attended his funeral.

Pacific Islanders in Queensland

The practice known as 'blackbirding' involved deceiving Pacific Islander people into coming to Australia to work on sugar plantations in Queensland, sometimes by offering small items of little worth or making false promises of high wages. Blackbirding was usually conducted by agents for plantation owners, who relied on these cheap labourers, known in those times as **Kanaka** (a term now considered offensive), to carry out the long and difficult work of harvesting sugar cane.

Between 1863 and 1904, approximately 62 000 South Pacific Islander people arrived in Queensland and worked on sugar plantations in the far north. In most cases these people were promised good wages and food as well as a year-long contract and then a passage home. In reality, conditions were much harsher and contracts were mostly for 3 years.

Blackbirding was made illegal in 1872, although the practice continued for another 30 years.

Afghans in South Australia

Not long after the settlement of South Australia in 1836, exploration of the interior of the continent began. In early European attempts to explore the 'Red Centre', horses and

3.10.3 Kanaka labourers on a Queensland pineapple plantation, c. 1890s

bullocks were used to transport equipment and materials across the desert, but these animals proved incapable of enduring long periods without water. They also had difficulty walking across sand for long distances.

In 1839, the first camels were imported to Australia to improve transport across the Simpson Desert (see Source 3.10.4). Camels had earned a reputation as 'ships of the desert' due to their ability to survive harsh desert conditions carrying great loads.

Cameleers and 'ships of the desert'

Most Europeans had very little experience handling camels, and so specially trained camel drivers known as cameleers were brought to Australia. Although they came from several different places throughout central Asia and India, most cameleers were Afghans. Australians referred to them simply as Ghans (short for Afghans). All were single Muslim men who had signed 3-year contracts to live and work in central Australia.

In 1886, 100 camels and thirty-one Afghan cameleers arrived in South Australia. It is estimated that by 1900, there were about 15 000 camels and 2000 Afghans in Australia. These men played an important role in the inland exploration of the continent, carrying vital supplies and mail from South Australia to the north. The Overland Telegraph, which connected Adelaide and Darwin in 1872, could not have been built without the assistance of the Afghan cameleers. They also helped to establish the rail connection between Adelaide and Port Augusta, and carried mail and equipment between isolated outback settlements.

3.10.4 Camels being unloaded at Port Augusta, 1890s

Japanese divers in Western Australia

From the middle of the nineteenth century, buttons and belt buckles made from pearls and mother-of-pearl shells were popular in Britain and the United States of America. Such demand led to the establishment of Western Australia's

3.10.5 Japanese pearl divers, Broome, 1910

pearling industry around Shark Bay in the 1850s. Pearlers initially used Aboriginal women to dive for oysters, since they had excellent lung capacity. These divers could descend to depths of up to 13 metres, at times as far as 2 kilometres from shore. This was before diving suits, oxygen tanks, snorkels and masks had been developed and their unaided method was known as skin diving. It was a very risky activity and up to half the divers died because of drowning, shark attacks, the bends (decompression sickness) or cyclones.

The discovery of the precious South Sea pearl in the 1870s attracted many Japanese, Malay and Chinese pearlers to Western Australia. In 1881, Broome was established as a pearling town and by the following decade it had earned a reputation as the pearling capital of the world. The invention of diving suits and simple breathing apparatus allowed divers to go deeper and stay underwater longer. Japanese divers were considered the best at their trade, as they seemed to cope better with high water pressure. This meant that Japanese divers soon replaced Aboriginal divers. They worked as indentured labourers, initially receiving no wages but instead paying off the debt they owed to their employers for their travel costs to Australia.

By 1910, the town of Broome had a population of 4000 people, which included 3000 Japanese, Malays and Chinese, all of whom had some connection to the pearling industry. Many divers died during the heyday of Broome's pearling industry and the Japanese cemetery in Broome has over 700 graves of Japanese divers.

The experience of Aboriginal Victorians under the 'Half-Caste Act' 1886

In an age of increasing prosperity and opportunity for the European population of Victoria, Aboriginal people living on reserves were subjected to increasingly tight controls by the Board for the Protection of Aborigines. Beginning with the 1869 *Aboriginal Protection Act*, and reinforced by additional legislation in 1886 and 1890, Aboriginal people living on reserves were controlled by the government in almost every part of their lives.

Further to the belief that the Aboriginal race would eventually die out, the government was determined that Aboriginal people with mixed heritage (who had both Indigenous and European ancestry) would be 'absorbed' into the general population.

The introduction of the 'Half-Caste Act' in Victoria in 1886 (formally known as *An Act to Provide for the Protection and Management of the Aboriginal Natives of Victoria*) extended the powers of the government over Aboriginal people. It affected Aboriginal people by:

➤ *limiting the freedoms of Aboriginal people*—under the Act, Aboriginal residents on reserves were effectively economic prisoners who worked hard but saw little of the money they generated. Permission had to be sought, and given in the form of a pass or certificate, before anyone could leave a reserve—even to visit family. Under the Act, Aboriginal people were also not free to choose the person they would marry.

➤ *forcing people off the reserves*—the Act defined who was considered to be Aboriginal—and who therefore could remain on a government-run reserve. The Act excluded people of 'mixed race' who were under the age of 35 from living among their communities on the reserves. This had the effect of removing the young people whose labour the communities relied upon. As a consequence, it was easier for the government to close the reserves as the older generation died.

➤ *removing children from their families*—the *Aborigines Act 1890* extended the provisions of the 1886 'Half-Caste' Act. One effect of this was that the Board could transfer Aboriginal children to state care, even when they were not orphaned. This was the beginning of the Stolen Generations in Victoria.

Source 3.10.6 shows how the Victorian laws such as the 'Half-Caste Act' controlled the lives of Aboriginal people in every way and denied them rights which people from European backgrounds freely enjoyed. This letter was written by F.A. Hagenauer, a government official, to Mrs Rawlins, an Aboriginal woman who lived at an Aboriginal reserve called Framlingham. Mr Hagenauer writes that Mrs Rawlins is not allowed to bring her daughter (who is working in a household as a domestic servant) to be with her at Framlingham station. He writes that if Mrs Rawlins brings her daughter to Framlingham without permission, she will lose all her rights to government assistance, such as food and shelter, and she will no longer be allowed to live at the reserve.

My dear Mrs Rawlins

It has been reported to this office that you have telegraphed to your daughter, in the services of Mrs. Cerutty, that you wish to come here and to fetch her home next week. You seem to ignore the fact that your daughter is and must be under the Regulations of the Law and that if you try to get the girl away, she will have to go before the Court. The fact is, it cannot be done at all, as long as you enjoy the receipt of Government support. White people can have their children, except they belong to the Department of the Industrial Schools. Half Castes, by earning their money and living without Government aid are considered white people and no one does interfere then, but if you wish to have Government support, you cannot do so. The moment you do so, rations and all other support as well as living on a reserve must stop and I shall have to inform Mr. Weir to this effect. My advice to you to consider what you do.

The Board cannot break the law of the country.

With best wishes,

yours very truly F.A. Hagenauer

3.10.6 Letter from Friedrich Hagenauer, Secretary of the Board for the Protection of Aborigines, to Mrs B. Rawlins, Framlingham Aboriginal Station, 9 May 1891

Activities

Remembering and understanding

1 Who were the main groups of non-European migrants who came to Australia?

2 For what reasons did people travel to Australia at this time?

Applying and analysing

3 Examine Source 3.10.1. How has the artist depicted Australia? Who is the threat in the cartoon? How are they portrayed? What is the central message of the cartoon?

4 In what ways was the 'Half-Caste' Act of 1886 so destructive to Aboriginal communities and ways of life? How have the effects of laws and attitudes such as this continued to be felt in contemporary Australia?

Evaluating and creating

5 Imagine you are a museum curator. You have been assigned the role of producing an exhibition on the contribution of non-European migrants to Australia. Create the final signage board that summarises the contribution of these migrants up until 1900.

3.11 Looking forward to the future: Australia's place in the world by 1914

A growing sense of national pride

Australians in 1914 perceived their new nation as progressive and took great pride in its achievements. Many people felt that Australia had reached a point where it would be able to project its influence and control its own destiny in the world. While most Australians felt they were still firmly part of the British Empire, there was a strong sense of national identity and a belief that British culture had achieved its zenith (highest point) in the great south land. Australian people had embraced the technological world—driving automobiles, flying aeroplanes and going to the cinema—and had already begun to make their mark on the world.

3.11.1 Members of the Shepperson family in a Model T Ford, 1917. The Model T arrived in Australia in 1908 and was affordable for a whole new class of potential Australian motorists including farmers and tradesmen. The car quickly proved to be much more convenient than a horse and buggy.

Antarctic exploration

Sir Douglas Mawson (5 May 1882–14 October 1958) was an Australian geologist and academic. Together with famous explorers from other countries such as Roald Amundsen, Robert Falcon Scott and Ernest Shackleton, he was a key expedition leader during the age of Antarctic exploration.

While explorers during this time were mostly concerned with being the first people to reach the South Pole, Mawson's passion lay in advancing scientific knowledge of the freezing southernmost continent. He developed an Australian-led Antarctic research expedition which successfully charted large segments of the east Antarctic coastline, and investigated sub-Antarctic Macquarie Island and the Southern Ocean. Their land exploration covered more than 6437 kilometres, and the expedition advanced scientific knowledge of Antarctica in the fields of geology, cartography, meteorology, biology and marine science.

On his return to Australia in 1914, Mawson achieved public acclaim and received a knighthood. Mawson's account of the Australasian Antarctic Expedition, *Home of the Blizzard*, was published in 1915. The Mawson Station in the Australian Antarctic Territory (established in 1954) is named in his honour.

3.11.2 The Australian $100 note was first issued in 1984 and originally featured a portrait of Mawson

A sporting culture: The Ashes are born

Much to the dismay of English cricket supporters, an Australian cricket team that travelled to England in 1882 had for the first time beaten the English on their home soil. As a result of this outrageous and unlikely event, an obituary (death) notice was published in an English newspaper, *The Sporting Times*, immediately after Australia's victory. The way the news of the Australian victory was received, and the development over the next few decades of a fierce sporting rivalry with England in the game of cricket (which exists to the present day), illustrate the developing sense of Australian identity and nationalism that existed by 1914.

Famous Australian cricketers of the early twentieth century, such as Victor Trumper, Monty Noble and Warwick Armstrong, became household names and were a huge source of pride to their fellow Australians.

In Affectionate Remembrance

OF

ENGLISH CRICKET,

WHICH DIED AT THE OVAL

ON

29th AUGUST, 1882,

Deeply lamented by a large circle of sorrowing friends and acquaintances.

R.I.P.

N.B.—The body will be cremated and the ashes taken to Australia.

3.11.3 The obituary for English cricket following the Australian team's historic win

Did you know?

In May 1868, the first Australian cricket team to play overseas travelled to England for a series of matches. The team consisted of thirteen Aboriginal men from the Western District of Victoria.

The Sporting Life proclaimed on 16 May 1868:

> They are the first native Australians to have visited this country on such a novel expedition, but it must not be inferred that they are savages; on the contrary ... They are perfectly civilized, having been brought up in the bush to agricultural pursuits ... With respect to their prowess [talent] as cricketers—that will be conclusively determined by their first public match.

3.11.4 The Aboriginal cricket team who played the Melbourne Cricket Club on Boxing Day 1866, captained by Tom Wills (one of the inventors of Australian Rules football)

World War I, 1914–1918

In August 1914, Britain and its allies went to war against Germany and its allies. Australia was immediately drawn in to the conflict. Contemporary commentators glorified the impact of the war on the 'young' country, calling the first major campaign at Gallipoli a 'baptism of fire' and marking the 'birth of a nation'. The war itself had a devastating and lasting effect on all who fought and those at home. By 1918, 416 809 Australians had enlisted—a huge number given that the population was less than 5 million at the time. By the end of the war, more than 60 000 soldiers had lost their lives and 156 000 had been wounded or taken prisoner.

Activities

Remembering and understanding

1   What was the focus of Douglas Mawson's Antarctic expeditions?
2   When was the Model T Ford first introduced in Australia? In what way did inventions like the motor car help change people's lives?

Applying and analysing

3   How did competing with (and beating) the 'Old Country' at cricket contribute to the sense of national identity that was emerging in Australia at this time?
4   In what ways could it be said that the Australia of 1914 was progressive and successful? Whose perspective is reflected in this view? What would life have been like for groups who were excluded from the vision and values of the new nation?

Evaluating and creating

5   Imagine you are a member of the Aboriginal cricket team which toured England in 1868. Write a letter home explaining to your loved ones the things you have seen and the experiences you have had. To help you with your letter, conduct some additional research into the team—look at its members and any accounts they may have left, the team's itinerary in England, and how they were received by the English public.

China and the modern world

H1

In 1689, the British East India Company sent its first ship to the southern Chinese port of Canton (present-day Guangzhou). The East India Company sought to meet increasing demand in Britain for Eastern goods such as tea and silk. In the eighteenth century, Chinese silk and porcelain were popular among wealthy Europeans (thus the term 'fine china'). The Chinese emperor, however, was reluctant to import European manufactured goods in return because he wished to keep China self-sufficient.

The ensuing period became a dance between China and the West over who should control key areas and resources. The influx of cheap opium into China in the 1830s set the scene for widespread social change and the famed 'Opium Wars'. By 1918, after ending several thousand years of dynastic rule, the Chinese began a new republican era. This period of nationalism was to be relatively short-lived.

GLOSSARY

cede lose control of a territory

concubine a long-term mistress of a married man, often living as part of the man's household

Confucian relating to the teachings of the philosopher Confucius

imperial pertaining to an emperor or their empire

kowtow to kneel and bow before the emperor as a sign of respect

nationalism belief that people of the same race, culture or ideals ought to belong to the same nation-state and rule themselves

republic a country in which ultimate power is held by the people entitled to vote and the head of state is a representative of them, not a hereditary monarch

trade deficit when the value of a country's imports is higher than the value of its exports

tributary state a subordinate state that sends gifts to the superior state

unequal treaties one-sided treaties that usually benefited Europeans

OVERVIEW QUESTIONS

H1A What were the key features of the Qing Dynasty?

H1B How was Chinese society structured?

H1C How did China come into contact with Europe and what conflicts emerged?

H1D How and why did China end its thousands of years of imperial rule?

LS↗ Before you begin

H1.0.1 The British 67th Foot Regiment taking a fort during the Second Opium War in 1860

Timeline

China and the modern world

Between 1750 and 1918, China's traditional society underwent upheaval and transformation. The imperial Qing Dynasty resisted foreign interactions for a period before becoming more open to outside influences. Unfortunately, one of these influences—the drug opium—brought many social and political problems. China's defeat in the resulting Opium Wars led to economic strain and a Chinese desire to 'self-strengthen' via modernisation. When the Boxer Rebellion caused another international conflict, China again faced humiliation. The failures of the Qing government became more apparent and nationalists overthrew the dynasty after approximately 300 years of rule.

Opium poppies

1644
Qing Dynasty takes control of China after its armies capture Peking

1784
British government drastically cuts the import duty on tea

1793
First British trade mission to China; emperor refuses the proposal after Lord Macartney does not perform a full kowtow

AD   1600   1700   1800   1850

1796
Emperor Jiaqing bans the sale of opium in China

1800
Tea accounts for approximately 90 per cent of British trade with China

1807
The first Protestant missionary arrives in China

1826
Emperor Daoguang forbids Chinese from converting to Christianity

◄ Emperor Shunzhi became the first Qing emperor of China, Mongolia and Manchuria in 1644

◄ The North Gate of the Forbidden City, Beijing (formerly Peking)

1856
Second Opium War begins

1858
Second Opium War ends with the Treaty of Tientsin

1861
The first Office for Foreign Affairs is established and Chinese officials are encouraged to learn foreign languages

1864
Taiping Rebellion crushed with the help of foreign armies

1898
The 'Hundred Days of Reform' involve economic, military, political and educational reforms

1899
The Eight-Nation Alliance of foreign powers sends 50 000 troops to China in response to attacks on their embassies by the rebel Boxers

1901
Dowager Empress Cixi signs the Boxer Protocol and agrees to pay $333 million to the Eight-Nation Alliance

| 1851 | 1860 | 1870 | 1880 | 1890 | 1900 | 1910 | 1920 | AD |

1842
A British fleet occupies Shanghai and proceeds towards Nanking; the First Opium War ends with the signing of the Treaty of Nanking

1839
First Opium War begins: when foreign merchants refuse to cease the sale of opium, Lin Zexu closes the port of Canton to foreign shipping and makes the British destroy 20 000 chests of opium

1833
The British government ends the British East India Company's opium monopoly in India, leading to a flood of cheap opium entering China

1895
China is forced to cede (lose) its most important tributary state, Korea, to Japan

1885
The British add Burma, another Chinese tributary state, to their empire

1884
China goes to war with France over control of Annam (part of Vietnam) and loses

1911
Nationalists overthrow the Qing Dynasty and establish a republic, ending 2000 years of dynastic rule

Dowager Empress Cixi, c. 1890 ▶

H1.1 Introducing Qing Dynasty China

H1.1.1 Shunzhi, the first Qing emperor to rule over China, Mongolia and Manchuria

H1.1.2 Temple in the Forbidden City, Beijing

Birth of a dynasty

The Qing Dynasty took control of China in 1644 after its armies captured Peking (present-day Beijing) and made it the capital of its new empire. Shortly after, the last Ming emperor committed suicide and Shunzhi was declared the first Qing emperor over all of China, Mongolia and Manchuria.

The Qing were Manchus from Manchuria, to the north of China. Most Chinese people were of Han descent and did not consider the Manchu to be the rightful rulers of China. The vast majority therefore wanted to restore the Chinese rule of the Ming Dynasty. To deal with this large-scale opposition, Shunzhi ordered all Chinese men to dress as Manchus. They also had to shave the front of their heads and plait their remaining hair in a long pigtail at the back, as was Manchu custom. Many Manchu nobles drove the Chinese off their lands. Eventually, supporters of the former Ming Dynasty throughout China rose in revolt against Qing rule.

In 1645, Qing soldiers massacred hundreds of thousands of their enemies at Yangzhou. This was done to teach the rest of the Chinese population that resistance against Qing rule would be met with brutal terror. By 1662, the last of the resistance had been defeated, allowing the Qing Dynasty to rule China until the early twentieth century.

Political features

The emperor

The emperor was the absolute ruler and head of the Qing Dynasty. All policies were determined by him, as were all official appointments and dismissals.

The emperor commanded the army and made treaties with foreign powers. It was commonly believed that the emperor received his authority to rule directly from God. For this reason he had the title Son of Heaven. As long as the emperor governed for the benefit of his subjects, he would keep his mandate (right to rule).

The Grand Council

The Grand Council served as the emperor's closest advisors. Only members of the royal family were entitled to sit on the Grand Council, which was usually made up of five or six councillors. All **imperial** (pertaining to an emperor or their empire) edicts and court letters were drafted by the Grand Council and then presented to the emperor for approval.

The Six Boards

The Six Boards were part of the outer court and administered less important matters. Only the emperor could issue orders to the Six Boards. Each board had different responsibilities.

H1.1.3 The responsibilities of the Six Boards

The Board of Civil Office				
The Board of Revenue	The Board of Rites	The Board of War	The Board of Punishments	The Board of Public Works
• Taxes and government finances	• Civil service examinations • Court and temple rituals • Visits of foreigners to the imperial court	• Green Standard Army (internal police force)	• Legal system, including the courts and prisons	• Building works • Minting of coins
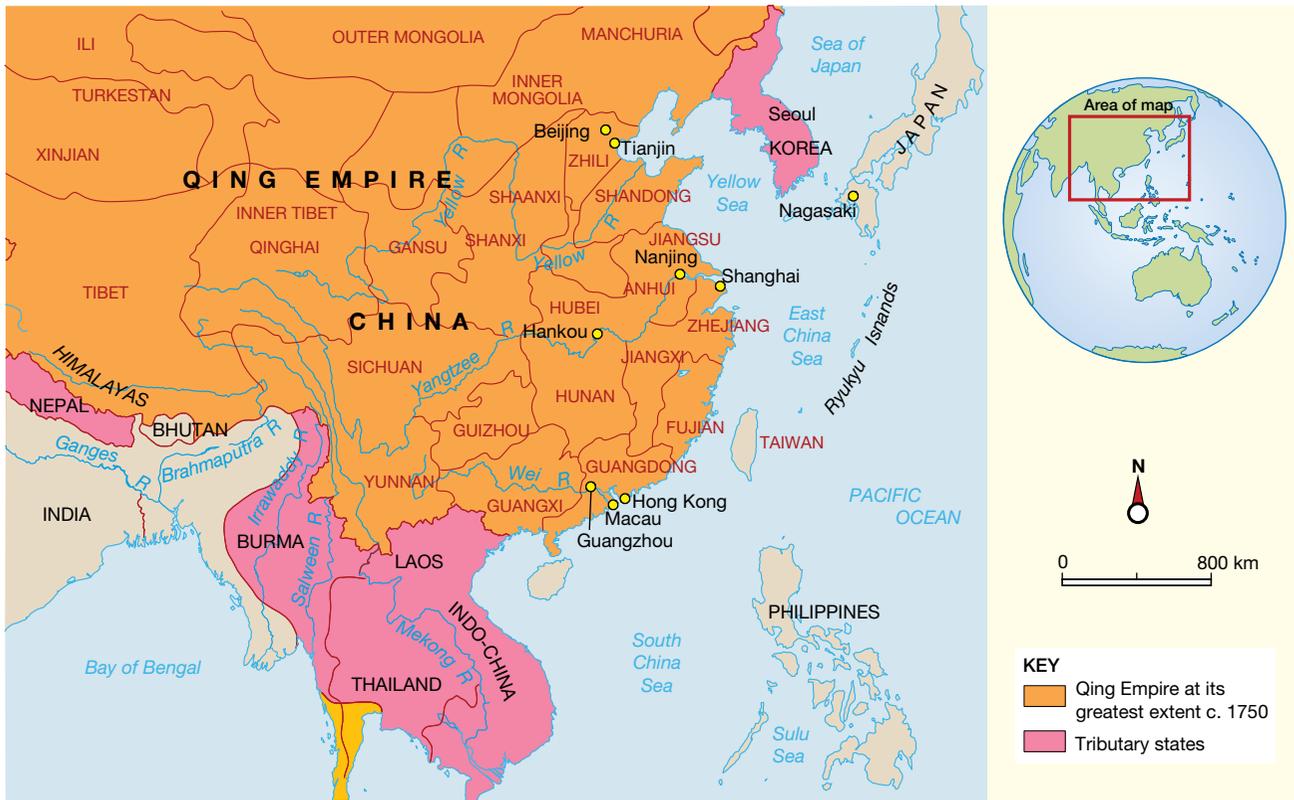
H1.1.4 China during the height of the Qing Dynasty

Censors

Censors acted as the eyes and ears of the emperor throughout China. They were mainly responsible for discovering secret opposition, corruption and poor performance by local officials. Censors could criticise any official as they saw fit, either publicly or in private to the emperor.

Economic features

Up until the fourteenth century, the Chinese economy was larger than that of Europe. However, from around the sixteenth century new shipping technology resulted in the rise of European economies. By the nineteenth century, China's economy was stagnant and Britain dominated international trade.

The importance of agriculture

China under the Qing Dynasty was an agricultural economy. Since the vast majority of people were peasants, most government revenue came from land and poll taxes (taxes collected per person). These had to be paid twice a year in the form of money, grain and compulsory labour. Most peasants resented the requirement to work for the government as it took them away from their land.

Population growth

The Chinese population began steadily increasing from the middle of the eighteenth century due to an extended period of economic prosperity and internal peace. By 1850, China's population had reached over 450 million. This resulted in a rural land shortage that caused widespread poverty and famine. Increased taxes and corrupt officials made the peasants' situation worse.

Regional trade

In order to receive China's protection, its smaller neighbours were required make special pilgrimages to pay tribute to the Chinese emperor in Peking. These tributary missions often involved thousands of envoys, courtiers and merchants. Visiting envoys submitted their petitions before the emperor and presented their tribute in the form of gold, silver and expensive gifts. In return, the emperor would promise to protect the **tributary state** from invasion and would send support in times of hardship.

LS H1A
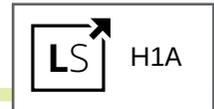
Activities

Remembering and understanding

1 Why was the emperor referred to as the Son of Heaven?
2 What were tributary missions?

Applying and analysing

3 Create a concept map showing the reasons why the Qing Emperor was an absolute ruler.

The structure of Chinese society

Nobility

The imperial army was organised into eight Manchu Banners, and all Manchu families belonged to one of these banners. Members of the banners were called bannermen.

Leaders from areas conquered by the Manchus were also made bannermen as a way of ensuring their loyalty.

There were nine ranks of nobility apart from royal family. All noblemen passed their titles onto their eldest son. The eldest son's title would be one rank lower than his father's.

Commoners

Ordinary people who had a reputable occupation were referred to as commoners. This was according to the **Confucian** (relating to the teachings of the philosopher Confucius) principle that those who use their minds should rule over those who use their strength. These people were called 'good people' and belonged to one of four occupations: scholar-official, peasant, artisan or merchant.

Scholar-officials

Scholar-officials were the moral guardians of society who were experts in Confucianism. They often gave public lectures and produced pamphlets calling for virtuous and honourable behaviour. Scholar-officials had to pass a rigorous examination in order to obtain the literary degree needed to work in the civil service. Years of study could be richly rewarded with high status and many privileges.

Peasants

Peasants made up about 80 per cent of the population during the late Qing Dynasty. Since food production was the basis of the economy, peasants were seen as important. In order to control such a large population, the Qing rulers forced peasants to spend some of the year working for no pay on public works such as roads, bridges, defensive walls, dams and canals. Theoretically, peasants were permitted to sit for the civil service examination, though in reality it took years of study to pass—time that the average peasant could not afford away from their land.

Artisans and craftsmen

Artisans and craftsmen included doctors, architects, priests, brewers, tea producers and silk makers. These occupations required training or a special skill that was passed down from father to son. If he became successful, an artisan could hire apprentices and labourers to work for him. Since they owned no land, artisans and craftsmen could not be taxed, and therefore lacked the same rights and status of peasants.

Merchants

Merchants were considered to be at the bottom of the social ladder, regardless of how wealthy they became. This was because Confucian scholars frowned upon the pursuit of profit at others' expense. Nevertheless, the growing demand for tea and silk by Europeans throughout the nineteenth century saw some merchants become incredibly wealthy.

The classless

About 1 per cent of Chinese society during the Qing Dynasty sat outside the social ladder. These were people such as prostitutes, actors and slaves who were denied the rights of ordinary commoners. This group was referred to as 'mean people'. The law forbade mean people from marrying 'good people'.

H1.2.1 *Receiving the Scriptures*, a scroll painting by Qing Dynasty painter Huang Shen, 1687–1772

Lives of men, women and children

Marriage

Marriages were arranged by fathers and were seen as the extension of a family rather than the creation of a new one. After getting married, a woman would join her husband's family. A married woman was expected to submit to her husband and faithfully serve her in-laws, especially her mother-in-law. When her husband died, a woman then had to submit to her son.

Family

Daily life in Qing China involved interactions with numerous relatives—parents, siblings, grandparents, aunts, uncles and cousins. A typical home for a wealthier family could have up to 100 members living together. However, only the blood relatives of the father were considered to be true family. In wealthier families, servants, maids, and even concubines were also part of the household. Becoming a **concubine** (a long-term mistress of a married man) was one of the very few ways for a Chinese woman to improve her position in the world.

H1.2.2 German artist's impression of Chinese concubines, around 1880

Children

Children were expected to obey their parents when they were young and, later, to look after their parents in old age and sickness. A disrespectful child would bring great shame to their family. Since daughters would one day leave the family home to live with their in-laws, most parents wanted to have boys so that they would be looked after in their old age. It was the eldest son who was responsible for carrying on the family name and leading ancestral worship. Girls were usually referred to simply as Daughter Number One, Daughter Number Two, and so on.

Religion and culture

The importance of Confucianism

Confucianism is a humanist philosophy, not a religion, because it is concerned with how people should behave rather than with supernatural gods. At the time of the Qing Dynasty, the Confucianist belief system had been universally accepted in China for several centuries.

The five virtues

Confucian thought is built around the concept of virtue—that is, ideals or ethics that all people should aspire to for the benefit of everyone. The five virtues of Confucianism are:

➤ *integrity*—do what you promise to do and fulfil your obligations to others
➤ *humanness* (or altruism)—do to others what you would have them do to you
➤ *righteousness*—do what is right and just
➤ *etiquette* (or propriety)—show your respect by following custom and ritual
➤ *knowledge*—find out as much about the world and avoid errors due to ignorance.

H1.2.3 Confucius, 1770, Granger Collection

Filial piety

According to Confucian teaching, filial piety is the basis of all moral behaviour. This is an ethic based on a deep respect for elders and superiors, and kindness towards inferiors. Confucius identified five relationships in which filial piety was to be observed. These required strict observance of one's own role in order to make society harmonious. These relationships are shown in order of importance in Source H1.2.4.

> 1 Ruler (benevolent) and subject (loyal)
> 2 Father (loving) and son (obedient)
> 3 Older brother (gentle) and younger brother (respectful)
> 4 Husband (good) and wife (attentive)
> 5 Older friend (considerate) and younger friend (deferential)

H1.2.4 The five basic relationships of Confucianism

Daoism

Daoism was founded by the ancient Chinese philosopher Laozi in the sixth century BC. The Chinese word 'Tao' means way or path, but Tao is best understood as a force that runs through everything. Daoism is considered a religion because of its belief in a supernatural deity that is to be worshipped, even though it is one that exists in and through everything. Since the Tao exists in everything, Daoism teaches that everything in the world is connected and must be kept in balance—a concept represented by the yin-yang symbol (see Source H1.2.5).

Taoist influence declined during the period of the Qing Dynasty (1644–1912). At this time, there was an increased interest in Confucianism, which was generally considered to be a more practical belief system. Because Daoism was a native Chinese religion that was popular with the masses, the Qing rulers, who were Manchus, were always highly suspicious of it.

H1.2.5 The yin-yang symbol of Daoism

Buddhism

Buddhism originated in India during the fifth century BC and probably came to China some time during the Qin Dynasty (221–206 BC). Buddhism quickly grew in popularity with ordinary Chinese, since it offered new opportunities for younger sons who had little chance of owning land. Under the Qing emperors, Buddhism fared better than Daoism mainly because the Manchus had already shown a strong interest in Tibetan Buddhism before conquering China. Buddhism includes the following main beliefs:

> *reincarnation*—Buddhists believe that all living things are reborn, or reincarnated. For many Buddhists, therefore, death is seen as a temporary end—a transition between one life and the next. When a living thing is reincarnated, the type of person or creature they are reborn as will be determined by the karma they achieved in their previous lifetime.

> *karma*—simply means acting or doing, and any kind of intentional act is considered to be either good or bad karma. According to Buddhists, every birth is influenced by the karma of the person's previous life.

> *avoid harm*—since Buddhists believe animals and even ghosts can be reborn into human beings, they strive to bring happiness to all living things. By following the five precepts of harmlessness (see Source H1.2.6), Buddhists seek to avoid harm to all including themselves.

There are five key precepts (principles) of Buddhism that seek to guide human behaviour:

> 1 Avoid intentionally killing any living thing
> 2 Avoid stealing from anyone
> 3 Avoid sexual misconduct
> 4 Avoid intoxicants
> 5 Avoid lying

H1.2.6 Buddhism's five precepts of harmlessness

H1.2.7 Detail of an embroidered silk banner of the Buddha. Found in the Buddhist cave temples of Dunhuang, preserved in a sealed cave. Tang dynasty, 618–906.

Ancestor worship

Most Chinese families were dedicated to the daily worship of their dead ancestors. This practice drew on elements of Confucianism, Daoism and Buddhism. One room in every house contained a number of wooden spirit tablets, one for each ancestor. Incense was offered to dead ancestors in the hope that their spirits could help living family members succeed in this world.

Did you know?

In the nineteenth century, the practice of foot binding was common for Chinese women. Having lotus feet (bound feet) forced a young woman to take dainty steps. The process of foot binding began at around the age of 3, before the arch of the foot had had a chance to develop. All ten toes were folded back and broken, as was the arch of each foot.

H1.2.8 An unwrapped lotus foot

H1.2.9 A Chinese man standing in front of ancestral tablets, c. 1905

LS H1B
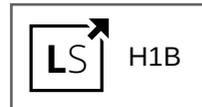
Activities

Remembering and understanding

1 Which groups in Chinese society were considered to be 'good people' and 'mean people'?
2 Why were Chinese peasants ranked higher than merchants?
3 Identify two examples of women's low status in nineteenth-century Chinese society.
4 Why were sons preferred over daughters?
5 Define the terms 'virtue', 'filial piety', 'Tao' and 'karma'.
6 Why is Confucianism not considered to be a religion?
7 What happened to Daoism during Qing rule?
8 Why did Buddhism become more popular during the Qing Dynasty?

Applying and analysing

9 Construct a social hierarchy pyramid. This should show the status, from highest to lowest, of each group in Chinese society.
10 Construct a table that compares and contrasts Confucianism, Daoism and Buddhism.
11 Consider whether or not the five basic relationships of Confucianism could exist in your own family, school and government today.
12 Investigate the origins and purpose of the Eight Manchu Banners. Also find out what was distinctive about each of the eight banners. Present your information, images, video and sound in a digital format of your own choice.

Early missionary contact

Jesuit missionaries

Jesuit missionaries, members of a Catholic order of priests and brothers, were among the first European visitors to China. In 1630 one of the missionaries, Johann Adam Schall von Bell, a learned astronomer, was appointed to the court of Emperor Shunzhi. As a result of his importance to the emperor, the Jesuits were permitted to build churches throughout China. Within a few decades the number of Christian converts had risen to around 150 000.

Protestant missionaries

In 1807 the first Protestant missionary, Robert Morrison, arrived in China. He worked at translating the Bible into Chinese and was the first to produce a Chinese–English dictionary. In 1826, Emperor Daoguang forbade Chinese from converting to Christianity. Those who refused to renounce their faith were banished to the province of Xinjiang, where they were given to Muslim rulers as slaves. Foreign missionaries responsible for conversions were punished.

> He who propagates the religion, inflaming and deceiving the people, if the number be not large, and no names be given, shall be sentenced to strangulation after a period of imprisonment.

H1.3.1 Quoted in Robert Samuel Maclay (1861), *Life Among the Chinese: With Characteristic Sketches and Incidents of Missionary Operations and Prospects in China*, Carlton & Porter

Early trade contact

European trade

In 1685, Emperor Kangxi first allowed Europeans to trade with China. In China, however, there was very little demand for European goods. The Chinese were determined that China should remain self-sufficient and insisted that all foreigners had to pay for their goods with silver. This resulted in a large **trade deficit** (when the value of a country's imports is higher than the value of its exports) for Britain.

The first European trade mission

Until 1793, no European diplomat had ever visited the Chinese emperor. However, in 1792 Emperor Qianlong was informed that Britain's Lord Macartney was coming as part of a tributary mission to celebrate his eighty-third birthday. The eighty-four members of Macartney's mission brought with them an array of gifts for the emperor including a planetarium and mechanical instruments. On 14 September 1793, Macartney finally met with Qianlong but refused to perform the full ceremonial **kowtow** (to kneel and bow before the emperor as a sign of respect). Due to Macartney's lack of respect, Qianlong refused to agree to the requests of the British government (see Source H1.3.2).

Trade between Britain and China was therefore slow to develop, although by 1800 tea accounted for approximately 90 per cent of all British trade with China. By then the British East India Company was importing over 10.5 million kilograms of tea per year.

> Formerly Portugal presented tribute;
> Now England is paying homage.
> They have out-travelled Shu-hai and Heng-chang
>   [famous travellers in Chinese mythology];
> My Ancestors' merit and virtue must have reached their
>   distant shores.
> Though their tribute is commonplace, my heart
>   approves sincerely.
> Curios and the boasted ingenuity of their devices I
>   prize not.
> Though what they bring is meagre, yet,
> In my kindness to men from afar I make generous
>   return,
> Wanting to preserve my good health and power.

H1.3.2 Poem written by Emperor Qianlong about Macartney's mission to China, quoted in Immanuel C.Y. Hsu, *The Rise of Modern China*, Oxford University Press, 1983

Limiting European contact

To restrict the activity of foreigners, a unique system of trade known as the Canton System was introduced. All foreign trade had to be conducted through the port of Canton in the far south of the empire. Interaction between foreigners and ordinary Chinese people was not allowed and all dealings had to be with one of thirteen government-appointed Hong merchants. All foreigners were subject to Chinese law, which many Europeans objected to (see sources H1.3.3 and H1.3.4).

1. No foreign women or firearms are permitted in the factories.

2. All foreigners must leave Canton after the trading season (October to January).

3. All captains must register their ships with the Chinese authorities in Macau.

4. Foreigners can move freely only within 100 yards of their factory.

5. Foreign factories are not permitted to employ Chinese maids.

6. Foreigners are not permitted to row their boats in the Pearl River.

7. Foreigners are not permitted to learn Chinese or purchase Chinese books.

8. No foreigner is permitted to make direct contact with Chinese people.

9. All trade must be conducted via the Hong merchants—no foreigner is permitted to directly communicate with private Chinese merchants.

10. Hong merchants are not permitted to go into debt to foreigners.

H1.3.3 Regulations on foreign trade in Canton

Continuity and change: Opium in China

The opium trade

Opium is produced from the sap of the opium poppy. The sap is turned into powder, which is then used mainly for medicinal purposes, but it is also a highly addictive drug. Towards the end of the eighteenth century opium became increasingly popular in China. Illegal smuggling fed the growing demand for the drug. In 1796, Emperor Jiaqing banned the sale of opium but this had little effect. In 1833, the British government ended the British East India Company's opium monopoly (exclusive trade) in India. This flooded China with cheap opium and changed society dramatically.

H1.3.5 Growth of opium imports into China

Year	Number of chests imported
1729	200
1790	4000
1820	5000
1830	16000
1838	28000
1858	70000

H1.3.4 The Hongs at Canton c. 1820, artist unknown. Note the flags being flown.

It is estimated that at the height of the opium trade there were as many as 10 million addicts throughout China, and that about 20 to 30 per cent of government officials were opium users. This had severe social and economic consequences, as addicts became withdrawn and apathetic and spent most of their income on opium. Opium addiction was a problem for all classes of Chinese.

China's response to illegal opium

In 1839, Lin Zexu was appointed as the imperial commissioner responsible for destroying the opium trade. He had over 1600 Chinese opium dealers arrested and confiscated more than 42 000 pipes used to smoke opium. Commissioner Lin's perspective on the opium trade can be seen in the letter he wrote to Queen Victoria, pleading for her to stop the trade (see Source H1.3.6).

We have heard that in your own country opium is prohibited with the utmost strictness and severity: this is a strong proof that you know full well how hurtful it is to mankind. Since then you do not permit it to injure your own country, you ought not to have the injurious drug transferred to another country, and above all others, how much less to the Inner Land [China]!

H1.3.6 Extract from a letter from the Imperial Commissioner Lin Zexu to Queen Victoria in 1839

On 18 March 1839, Lin ordered all foreign merchants to hand over their opium within three days and sign a pledge to never sell it again. When the merchants ignored this, he closed the port of Canton to all foreign shipping and seized control of a British factory with 350 people inside. They were only freed when the British government agreed to destroy 20 000 chests of opium, but they demanded financial compensation for the loss.

The Opium Wars

In response to the destruction of the opium, the British Navy sent a fleet of warships to seize control of Canton and other coastal ports. Wooden Chinese junks stood no chance against steam-powered, iron-hulled British ships. In 1842, the British fleet was able to occupy Shanghai and then proceed up the Yangtze River towards Nanking, bombarding several coastal towns along the way. Hostilities ceased on 29 August 1842, when the Chinese agreed to sign the Treaty of Nanking. This **ceded** (lost) control of Hong Kong to Britain and opened four new ports to British shipping. In addition, China agreed to pay the equivalent of $9 million in compensation for the opium that had been destroyed. In 1844, France and the United States took advantage of China's defeat by obtaining similar **unequal treaties** (one-sided treaties that usually benefited Europeans).

These changed China by effectively ending the Canton System and allowing the Western powers to penetrate inland China.

The opening of China

For the next decade, Chinese authorities were reluctant to carry out the terms of the unequal treaties. This led to the start of the Second Opium War in 1856, with even worse consequences for the Chinese. The Treaty of Tientsin in 1858 required many changes, including the opening of eleven new ports to foreign shipping and the freedom for all foreigners, including Christian missionaries, to travel throughout China. Previous laws that made foreigners subject to Chinese law were also abolished.

Activities

Remembering and understanding

1 How did Emperor Daoguang respond to the spread of Christianity in China?
2 Explain how and why trade between China and Britain first began to develop.
3 What did the failure of Lord Macartney's trade mission show about attitudes of Europeans and Chinese towards each other?
4 Why did the opium trade develop and how did the Chinese try to deal with it?

Applying and analysing

5 Examine Source H1.3.3. Explain how each regulation aimed to limit European contact. Discuss whether or not you think each regulation would have been effective.
6 Analyse the Opium Wars by creating a five-column table and listing the following:
   • *causes*—reasons for the outbreak of the wars
   • *course*–turning points during the wars
   • *consequences*—results of the wars
   • *characters*—important individuals and groups involved
   • *controversies*—issues which were or are still debated.
7 Carefully examine Source H1.3.2. Write a similar poem from the perspective of the Commissioner Lin Zexu on the growing opium trade in 1839.

Evaluating and creating

8 Evaluate Source H1.3.7. What message does it convey and what techniques does it use?

H1.3.7 'China: The cake of kings and emperors', 1898, *Le Petit Journal*

H1.4 Consequences of contact with Europeans

Mixed consequences

Positive consequences of the contact between China and Europe included:

➤ the beginning of modernisation
➤ new economic opportunities
➤ reform of the Qing government
➤ Chinese emigration worldwide
➤ the beginning of trade relations
➤ new cultural awareness.

Negative consequences of the contact between China and Europe included:

➤ a weakened Chinese military following defeat and humiliation in war
➤ increased opium imports and addiction
➤ loss of China's prestige in Asia
➤ an influx of foreign ideas
➤ a weaker Qing Dynasty following rebellions such as the Taiping Rebellion
➤ the decline in traditional cottage industries
➤ territorial losses to Russia
➤ concessions made in the unequal treaties.

Effects of the Opium Wars

Economic effects

With the opening of several new 'treaty ports' after the Opium Wars, China experienced an influx of foreign goods. This led to a serious decline in traditional cottage industries. Canton suffered the most, since the city had been the only port open to European traders for well over 150 years. As a result, there was a mass movement of people from Canton to Shanghai. This brought with it enormous social problems such as homelessness and crime.

Religious effects

China's southern provinces were the first to experience an influx of Christian missionaries from the West. Christianity appealed to the growing number of people who had been forced to leave their homes in search of work. This led to tension. Christians accused Buddhists and Taoists of superstitious idol worship, while Christians were accused of accepting a foreign faith.

H1.4.1 French-British army enters through the Tchao-yant gate, Peking

The Taiping Rebellion

The most serious of the rebellions against the Qing Dynasty at this time was the Taiping Rebellion. The Taiping Rebellion became a 14-year civil war that resulted in the deaths of around 20 million soldiers and civilians.

Did you know?

The Protestant beliefs of the Taiping rebels were at odds with mainstream Confucian values. Many Chinese were wary of the Protestant view that all believers are equal, since this threatened to destroy the roles and responsibilities between superiors and inferiors in society.

The leader of the rebellion was Hong Xiuquan, a recent Christian convert. Establishing a capital for his Taiping Heavenly Kingdom in Nanking, Hong eventually built a civilian army of over 1 million men. As they gained control of new territory, the Taiping rebels:

➤ redistributed the land equally to all men and women over the age of 16
➤ destroyed temples and shrines and forbade ancestor worship
➤ introduced measures to support the sick and people with disabilities
➤ prohibited opium smoking, foot binding, slavery and prostitution.

> I have no hope of any good ever coming of the (Taiping) rebel movement ... They do nothing but burn, murder and destroy ... They have held Nanking eight years, and there is not a symptom of rebuilding it. Trade and industry are prohibited.

H1.4.2 Alexander Michie, an Englishman who visited the Taiping Heavenly Kingdom in Nanking in 1861 (quoted in Hsu, *The Rise of Modern China*, Oxford University Press, 1983, p. 245)

Defeat of the rebellion

The Taiping Rebellion was eventually crushed in 1864 with the help of foreign armies. This occurred only after the rebels began to threaten foreign trade. By guaranteeing the continuation of foreign trade, the Qing Dynasty was able to draw support from European powers.

H1.4.3 The Taiping Rebellion, 1850

Modernisation

The shock of defeat in the Opium Wars and, later, the near success of the Taiping Rebellion led to a period of 'self-strengthening' by the Qing Dynasty. The Qing Dynasty survived for almost 50 more years, mainly because its officials recognised the need to modernise China. In 1898, during the 'Hundred Days of Reform', economic, military, political and educational changes were made.

China looks abroad

As part of the 'self-strengthening' policy, Chinese students were encouraged to study overseas to find out about Western scientific knowledge. As a result, small-scale industry began to emerge, including gun factories, shipyards and textiles factories. In 1861, the first Office for Foreign Affairs was established and Chinese officials were encouraged to learn foreign languages.

Foreign wars

In 1884, China went to war with France over control of Annam (part of present-day Vietnam) and lost. Annam had long been one of China's tributary states.

In 1885, the British followed the French example and added Burma, another of China's tributary states, to their vast empire. In 1895, after a short and decisive naval battle against Japan, China was forced to cede its most important tributary state, Korea. This was the first time in centuries that China had been defeated by another Asian power.

Activities

LS H1C

Remembering and understanding

1 Outline two effects of the opening of China after its defeat in the Opium Wars.
2 Who was Hong Xiuquan? What did he believe and attempt to do?
3 Why was the Qing Dynasty able to survive the Taiping Rebellion?

Applying and analysing

4 Give an example of how contact with European powers did not always benefit China.
5 Imagine that the year is 1839 and you are Commissioner Lin Zexu. Faced with solving the problem of the British opium trade, consider the options that are realistically available to you. Think about both intended as well as unintended outcomes of all of the available options. You may include real decisions and actions made by Commissioner Lin.

The Boxer Rebellion and its aftermath

Causes of the Boxer Rebellion

Growing anti-Western feeling

In 1898, the Yellow River burst its banks. The flood caused crop failure and resulted in a famine directly affecting over 2 million people. Widespread poverty and hunger led to frustration and anger. Banditry and violence became common throughout the countryside. To protect their villages from looting, a movement of Chinese martial artists called the Yihequan (the Righteous and Harmonious Fists) arose. Nicknamed Boxers by the British, this movement turned into a large peasant revolt intent on ridding China of all foreign influence.

Many Chinese blamed their problems on the arrival of foreigners and turned to the Boxers. It was believed the Boxers had mystical powers that would enable them to defeat the foreigners. These powers included spells that, if chanted correctly, would supposedly make the individual invulnerable to bullets.

H1.5.1 'Boxer' of the Boxer Rebellion in China, 1900

Course of the Boxer Rebellion

Attacks on Christians
The Boxer Rebellion began in the province of Shandong in northern China. At first, the Boxers attacked churches throughout the countryside. Chanting slogans such as 'Destroy what is foreign' and 'Kill the foreign devils', the Boxers and their supporters ripped up railway tracks and telegraph lines.

The Siege of Peking
By 1899, the Boxer movement had grown into a considerable force and spread northwards to Peking, where it aimed to destroy foreign embassies. The Boxers also wanted to overthrow Emperor Guangxu, whom they blamed for allowing the spread of foreign influence. For 55 days, the Boxers laid siege to Peking, trying to destroy the foreign embassies and kill the diplomats, their families and the Chinese Christians who took refuge there. During the siege, sixty-six foreigners were killed and more than 150 were wounded.

Fearing the overthrow of the Qing Dynasty, the Dowager Empress Cixi (widow of the previous emperor) sided with the Boxers. With the support of anti-Western officials within the palace, Cixi deposed her own son, Guangxu, and had him imprisoned. On 21 June 1900, Cixi promised to support the Boxers.

Western intervention
In response to the attacks upon their embassies, Britain, France, Russia, Germany, Austria-Hungary, the United States of America, Italy and Japan formed the Eight-Nation Alliance and sent a multinational force of 50 000 troops. In July 1900, the first foreign forces arrived with badly needed supplies and went into battle with the Boxers (see Source H1.5.2). Over the next year, the forces of the alliance gradually gained control over the provinces of northern China.

Did you know?

The Chinese secret society known as the Yihequan (the Righteous and Harmonious Fists) emerged from the coastal area of Shandong. The group practised boxing and calisthenics in the hope of becoming indestructible, which is why they became known as the 'Boxers'. They intensely disliked Western foreigners and attempted to overthrow the Qing Dynasty because of its perceived weaknesses in relation to foreigners.

H 1.5.2 American, British and Japanese troops storming the Imperial Pekin castle in Beijing, China, 14 August 1900

H1.5.3 Boxer prisoners captured and brought in by the 6th US Cavalry in Tientsin, 1901

Consequences of the rebellion

Relations with foreign powers

On 7 September 1901, the Dowager Empress Cixi signed the Boxer Protocol, a peace agreement that forced the ruling dynasty to pay around $333 million to the Eight-Nation Alliance. China was prohibited from importing weapons and ammunition, and all anti-foreign activity was to be punishable by death. Ten leading officials of the Qing court were executed for their role in supporting the rebellion and the massacre of Christians.

Did you know?

A contingent of naval troops from the colonies of Victoria and New South Wales was sent to assist the British in the fight against the Boxers in late 1900. The Australians took part in a number of actions and played a role in restoring order once the rebellion had been crushed, but they saw little direct combat.

H1.5.4 Dowager Empress Cixi

Chinese perspectives

For the past 30 years [foreign powers] have taken advantage of our country's benevolence and generosity, as well as our whole-hearted conciliation to give free rein to their unscrupulous ambitions.

H1.5.5 Dowager Empress Cixi, 1900

La Chine aux Chinois! — Tel pourrait être le titre d'une publication répandue à foison dans toute la Chine et dont nous reproduisons ici quelques images en résumant le texte qui les accompagne. Ce livre a dû puissamment contribuer à la préparation des événements actuels. Il s'ouvre par une image représentant des Chinois prosternés autour d'un porc crucifié, tandis que derrière eux, des chrétiens courtisent leurs femmes.

H1.5.6 *China for the Chinese*, 1891—a popular Chinese print calling for attacks on foreigners

A Western perspective

H1.5.7 'Civilisation is telling the Chinese emperor to slay the Boxer dragon, otherwise she will be forced to do it', *Puck*, c. 1900

Chinese nationalism and the collapse of the Qing

Sensing the decline of Manchu power, many Han Chinese (from the majority ethnic group) saw an opportunity to overthrow the Qing dynasty. The belief that the Han should rule China is known as Chinese **nationalism** (belief that people of the same race, culture or ideals ought to belong to the same nation-state and rule themselves).

In 1911, the nationalists overthrew the Qing Dynasty and established a new **republic** (a country in which ultimate power is held by the people entitled to vote and the head of state is a representative of them, not a hereditary monarch). This brought an end to over three centuries of Manchu rule and more than 2000 years of dynastic rule in China.

China and World War I

The new Chinese republic under Yuan Shikai was initially neutral in World War I but declared war on Germany in 1917.

In January 1915, Japan issued Twenty-One Demands which China reluctantly accepted. The demands included confirmation of Japan's railway and mining claims in Shandong province, the granting of concessions in Manchuria and access to areas along the Chinese coast. Chinese anger at what it saw as generous treatment of Japan at the post-war Paris Peace Conference in 1919 contributed to the rise of the Chinese Communist Party, which seized control of China in 1949.
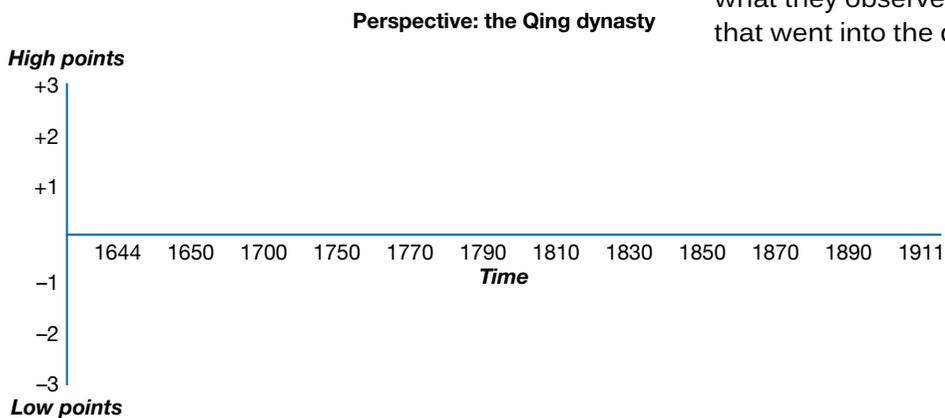

Skills builder

Historical thinking with living timelines

In history we often use timelines, but how can we use them to generate historical thinking?

Historical thinking explores five key areas: chronology, sources as evidence, continuity and change, cause and effect, and historical significance. Living timelines can help you to think about these ideas and to consider history from a range of perspectives and angles.

Here is one suggestion for creating a living timeline in your classroom. You will need a clear area on the floor, index cards, blank paper, pens, and two long pieces of string.

1   Using the string and index cards, create an arrangement like this on your classroom floor:

Perspective: the Qing dynasty

High points
```
+3 |
+2 |
+1 |
   |_____
   | 1644 1650 1700 1750 1770 1790 1810 1830 1850 1870 1890 1911
-1 |                    Time
-2 |
-3 |
```
Low points

2   Working in small groups, create cards listing key events in the period. Use this chapter to find the information. An event that occurred over a period of time should appear on a long, thin piece of paper.

3   Appoint a student to take notes on the activity and the discussion to follow. The note-taker should focus not so much on the choices people make but on the reasons they give.

4   Taking turns, place each event in the appropriate place on the timeline. You should make your judgements from the perspective of the Qing government. For example, the seizure of China by the Qing Dynasty in 1644 might appear as a high point of +3, while the overthrow of the Qing in 1911 might be a low point of –3. Each placement should be justified, and if others disagree with the placement, the placement should be discussed.

5   When all the events have been placed on the timeline, discuss any patterns or features that appear. The note-taker should report back on what they observed about the historical thinking that went into the decision-making.

6   You could then repeat the activity from a different perspective, such as that of Britain, or anti-foreign Chinese such as the Boxers. Alternatively, you could measure economic or social life in the same period.

Activities

LS → H1D

Remembering and understanding

1   Identify the events that occurred in the years 1898, 1899, 1900 and 1901.
2   Who were the Boxers and why did many Chinese peasants support them?
3   Explain how the Boxer Rebellion affected the Qing emperor Guangxu.
4   How were the Boxers eventually defeated?
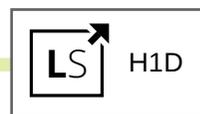
Applying and analysing

5   Examine sources H1.5.5 to H1.5.7. In a Venn diagram or other graphic organiser, compare and contrast Chinese and Western perspectives on the Boxer Rebellion.

Evaluating and creating

6   Read about living timelines in the Skills Builder. Create a living timeline about the level of conflict experienced by China (internally and externally) in the period 1750–1918.

下田 踏海之図

Japan and the modern world

H2

From the arrival of Christian missionaries in 1549 and Dutch traders in 1609, Japan had an uneasy relationship with foreigners until an event that changed the country forever. In 1853 a United States naval force under the command of Commodore Matthew Perry arrived in Edo Bay, bringing the traditional shogunate society out of isolation. The wresting of control from shoguns to emperor during the Meiji restoration allowed Japan to survive humiliations and emerge as an industrialised modern nation able to compete with Western powers. After success in a number of conflicts in the early twentieth century, Japan set out to prove its military strength.

OVERVIEW QUESTIONS

H2A What was the Tokugawa Shogunate and how did it rule Japan?

H2B How was traditional Japanese society structured?

H2C How did Japan respond to approaches from foreign traders?

H2D How did Japan modernise politically and economically?

LS Before you begin

GLOSSARY

Bushido samurai code, sometimes known as the Way of the Warrior

conscription compulsory service in the armed forces

daimyo feudal lords who controlled major regions during the rule of the shogun

feudalism a system in which a ruler claims ownership of all lands, but rewards loyal nobles with control of a domain

hierarchy a social structure in which some members are ranked higher than others

imperial pertaining to an emperor or their empire

nationalism belief that people of the same race, culture or ideals ought to belong to the same nation-state and rule themselves

samurai members of the Japanese warrior class

shogun military ruler

shogunate military government

sphere of influence a region where one foreign power is recognised as the controlling power

syncretism the merging together of two religions or traditions

H2.0.1 A woodcut artwork depicting Commander Perry's arrival in Japan in 1853

Timeline

Japan and the modern world

Between 1750 and 1918, Japan underwent significant change. Traditional ways of life based on Shinto, respect for ancestors and honour codes were disrupted by urbanisation and economic challenges. The Tokugawa government, dominated by localised shoguns, daimyo and samurai, was remade as an industrialised nation under the 'enlightened' Meiji Emperor. The demand for access to Japanese ports and goods brought the country into greater contact with foreigners, not always harmoniously. Japan's victory in the war with Russia in the early twentieth century emboldened it for future incursions into China and beyond.

1872
Conscription is introduced for men over 20 years of age; Japan begins producing modern weapons and sends officers to European academies

1854
The first treaty is signed between Japan and a Western power, the Treaty of Kanagawa

1603
The warlord Tokugawa Ieyasu establishes a military government— his descendants will run the shogunate for 250 years

1853
US Commodore Perry's squadron of four gunboats arrives in Edo Bay

AD

1600   1700   1800   1880

1867
Civil war breaks out between supporters of the emperor and supporters of the shogun; Mutsuhito becomes the Meiji (enlightened) Emperor

1868
The shogunate is officially abolished

◄ Japanese block print artwork showing Japan's victory at Port Arthur, c. 1905

Commodore Matthew Perry's arrival

Allied Peace Conference at Versailles, France, 1919

1894
Japan occupies most of Korea and enters Manchuria, a border state of China; First Sino-Japanese War begins

1915
Japan issues China with Twenty-One Demands, including confirmation of its claims in Shandong province, concessions in Manchuria and access to the Chinese coast; China reluctantly agrees

1919
As a result of the Paris Peace Conference, Japan is granted control of Germany's holdings in Shandong, China; Japan stands as a confident modern nation

1881   1900   1910   1920   AD

1902
Anglo-Japanese Alliance is the first military alliance between a European power and an Asian power; Japan joins the Eight-Nation Alliance that helps suppress China's Boxer Rebellion

1914
Japan enters an alliance with the Entente Powers in World War I

1904
Japan's attack on the Russian fleet in Port Arthur in Korea leads to the Russo-Japanese War

1905
The Treaty of Portsmouth is signed between Russia and Japan

Tokugawa Ieyasu

H2.1 Introducing Japan in the Tokugawa period

Geographical features

Japan is an archipelago, with the four largest islands being Hokkaido, Honshu, Shikoku and Kyushu. It is quite mountainous, so most crops are grown in tiered terraces. Japan regularly experiences earthquakes and volcanic eruptions as it sits on a fault line.

Political features

Tokugawa rule

In 1603, the powerful warlord Tokugawa Ieyasu took control of Japan. The Tokugawa clan established a **shogunate** (military government) with the shogun at its head. For the next 250 years, Ieyasu's descendants ruled as shoguns. The Tokugawa Shogunate controlled about 40 per cent of the land and divided the rest among daimyo (nobles). The Tokugawa were the last shoguns to rule Japan.

H2.1.1   Tokugawa Ieyasu

The shogun and the emperor

Real power in Japan lay with the shogun. As commander-in-chief of the army, the **shogun** ruled as a military dictator. The shogun, his relatives and allies controlled the most fertile and important regions of Japan. The shogun controlled foreign affairs and trade.

Although the emperor was believed to be divinely appointed, he was merely a figurehead who gave all political authority to the shogun, which means the shogun ruled on the emperor's behalf. The emperor's role was mainly ceremonial, because he was the head of Shinto, Japan's dominant religion.

Daimyo

The **daimyo** were nobles who controlled most of the land. Each daimyo was the head of a large clan and a region granted by the shogun. Daimyo could make new laws within their regions unless these were opposed by the shogun.

There were two classes of daimyo.

> **Inner daimyo**
> - had fought alongside the Tokugawa clan
> - held most of the high-ranking positions and were therefore more powerful

> **Outer daimyo**
> - had fought against the Tokugawa clan
> - had a lower position and less power

H2.1.2   Daimyo in the Tokugawa period

Shogun controls over daimyo

Daimyo and their armies had to spend long periods at the shogun's castle in Edo (present-day Tokyo). The march to Edo was long and costly, and they were required to stay for 6 months. Every alternate (second) year, the families of the daimyo were ordered to Edo, where they were effectively kept hostage by the shogun.

Economic features

Feudalism

By 1750, Japan had been a **feudal** economy for more than a century. This meant that the major economic activity was the production of food and other natural resources. Droughts and food shortages were relatively infrequent. In a feudal society, wealth is determined by the amount of land a person owns.
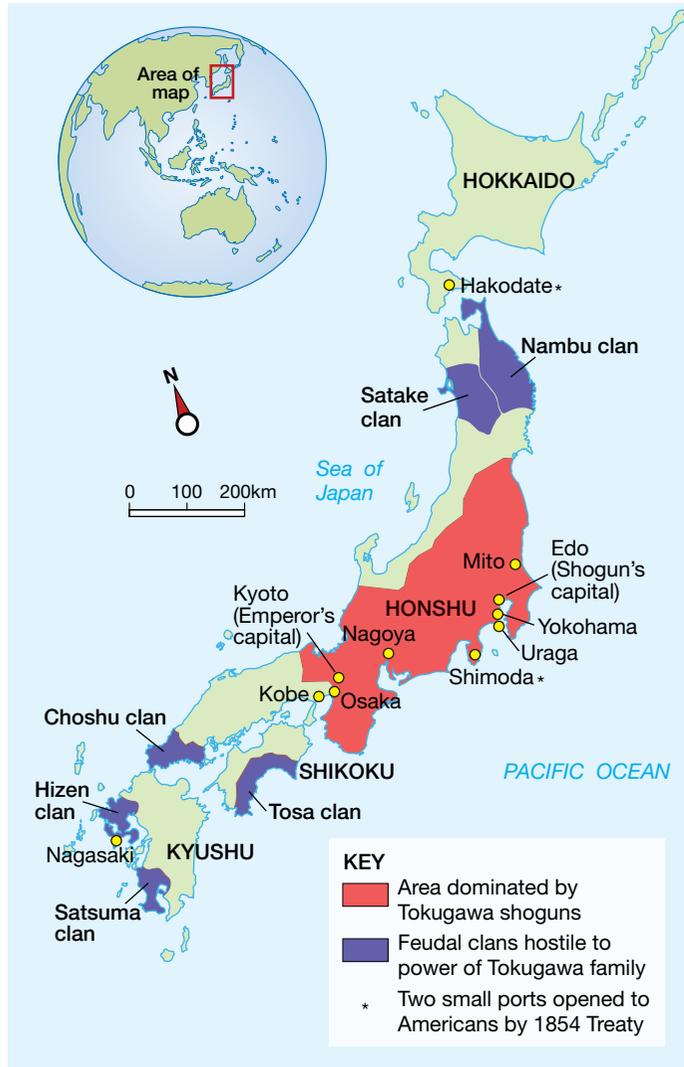
H2.1.3 The extent of Tokugawa control

Movement and trade

Throughout the nineteenth century, Japan's society and economy underwent significant change. As travel between towns and villages increased, merchants saw an opportunity to set up stalls, tea houses (see Source H2.1.4), textile shops and restaurants along the way. Land ownership became less important for creating wealth. Cities such as Edo grew substantially, as many artisans, craftspeople and merchants sought new business opportunities among the hundreds of thousands of travelling samurai (members of the warrior class).

H2.1.4 Japanese travellers at a tea house, c. 1863

Dutch trade

Except for a small outpost of Dutch traders, no foreigners were allowed to trade in Japan in the Tokugawa period. To restrict their movement, Dutch merchants were confined to a small island off the coast of Nagasaki known as Deshima. The Dutch presence allowed the Tokugawa rulers to keep informed about important developments outside Japan. It was through these Dutch traders that the ruling class of Japan first saw new products and ideas from the West.

Activities

Remembering and understanding

1 Who was Tokugawa Ieyasu and why is he significant in Japanese history?
2 What challenges did daimyo face when they were required to spend long periods of time at the shogun's castle?
3 How did the Japanese economy begin to change in the nineteenth century?

Applying and analysing

4 Examine Source H2.1.3. Using the information in this unit, explain how the Tokugawa clan controlled Japan.
5 Why did travel between towns and villages lead to change in Japanese society?

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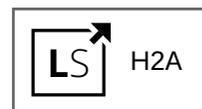
H2.2 Japanese society and culture

The social structure

After gaining the shogunate, the Tokugawa introduced a strict class system or **hierarchy** to Japan. This helped to bring stability to Japan after nearly a century of civil war and social upheaval. Individuals were forbidden from changing their social class. The following groups in Japanese society were beneath the shogun and the daimyo.
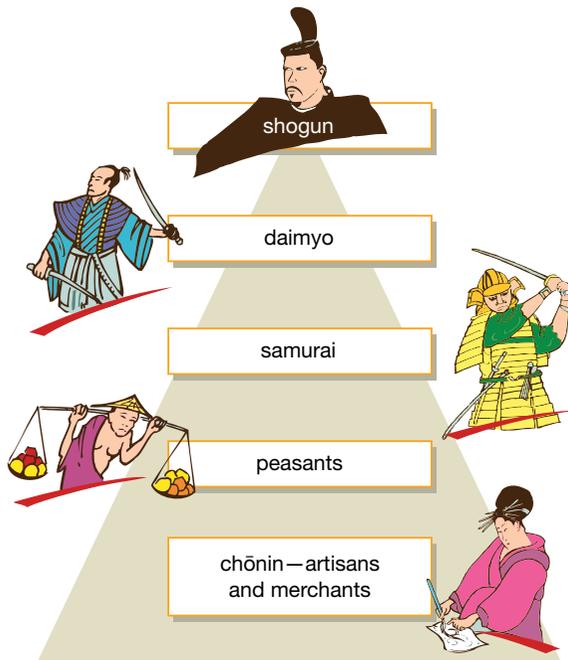
H2.2.1 Japanese feudal society during the Tokugawa period

Samurai

Samurai were Japanese men of noble birth who were the protectors of their lords and their lands. 'Samurai' means one who serves. Samurai were the Japanese equivalent of knights. Samurai made up about 6 per cent of the population, but by the nineteenth century their numbers were in decline due to centuries of peace. Many samurai then took on roles as administrators of the daimyo's land and possessions. If a samurai took offence, he could kill any person considered to be below him. All commoners had to dismount from their horses when they encountered a samurai.


H2.2.2 A samurai, nineteenth century

Peasants

By far the largest group was the peasants, making up around 90 per cent of population. Peasants were farmers and labourers who produced food crops, including rice, wheat and barley. They were the backbone of the economy and their work was considered highly important. Much of the rice they produced was taken by their ruling daimyo as tax. Peasants rarely, if ever, left their village—to do so required a special permit from the daimyo.

Chōnin

Chōnin included those who bought and sold things. There were two groups of chōnin: artisans and craftspeople, and merchants. The chōnin were at the bottom of the social ladder because business and moneylending were not thought to be a noble pursuit. Chōnin were typically townspeople, because wealthier people came to towns to buy things. Throughout the nineteenth century, the wealth of the chōnin increased greatly and many began to dress and act like samurai. Nevertheless, they lacked the same status as other classes.

Eta—the 'untouchables'

Eta were social outcasts who were considered impure, mainly because they worked in occupations associated with death. The term 'eta' means much dirt. Eta inherited their lowly status and many were born 'untouchable' because of a crime committed by a grandparent or even a great-grandparent. Eta lived in ghettos on the outskirts of town, where they worked as leather producers, butchers, undertakers or any occupation associated with death. Eta were also executioners.

Religion and culture

Shinto

Shinto is a native Japanese religion that developed from around the eighth century BC. The word 'Shinto' means way of the gods, and followers believe that all natural elements, including wind, water, fire and land features have their own spirits. These gods are known as kami, and people call upon them when they need help. It is believed that kami will only help if the individual is free from all impurity.

Buddhist influence

Since Shinto is more a system of religious practices than specific beliefs, it has syncretised (combined well) with Buddhism. Another reason for this **syncretism** (merging together of two religions or traditions) is that Shinto is considered to be useful for daily life, while Buddhism addresses issues of death and suffering. Under Tokugawa rule, Buddhist influence declined as Confucianism became more popular. Confucianism, based on the teachings of Chinese scholar Confucius (born in the sixth century BC),

teaches that subjects ought to show deep respect and obedience to their ruler.

Daily life

Villages

Since most Japanese people in the Tokugawa period were peasants, hard physical work was a daily experience. Rural families lived in villages, which were administered by councils representing the male leaders of the families. At this time, a family could consist of numerous aunts, uncles and cousins as well as parents, siblings and grandparents. Peasants were required to help build public works such as roads, bridges and canals. Other village work included silk production, textile making and sake brewing.

Towns and cities

Japanese towns tended to grow around castles, where the daimyo resided. This was because artisans and craftspeople were needed to produce weapons, armour and clothing for the samurai. Towns and cities were divided into special quarters for the different classes. Samurai would only mix with artisans and merchants out of necessity. There were also labourers who cooked, cleaned, mended clothing and helped repair the castle.

Growth of the merchant class

In the nineteenth century, Japan's merchant class grew. Unlike peasants, merchants did not require a special permit to leave their village. Movement between towns and villages was common. Many flocked to Edo, which had become a large city because the daimyo and their armies had to spend long periods of time there paying homage to the shogun.

H2.2.3 Peasant labourers, c. 1890

Women and children

Wives

Most women held a lowly status in traditional Japanese society. A wife was the servant of her husband, father and son. Opportunities outside the family home were virtually non-existent. If her husband chose to divorce her, a woman could return to her own family but this would bring great shame upon them. A woman could seek a divorce, but this meant that she would have to become a nun and live in a temple for two years. Some wealthier women, however, enjoyed special privileges.

> A woman has no other lord; she must look to her husband as her lord and must serve him with all worship and reverence, not despising or thinking lightly of him. The Way of the woman is to obey her man.

H2.2.4 Excerpt from *The Great Learning for Women* by Kaibara Ekken, c.1729

Geisha

Geisha were professional female entertainers who accompanied wealthy men in public. They were not prostitutes, although some geisha might have performed sexual favours for clients. Being a geisha was considered a worthy occupation for wealthier women. A geisha could train for up to 7 years, learning how to read poetry, sing, dance, play games and make conversation. This apprenticeship might begin at the age of 6.

Children

In Shinto, children are gifts of the gods. When they turned 3, 5 and 7, children were taken to the local shrine, where their parents would promise to take good care of them. Japanese children were rarely smacked, but they were expected to have the utmost respect for adults. Only sons could inherit their father's land.

Changes in society

The role of the samurai

By 1800, centuries of peace meant that their traditional role as warriors was no longer important. Many samurai turned their attention to learning, art and administration.

As their influence declined, however, many samurai became poor and some turned to crime. More-traditional samurai reacted by reasserting the ancient Code of **Bushido**, sometimes known as the Way of the Warrior. At the heart of Bushido was unquestioning loyalty to one's ruler. Nothing that brought shame to the leader would be tolerated. According to Bushido, death was preferable to shame.

Dutch learning

Shortly after coming to power in 1603, Tokugawa Ieyasu shut Japan off from contact with foreigners. This 'closed country' policy, known as sakoku, lasted for over two centuries. During that time, foreign influences such as Christianity almost died out. However, by the nineteenth century a few samurai had begun to learn about Western science and medicine, through books smuggled from Dutch traders. Over time, these samurai became more interested in new ideas, or 'Dutch learning'.

Activities

Remembering and understanding

1 Draw a social pyramid of Japanese society in the nineteenth century. Include details about people's rights.
2 Why were peasants considered the backbone of the economy?
3 What are kami and why are they important to followers of Shinto?
4 Explain the syncretism of Shintoism and Buddhism.
5 Describe what life was like for women and children in Japan in the Tokugawa period.

Applying and analysing

6 Annotate your social pyramid from Activity 1. Use at least two adjectives to describe each social group.
7 Choose two groups from Japanese society. Using your answers to activities 1, 5 and 6, construct a Venn diagram to compare and contrast the two groups.
8 How and why did the role of the samurai change over time? What differing effects did this have on the samurai?

Evaluating and creating

9 With a partner, brainstorm the possible effects on a society of being isolated from the rest of the world. Were there more positive or negative effects? Explain.
   As a group, discuss the restrictions that would be needed to stop contact with the rest of the world. Consider also why a modern-day country may wish to isolate itself.

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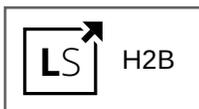
H2.3 Contact between Japan and the West
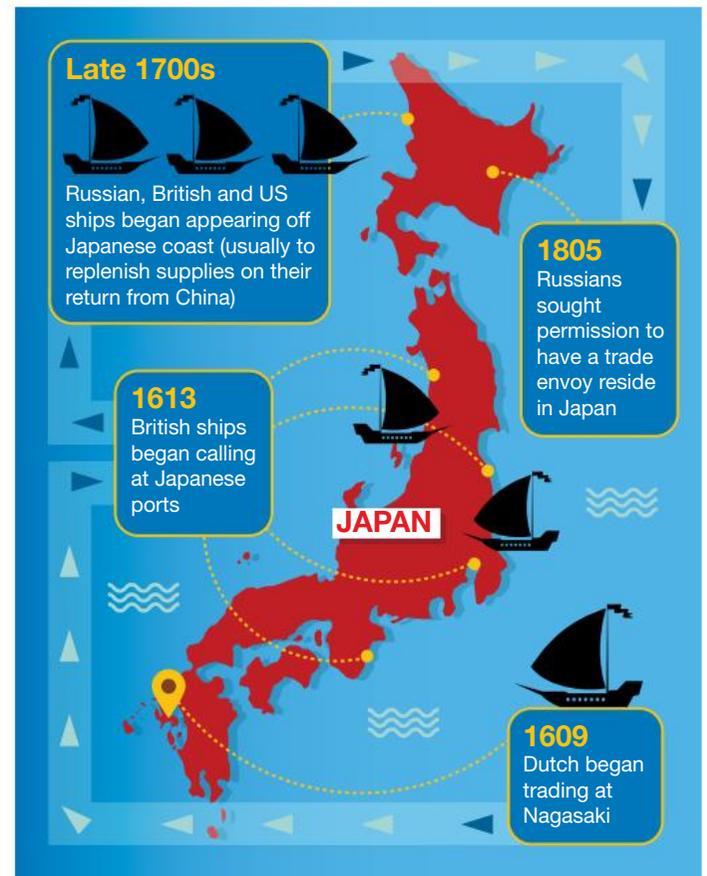
Early missionary contact

In 1549, the first Jesuit missionaries arrived in Japan, led by Spanish priest Francis Xavier. By 1600 as many as 300 000 Japanese had converted to Christianity. Although the ruler of Japan at the time, Hideyoshi, had initially welcomed Christian missionaries, towards the end of his life he began to suspect that their growing numbers and influence might lead to foreign invasion. In 1597, Christianity was banned and Hideyoshi ordered the crucifixion of twenty-six Christians, including nine foreign missionaries.
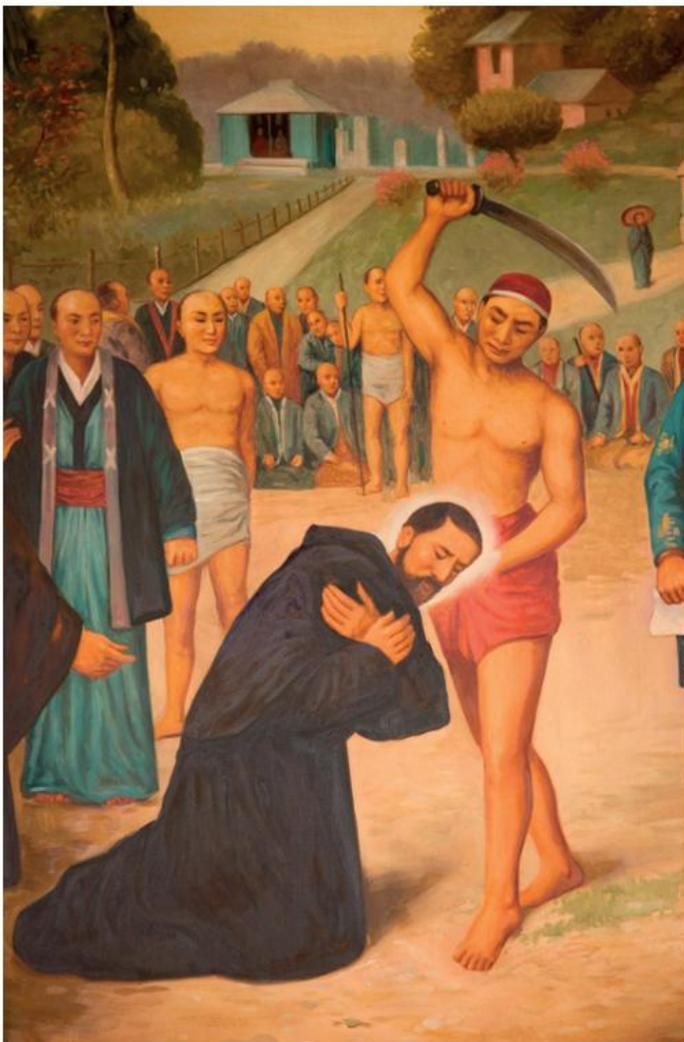
H2.3.1 The execution of a Catholic monk in Japan, depicted in a mural in San Agustin Church, Manila, Philippines

The end of isolation

Hideyoshi's actions did not deter foreign interest in Japan.

Late 1700s
Russian, British and US ships began appearing off Japanese coast (usually to replenish supplies on their return from China)

1805
Russians sought permission to have a trade envoy reside in Japan

1613
British ships began calling at Japanese ports

JAPAN

1609
Dutch began trading at Nagasaki

H2.3.2 Western contact with Japan 1600–1800

American interest in Japan

In the decades following 1805, the United States of America developed a strong interest in the Pacific region. US steamers en route to China needed a coaling station, and US whaling ships required a base, as several had been shipwrecked off Japan. The Americans were also concerned that if they did not act soon, the British would eventually dominate the Pacific trade.

Commodore Perry's arrival

In 1852, American president Millard Fillmore announced that a naval force under the command of Commodore Matthew Perry would proceed to Japan to negotiate a trade agreement. On 8 July 1853, Perry's squadron of four gunboats arrived in Edo Bay. Local Japanese were alarmed at the sight of huge black ships with powerful cannons and by the strong military force that accompanied Perry ashore.

H2.3.3 Perry's arrival in Japan

The whole city was in an uproar. In all directions were seen mothers flying with children in their arms, and men with mothers on their backs. Rumours of an immediate action, exaggerated each time they were communicated from mouth to mouth, added horror to the horror-stricken.

H2.3.4 Extract from *The Intercourse between the United States and Japan* by Inazo Nitobe, 1891. Nitobe witnessed Commodore Perry's arrival in Edo.

Perry was ordered by Japanese officials to move his fleet to the Dutch trading post in Nagasaki. Refusing to do so, Perry waited for another 5 days until he was able to formally present a letter of request from the US president to the Japanese emperor. The Americans had hoped to get what they wanted by ignoring the shogun and making their requests to the emperor instead. The president's letter was accompanied by one from Perry himself, in which he made it clear that the Americans were prepared to use force should their 'requests' be refused. Perry agreed to give the Japanese time to consider the president's letter, declaring that he would return to Edo within a year with even more warships.

Many of these large ships-of-war destined to visit Japan have not yet arrived in these seas, though they are hourly expected ... as evidence of (our) friendly intentions, (we) have brought four of the smaller ones.

H2.3.5 Extract from Commodore Matthew Perry's letter to the Japanese emperor, dated 7 July 1853

Perry's return

The arrival of Russian ships in the port of Nagasaki prompted Perry's return to Japan sooner than he had expected, in February 1854. On this occasion, his squadron contained eight gunboats. After stalling for time, the Japanese entered into negotiations with Perry.

H2.3.6 Second landing of Commodore Perry in March 1854

The Treaty of Kanagawa

The Treaty of Kanagawa, between Japan and the United States, was signed on 31 March 1854. This was the first treaty ever signed between Japan and a Western power.

H2.3.7 The Treaty of Kanagawa

Provisions	Consequences
• Opened a few minor ports to US shipping • Allowed for a US consul to reside at Shimoda • Gave the USA 'most favoured nation' status • Ensured that any future benefits given to another power would automatically be given to the USA	• The first of several unequal treaties between Japan and foreign powers. Within a year, similar agreements were made with the Russians, the British and the Dutch. • In 1858, Townsend Harris, the first US consul to Japan, opened four further ports to the USA. • The Harris Treaty allowed Americans in Japan freedom of religious expression. Americans were subject to US rather than Japanese law on the condition that they not sell opium into Japan.

Activities

Remembering and understanding

1 What action did Hideyoshi take to deter foreign interest in Japan?
2 List the foreign nations interested in making contact with Japan.
3 Which country developed the strongest interest in Japan? Explain why.
4 What was the aim of Commodore Perry's visit to Japan? What methods did Perry adopt in order to achieve his aims? Describe the reaction of the Japanese people and Japanese officials to Perry's arrival.

Applying and analysing

5 Evaluate the Treaty of Kanagawa. Consider what impact it would have had on Japan.

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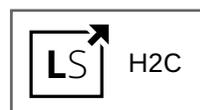
The end of the shogunate

Consequences of foreign contact

Civil unrest

The end of isolation was a major humiliation for the Japanese. People blamed the shogun for not standing up to the foreign powers, and anti-foreign feeling quickly spread throughout Japan. A popular movement called Sonno Joi, which means 'revere the emperor, expel the barbarians', began actively resisting foreign intrusion into Japan. Sonno Joi also led the call for the restoration of the emperor as the political ruler of Japan.

Conflict with Western powers

In September 1862, a samurai warrior belonging to the powerful Satsuma clan murdered a British merchant. The British government demanded justice in the form of a £100 000 indemnity (compensation), a formal apology and the arrest of the offending samurai. When these demands were not met, British ships bombarded the city of Kagoshima for 3 days.

In June 1863, Emperor Komei summoned the shogun to his palace and demanded that he tear up Japan's foreign treaties, expel all foreigners and close all ports to foreign trade. This was impossible to carry out, and within days anti-foreigners had fired on French, Dutch and US ships in the Shimonoseki Straits. In response, a combined Western fleet destroyed Japanese boats and demanded an indemnity of US$3 million, well in excess of the damage they had sustained. The bombardment by foreign ships showed Japan's military weakness and further undermined the authority of the shogun.

The end of the Tokugawa

In 1867, a civil war broke out between supporters of the emperor and forces loyal to the shogun. After the defeat of the shogun's army, the shogunate was officially abolished on 3 January 1868, ending more than 250 years of Tokugawa rule in Japan and restoring the emperor's power.

Restoration of the emperor

Emperor Komei died in 1867 and his 17-year-old son Mutsuhito became the ruler of Japan. The new emperor took the title Meiji, meaning enlightened rule, and moved the capital to Edo, which was renamed Tokyo. This period, known as the Meiji restoration, began an era of modernisation in Japan.

The strength of the foreign military had convinced the anti-foreigners that resistance to foreign intrusion was pointless. They reasoned that if Japan was equally powerful, foreign powers would be less likely to interfere. To modernise, however, Japan would need to accept foreign ideas and adopt foreign technology. On 7 April 1868, Mutsuhito issued a declaration known as the Five-Articles Oath (see Source H2.4.3), in which he promised to reorganise Japanese society using Western nations as a model.

H2.4.1 *The Battle of Ueno* by Yoshitoshi, 1873, depicts the battle in which the shogun's army was finally defeated

H2.4.2 Emperor Mutsuhito, who took the title of Meiji (enlightened) Emperor. Take note of his European military uniform.

1 Deliberative assemblies shall be widely established and all matters decided by public discussion ...

2 All classes, high and low, shall unite in vigorously carrying out the administration of affairs of state.

3 The common people, no less than the civil and military officials, shall each be allowed to pursue his own calling so that there may be no discontent.

4 Evil customs of the past shall be broken off and everything based upon the just laws of Nature.

5 Knowledge shall be sought throughout the world so as to strengthen the foundations of imperial rule.

H2.4.3 The Five-Articles Oath

The end of feudalism

Almost immediately, the Meiji Emperor abolished the centuries-old feudal system. This ended the daimyos' control over vast regions of Japan and gave the emperor central authority over the entire country. Most daimyo voluntarily handed over their lands in exchange for a substantial pension. The 400 000 members of the old warrior class, the samurai, were also paid pensions to give up their feudal entitlements.

Most had to supplement this income by either seeking new business opportunities or joining the army or civil service. New factories relied on the movement of people to the cities and many thousands of peasants took up these new opportunities.

The emergence of industry

Foreign economists were asked to help reform the Japanese economy. In 1882 Japan's first central bank was established. This allowed for investment in foreign trade, industrial expansion and greater agricultural production. Initially, new industries were owned and controlled by the government but during the 1880s these large state-run enterprises were sold. Improvements in shipping technology led to the establishment of an export trade, and railway lines between major cities made commerce more efficient.

Did you know?

The Japanese were influenced by the Industrial Revolution in Britain and Europe. Japanese industrialists initially studied Western textbooks and then imported experts from abroad, before developing their own expertise and technologies. In the short period from the 1850s to 1910, Japan achieved significant modernisation in iron and steel production, shipbuilding and coal mining.
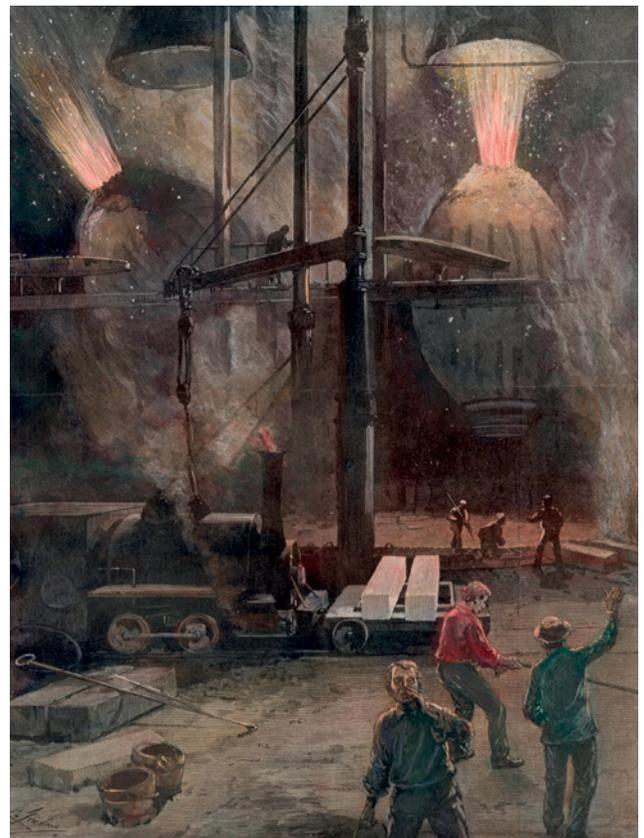
H2.4.4 Steel manufacturing, 1886
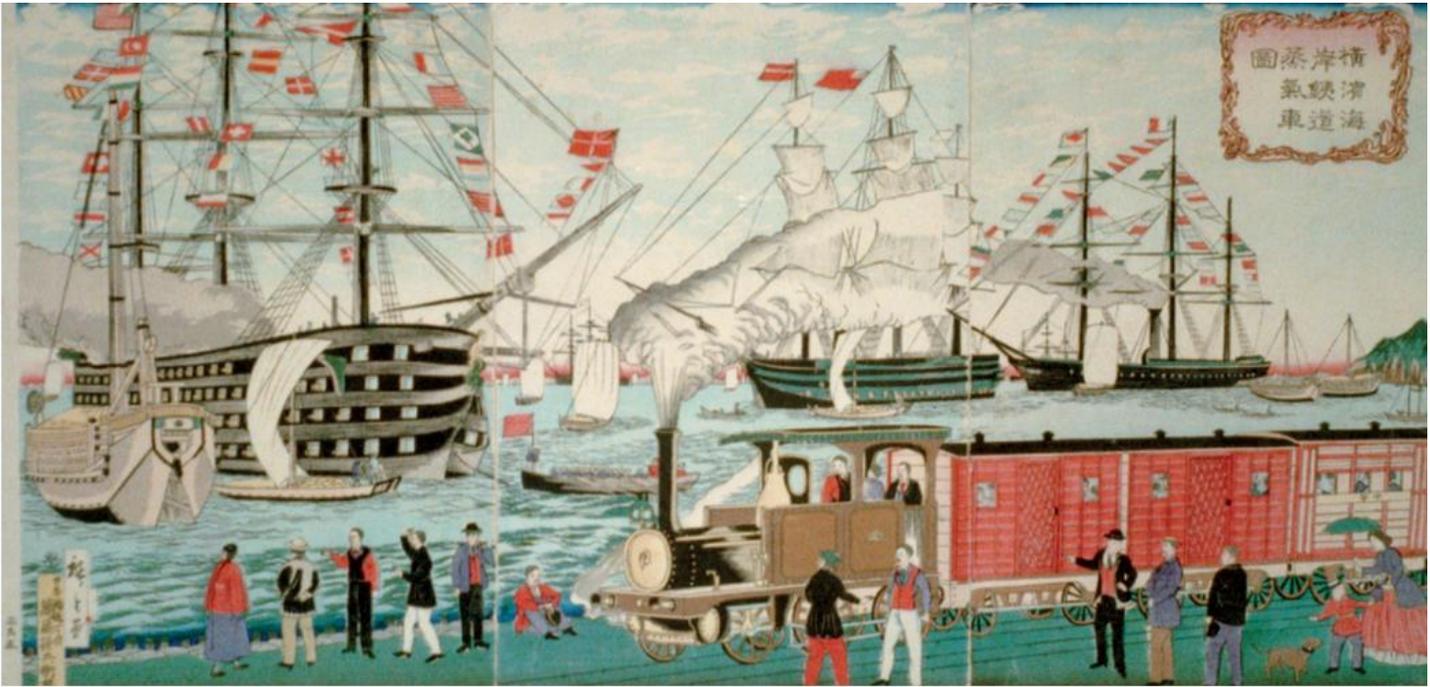
H2.4.5 This Japanese block print by Hiroshige III, 1871, depicts Americans demonstrating how a steam train operates. Note the steam ships in the background.

Foreign ideas

Within the space of a few decades, Japan's society, economy, government and military had changed completely. Japanese students were encouraged to travel abroad and learn about foreign thought and culture. Before long, a craze for foreign literature, art and ideas spread throughout Japan. Authors began writing novels and poems in European styles, and European dress and fashions began to appear.

H2.4.6 Japanese women in Western dress, 1890

Latest engineering practices from the USA

Medical and scientific advancements from Germany and France

Compulsory education for boys and girls from the US

Organisation of the army from France and later Germany

Legal system based on France's Napoleonic Code
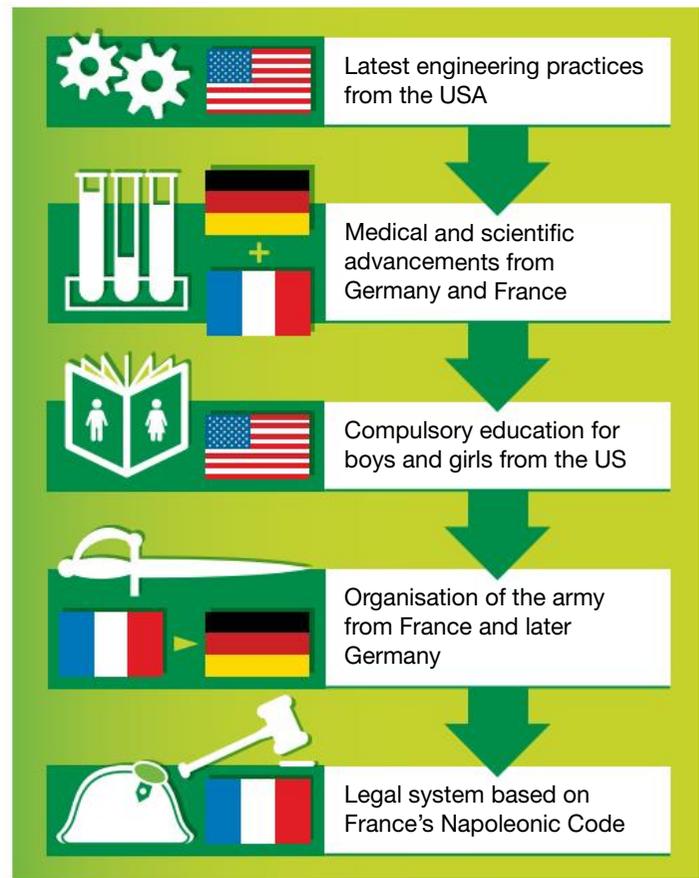
H2.4.7 Ideas Japan borrowed from the West

Continuities after European contact

Class divisions

Japanese society remained divided into classes, which were difficult to rise from. Although feudal titles were abolished, most daimyo became governors of their former domains. These men were incredibly wealthy, because they had been richly compensated for giving up their land. The samurai were paid a sizeable annual pension, and many became government officials and business leaders. Despite the fact that new opportunities were made available to merchants and peasants, most ordinary people were not able to rise above the class into which they had been born.

Political power

Although the shogunate had been abolished, ordinary Japanese continued to have little say in the running of the government. Power was initially transferred from one man, the shogun, to another, the emperor. The emperor exercised this power by appointing a small council of advisors, known as the genro, to rule in his name. These men tended to come from the emperor's own family or from the most powerful clans.

The Way of the Warrior

Although samurai were prevented from carrying their traditional two swords, adherence to the Code of Bushido remained important for many of them. The same pride in defending the honour of their leader was now shown towards the emperor. Many former samurai became officers in Japan's army and navy and continued to devote themselves wholeheartedly to their leaders.

Activities

Remembering and understanding

1 What was the period known as the Meiji restoration?
2 Why did Japanese people give up their opposition to foreign influence?
3 How and why did the Meiji Emperor put an end to feudalism in Japan?
4 Why did Western ideas and fashion first become popular in Japan?
5 What economic changes did Japan undergo?
6 Examine the Five-Articles Oath in Source H2.4.3.
    a Which articles aimed to make Japanese society fairer?
    b Which article indicated a need to change the legal system?
    c How did Article 5 represent a break with Japanese tradition?

Applying and analysing

7 Construct a flow chart depicting the end of shogunate rule in Japan. Use the information from the sections 'Consequences of foreign contact' and 'The end of the Tokugawa'.
8 What political benefit did Mutsuhito gain by taking the title of Meiji?

Evaluating and creating

9 Evaluate the changes in Japanese society after the Meiji restoration. Use a concept map to demonstrate your interpretation.

H2.4.8 Japanese army officers in European-style uniforms, 1904. Many officers during this period were former samurai.

Japan at the end of the nineteenth century

The rise of nationalism
Shinto revival and emperor worship

By 1900, decades of humiliation by the West had led to instability in Japan. This inspired many Japanese to look towards becoming a strong nation again. After the emperor was restored to power, people began to pledge their loyalty to him, rather than to their clan (family group), daimyo or region. Shinto experienced a revival, but people were now openly encouraged to worship the emperor and pray for his protection. The introduction of compulsory education also helped the spread of Japanese **nationalism** (belief that people of the same race, culture or ideals ought to belong to the same nation-state and rule themselves).

Military development

Japan's new government wanted Japan to become an **imperial** (pertaining to an emperor or their empire) power, equal in status with the European nations. The Chinese had always seen the Japanese as inferior, but in 1871 China agreed to sign a treaty with Japan. For the first time the two countries recognised each other as equals.

In 1872, **conscription** (compulsory service in the armed forces) was introduced for all men over 20 years of age. Japan began producing modern weapons and sent officers to train at European military academies. Japan purchased warships from Britain and constructed three large naval bases. After several years, Japan started building its own modern battleships.

Japan's position in the world

Japan sought to exercise its advantage over China by seeking to trade with nearby Korea. Korea was largely under Chinese control, having been a tributary state of China for centuries. Both China and Japan had ended their isolation, but Korea remained firmly closed to all foreign trade. Fearing that Korea could be easily overrun by one of the European powers, Japan looked to establish its own **sphere of influence** (a region where one foreign power is recognised as the controlling power) there. In 1876 the Treaty of Kanghwa was signed by Korea and Japan, but only after Japan had threatened to use force. This treaty ignored China's role in Korea and allowed Japanese traders to come to Korea. This led to protests by the Chinese.

> We shall someday raise the national power of Japan so that not only shall we control the natives of China and India as the English do today, but we shall also possess in our hands the power to rebuke the English and to rule Asia ourselves.

H2.5.1 Quote from Yukichi Fukuzawa, a leading Japanese thinker, 1882

War with China

In 1894, Chinese and Japanese troops arrived in the Korean capital, Seoul, both claiming that they had come to help suppress a local rebellion against the Korean king. Although the Koreans themselves easily crushed the rebellion, Japanese troops remained. When the Korean king refused to break off relations with China, he was imprisoned and a pro-Japanese government was installed. This led to an official declaration of war by China in July 1894.

Within a month, Japan had occupied most of Korea and then entered Manchuria, a border state of China. In February 1895, following their naval defeat at Weihaiwei, the Chinese surrendered. In the resulting peace settlement, China gave up its control of Korea and ceded the Island of Formosa (present-day Taiwan) to Japan. China was also forced to pay a huge indemnity for the cost of the war.

H2.5.2 The First Sino-Japanese War: Battle at the mouth of the Yalu River, 25 October 1894
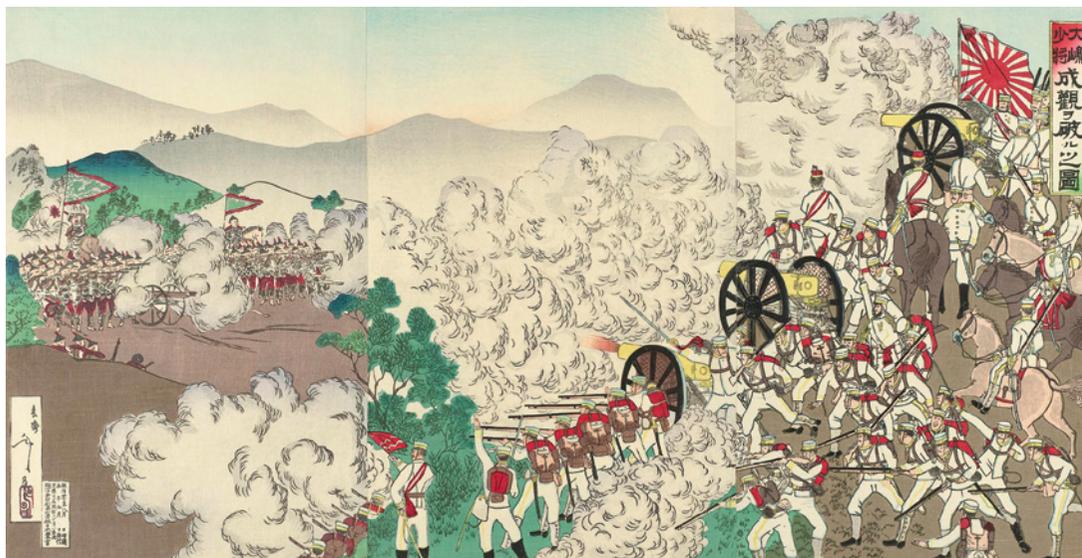
The Anglo-Japanese Alliance

Japan's growing importance was recognised by Britain with an alliance in 1902. The Anglo-Japanese Alliance was the first military alliance between a European power and an Asian power. The Alliance declared mutual friendship and stated that if one of the nations declared war on a third power, the other would remain neutral. Both also agreed to support the other if it were jointly attacked by two or more powers. Through the alliance, Britain hoped to prevent the Russian Empire from spreading further south, as this would have threatened British India. The Anglo-Japanese Alliance bolstered Japan's confidence. Britain, the world's dominant imperial power, had recognised Japan as an equal in the Asia–Pacific region.

ALLIES.

"Oh, East is East , and West is West . . . . .
But there is neither East nor West, Border, nor Breed, nor Birth,
When two strong men stand face to face, tho' they come from the ends of the Earth!" - RUDYARD KIPLING.

H2.5.4 Cartoon from the British magazine *Punch*, 1902

Activities

Remembering and understanding

1 Explain the rise of Japanese nationalism.
2 List the factors that lead to the development of Japanese military power.
3 Why was the Anglo-Japanese Alliance significant?

Applying and analysing

4 Examine Source H2.5.1. What aims does Yukichi Fukuzawa express? Identify at least two quotes from the extract to support your answer.
5 Summarise the events leading up to, and during Japan's war with China by selecting the key events to include in either a flow chart or series of key statements on a slideshow.
6 Examine Source H2.5.4.
   a What is the evidence for the military nature of the Anglo-Japanese Alliance?
   b Explain the meaning of the quote from Rudyard Kipling (a nineteenth-century British author) that appeared below the original cartoon.
   "Oh, East is East, and West is West …

   But there is neither East nor West, Border, nor Bred, nor Birth,

   When two strong men stand face to face, tho' they come from the ends of the Earth!"

H2.6 The Russo-Japanese War and its aftermath

Causes of the war

Expanding empires

In 1902, Russian and Japanese soldiers had fought side by side as part of the Eight-Nation Alliance that helped suppress the anti-foreigner Boxer Rebellion in China. While the troops of other nations had left, Russian soldiers occupied Manchuria, a northern province of China that bordered Korea.

Problems in Russia

Russia's economy was severely restricted because most of its ports froze over for many months of the year. To address this issue, Russia leased Port Arthur in Korea from the Chinese. This did not please the Japanese, who had grown suspicious of Russia. Japan saw Korea as part of its sphere of influence and viewed Russia's activity in the region as a threat.

At that time, the government of Tsar Nicholas II was faced with riots and protests throughout Russia. It was believed that a quick victory against the Japanese would help restore the Tsar's authority.

Course of the war

On 8 January 1904, the Japanese attacked the Russian fleet in Port Arthur, leading to a declaration of war by both countries. For the next 12 months, Admiral Togo, commander of the Japanese fleet, succeeded in blockading the Russian fleet, preventing it from leaving Port Arthur. This allowed the Japanese army to land along the entire Korean peninsula. Unable to supply its troops effectively, Russia suffered defeat after defeat. By August, Port Arthur was under heavy Japanese attack from both land and sea. By December, the entire Russian fleet had been destroyed.

H2.6.1 Tsar Nicholas II of Russia

H2.6.2 Russian and Japanese empires in 1904

Consequences of the war

The Treaty of Portsmouth

On 5 September 1905, the Treaty of Portsmouth was signed between Russia and Japan. Russia handed control of Port Arthur over to the Japanese and promised to leave Manchuria. Russia also agreed to acknowledge Korea as part of Japan's sphere of influence and ceded the island of Sakhalin to Japan. These were humiliating terms for the Russians—never before had a European empire been defeated by an Asian nation. For Japan, victory over the Russians showed that it was a modern military power capable of carving out an empire for itself.

Effects on Japan

Although most Japanese took great pride in their victory, the war had taken a huge toll. Nearly 50 000 soldiers and sailors had been killed, more than half by disease. Many Japanese did not believe the benefits surpassed the losses. Russia was not required to pay for the cost of the war, as was usually required of a defeated power.

Perspectives on the war

Japanese perspectives

H2.6.3 Japan as the god of peace stamping on a Russian warship and holding aloft Tsar Nicholas II, c. 1904

Russian perspectives

H2.6.5 Russian postcard showing Japan bullying China and trampling on Korea, c. 1905

H2.6.6 Russian cartoon with Russian naval song lyrics, c. 1904

H2.6.4 Japanese block print artwork showing Japan's victory at Port Arthur, c. 1905

# 'The more things change, the more they stay the same'

How do historians judge continuity and change?

One method is to compare a location at two points in time and note the historical reasons for the changes and continuities.

Activities

1 Examine the etching of Tokyo Harbour from 1854 and note five features in the image.
2 Examine the photograph of Tokyo Harbour from 2010 and note five features in the image.
3 Create a Venn diagram identifying similarities and differences between the two images. Give a historical explanation for each difference that you identify.

Tokyo Harbour—then and now

1854	
c. 2010	
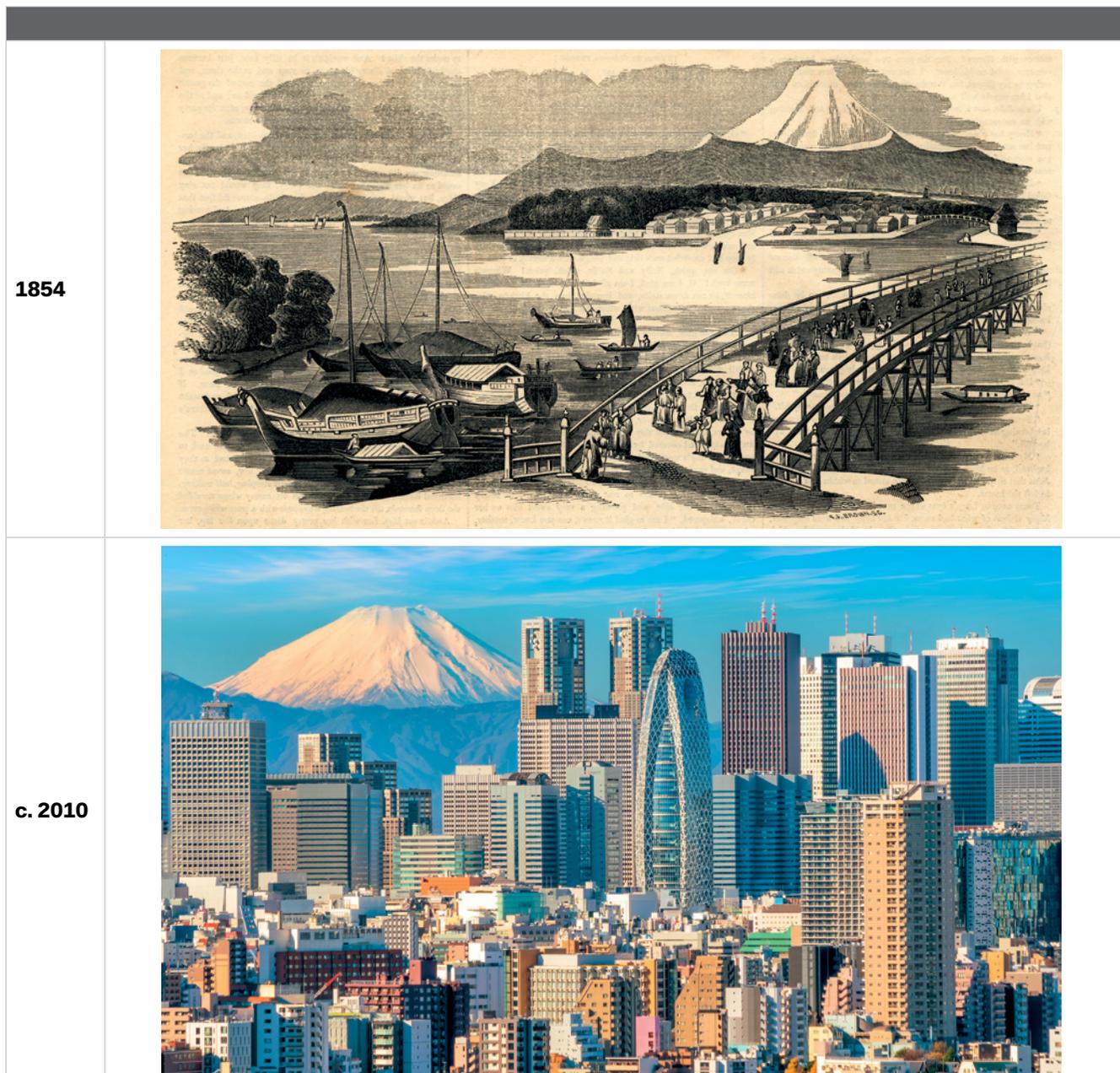
Japan and World War I

In World War I (1914–18) Japan entered an alliance with the Entente Powers (Britain, France, Russia and others) against Germany, Austria-Hungary, the Ottoman Empire and Bulgaria. Japan helped to secure sea lanes in the West Pacific and Indian oceans for the Allies.

Japan took advantage of the conflict to expand its sphere of influence in China. In January 1915, Japan issued China with Twenty-One Demands. These included confirmation of Japan's railway and mining claims in Shandong province, the granting of concessions in Manchuria, and access to areas along the Chinese coast. China reluctantly agreed to the demands.

As a result of the post-war Paris Peace Conference of 1919, Japan was granted control of Germany's holdings in Shandong province. This created further tensions with China. Japan's position of strength after World War I contributed to the nation's militarist program, which in turn contributed to the outbreak of World War II in 1939.

Activities

Remembering and understanding

1 Why was Port Arthur considered important for both Russia and Japan?
2 Identify the positive and negative consequences of the Russo-Japanese War for Japan.

Applying and analysing

3 Create a flow chart showing how the events of the Russo-Japanese War were related.
4 Examine sources H2.6.3 and H2.6.4. What techniques has the creator of each source used to show a Japanese perspective on the war?

Evaluating and creating

5 Evaluate Japan's international standing after World War I. How far had the country come since the dawn of the modern era in 1750?

H2.6.7 Allied Peace Conference at Versailles, Paris, 1919

Australia and World War I (1914–1918)

4

Adventure, glory, patriotism, bravery, duty, loyalty to Country, King and Empire—these were the words that described the expectations and ideals shared by many Australian men in 1914 when war was declared. These ideals, although ingrained in these men since childhood, were to be tested in the years that followed. The expectation of a short war in 1914 turned into the horror of industrialised warfare. War was never to be viewed in the same way again.

OVERVIEW QUESTIONS

4A What were the short- and long-term causes of World War I?

4B How did Australians respond to the outbreak of war in 1914?

4C How did Australia's role change over the course of the war?

4D How did World War I affect different groups and individuals in Australian society?

GLOSSARY

alliance an agreement between nations to support and protect each other

artillery large guns that can fire over great distances and cause a lot of damage

assassination the murder of a public figure

bombardment continuous firing by the artillery as preparation for an attack or invasion

casualties people who are killed, wounded or taken prisoner during a war

'half-caste' now considered offensive, this term was used to describe an Aboriginal or Torres Strait Islander person who had one parent who was European

infantry soldiers who fight on foot

internment restriction (which sometimes included imprisonment) of enemy 'aliens' (for example, foreign citizens and people born overseas) during a war

propaganda information given to the public that is designed to influence the way people think about an issue

plebiscite a vote to answer a question of national importance that does not affect the Constitution; also called an advisory referendum

shell shock World War I term for the psychological and physical trauma caused in soldiers who experienced continued bombardment

stalemate a situation in a contest (including war) where neither side is able to move forward or make progress

LS Before you begin

4.0.1 Troops coming ashore at Anzac Cove, c. 1915–18, as depicted in a 'Remember Gallipoli!' South Australian recruiting poster

World War I

At the time it was fought, World War I was known as the Great War. People also referred to it as the War to End All Wars. As the history of the twentieth century would prove, World War I rewrote all the rules of modern warfare, and it was a sign of things to come. From a population under 5 million, over 400 000 men enlisted. More than 60 000 of them were killed and 156 000 were wounded, gassed or taken prisoner.

1914

28 June
Archduke Franz Ferdinand is assassinated in Sarajevo

4 August
Britain declares war on Germany on behalf of the British Empire, including Australia

1915

25 April
Anzacs land at Gallipoli

19–20 December
Anzacs withdraw from Gallipoli

1916

February–March
Battle of Verdun

March
Australian troops begin to arrive in France

1 July
Battles of Pozières and Fromelles

November
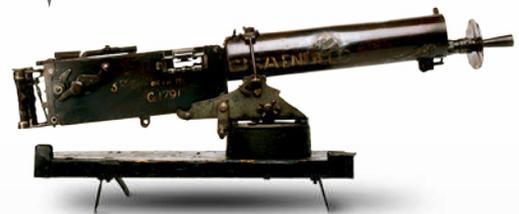End of the Battle of the Somme

AD | 1910 | 1911 | 1912 | 1913 | 1914 | 1915

A German machine gun from World War I, with a mount for use in the trenches

Australian troops landing on the beach at Gallipoli, Turkey, 1915

A World War I cemetery in the Somme Valley, France

1918

4 July
Battle of Hamel

11 November
Armistice Day—fighting officially ends at 11.00 a.m.

1916   1917   1918   1919   1920   **AD**

1917

July–November
Battle of Passchendaele

31 October
Battle of Beersheba—last successful cavalry charge undertaken by the Australian Light Horse

1919

28 June
Peace treaty signed at the Palace of Versailles—the war officially ends


◄ 'The Australian and New Zealand troops have indeed proved themselves worthy Sons of the Empire', a quote from King George V, on the cover of the *ANZAC Book*, 1915

4.1 Causes of World War I

The alliance system

The long-term causes of World War I, which began in 1914, lie in the decades leading up to it. One of the most important long-term causes was the system of European alliances that developed in the late nineteenth and early twentieth centuries. In 1882, a defensive **alliance** (an agreement between nations to support and protect each other) was formed by Germany, Austria-Hungary and Italy. Known as the Triple Alliance, it was initiated by Germany because of a fear that France would attack Germany after it defeated France in the Franco-Prussian War in 1871. In 1894, France and Russia formed their own alliance. This was known as the Dual Entente.

During the 1800s, Britain was more interested in building up its empire by extending its territorial gains in Africa and Asia than in European affairs. However, by 1900, Britain began to engage more with Europe. In 1904 Britain signed a treaty with France called the Entente Cordiale. In 1907, a new alliance between France, Britain and Russia was signed, creating the Triple Entente. Some European countries remained neutral, which means they did not belong to an alliance. Some empires and regions, such as the Ottoman Empire (centred on modern-day Turkey) and the Balkans (a region that includes a number of countries in south-eastern Europe) were of interest to some members of both major alliances. The system of alliances are shown in Source 4.1.1. Although alliances were designed to protect countries, their existence meant that if war did break out in Europe, a large number of countries would be drawn into the conflict very quickly.
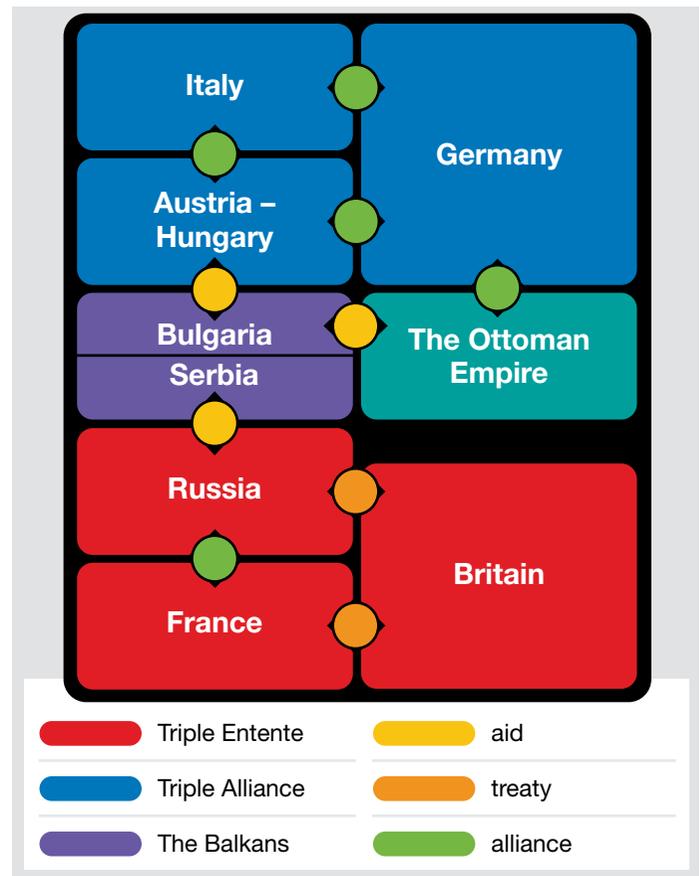
4.1.1 A visual representation of the European alliance system just prior to the outbreak of World War I in 1914


4.1.2 Alliances in Europe, June 1914

4.1.3 A postcard c. 1914 showing the flags of allied nations in the lead-up to World War I

The arms race

A major consequence of the alliance system was an increasing demand for more money to be spent on armaments. Armaments are weapons and equipment used for fighting wars. Today, we would refer to this build-up of armaments as an arms race. The statistics in Source 4.1.4 show how different countries increased their spending on military development. The large number of armaments in Europe meant that war was more likely. An arms race can make governments and military commands feel more confident about going to war, but going to war is also a way to justify spending so much money on armaments.
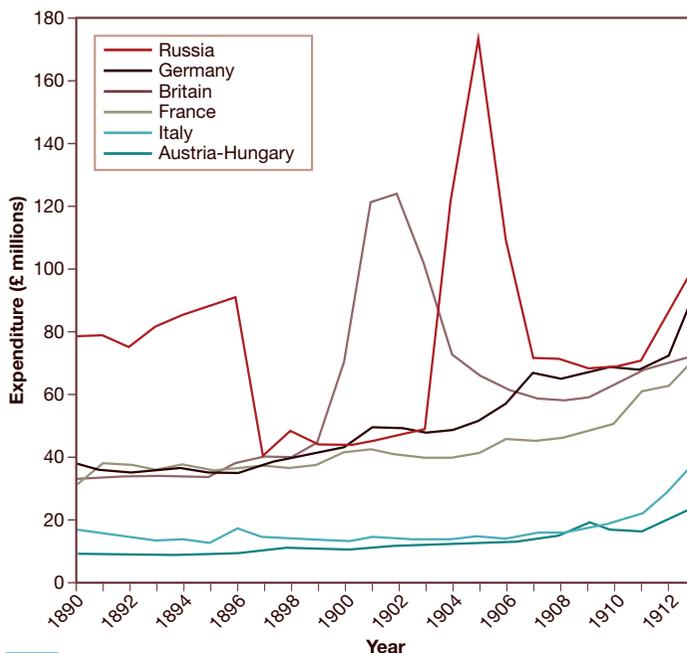
**4.1.4** Arms race expenditure

International tensions

The nations of Europe became increasingly distrustful of each other in the early years of the twentieth century. France and Britain argued over the borders of their colonies, especially in Africa. Germany wanted to expand its influence by developing its own colonies and challenged France's right to exert an influence over non-European peoples in Morocco. In 1905 and 1911, there were two incidents over Morocco involving Germany and France. Both times Germany was forced to back down by Britain and France.

In Europe, Russia was concerned about Austria-Hungary's intentions in the Balkans. This area had been under the control of the Ottoman Turks for over 400 years. As the Ottoman Empire began to collapse, Austria-Hungary annexed (added to its own territory) the Balkan states of Bosnia and Herzegovina. This move annoyed other European nations, particularly Serbia, which had wanted to expand its influence in these states. There were wars in the Balkans in 1912 and 1913. This led to a conference in London attended by the great European powers, with the aim of preventing more war. However, tensions in Europe were still growing in 1914 when the heir to the Austrian throne made a visit to Sarajevo in Bosnia.

The assassination of Archduke Franz Ferdinand

The short-term trigger that sparked World War I was the **assassination** (murder) of Archduke Franz Ferdinand, who was the heir to the Austro-Hungarian throne. On 28 June 1914, the Archduke and his wife, Sophie, made a visit to Sarajevo. After surviving an attempted assassination, they were attacked again on their way to the hospital to visit those who had been injured in the first attempt. The attacker was Gavrilo Princip, a member of a Serbian organisation called the Black Hand. This second attack was successful and both the Archduke and his wife were killed.

After the assassination, the Austrian government demanded a greater role in Serbian affairs. Germany backed Austria in its stance against Serbia, while Russia backed Serbia. The alliances between the various countries took effect. The world moved to world war within 6 weeks, as seen in Source 4.1.6.
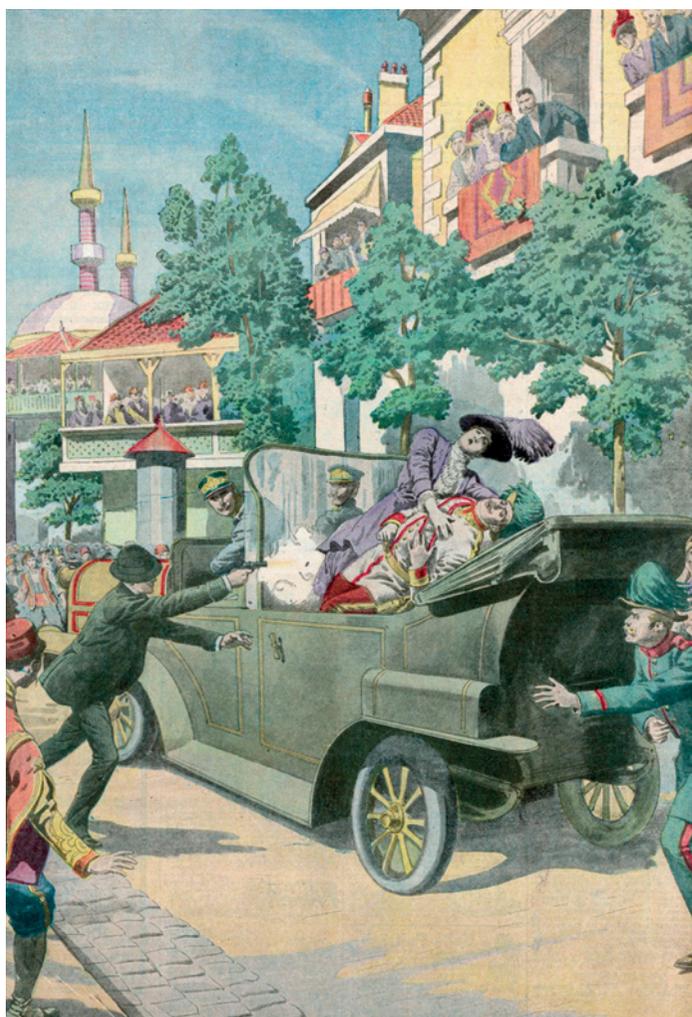
4.1.5 Assassination of Archduke Ferdinand

Events leading to war

5 July Germany gives support to Austria-Hungary, called the 'blank cheque'

23 July Austria sends a list of demands to Serbia, including one to allow Austrian officials to enter Serbia

25 July Serbia replies accepting all the demands except the one to allow officials into the country

26 July Austria-Hungary begins shelling the Serbian capital, Belgrade

30 July Russia mobilises its army; Kaiser Wilhelm of Germany sends a telegram to Tsar Nicholas of Russia asking him to stop the mobilisation

1 August Germany declares war on Russia; Germany announces its own mobilisation; France orders the mobilisation of its army in support of Russia

2 August Germany sends troops towards Belgium, a neutral country, as German troops need to pass through Belgium to reach France and win the war quickly

3 August Britain honours a treaty it signed in 1838 to protect Belgium and sends an ultimatum to Germany— leave Belgium or we will declare war

4 August Germany refuses to comply with Britain's ultimatum; Britain declares war on Germany on behalf of the British Empire; as part of the British Empire, Australia is now also at war

4.1.6 Europe's descent into World War I happened very quickly during the months of July and August 1914, although the seeds of war had been sown decades earlier

Activities

LS 4A

Remembering and understanding

1. Explain why European countries felt they needed to spend more money on armaments in the years leading up to 1914.
2. Explain why there were tensions in the Balkans.

Applying and analysing

3. Refer to Source 4.1.4. How much was each alliance spending on armaments in 1890, 1900, 1905, 1910 and 1914?
4. Identify one short-term and one long-term cause of WWI.

4.2 Enlisting in the army
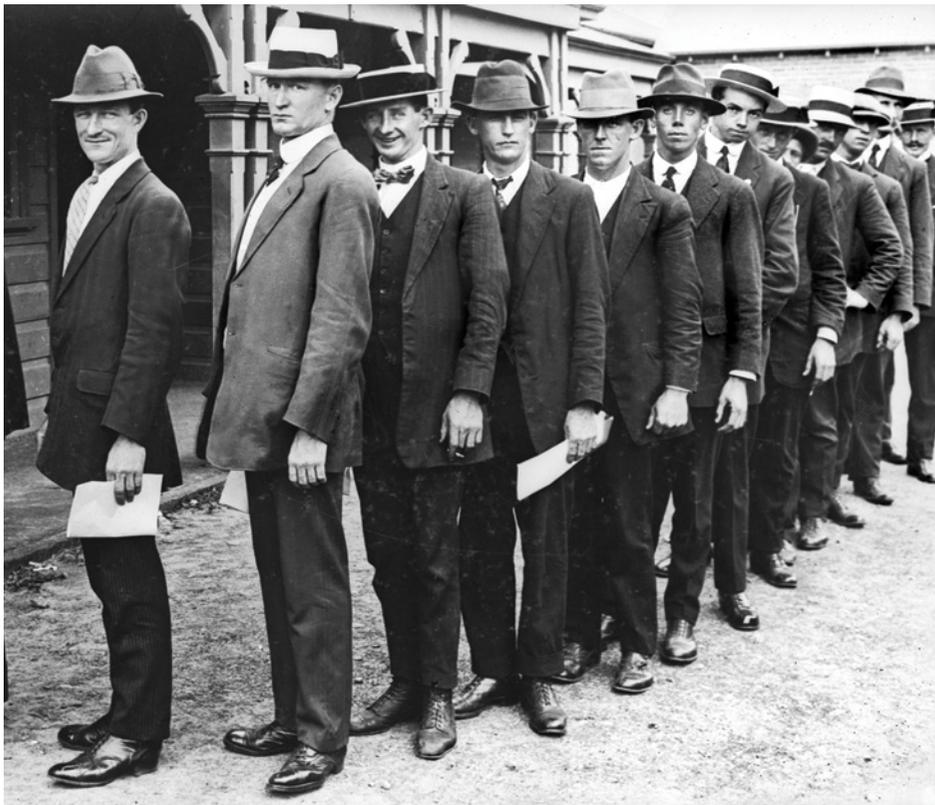
Initial enthusiasm for the war

In August 1914, when news reached Australia that Britain had declared war, Australia was in the middle of an election campaign. Both the Australian Prime Minister Joseph Cook and opposition Labor leader Andrew Fisher declared support for the British Empire.

During the election campaign, Andrew Fisher delivered his famous line that Australia would support Britain 'to the last man and the last shilling'. The Labor Party won the election and Andrew Fisher became prime minister.

With both political sides publicly backing the war, it is not surprising that the majority of the Australian population at the time also gave its support. Many men rushed to enlist, fearing the war would be over before they had a chance to reach the front line.

Enlisting

Enlisting in the army means to join up for active service. At first there were so many men wanting to enlist that the Australian Imperial Force (AIF) could set very high standards and be quite selective. As a result some men missed out because they did not meet the army's height or fitness requirements. These standards were lowered as the war unfolded and more men were needed.

The lowest age for enlistment was 19. Men under 21 needed their parents' permission to enlist. Many men aged under 21 did join, both with and without permission. In 1914, the upper age limit was 38, although there were men who lied about their age in order to join up. In June 1915 the lower age limit was changed to 18 and the upper age limit to 45.

Early reasons for enlisting

Young men enlisted for different reasons.

Patriotism

Many Australian men had been brought up to be loyal to their king and country. These men believed it was their patriotic duty (showing support for their country) to help Britain and to fight for the British Empire. Most Australians who had been born in Britain or traced their ancestry there regarded Britain as the mother country.

Adventure

Many men lived rather boring lives involving daily work on a property or in a mundane city job. Enlisting offered the opportunity to travel to France, where the war was mostly being fought, and to have a great adventure.

Peer pressure

Peer pressure also played its part. Many men joined with their mates, as they felt that not enlisting would mean letting their friends down. Some women made it clear that they preferred a man in uniform, so some men enlisted out of concern that women would no longer be interested in them if they did not join up.

4.2.1 Volunteers queuing to enlist outside Victoria Barracks, Sydney, 1914

4.2.2 A recruitment poster, 1915

Later reasons for enlistment

Commitment

After the initial enthusiasm started to wear off and the first high casualty lists from Gallipoli were made public, the number of men wanting to enlist in the army began to fall. Some men joined because they felt a commitment to those who had already died. There were a number of instances of men joining up after the death of an older brother, believing that they needed to finish the job for their sibling.

Propaganda

The government became involved in conducting strong **propaganda** campaigns (information given to the public in favour of the war effort that was designed to influence their thinking and support for the cause). They produced posters and advertisements published in newspapers and displayed in public areas across the country. These posters played on the emotions, using themes of patriotism, mateship, family, sportsmanship and hatred of the enemy.

Schools were also involved in war propaganda. Many boys' schools, both public and private, encouraged school leavers to enlist. Sometimes the schools in an area competed over which one had the highest percentage of young men enlisted. Even 'old boys' (groups of former students) encouraged their members to enlist.

The white feather

Some women encouraged men to enlist by publicly shaming those civilians who looked fit and healthy enough to go to war. They did this by handing the man a white feather, which signified that they thought he was a coward. Not all women agreed that shaming men into fighting was the right thing to do. While some men were shamed into enlisting, there were others who would not be pressured into fighting a war they did not believe in. There were also men who were unable to enlist because their job in Australia was seen as too important to let them go and fight.

I didn't know of anybody who sent one or whose sons got them but I know that it was very evident that some of the women whose brothers or sons or husbands went to the war if there was any young men living nearby they would send them white feathers. It was very cruel, very cruel to do that.

4.2.4 Anita Ryall, *Australians at War*, oral stories
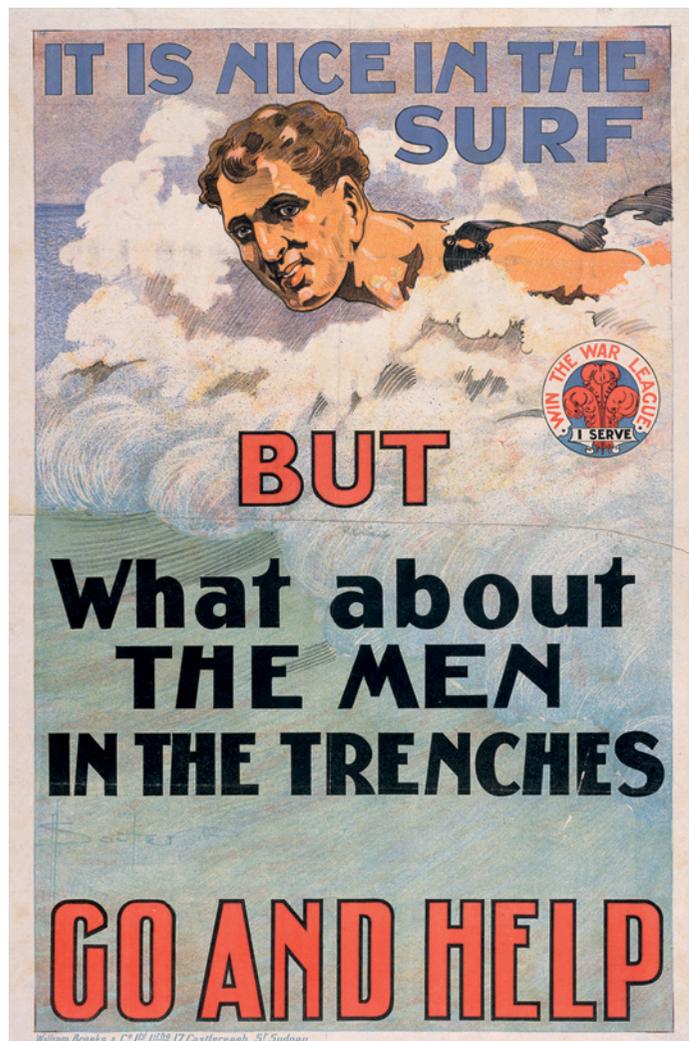
4.2.3 A propaganda poster, 1917

Activities

Remembering and understanding

1. List the reasons why men enlisted in the army.
2. How did schools assist the enlistment process?
3. What did the white feather represent?

Applying and analysing

4. Examine sources 4.2.2 and 4.2.3. Explain how someone seeing each poster might be convinced to enlist. In your answer consider the content of each poster and the emotions it is targeting.
5. Explain why women are not seen on the posters in sources 4.2.2 and 4.2.3.
6. Rank the reasons why men enlisted from most to least important. Justify your ranking.

Evaluating and creating

7. Create your own poster to encourage someone to enlist in a cause that you believe in (not necessarily World War I). Focus on targeting one or more emotions.

LS↗ 4B
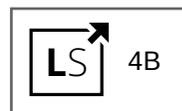
Where Australians fought in World War I

4.3.1 Map showing some of the places Australians fought during World War I

Early campaigns: 1914–15

In October 1914, Australia began its first military action of the war in New Guinea and the Bismarck Archipelago (off the New Guinean coast). The Australian Naval and Military Expeditionary Force drove the German military out of these areas, which were German colonies when the war broke out. This action was thought to be important because even though the German forces were small, they were stationed relatively close to Australia. In Australia's next engagement, the HMAS *Sydney* attacked and disarmed the German ship the SMS *Emden*. These two events were triumphs against the might of Germany and provided an important boost in morale for Australian troops.

Australia's next engagement, and perhaps its best known, was the landing at Gallipoli in April 1915. This came after months of training in Egypt. It was at Gallipoli that the Australian and New Zealand Army Corps (ANZAC)

experienced their 'baptism of fire'. This campaign is covered in detail in Unit 4.4. The last Anzac departed the Gallipoli Peninsula on 20 December 1915. The British troops they had been fighting alongside did not leave until 8 January 1916.

After Gallipoli, Australian forces were divided across two main battle areas. The Australian Light Horse (men who had joined up to serve on horseback) continued to fight against Turkish forces in Sinai and Palestine while the **infantry** (soldiers who fight on foot) units went to France to fight the Germans.

In the Middle East: 1916–18

After their withdrawal from Gallipoli, the Australian Light Horse returned to Egypt for more training. They were to fight the rest of the war as mounted infantry, which meant that they would ride to battle and then dismount and fight as infantry troops.

In 1916, the Australian Light Horse was part of a British force defending the Suez Canal against the Ottoman Turks. The Suez Canal was an essential waterway linking Europe to the Indian Ocean. Losing control of the canal would have made the supply route to Britain much longer. Having secured the Suez Canal, Australian troops were then involved in reconquering (meaning to take back control of a territory that had been lost to the enemy) the Sinai Peninsula. From Sinai, Australian forces were able to fight through the Turkish soldiers and push their way into Palestine. This was a campaign fought not in the trenches but in dry, hot areas that had little vegetation and few settlements.

The most notable Australian military achievement in the Middle East was the Battle of Beersheba on 31 October 1917 (see Source 4.3.2). At Beersheba, the Australian Light Horse charged the Turkish guns, securing the town's vital freshwater wells. After taking Beersheba, the Australian Light Horse, with the rest of the British force, moved to Jerusalem and took the city on 9 December 1917. Throughout 1918 the Australian Light Horse continued to move through the Ottoman Empire, occupying Lebanon and Syria. Finally, on 30 October 1918, Turkey surrendered.

4.3.2 A representation or reenactment of the Charge of the Light Horse at the Battle of Beersheba.

On the Western Front: 1916–18

After their departure from Gallipoli, the infantry was reorganised and moved. In France, the troops fought against the German Empire, which held trenches that stretched from the North Sea to the Swiss border. Most of the ensuing battles between 1916 and 1917 followed a typical pattern of **bombardment** (continuous shelling by the artillery as preparation for an attack or invasion) before waves of infantry crossed an area called no-man's-land (the land between trenches that neither side could claim as theirs) towards the enemy.

The first Australian troops to serve in France arrived in March 1916 and by the middle of the year they were involved in the Battle of the Somme. This was a major battle, which saw many hundreds of thousands of **casualties** (people who were killed, wounded or taken prisoner) on both sides, and lasted from July to November. However, by the end of the battle both sides found their positions relatively unchanged. With the trench lines in Europe barely moving, Australian forces found themselves involved in a **stalemate** (a situation where neither side is able to move forward or make progress).

In 1917, the British Army, of which Australian troops formed a small but valued part, continued to attack the German lines. A major offensive (attack) occurred at Passchendaele, near Ypres, in the second half of the year.

The Allies (those countries fighting Germany and its allies or the Central Powers) had a bad start to 1918. Russia, an important ally, surrendered and exited the war. This freed up large numbers of German troops who had been fighting the Russians in an area known as the Eastern Front. These German troops joined the battle on the Western Front in France. This gave the German Army the ability to mount a large attack. In effect, this was Germany's last major offensive move because the US forces were due to arrive in Europe. The United States of America had joined the war in April 1917 on the side of the Allies. The Germans were initially successful but by the middle of the year the Allies were gaining the advantage. Australian troops played their part in crucial battles such as the Battle of Hamel, which is detailed in Unit 4.6. The Allied offensive officially began on 8 August (the 'black day of the German Army', according to the German commander Erich Ludendorff), when Australians took part in conflicts around Amiens, Mont Saint-Quentin and Péronne. On 11 November 1918 the war ended, with Australia having played its part in the Allies' success.

Activities

Remembering and understanding

1   List the areas of the world in which Australian troops fought during World War I.
2   Explain what happened to the Australian infantry and the Australian Light Horse after the Gallipoli campaign.

Applying and analysing

3   With reference to Source 4.3.1, describe the extent and location of Australia's involvement in World War I.

4.4 The Gallipoli campaign

Aim of the campaign

By December 1914, the war in Europe was at a stalemate. The British devised a plan to attack Turkey, believing Germany would send troops from the Western Front to assist the Turkish forces, which might help to reduce the pressure on British forces. Their main aim was to knock Turkey out of the war, and thereby assist Russia.

Britain's plan was:

➤ to force battleships through the Dardanelles, which would allow the Allies to capture Constantinople, the Turkish capital
➤ to then open the supply routes to Russia, which was an important British ally.

The plan failed because the ships given the task of forcing the Dardanelles stopped after suffering losses on sea mines.

As a result, a second British plan was developed. This involved landing troops on the Gallipoli Peninsula, who would fight their way over land to Constantinople. A combined force of Australian and New Zealand troops, known as Anzacs, would be part of this attack.

Landing at Gallipoli

At dawn on the 25 April 1915, 20 000 Anzac troops landed on the Gallipoli Peninsula (see Source 4.4.1). The Anzacs were supposed to land at Gaba Tepe but they landed further north on the wrong beach. This place became known as Anzac Cove. A number of landing boats were damaged or destroyed during the landings. The soldiers were immediately faced with steep cliffs rather than a soft beach, which would have made their landing easier. At the top of the cliffs Turkish forces were waiting and they were able to fire on the invading forces as they arrived on shore (see Source 4.4.3).

During the first day the Anzacs managed to force their way ashore to advance about 900 metres. Over 600 men were killed and another 2000 wounded. By the end of April, 27 000 troops had landed and trench warfare was firmly established on the Gallipoli Peninsula. In May 1915, the Turkish launched a series of great and bloody counterattacks.
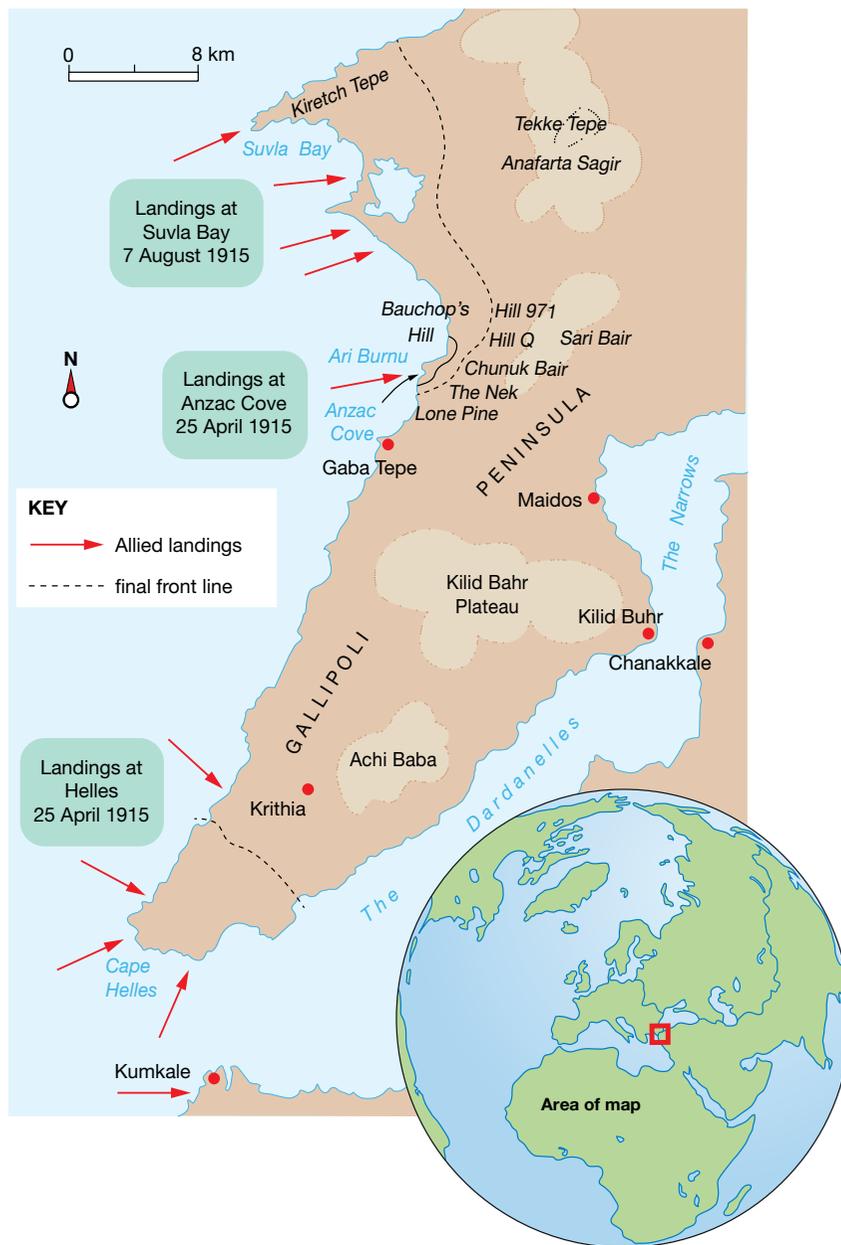
4.4.1 The Gallipoli Peninsula

25 April 1915: Left [Lemnos] at 6.20 am. Firing heard. In sight of land and ships at 12 pm. Won't be long before we get a go now. The warships big guns were in use and the roar was like a thunderstorm. Violent bombardment at 5.30 pm. Several shells fell close to our bows and one came right over. Big guns stopped firing at dusk, tho' there was plenty of rifle fire during the night. We are still aboard and the boys are just itching to get ashore. The infantry attack in the morning, the sailors tell us, was magnificent.

4.4.2 From the diary of Gunner Brian Lyall, who died of wounds at Gallipoli on 1 December 1915

4.4.3 A photograph of Anzac Cove, 1915

Lone Pine and The Nek

In August Australian forces were sent into two diversionary attacks designed to distract the Turkish forces while British forces landed at Suvla Bay, to the north of Anzac Cove. The first was at Lone Pine on 6 August 1915. The attack by the 1st Brigade was designed to distract the Turkish soldiers from the British landing additional troops at Suvla Bay, which was further to the north. Australian forces surprised the Turks. They removed the logs that had been covering the Turkish trenches, and fierce hand-to-hand fighting took place over the next 4 days.

On 7 August, the 3rd Light Horse Brigade launched a series of four extraordinary attacks in an area known as The Nek. They had to attack over a distance of about 30 metres but the Turkish soldiers were so well positioned in their trenches that the Australians were massacred by machine-gun fire. It was initially reported that the Brigade had successfully reached the Turkish trenches, so more troops were ordered to advance in what soon became a suicidal mission.

The attack at The Nek is one of Australia's most famous and tragic battles—more than 230 men died in 45 minutes. It has been immortalised in film, literature and painting.

Conditions at Gallipoli

… diarrhoea, dysentery and paratyphoid attacked thousands. Only the serious cases were evacuated … The rest struggled on even fainting at their posts, but indomitably eager. Their uniform was like no other in the war … Half naked, they dug, they tunnelled, carried food, water and ammunition up the dusty tracks, swept their trenches free of refuse, or patiently searched their clothes for the vermin that nightly attacked them

4.4.4 C.E.W. Bean, *The Story of Anzac* (Official History of Australia in World War I 1914–1918, Vol II), Australian War Memorial, 1941

4.4.5 The Australian attack at The Nek is depicted in this painting by George Lambert (1924)

The Anzacs became known as diggers because they spent so much time digging trenches as protection from the Turkish shelling and snipers. The men used sandbags because they could absorb some of the force of the shells that were dropped on them by enemy **artillery** (large guns that can fire over great distances and cause a lot of damage). The Anzacs lived in the trenches for the rest of the year. Conditions were hard; heat and flies meant diseases such as dysentery were common.

4.4.6 An Australian officer saying goodbye to dead comrades shortly before the evacuation of Gallipoli

Withdrawal

By December 1915 it was clear that the Gallipoli campaign was a failure and the decision was made to withdraw, which meant removing the Allied forces from their positions. This was a huge undertaking. The troops were ordered to keep silent at night as they began their evacuation so that the Turkish soldiers would not realise that they were leaving. Over the two nights of the carefully planned and executed operation, the troops were successfully removed with only two casualties. By the end of the campaign an estimated 8709 Australians had lost their lives at Gallipoli and 18 000 were injured.

What will the world say? What will Australia say? Will she heave a sigh of thankfulness that we have given up a position which was whittling away her manhood? Or will she become enraged at leadership which caused these casualties without any measureable benefit?

4.4.7 Private Harry Gissing, diary, 17 December 1915

Being a historian

Historians spend a lot of their time looking at documents, both official and unofficial. These documents often take the form of letters, diaries, photographs, cartoons, newspaper reports, memorials, service records, officer reports and maps, and they are vital when learning about individuals and events related to World War I. Having gleaned all the relevant information from these sources, historians then synthesise the material to write an account of an individual or a battle.

In this investigation you will do what historians do. You will locate a number of different sources from a specific period of the war that relate to a particular attack or battle. You will then create a report about that event, incorporating the evidence you have gained from the sources.

The aim of this investigation is for you to use primary sources from the time and not to rely too heavily on secondary sources for your information.

Making your selection

Choose one of the following:

- the Gallipoli landing
- the attack at Lone Pine
- the attack at The Nek
- the Battle of Beersheba
- the Battle of Bullecourt
- the Battle of Messines
- the Battle of Pozières.

Finding sources

Places where you should be able to locate sources from the time include:

- the Australian War Memorial website
- your local war memorial or RSL club
- the archives of local, state and national papers
- local libraries.

When presenting history, you must acknowledge the sources you used. Your teacher will guide you on how to do this, as there are a number of accepted formats.

You could present your report in one of the following ways:

- a written essay
- an oral presentation
- a storybook
- an empathy task where you imagine you are either the person or a participant.

Information to be included

In your report you need to cover the following points:

- the background to the attack or battle
- the location of the attack or battle, including a map
- the objectives of the attack or battle
- how the attack or battle unfolded (this should be about 75 per cent of your final report)
- the living conditions of the troops
- the achievements of the attack or battle.

Activities

Remembering and understanding

1 Why did the Allies plan an offensive at Gallipoli?
2 Which part of the Gallipoli campaign was most successful? Why?

Applying and analysing

3 Refer to sources 4.4.1 and 4.4.3. Explain how the location and terrain of the peninsula made the Gallipoli mission difficult.
4 Refer to Source 4.4.4. What difficulties did the soldiers experience?

4.5 The Western Front: 1916

Trench warfare

After leaving Gallipoli, Australian infantry units were transferred to France to join the fighting there. The AIF was reorganised into six divisions and over the next two years, for the most part, they fought directly under the command of the British. During this time they experienced the horrors of trench warfare and took part in battles such as Fromelles and Pozières.

In France, the Australians found themselves living in trenches as they had done in Gallipoli. The trenches were long holes in the ground reinforced with timber and sandbags, with wooden floors called duckboards (see Source 4.5.1). The aim was to provide some protection from enemy fire. The trenches in which Australians fought were fairly basic.

The trench system

The trench system that crisscrossed northern France and Belgium consisted of a series of trench lines:

➤ the frontline trenches, from which attacks were launched and which spearheaded the defences

➤ the support lines, which were designed to house the soldiers during bombardments and also from where reinforcements and supplies could be taken up to the front lines

➤ the reserve line, where the troops waited until they were called up to the front lines closer to the battle. Men rotated out of the trench line, often after a few days of battle.

These lines were joined together by communication trenches. These theoretically allowed the men to move safely between the three lines of trenches.

Once a major offensive was launched, the trenches tended to become confusing places and often failed to offer any real protection for the men. Between the Allied and Central Powers' systems of trenches was an area called no-man's-land, because neither side controlled the area. No-man's-land was not safe for anyone as it was exposed and lacked cover.

Barbed wire was strung in front of the trenches to act as an additional line of defence. While soldiers were attacking the enemy, it was common for them to get stuck on the barbed wire and die there because their comrades were unable to reach them and cut them down before they were shot by the enemy or hit by artillery.
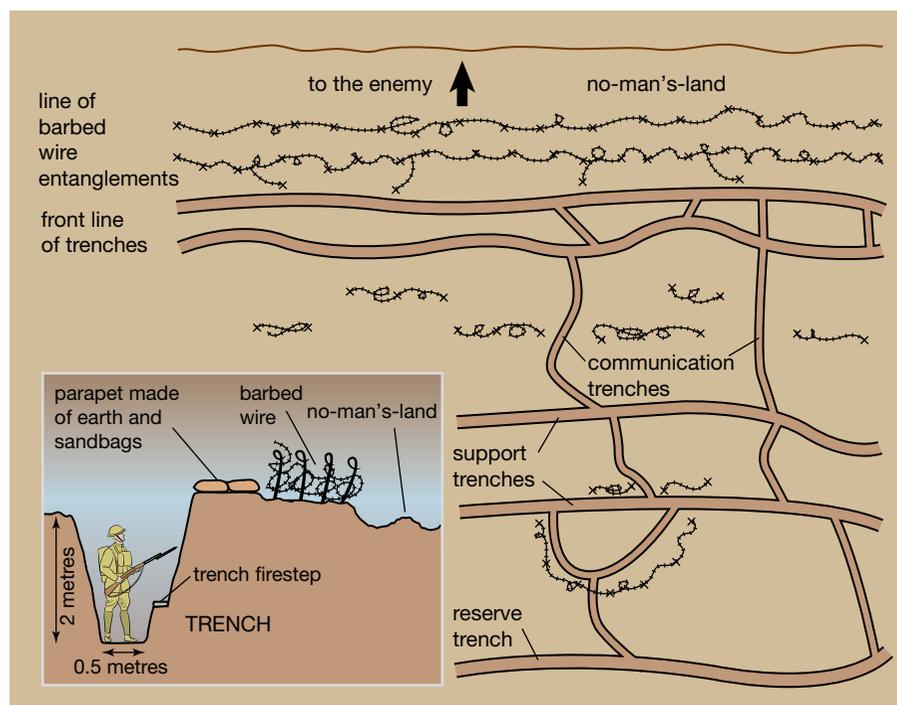
4.5.1 A World War I trench system viewed from above and in cross-section

Life in the trenches

Living in the trenches involved a basic routine—sleeping, eating and waiting around for something to happen. Because soldiers were not continually fighting, boredom was a major problem, as was disease. Food and water were often in short supply, depending on the ability of the support personnel to move supplies up to the front line. Hot meals were supplied whenever possible but often troops ate tinned food such as bully beef (canned meat). Fresh water was not always available and usually had to be rationed or divided out carefully in order to make it last longer.

The trenches offered limited shelter from the elements (see Source 4.5.2). However, as the war developed, dugouts were built for the men to shelter in when sleeping and for the officers to use for planning.

In the trenches it was common for the men to suffer from diseases such as dysentery due to their poor diet and sanitation. Another common disease was trench foot, which was caused by standing in mud or water for too long. The foot literally rotted, and when a soldier's boots were removed, part of the foot would come away as well.

4.5.2 Men of the 53rd Battalion, AIF, in the front line minutes before the attack at Fromelles, France, 19 July 1916

Men in the trenches also suffered **shell shock** (psychological and physical trauma), which was caused by the constant noise of the shelling and falling bombs. At first, sufferers of shell shock were regarded as cowards, but by the end of the war the affliction was recognised as a consequence of time spent in the trenches. Today we might refer to such a condition as post-traumatic stress disorder (PTSD).

The Somme

The Somme is a river in northern France, close to the border with Belgium. The region surrounding the river is also known as the Somme and was the location of a series of battles during World War I.

The Battle of the Somme

The first of July 1916 has been remembered as the worst day in the history of the British Army. This was the first day of the Battle of the Somme, with casualties of over 58 000. Nearly a third of the casualties died. Before the battle was over, 1 100 000 men had become casualties, with 300 000 of those casualties killed in action. The Australian casualties were about 32 000 for the 5 months of battle, mainly at Pozières.

The battle had been planned as a joint French and British offensive, while the Russians launched their own assault in the east. The idea was that the Germans would be forced into a defensive position in two separate major battles. The plan at the Somme was quite simple: launch a massive bombardment to weaken the German trenches and force the soldiers out of their defences, allowing the French and British soldiers to walk across no-man's-land and take the territory from the Germans. However, the Germans launched their own offensive against the French at Verdun.

The French and British plan failed because the German trenches were able to withstand heavy bombardment. The French and British artillery also stopped shelling the German trenches early enough to allow the German soldiers to emerge from their hiding places and prepare for the oncoming advance. As the Allied troops left the trenches, they were killed by the German machine gunners.

The battle settled into another stalemate that continued until November 1916.

1914 October Battle of Ypres (first)

1915 April Battle of Ypres (second)

1915 May Battle of Festubert

1916 February to August Battle of Verdun

1916 June to November Battle of the Somme

1916 July Battle of Fromelles (the Somme)

1916 July to September Battle of Pozières (the Somme)

1917 July Battle of Ypres (third)

1918 July Battle of Hamel

1918 August Battle of Amiens
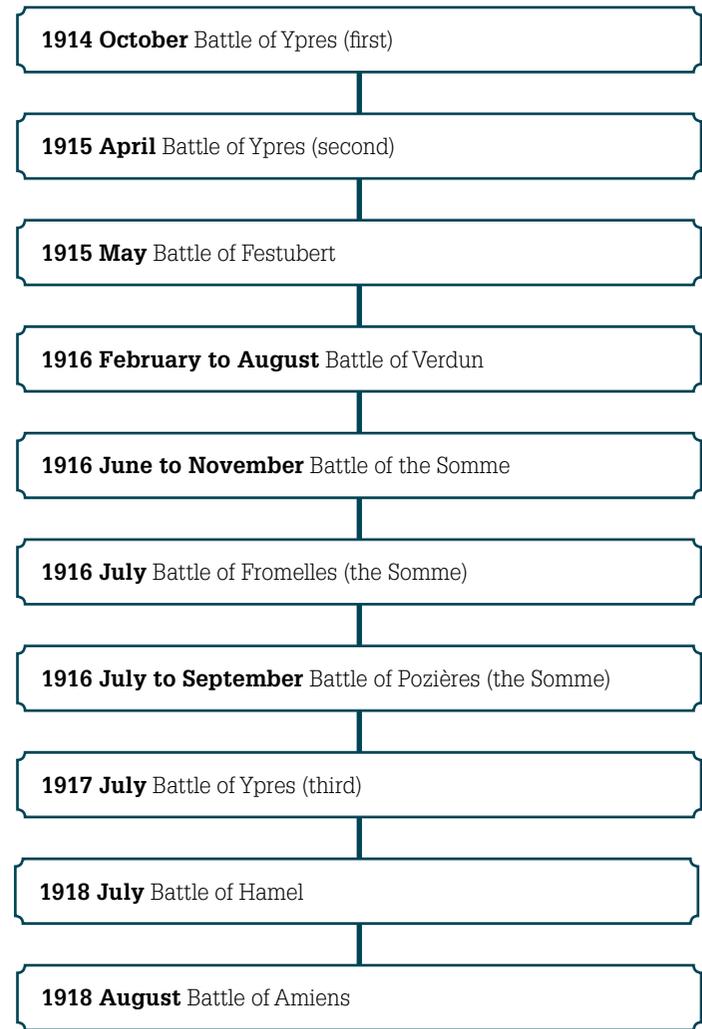
4.5.3 Timeline of major battles in the Somme

Fromelles: 19–20 July 1916

The Battle of Fromelles was the first time Australian forces saw action in France. It came at a great cost. Like many other battles on the Western Front, the attack was to begin with an artillery bombardment before launching the infantry across no-man's-land to the German lines. Despite initially taking about 1000 metres of land, the Australian offensive was not a success. Although they managed to damage a section of German lines during the initial bombardment, the enemy's defences were not destroyed. As a result, the Australians were cut to ribbons as they advanced. Fromelles was one of the worst 24 hours in Australia's military history, with over 5000 casualties (see Source 4.5.5).

Pozières: 23 July– 3 September 1916

The small village of Pozières was an important German defensive position, which the British had been unable to take despite repeated attempts. The AIF launched an attack on the German positions and captured the village on 23 July 1916.

In retaliation, the Germans started to bombard the town, which was interpreted by the Australians as being the opening phase of a much larger attack. Australian forces responded by asking the British to increase their bombardment. The consequence of this increased offensive was that the Australians suffered more than 23 000 casualties during the battle.
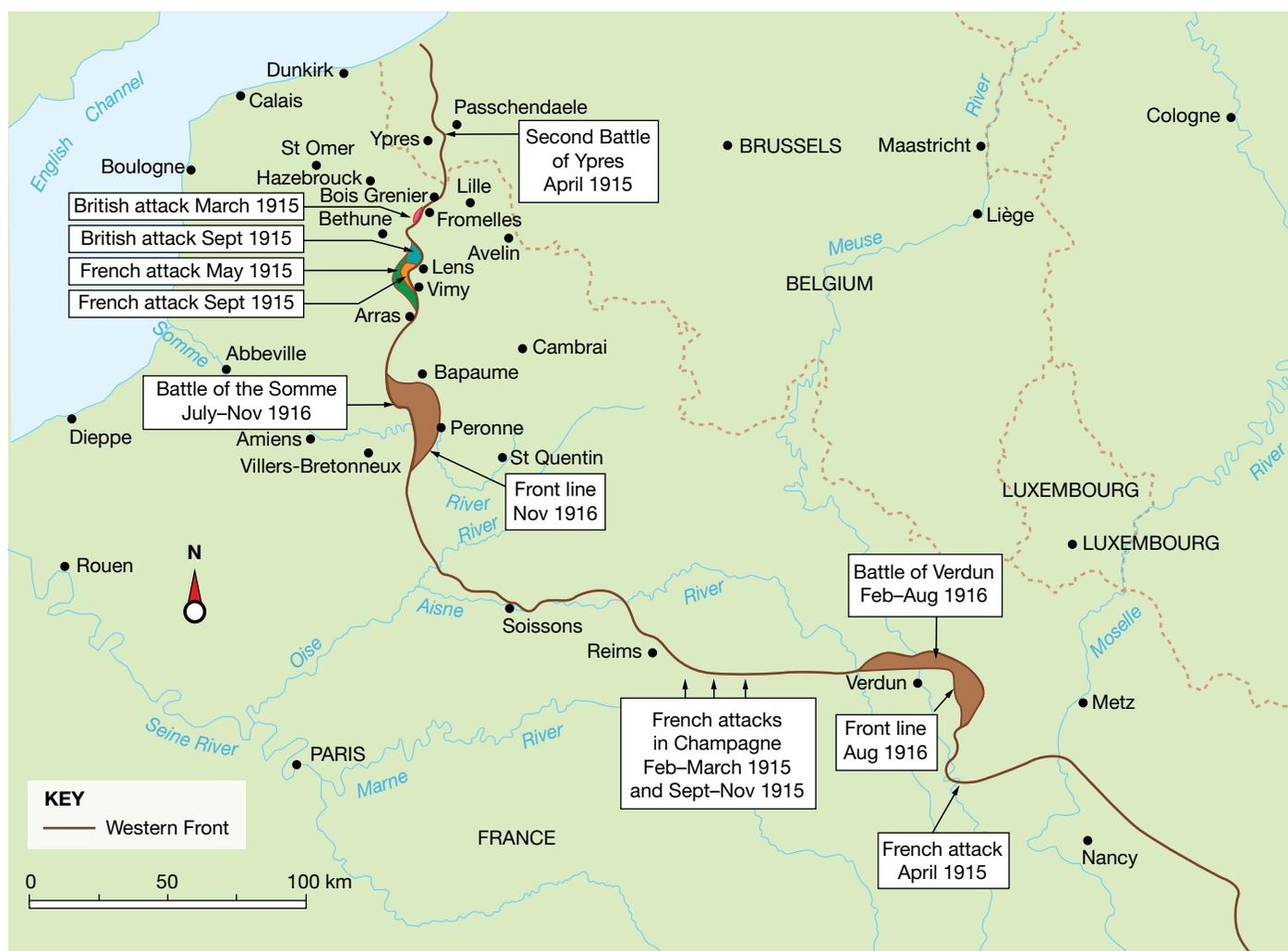
4.5.4 Major offensives on the Western Front, 1915–16

4.5.5 Captured Australians arriving at the German collecting station on the morning of 20 July during the Battle of Fromelles, which took place on 19 and 20 July 1916

The Germans launched further attempts to retake the town and the Australians responded with their own attacks, trying to push the Germans out of range of the town. Finally, by early August, Australian troops could see green fields beyond the mud and destruction of Pozières. They had taken and held the town, successfully stopping the Germans' counteroffensive to retake the village. Although it came at a huge cost, the Australians' success at Pozières was widely viewed as an impressive victory.

Some crack German regiments were employed, but the Anzacs went for their men, and put in terrible bayonet work. After a fierce contest the Australians and New Zealanders obtained the upper hand ... It was the most horrible night any soldiers ever experienced. By daybreak on Monday we had a firm footing in the village. 'The fighting at Pozières' continued the London officer, 'has proved that the Anzacs would face a wall of iron and go through it'.

4.5.6 The Battle of Pozières as reported in the *Sydney Morning Herald*, 28 July 1916

Activities

Remembering and understanding

1 To which theatre of war were Australian infantry units sent after Gallipoli?
2 a What was the aim of the Somme offensive?
  b Why did the French and British plan fail?
  c What were the casualty figures for the British and Australians for the Battle of the Somme?
3 Outline the events of the Battle of Fromelles and the Battle of Pozières.
4 Describe life in the trenches, covering aspects such as reasons for the trench system, food and water, and disease.

Applying and analysing

5 Read Source 4.5.6 carefully.
  a How does the writer of the article view the Australian soldiers?
  b Give three words or phrases from the source to support your answer.

Evaluating and creating

6 Conduct some research to help you create an annotated visual display of the places that Australian troops fought in France during World War I. Include information about the number of Australian troops involved, the casualties suffered and the outcomes of the action.

4.6 The textbook battle: Hamel

by air or on tanks. This increased the efficiency of the movement of the supplies to the front line. American troops would also be part of the offensive.

> The true role of infantry was not to expend itself upon heroic physical effort, not to wither away under merciless machine-gun fire, not to impale itself on hostile bayonets, but on the contrary, to advance under the maximum possible protection of the maximum possible array of mechanical resources, in the form of guns, machine-guns, tanks, mortars and aeroplanes; to advance with as little impediment as possible; to be relieved as far as possible of the obligation to fight their way forward.

4.6.3 Comments by Lt General Sir John Monash on tactics

Monash prepared by:

➤ training troops to work with the tanks
➤ colour-coding tank and infantry units so that it was easier to keep the organisation together during the smoke and confusion of battle
➤ banning troops from moving into position during daylight hours to avoid alerting the Germans to the coming advance
➤ using planes to cover the noise of the moving tanks
➤ ordering high explosive and smoke bombs to be dropped regularly on the town of Hamel at around 3.00 a.m. every morning to condition the Germans to expect air attacks at this time—on the day of the attack, Australian troops were able to move up quite close to the lines before the Germans realised it was a real infantry attack.

Battle

The Australians were able to begin the attack on Hamel with the element of surprise on 4 July 1918. At 3.00 a.m. the artillery barrage began. The artillery moved in front of the advancing troops to provide protection. This damaged the Germans' positions, especially their artillery batteries and their supply lines. By adjusting the creeping barrage to land shells approximately 75 metres in front of the advancing Australian infantry, the troops were provided with cover.

The troops worked in conjunction with the artillery and tanks to advance to the German lines. They were aided by the smoke and dust created by the artillery.

Within 93 minutes of the start of the attack, the Australian and US troops had achieved all the objectives that had been set for the battle. These included capturing the town

4.6.1 Lt General Sir John Monash was the first Australian general to command the Australian Corps in the field during World War I

> The main thing is always to have a plan; if it is not the best plan, it is better than no plan at all.

4.6.2 A quote from Lt General Sir John Monash provides an insight into his military thinking

Preparation

At the battle of Hamel, in July 1918, the Australian Corps was for the first time commanded by an Australian general, John Monash. He planned the battle meticulously, meaning that he took a very careful and detailed approach. Tanks were a relatively new addition to the war and Monash spent time training his troops to work with this promising new weapon. Supplies for the troops were placed in appropriate positions and he arranged for them to be delivered either

4.6.4 Artist's impression of the Battle of Hamel

4.6.6 From the Military Medal citation for Private Arthur R. Eastburn, 16th Battalion, who was killed in action near Hamel, 24 June 1918, aged 23

and taking many Germans prisoner. Planes were used for reconnaissance and observation in the battle. This helped in moving troops quickly from one place to another because the pilots had identical maps to those being carried by the commanders on the ground. The pilots could plot where the troops of both sides were and then the map could be parachuted to the ground commanders. Communication in this battle took a matter of minutes, rather than the hours it had taken in the early years of the war. Fighting continued for the next two days while the Allies consolidated (strengthened) the gains from the first 93 minutes of the attack.

Results

Eight hundred Australians and 170 Americans were killed in action; more were wounded. About 1400 Germans were captured and approximately 2000 were killed.

The Battle of Hamel had proven to be a textbook example of how the war on the Western Front could be fought. While the war continued until November 1918, the style of Allied attacks was altered to follow Monash's blueprint.

Activities

Remembering and understanding

1 Who was the Australian commander at the Battle of Hamel?
2 List the preparations that the Australian commander made for this battle.
3 Explain why this battle was so successful so quickly.

Applying and analysing

4 Study Source 4.6.3. Compare Monash's criticism of British tactics to his preparations for the Battle of Hamel.
5 Study Source 4.6.4. What does the picture say about the conditions at the Battle of Hamel?

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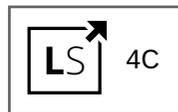
4.6.5 US and Australian soldiers in Pear Trench, at Hamel, 4 July 1918. The ruined village of Hamel is in the background.

4.7 The conscription debate

Volunteers and conscripts

In World War I all Australian servicemen were volunteers. After war was declared, many Australian men rushed to enlist. However, as the casualty figures started to emerge from the Gallipoli campaign and then the Western Front, the number of recruits began to drop.

In 1916, the majority of the Australian forces were involved in the massive Battle of the Somme, which had a very high casualty rate. The Battle of Fromelles resulted in more than 5000 casualties in 24 hours. The number of troops enlisting back in Australia was not enough to replace those wounded and killed in France.

When Australian Prime Minister Billy Hughes visited Britain during the summer of 1916, the British government suggested that he introduce conscription (compulsory military service) in Australia. The prime minister agreed but the Australian Labor Party (ALP), which he led, did not. Hughes decided to take the question of conscription to the Australian people in an advisory referendum or **plebiscite** (a vote to answer a national question that does not affect the Constitution).

1916 plebiscite

The lead-up to the 1916 plebiscite on the issue of conscription was a very divisive time in Australia's history. The prime minister led the 'yes' campaign while the Roman Catholic Archbishop of Melbourne, Daniel Mannix (see Source 4.7.2), led the 'no' campaign (see Source 4.7.2).

'Yes' campaign

The 'yes' campaign was supported by the Reinforcements Referendum Council and the majority of the press. The 'yes' campaign focused its arguments on Australia's promise to support Britain and the men already serving. The prime minister travelled across the country promoting the 'yes' arguments. He found support from many Protestants because they viewed conscription as a sign of loyalty to the mother country. He also found support with people who believed conscription would share the burden of war more evenly across the classes.

4.7.1 Australian Prime Minister Billy Hughes was a supporter of conscription
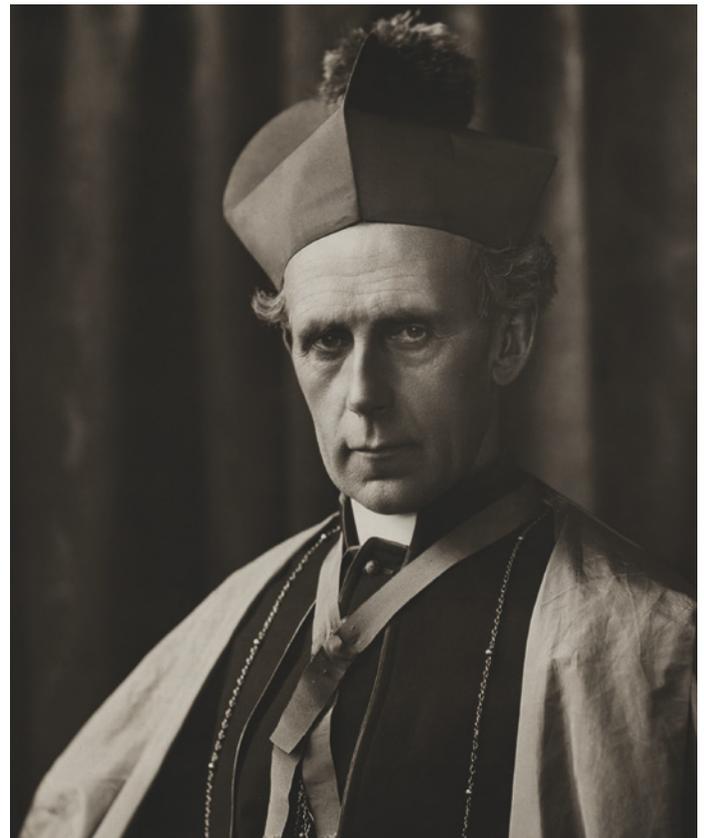
4.7.2 Catholic Archbishop of Melbourne Daniel Mannix was against the introduction of conscription in Australia

4.7.3 Campaigning for the 'yes' vote, poster, 1917. The shadowy figure on the right is wearing a German helmet; to the left is a wounded Australian solider.

'No' campaign

The 'no' campaign focused on the wrongness of trying to force young men to fight in a war when they did not want to do so. People who supported the 'no' vote included many Roman Catholics, a large percentage of the working class, the socialist group the Industrial Workers of the World (IWW), the Quakers and the Women's Peace Army.

Catholic Archbishop of Melbourne Daniel Mannix, originally from Ireland, was an outspoken advocate for the 'no' vote and was supported by many members of the ALP (despite their leaders' campaign for the 'yes' vote). Mannix's prominent role in the campaign served to highlight the **sectarian** (religious) division between Protestants and Catholics that existed in Australian society at the time. Because Ireland was seeking separation from Britain during this period, and the majority of Australian Catholics were of Irish descent, many viewed the Catholic support of the 'no' vote as evidence of disloyalty to Britain and a lack of support for the war effort. This view persisted in some sections of the community, even though there was very little difference in the rate of enlistment of Catholic and Protestant men.

4.7.4 Campaigning for the 'no' vote, 1916

4.7.5 Soldier addressing an anti-conscription rally in Melbourne before the second plebiscite, 1917. The ranks of serving soldiers were also divided between those who were for and against conscription. Those opposed typically argued that they didn't want to be fighting alongside men who had been forced to enlist, while those who supported it saw the need for more troops and believed all men should be doing 'their bit'.

The question

The question that was asked of the Australian people on 28 October 1916 was: 'Are you in favour of the government having in this grave emergency the same compulsory powers over citizens in regard to requiring their military service, for the term of this war, outside the Commonwealth, as it now has in regard to military service within the Commonwealth?'

The outcome

All referendums and plebiscites in Australia need a double majority to be successful, which means that a majority of the population and a majority of the states have to vote in favour of the proposal. The vote in 1916 was 1 087 577 'yes' and 1 160 033 'no' votes. Only three states voted 'yes' so the result was a 'no' vote on both criteria.

Hughes was disappointed, and he was forced to leave the ALP as the party passed a vote of no confidence in his leadership. He took a number of other members of the ALP with him and they formed a new party with the Liberals. This new party was called the Nationalists and it went on to win a large majority in the federal election in May 1917.

1917 plebiscite

Hughes took his party's huge win in the federal election as an indication that he might be successful in winning a second plebiscite on conscription. In December 1917, Hughes once again put the issue of conscription to the Australian people. This time the question was simpler: 'Are you in favour of the proposal of the Commonwealth Government for reinforcing the Australian Imperial Force overseas?' Hughes also narrowed the proposal so that conscription would be limited to men aged between 20 and 45 who were single, divorced or widowed without children.

The campaigning was just as strong and divisive as it had been in 1916, with similar arguments being put forward. Once again the Australian people voted 'no' with 1 181 747 'no' votes to 1 015 159 'yes' votes.

Evaluating different historical interpretations and contested debates

Conscription into the Australian armed forces during World War I was a topic of heated debate. Use the information in this unit as well as your own research to prepare for a horseshoe debate. Make a list of arguments either for or against the following proposition: *Conscription in Australia should have been made law during World War I.*

Unlike a traditional debate, in which you would have to argue for the affirmative or the negative, a horseshoe debate allows you to change sides as you become more or less convinced by the arguments of your class members. The class should be seated in the shape of a horseshoe or *U*. On the right of the horseshoe are those who agree with the proposition and on the left are those who disagree. By sitting further to the left or right you are informing everyone that you either strongly agree or disagree with the proposition. Those who are uncertain sit in the middle of the horseshoe, but need to decide which side they will lean to.

To ensure the debate runs smoothly, it is important that everyone makes a brief opening statement once they have sat down. Feel free to change seats as you change your mind. At the end, debrief by noting how the horseshoe looked at the beginning of the debate and how it looks at the end. Discuss the most convincing arguments and give feedback to the class about whether or not you finished the debate with a new point of view.

4.7.6 An anti-conscription badge

4.7.7 A pro-conscription badge

Activities

Remembering and understanding

1. Why did the prime minister believe that Australia needed conscription?
2. What is meant by a 'double majority' when referring to an Australian referendum or plebiscite?
3. What was the result of the two plebiscites?

Applying and analysing

4. Study sources 4.7.3 and 4.7.4. Explain how these posters tried to evoke an emotional response to the issue of conscription.
5. Create your own propaganda poster for either the 'yes' or the 'no' campaign.

4.8 Propaganda, censorship and enemy aliens

War Precautions Act

Shortly after war was declared, the Australian Parliament passed the *War Precautions Act 1914*. Under the Act the government was able to censor (restrict) the press and people's personal mail. The government also had the power to establish **internment** camps, where people who were considered a security risk were imprisoned.

Propaganda

During World War I, government propaganda was used to encourage recruitment and conscription. Other propaganda encouraged women to become involved on the home front and promoted hatred of the enemy.

In this era, propaganda was mainly seen in the form of posters, which appeared in the press and in public places. Posters were created to play on emotions with themes such as mateship, fear, self-respect, community esteem and hatred of the Germans. Propaganda also took the form of newspaper editorials, speeches by prominent people in towns and communities, and local events held to support the war effort.

Censorship

Censorship was the process by which information released to the public was controlled and limited by the government (see Source 4.8.2). Although it was impossible to hide the casualty figures, the government only allowed positive information about Australia's involvement in the war to be made public. Negative stories or reporting were thought to be unhelpful to the war effort and likely to lower morale or influence the attitude of the population towards the war.

The most obvious censorship was the censoring of letters going to and from the troops at the front. These letters were read by the soldiers' officers to ensure that they contained nothing that could reflect badly on the war effort.

Enemy aliens

Enemy aliens were people who were born (or whose parents or grandparents were born) in one of the enemy nations, particularly Germany and Turkey. There was a fear that these people might actually be spies for the enemy. In 1915, even British subjects (that is, Australian citizens) of German descent were categorised as enemy aliens.

There was no sign of nerves or excitement … Not waiting for orders or for the boats to reach the beach, but, springing out into the sea, they waded ashore, and, forming some sort of rough line, rushed straight on the flashes of the enemy's rifles … The Turks in the first trench were either bayoneted or they ran away … Then this race of athletes proceeded to scale the cliffs without responding to the enemy's fire … but then [their] blood was up, they rushed northward and eastward searching for fresh enemies to bayonet … I have never seen anything like the wounded Australians before … they were happy because they knew that they had been tried for the first time and not found wanting … There has been no finer feat in this war than this sudden landing in the dark … These raw colonial troops proved worthy.

4.8.1 An early newspaper account of the landing at Gallipoli. This account, by Ellis Ashmead-Bartlett, appeared in the Hobart *Mercury*, 8 May 1915. It is regarded as a piece of propaganda as it is not an accurate reflection of what occurred.

4.8.2 A telegram sent by Ellis Ashmead-Bartlett to the *Daily Telegraph* in London, reporting on the Gallipoli campaign. Note the heavy military censorship.

According to the 1911 Census, there were over 33 000 people of German origin living in Australia. These people had to report to their local police stations on a regular basis.

Due to the heavy anti-German propaganda at the beginning of the war, there was a strong anti-German attitude in the population. Australians would avoid German-owned shops, dogs of German breeds such as dachshunds were kicked, and verbal abuse and physical attacks were made against Germans in the streets. People of Germanic origin were encouraged to anglicise their names (make them sound more English). Even the historic town of Hahndorf in South Australia, which had been settled by German emigrants, changed its name to Ambleside. It was changed back again in 1935.

Internment camps

Internment camps were established throughout the country to house approximately 7000 people regarded as enemy aliens. The camps were often in remote areas of the country, although there was one at Holsworthy in south-western Sydney (see Source 4.8.3). Langwarrin was the site of Victoria's only internment camp.

Langwarrin Internment Camp was located on the Mornington Peninsula. It housed up to 500 internees in poor conditions. Internees lived in tents and makeshift huts. The camp closed in 1915 and the internees were transferred to Holsworthy. This was a much larger camp which housed about 6000 men, both internees and prisoners of war. Over the course of the war the Holsworthy camp developed to include theatres, restaurants and cafes, small businesses, social clubs and educational facilities. Many internees left the camp better educated than they had been when they entered, while others developed new skills to help them in the years ahead.

4.8.3 Internment camp at Holsworthy, c. 1917

Activities

Remembering and understanding

1   Define the terms 'censorship', 'enemy aliens' and 'propaganda'.
2   Explain why the government introduced censorship.
3   Describe the differences between the internment camps at Holsworthy and Langwarrin.

Applying and analysing

4   Study Source 4.8.1.

   a   What words and phrases show that it is an example of propaganda?
   b   How accurate an account is this of the first day at Gallipoli?
   c   Ellis Ashmead-Bartlett was an experienced war correspondent. Do you think this makes his work more or less reliable and why?
5   Compare sources 7.8.1 and 7.8.2. Explain why there is a significant difference in the level of detail provided in the two sources.

Roles for women

Before the war there were clearly defined gender roles for men and women in Australia. For example, there were many occupations that were considered unacceptable for women. However, with the outbreak of war, many women wanted to be involved in the effort and to do all they could to assist the fighting men. These women wanted to contribute as doctors, cooks, drivers, signallers and nurses. They wanted to do jobs behind the lines, which could then free up men for frontline duties. The government, however, was not interested in having women become involved in the war effort beyond the nursing profession (see Source 4.9.1). Throughout the war, despite pressure from Australian women, the government refused to send any woman to the front unless she was a nurse.

Nurses

More than 3000 Australian nurses volunteered for service during World War I and twenty-five lost their lives. Australian women were sent to serve as nurses at the same locations as the men, although never on the front line. The only exception was Gallipoli. While the men were fighting on the Gallipoli Peninsula, the nurses were on nearby Greek islands such as Lemnos, where they worked in the hospitals. The working conditions were harsh due to the hot climate, often undrinkable water, and food that was hard to digest. Frequently the nurses themselves were struck down by disease because of exhaustion and poor sanitation.

When the men moved to France and the Middle East, the nurses followed. A casualty clearing station was the first stop behind the lines for a wounded soldier. Nurses in the stations were in the same situation as the male doctors,

4.9.1 A nurse assisting in an operation at the 1st Australian Casualty Clearing Station in November 1917

although male doctors were also sent to the front lines and suffered many casualties. Every effort was made to keep the nurses out of danger, though of course enemy aircraft and long-range artillery were a threat. A total of 2139 Australian nurses served overseas during the war.

Bravery awards

Eight Australian nurses received the Miltary Medal for bravery, including Sister Pearl Corkhill for her actions during two attacks by the Germans on her casualty clearing station in 1918.

At home

Many women on the Australian home front also wanted to participate in the war effort. However, due to Australia's distance from the front, there was not the same sort of war work for women in Australia as there was in Britain or Germany. Many working-class women continued in their pre-war jobs, but for some middle-class women this was a time when they took on new roles and responsibilities (see Source 4.9.2).

Volunteer organisations

The Red Cross

The patron of the Red Cross was Lady Helen Munro-Ferguson, who was the wife of the Australian governor-general. During the war, the Red Cross expanded into almost every town and suburb across the country. The women who worked for the Red Cross knitted more than a million socks for the men at the front, as well as other garments such as mittens. Even schoolchildren were encouraged to knit during classes and in their breaks.

Australian Comforts Fund

The Australian Comforts Fund provided tobacco, homemade cakes and biscuits, condensed milk, newspapers and other luxuries to the troops. The women raised funds to purchase the goods and arranged the collection, packing and dispatch of the comfort packages. The packages also included knitted items such as socks and sometimes a letter to cheer up the recipient.

Women in the workforce

When men left for the front, women replaced them in the workforce. The percentage of women in the workforce during the war rose from 24 per cent in 1914 to 37 per cent in 1918. Women worked mostly in industries such as clothing and footwear, which had been dominated by men in the pre-war years. When a woman took a job previously held by a man, it was at a lower wage and there was often an understanding that when the man came home he would take up his job again.

Did you know?

Although there were female doctors in Australia during the war, the Australian Government refused to send them overseas. In response, some female doctors enlisted in foreign medical corps.

4.9.2 Members of the Australian Red Cross packing comforts to be sent to servicemen overseas

Activities

Remembering and understanding

1 Identify the two main areas in which women assisted the war effort.
2 Identify three places where Australian nurses served.
3 How did the Australian Red Cross become more involved in Australian society during the war?

Applying and analysing

4 What evidence is presented in the text that attitudes towards women changed during the war?
5 Refer to Source 4.9.1. What can be learned from this source about the working conditions of nurses close to the front?
6 Refer to Source 4.9.2. How does this source reveal the role of women on the home front?

4.10 Participation of Aboriginal and Torres Strait Islander peoples in World War I

Defence Act

In 1914, Aboriginal and Torres Strait Islander peoples were not regarded as Australian citizens. As a result, the official government policy, as stated in the *Federal Defence Act* of 1903 and every update until the war began, was that Indigenous Australians were not allowed to enlist. As a consequence of this ruling, Aboriginal and Torres Strait Islander peoples were not legally allowed to join the military when the war began.

Enlisting

When war was declared, many Aboriginal and Torres Strait Islander men tried to enlist but were refused simply on the basis of their race. Like other young men, they wanted to serve their country and sought adventure overseas. The pay of 6 shillings a day was another attraction, as Aboriginal and Torres Strait Islander peoples were some of the lowest paid workers in Australian society at the time. Another reason that has been put forward is that Aboriginal and Torres Strait Islander men wanted to prove that they were as good as the men of European descent.

The decision about who could enlist was left largely to the recruiting officer, an army representative responsible for signing up men in the local area. Aboriginal and Torres Strait Islander men who wanted to join up therefore had to convince this individual, if asked, that they were not Indigenous. As a result of these men having to conceal their cultural background, there are no precise figures about how many Aboriginal and Torres Strait Islander men did serve. The Australian War Memorial estimates there were more than 400 Indigenous servicemen over the course of the war.

Rules relaxed

As the number of volunteer troops dropped, it became harder to justify denying men the right to enlist based on their race. By 1916, the officers in charge of recruitment were told to allow Aboriginal and Torres Strait Islander volunteers to enlist. It was also made clear that their duties would be limited to non-combatant roles such as drivers, stretcher-bearers and signallers.

Even though Indigenous men were allowed to enlist, there was still a restriction based on parentage. All Aboriginal and Torres Strait Islander men who wished to serve had to prove that they had at least one European parent. At the time these men were described officially as **'half-castes'**, while those with no European ancestry were described as 'full-bloods'. These descriptions, which are considered offensive, remained in place well into the twentieth century.

Distinguished duty

Although the official policy was clear, Indigenous troops served at Gallipoli in 1915, and then in both the Middle East and France. Once in the army, the soldiers found that their comrades treated them as equals (see Source 4.10.2). This was probably because they had volunteered to enlist and were suffering the same circumstances and enduring the same experiences as the other men. Like the rest of the serving troops, the majority of Aboriginal and Torres Strait Islander servicemen were anonymous, although some earned commendations for bravery. Three Indigenous men who were awarded the Distinguished Conduct Medal (second only to the Victoria Cross) were Albert Knight, Harry Thorpe and William Irwin. Others such as William Rawlings were awarded the Military Medal.

For conspicuous gallantry and devotion to duty on 29th/30th September, 1918. During an attack on the village of Bony, on the 30th September, 1918, several bombing parties were held up by heavy Machine Gun and Trench Mortar fire. Corporal Knight handled his Lewis Gun Section with great skill and worked forward to a suitable position, he then placed his gun in position, handed over to No. 1 and proceeded to push forward and reconnoitre the enemy position. This necessitated moving over country which afforded no cover, other than shell holes, for a distance of 200 yards. This was carried out in broad daylight and in full view of the enemy lines and under Heavy Machine Gun, Trench Mortar and Artillery fire. In spite of difficulties he succeeded in reaching a position from which he located several Machine Guns and Trench Mortars, which were at the time playing on our position. He then returned to our lines with the valuable information which he had obtained and artillery assistance was brought to bear with success on the positions indicated.

4.10.1 The Citation for Corporal Albert Knight, *London Gazette,* 11 March 1920

Returning home

When the troops returned to Australia, the Indigenous servicemen had to go back to the reserves and missions and faced the same discrimination and disadvantage as they had before the war. They were not citizens and were not seen as equal to men of European descent. No Aboriginal or Torres Strait Islander serviceman was given land under the soldier settlement scheme that was put in place after the war to help returning soldiers. The families of Aboriginal and Torres Strait Islander servicemen who had been killed in action were also treated differently (see Source 4.10.3).

Whenever she (Cyril Righey's daughter, Aileen) wanted to buy clothing, she had to order from a department store catalogue and her goods would be sent to her by mail. If she wanted cash, she had to apply to the Repatriation Department. It appears that she was the only child of a soldier killed in action who had to do this.

4.10.3 Extract from *Ngarrindjeri Anzacs*, Dorothy Kartinyeri, 1996

Activities

Remembering and understanding

1 At the outbreak of World War I, what restriction was placed on Aboriginal and Torres Strait Islander men who wanted to enlist in the army?
2 When was this restriction lifted?
3 Why did Aboriginal and Torres Strait Islander men want to fight?
4 Approximately how many Aboriginal and Torres Strait Islander men are thought to have joined the army during World War I?
5 How were the returned Aboriginal and Torres Strait Islander servicemen treated?

Applying and analysing

6 Refer to Source 4.10.1. Explain what this source tells us about the role of Indigenous soldiers.

LS↗ 4D

4.10.2 Private Douglas Grant (left), 13th Battalion. Grant was an Aboriginal serviceman who fought with the AIF. He is shown with Private Harry Avery (centre) and an unidentified British soldier, c. 1916–1917.

Private Douglas Grant

Like the numbers of those serving, the data regarding how many Aboriginal and Torres Strait Islander men died or were injured during the war is unknown. What is acknowledged is that at least one, Private Douglas Grant, was captured. The Germans were fascinated by Grant and had him studied by anthropologists before sending him to a camp with other black prisoners. He spent 22 months as a prisoner of war before being repatriated to Australia. He became active in fighting for Aboriginal and Torres Strait Islander rights and in support of returned servicemen.

Armistice

The eleventh of November 1918 has become known as Remembrance Day. An armistice refers to an agreement (like a truce) between those involved in a conflict to stop fighting for an agreed period of time. It was at 11.00 a.m. on 11 November that fighting on the Western Front officially ended. Over the next six months, the Australian troops and support personnel came home.

After Armistice Day, the first decision made by the Australian Government was to bring the men home in the order in which they had left Australia, rather than as a combined force. This meant that the men who had been away since the first ships left for Europe were on the first ships to come home. These men had experienced over four years of war, including battles at Gallipoli and the Western Front.

The men left in Europe spent their time travelling and seeing the sites of France and Britain. The opportunity to travel was one of the main reasons men had enlisted in the first place. Some also engaged in educational courses aimed at helping their employment opportunities once they returned to Australia.

4.11.1 An Australian soldier recovering in a British hospital

Changing international relations

World War I had profound impacts on Europe. The victorious nations of World War I inflicted significant consequences on Germany, which they blamed for starting the war. These included forcing them to pay reparations (significant monetary payments for damage caused during the war) and taking territory from Germany itself and its overseas colonies, as well as restrictions on armed forces.

While the German, Austrian and Ottoman empires were at an end, World War I is also regarded by some historians as the beginning of the end of the British Empire. Britain had expended huge numbers of men and large amounts of money in fighting the war. The gradual decline of the pre-1914 empires coincided with the emergence of new powers, including the United States of America and Japan, which would play a significant role in world affairs in the coming decades of the twentieth century.

Australia's relationship with Britain, for now, remained relatively strong.

Returning to civilian life

When the soldiers returned to Australia, they had some difficulties readjusting to peacetime society. The problems they faced included:

➤ re-establishing family relationships, especially with wives and children
➤ finding jobs
➤ communicating with civilians about the war
➤ dealing with the injuries they had suffered, both psychological and physical.

Men who returned from the war experienced different long-term effects. While some men would talk openly about the war, others were more reserved and spoke about their experiences only with close friends and family, or would not talk about it at all. Some men were able to rebuild their lives and returned to their former jobs or gained new ones. They settled into being husbands and fathers and marched proudly on Anzac Day.

But other returned soldiers were not fortunate; the war had changed them and they were restless in civilian life. Many of these men struggled to remain in employment. There was another large group of men who had been badly wounded during the war (see Source 4.11.1). They had lost limbs, become blind, suffered from mustard gas attacks, and had burns and injuries that would never fully heal.

4.11.2 Soldier settlement, Mullumbimby, 1921

Government support

At the beginning of the war the government had introduced war pensions for veterans. The Department of Repatriation, which offered support to returned soldiers and their families, was formed in 1917. Victoria had sent approximately 90 000 men to serve in World War I, and about 70 000 of them returned. The Victorian Government, like other state governments, supported the establishment of soldier settlements, which gave returned servicemen a plot on which to farm and start a new life (see Source 4.11.2). Many failed in their attempt because the settlements were too small and the soldiers often did not have the skills to be successful farmers. By the start of World War II, around 60 per cent of the settlers had left their plots.

Civilians

After the war ended, civilian communities had to absorb approximately 300 000 ex-servicemen. For women, this meant an official return to pre-1914 attitudes and the expectation that they would leave any jobs previously held by men. Employers were not so happy with this arrangement because they paid female employees less money than they paid male employees. Another problem for women was that they had become accustomed to running their families. Once the men were home, many women had to relinquish control and return to playing a subordinate role to their husbands. For many women, the end of the war also meant the end of their voluntary wartime activities.

... that was the war to end all wars. No wars ever ended a war. I don't think there's any place for war. The history of wars has never been for any peace. I wouldn't do it again.

4.11.3 A quote from Ted Smout, former corporal, stretcher-bearer in the Australian Medical Corps 1915–19

Activities

Remembering and understanding

1. How did the government organise the return of the servicemen once the war was over?
2. List the types of problems that confronted a returning soldier.
3. Identify the ways that the government tried to help the soldiers.

Applying and analysing

4. Explain some of the problems that women had to deal with after the men returned home from World War I.
5. Study Source 4.11.2 carefully. Describe the conditions of the soldier settlement.

Evaluating and creating

6. Imagine that you were either a returned soldier or his wife. Write an account of how you coped during the first six months after you or your husband returned home.

4.12 Commemorating World War I

Remembering

Anzac Day is commemorated on 25 April each year all around Australia and in New Zealand. When the war ended, it was time to count the cost and to rebuild the nation. But it was also important to remember the sacrifice of those who had fought and the many who had died in the war.

Australia's population at the time of the war was approximately 4.5 million. Over 400 000 enlisted; 324 000 were sent overseas to serve at Gallipoli, the Middle East, the Western Front, or in the navy or newly formed Flying Corps. Of these, 155 000 were wounded and another 61 000 were killed.

Anzac Day through the years

Anzac Day was first acknowledged in London and elsewhere on 25 April 1916, which was the first anniversary of the landings at Gallipoli. Every year since, Australians and New Zealanders have taken the time to remember the troops who made these landings.

The dawn service commemorates the time when the first boats landed at Anzac Cove. Not only does New Zealand join with Australia for this commemoration but also Turkey. Turkey regards Anzac Cove as a special part of its history and has made it a point of honour to care for the graves of Australians as well as their own people. This attitude was reflected in the words spoken by the first president of Turkey, Kemal Ataturk, in 1934 (see Source 4.12.1).

> Those heroes that shed their blood and lost their lives … You are now lying in the soil of a friendly country. Therefore rest in peace. There is no difference between the Johnnies and the Mehmets to us where they lie side by side now here in this country of ours … you, the mothers, who sent their sons from faraway countries wipe away your tears; your sons are now lying in our bosom and are in peace. After having lost their lives on this land. They have become our sons as well.

4.12.1 The first president of Turkey, Kemal Ataturk, speaking in 1934. Ataturk had been a general at Gallipoli.

Turkey has honoured these words ever since. Today many young Australians travel to Gallipoli to attend the dawn service each year. Sites of other battles, such as Villers-Bretonneux in France, are also places of pilgrimage (the end point of a long, important journey) for Anzac Day services.

Anzac Day marches occur in many communities. Large marches are held in each state capital, but many other cities and towns have their own marches to honour their local service personnel.

Today, many young people take part in Anzac Day ceremonies as a tribute to their parents, grandparents and great-grandparents who served for Australia or Australia's allies in various wars. Even though the enemy at Gallipoli was Turkey, the descendants of Turkish soldiers also participate in Anzac Day marches because Anzac means as much to them as it does to Australians as a symbol of national pride.

4.12.2 The Lone Pine diorama

War memorials

There are over 2000 war memorials across Australia, because many communities built one for their local servicemen (see Source 4.12.3). The majority of Australian soldiers who died in World War I were buried overseas. Therefore, war memorials became places where families and friends could commemorate and grieve. The Australian War Memorial in Canberra lists every Australian who has died in any conflict. The list of names from World War I still outnumbers the total from all other conflicts combined. The memorial has the following sections:

➤ the Commemorative Area with the Pool of Reflection and the Eternal Flame
➤ the Hall of Memory with the names of the dead from all conflicts
➤ the Hall of Valour, where the Tomb of the Unknown Soldier now lies
➤ museum galleries dedicated to each war.

At the Australian War Memorial, fallen service personnel are listed alphabetically under the Navy, Army or Air Force and Battalion. Listing names alphabetically was an initiative of Charles Bean, the official Australian war historian for World War I, who argued that in death all men are equal.

Returned and Services League

The Returned and Services League (RSL) assists ex-service personnel and their families. Many suburbs and towns have a branch or sub-branch of the RSL. Every night at these clubs, there is an acknowledgement of those who died with a minute's silence and the reciting of The Ode.

They shall grow not old, as we that are left grow old;
Age shall not weary them, nor the years condemn.
At the going down of the sun and in the morning
we will remember them.

4.12.4 The Ode from 'For the Fallen' by Laurence Binyon

Activities

Remembering and understanding

1 How many Australians died in World War I?
2 When was the first acknowledgement of Anzac Day?
3 List the three countries that acknowledge Anzac Day as a major day in their history.
4 What is the role of the RSL?

Applying and analysing

5 Refer to Source 4.12.2. What does the diorama suggest about the difficulties of capturing Turkish trenches at Lone Pine?
6 Refer to Source 4.12.4. This verse is one of the middle verses of a much longer poem. Why do you think this verse became associated with those who died during the war?

4.13 The Anzac legend

Creating the legend

Since the first Anzacs landed at Gallipoli, the Anzac legend has grown to the point where it is difficult to separate the myth from the reality. The legend has been promoted by governments, as shown in Source 4.13.1, and in popular culture in films such as *Gallipoli* and *1915*.

4.13.1 A commemorative stamp from 1965 to mark the fiftieth anniversary of the landing at Gallipoli. This stamp depicts the famous story of Simpson and his donkey. Private Simpson used a donkey to retrieve wounded soldiers at Anzac Cove in the direct line of fire. He was killed in action a month after the Anzacs landed at Gallipoli.

Early stories

When the Allies withdrew from Gallipoli in December 1915, some of the early stories told to the public in Australia were exaggerations. The reasons for this were complex, but include the following.

➤ World War I was the first major war involving Australia since Federation, so it was seen as a chance for Australia to prove itself on the world stage as a new nation.

➤ The Australian public had heard stories about the poor behaviour of some of the troops in Egypt while in training and wanted to counteract that poor impression.

➤ The public wanted to believe that the Australian troops were just as good as the best soldiers from the rest of the world.

➤ Australians wanted to have a sense of pride and a national identity that was recognised as equal to those of other nations.

Charles Bean

At the time of the Gallipoli campaign, the Australian Government had appointed an official war correspondent who visited Gallipoli to record events. His name was Charles Bean. Bean's work, both during and after the war, contributed to the creation of the Anzac legend. While at Gallipoli, Bean assisted in the creation of a work by the troops called *The ANZAC Book*. This book included many humorous stories from the troops about the conditions under which they were fighting. However, Bean was very strict about what was allowed in this book. He would not allow any content that contradicted the image that he, journalist Ellis Ashmead-Bartlett and the Australian Government were keen to present to the Australian public. Items that referred to fear or cowardice were excluded from the book. *The ANZAC Book* was widely distributed in Australia (and is still available today) and it was a significant influence on the way that the Gallipoli campaign was viewed by Australians.

General William Birdwood's introduction to *The ANZAC Book* (see Source 4.13.2) was propaganda to promote the troops and the war. The book was widely sold as a fundraiser to people in Australia who wanted to read about the troops' experiences.

No words of mine could ever convey to readers at their firesides in Australia, New Zealand and the Old Country, one-half of what all their boys have been through, nor is my poor pen capable of telling them of the never-failing courage, determination and cheerfulness of those who have so willingly fought and given their lives for their King and country's sake. Their deeds are known to the Empire, and can never be forgotten, while if any copy of this little book should happen to survive to fall into the hands of our children, or our children's children, it will serve to show them to some extent what their fathers have done for the Empire, and indeed for civilisation, in days gone by.

4.13.2 Extract from General William Birdwood's introduction to *The ANZAC Book*. Birdwood commanded the Anzac Corps at Gallipoli and until 1918.

Alternative perspectives

Assessing the Anzac legend

There is no question that many of the stories that contributed to the Anzac legend are true. The job of a historian is to sort through the stories, identify the myths and ascertain the facts.

The Anzac legend has many elements, including mateship, independent spirit, courage and resilience. The myth is the assumption that these qualities only existed in the Anzacs and were not present in other troops or in the people at home.

It is worth examining these qualities to see if they only applied to the Anzacs.

➤ *Mateship*—The essential point of mateship is never letting your mates down. In Britain, entire villages or workplaces joined up and fought together in 'Pals' Battalions.

➤ *Independent spirit*—Australians were often described as larrikins and disrespectful of authority. Yet this was a feature of many soldiers.

➤ *Courage*—There is a belief that Australian troops never shirked their duty as soldiers but in reality some did.

➤ *Resilience*—Anzacs were considered resourceful, even ingenious when needed. However, soldiers of other nations were equally resilient.

In September 1915, Bean committed to his diary a lengthy appraisal of the Australian soldier in which he acknowledged that fear, cowardice and reluctance were the 'true side of war' but he added: 'I wonder if anyone would believe me outside the army'.

4.13.3 An extract from '*The ANZAC Book* and the Anzac Legend: C.E.W. Bean as Editor and Image Maker', D.A. Kent, *Historical Studies*, vol. 21, no. 84, April 1985

Glorifying war

When analysed, the creation of the Anzac legend makes sense in its own time. With the benefit of a century of hindsight, historians are more critical—not of the Anzacs themselves and their achievements, but of the way their story was manipulated by the government of the day and continues to be used.

The myth of Anzac has become more significant in recent years, ubiquitous even, with what I have called the militarisation of Australian history, mightily subsidised by the Howard government in the 1990s and early years of this century. War stories have figured ever more prominently in our culture, in our school rooms, on our TV screens and in our bookshops, but they do not usually tell of the perpetual state of warfare, as one colonist described it, entailed in the colonisation of Australia. To represent this phase of warfare in the Australian War Memorial would challenge the legitimacy of the nation-building project at the heart of Anzac and the Australian War Memorial. Modern Australian history has rather been defined by the exploits of the expeditionary forces sent to engage in military operations overseas, which began not with our participation in WW1, of course by the way, but in the Boer War in South Africa.

4.13.4 Interview with Dr Marilyn Lake, 'Hindsight', ABC Radio National, 2009

Activities

Remembering and understanding

1 List four reasons why the government and the press would have allowed exaggerated accounts of the landings at Gallipoli to be published.
2 Identify the types of entries that were not permitted in *The ANZAC Book.*
3 Identify four elements of the Anzac legend.
4 Name the official war correspondent appointed by the Australian Government. Outline his importance in creating the Anzac legend.

Applying and analysing

5 Analyse the Australian Government's reasons during World War I for creating the Anzac legend. Explain whether we, as modern historians, should be critical of these actions or not.
6 Refer to Source 4.13.2. Explain how General Birdwood's introduction aided in the creation of the Anzac legend.

Geography toolkit

5

In geography we use an inquiry approach to make meaning of the world around us. This involves finding answers to the questions we have about the things we observe in the biophysical, managed and constructed environments.

The investigations we undertake in geography are informed by our developing geographical knowledge and understanding. Geographical knowledge is made up of the facts, generalisations, principles, theories and models developed in geography.

This knowledge is dynamic and its interpretation can be challenged. Geographical understanding is the ability to see the relationships between elements of knowledge and to construct explanations to account for these relationships. It is also the ability to apply this knowledge to new situations or to solve new problems.

In this chapter we focus on sustainability, and the analysis of topographic maps, photographs, mental maps and climate graphs.

OVERVIEW QUESTIONS

As you work through this chapter, think about these key questions:

5A What information can we gain from an analysis of topographic maps?

5B How do mental maps express our relationship with a place?

5C How do climate graphs enhance our understanding of places?

5D How can photographs inform our understanding of types of agriculture?

GLOSSARY

cross-section a side view, or profile, of a landscape, providing a visual impression of the shape of the land

ecologically sustainable development economic development that uses, conserves and enhances the resources available, and ensures the ecological processes on which all life depends are maintained and the quality of life improved for both present and future generations

location the place where something is or where something is occurring

meteorologists scientists who study the atmosphere and related phenomena, especially weather

ozone layer an outer layer of the Earth's atmosphere that has very high levels of ozone gas, which absorbs most of the ultraviolet radiation from the sun

relief the shape, height and steepness of the land

sustainability a future-focused concept that protects and enhances environments and the resources available to people, now and into the future

topographic map a detailed, large-scale representation of part of the Earth's surface

transect a straight line or narrow section through a natural feature or across the Earth's surface, along which observations are made or measurements taken

treaty an agreement or contract

5.0.1 A wind farm and weather-recording equipment

Sustainability

Sustainable living meets the needs of present generations without affecting the ability of future generations to meet their needs. Examples of this include not cutting down forests at a rate faster than they can regrow and using farming methods that maintain and improve the fertility of the soil.

Ecologically sustainable development

Ecologically sustainable development applies the idea of sustainability to economic development. It requires that economic activities (such as agriculture) are developed in ways that safeguard the interactions of organisms and the environment. The aim of sustainable development is to improve people's quality of life while also protecting the environment.

Sustainability is a future-focused concept. It involves protecting environments and creating a more ecologically and socially just world through informed action. Actions that support more sustainable ways of living require a knowledge of the ways environmental, social, cultural and economic systems interact. This knowledge is at the heart of geography.

Environmental development

Sustainable development and good environmental management go hand in hand. To put sustainable development into practice we must:

➤ protect the Earth's life-supporting systems and its biodiversity
➤ improve people's quality of life—experience has shown that as people's quality of life improves (especially their access to health care, education and clean water), they have fewer children, which in turn reduces the demands placed on the Earth's resources
➤ use the Earth's renewable resources (especially its fresh water, soil, forests and fisheries) in ways that do not reduce their usefulness for future generations
➤ avoid making decisions that limit the prospects for maintaining or improving future living standards
➤ involve people in making the decisions that affect their lives, their children's lives and their environment
➤ develop technologies that are cleaner, use less energy and require fewer natural resources
➤ make products that last longer and are easy to recycle and repair

➤ reduce the waste we produce and the amount of energy we use
➤ encourage the development and use of renewable energy from the sun, wind and flowing water
➤ take steps to prevent further environmental damage
➤ share the benefits of economic growth evenly
➤ promote international understanding and support the alliances needed to address the challenges facing humanity.

It is very difficult for governments to make international agreements to achieve good environmental management and the successful promotion of sustainable development. This is because different countries will each have their own needs and agendas. However, there have been some successful initiatives.

An agreement to protect the ozone layer

One successful international agreement regarding sustainable development is the Montreal Protocol. This **treaty** was created to protect the Earth's **ozone layer** by reducing and discontinuing the production of substances known to deplete the ozone layer (see Figure 5.1.1). The Montreal Protocol came into law in 1989 and was signed by the majority of countries around the world.

Sept. 16, 2013

0 100 200 300 400 500 600 700
Total Ozone (Dobson units)
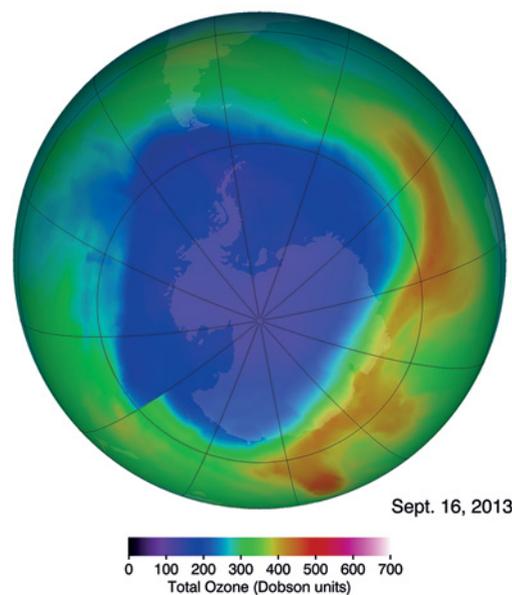
5.1.1 The ozone hole over Antarctica was slightly smaller in 2013 than the average over recent decades, according to data from the Ozone Monitoring Instrument (OMI). The average size of the hole in September–October 2013 was 21.0 million square kilometres. The average size since the mid-1990s has been 22.5 million square kilometres.

Definitions of sustainable development

➤ Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. (*Bruntland Report for the World Commission on Environment and Development, 1992*)

➤ In essence, sustainable development is about five key principles: quality of life; fairness and equity; participation and partnership; care for our environment and respect for ecological constraints—recognising there are 'environmental limits'; and thought for the future and the precautionary principle. (*Making London Work by Forum for the Future's Sustainable Wealth London project*)

➤ The environment must be protected … to preserve essential ecosystem functions and to provide for the wellbeing of future generations; environmental and economic policy must be integrated; the goal of policy should be an improvement in the overall quality of life, not just income growth; poverty must be ended and resources distributed more equally; and all sections of society must be involved in decision making. (*The Real World Coalition 1996, a definition based on the work of the World Commission on Environment and Development*)

➤ A sustainable future is one in which a healthy environment, economic prosperity and social justice are pursued simultaneously to ensure the well-being and quality of life of present and future generations. Education is crucial to attaining that future. (*Learning for a Sustainable Future—Teacher Centre*)

➤ A process of change in which the exploitation of resources, the direction of investments, the orientation of technological development and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations. (*The World Commission on Environment and Development*)

➤ Sustainable development is a dynamic process which enables people to realise their potential and improve their quality of life in ways which simultaneously protect and enhance the Earth's life support systems. (*Forum for the Future*)

Brundtland definition

Throughout the world, the Brundtland definition of sustainability is the most commonly used and it is referenced by diverse groups and organisations. This is because the definition is open to interpretation. This openness is also a problem. The openness of the definition can mean that the diverse groups and organisations can define sustainable development very differently, resulting in divergent outcomes for the environment.

5.1.2 Sustainable development may be defined in different ways, but it usually concerns the protection of the Earth for the future.

Activities

Remembering and understanding

1 Define the term 'sustainability'.
2 Explain what sustainable development is.
3 Outline the things we must do in order to achieve a more sustainable way of living.

Applying and analysing

4 Identify the ways in which you and your family contribute to a more sustainable future. Share your thoughts with others in the class. Are there any changes that you and your family could adopt to live more sustainably?
5 Study the definitions of 'sustainable development'. Identify the words, ideas or themes that these definitions have in common.
6 Write your own definition of sustainable development.

Evaluating and creating

7 Using the internet investigate definitions of 'social justice', 'intra-generational equity' and 'inter-generational equity'.
8 Using the internet investigate the Montreal Protocol. Why is the protocol regarded as the most successful environmental protection agreement?

Geoskills: Analysing topographic maps

Topographic maps

A **topographic map** is a detailed, large-scale representation of part of the Earth's surface. Topographic maps show selected features of the biophysical, managed and constructed environments. This includes the height, relief and slope of the land; drainage patterns and vegetation; and a range of human features, including agricultural land uses, settlements and transport linkages.

Analysing maps

Interpreting and analysing topographic maps allows you to:

➤ locate and describe the biophysical environment
➤ recognise, describe and explain elements of the managed and constructed environments (for example, settlement patterns, patterns of transport infrastructure, and the distribution of agricultural and industrial land uses)
➤ identify, describe and explain the relationship between biophysical features and the managed and constructed elements of environments
➤ determine the distance between places, and the area of features such as lakes, using a linear scale.

'Reading' the landscape

'Relief' is a general term describing the shape of the land, including height and steepness. The main techniques used to show relief are spot heights, and contour lines and patterns. Layer colouring and landform shading are also used.

The elevation of a prominent landform feature is often shown using a spot height—a black dot or cross with the height written next to it. Spot heights give the exact height above sea level of the particular **location** or feature.

Contour lines are lines that join points of equal height above sea level. Every point along the line has the same elevation. Contour lines provide geographers with information about the shape and slope of the land, and the height of features above sea level. The contour interval, or vertical interval, is the difference in height between two adjacent contour lines. This interval is normally stated in the map's legend or near the edge of the map.

Each type of topographic feature is represented by its own distinctive contour pattern. For example, a shield volcano is depicted in Figure 5.2.1. Figure 5.2.2 is an example of a topographic map.

When reading contour lines from high to low, where the spacing between the lines decreases, the slope is convex (curved like the outside shape of a circle). When the spacing of the contour lines increases, the slope is concave (like the inside shape of a circle).

HAWAII ISLAND

Steep slope: Contours close together
• Point B

Spot height

The land between contour lines is above 300 m but less than 600 m above sea level (asl)

Point C •

Saddle: A lower area between two areas of higher land

Flat slope: Contours widely spaced

Mauna Kea + 4205 m

Uniform slope: Contours evenly spaced

All points on this line are 300 m asl

2100
2400
2700
3000
Mauna Loa + 4170 m

1800
1500
1200
900
600
300

Contour interval

Contour value

Mountain: Contours in a circle or oval shape

• Point D

Spur: Contours form a V or U shape pointing away from higher ground

Cliffs: Contours on top or almost on top of each other

• Point A

Contour interval 300 m

N

0   10   20   30   40 km

1200

5.2.1 Reading contour lines can tell us a lot about the nature of landforms

5.2.2 Nambucca Heads topographic map extract

Legend:

- Built-up area
- Route marker: National Highway, National Route, State Route
- Major road: paved (with Metroad marker), unpaved
- Secondary road: paved, unpaved
- Minor road: paved, unpaved
- Vehicular track: stock grid
- Walking track
- Railway, heavy. Station. Tunnel
- Landmark feature. Stockyards. Mine
- Water tank or reservoir. Ground tank or dam
- Survey landmark (with height)
- Ancillary contour. Spot height
- Contours. Depression contour
- Cliff, with relative height. Rocky pinnacle
- Quarry or gravel pit. Levee or dyke
- Closed forest: 80–100% crown cover. Open forest: 50–80% crown cover
- Woodland: 20–50% crown cover. Pine forest
- Orchard, plantation or vineyard. Mangrove

- Oyster leases
- Perennial lake. Intermittent lake. Mainly dry lake
- Wet swamp. Dry swamp
- Land subject to inundation. Sand
- Intermittent stream, with waterfall
- Mainly dry stream. Perennial stream
- Large dam or weir
- Ferry route
- Lighthouse or beacon. Breakwater
- Jetty or wharf. Rock, bare or awash
- Slipway. Anchorage. Wreck
- Rock shelf. Reef
- Rocky shoreline. Intertidal flat
- Building, small. Building, large. Homestead
- Place of worship. School. State Emergency Service
- Ambulance station. Police station. Emergency headquarters
- Fire station. Telephone exchange. Post office
- State Forest
- National Park, Nature Reserve or State Conservation Area

Holly △ 169

Cross-sections

A **cross-section** is a side view, or profile, of a landscape and provides a visual impression of the shape of the land. Information about land use, settlement, drainage and vegetation can be added to cross-sections. This provides a means of seeing how the shape of the land influences these features.

i.

ii.

iii.

iv.

1 cm = 1 km
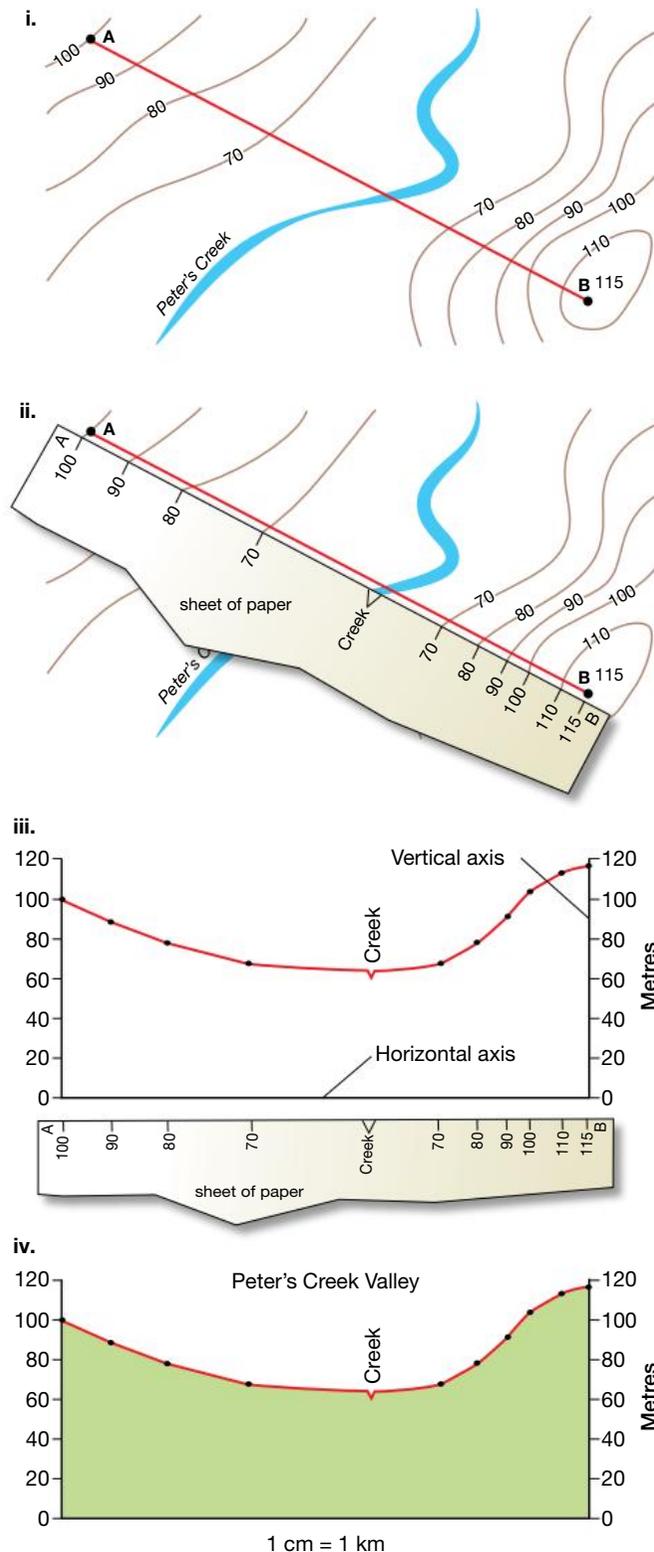
5.2.3 Steps involved in constructing cross-sections

Drawing a cross-section

To draw a cross-section, follow the steps below and refer to Figure 5.2.3.

1 Locate the two points on the map between which the cross-section is to be made. Label these points 'A' and 'B' (see drawing i).
2 Place the straight edge of a piece of paper along an imaginary line joining points A and B. Mark points A and B on your paper (see drawing ii).
3 Mark the position where your paper crosses each contour line. Write the value of each contour line on your piece of paper (see drawing ii).
4 On graph or squared paper, draw the horizontal and vertical axes for your cross-section (see drawing iii). The length of the horizontal axis should equal the distance between A and B. The vertical axis should use a scale that does not over-exaggerate your vertical scale.
5 Place your piece of paper along your horizontal axis. Lightly plot, in pencil, the contour points and heights as if you were drawing a line graph (see drawing iii).
6 Join the dots with a single, fine, smooth curved line (see drawing iv).
7 Label any features intersected by your cross-section.
8 Finish off your cross-section by:
    a shading in the area below the landform
    b labelling the scale on the horizontal and vertical axes
    c giving it a title (see drawing iv).

Transects

A **transect** is a straight line or path along a cross-section or line of latitude that is used to make observations or measurements. Transects are used to demonstrate the relationship between different features of the biophysical, managed and constructed environments (see Figure 5.2.4).

Drawing a transect

To draw a transect, follow these steps.

1 Identify the two points you will use to construct your transect. It may be along a cross-section.
2 Decide on the element of the biophysical, managed or constructed environments you wish to highlight on your transect.
3 Place the edge of a piece of paper along the line of the proposed transect on the topographic map. Mark the location of the element you are highlighting.
4 Draw in the distribution of the feature along your transect.
5 Label each area or construct a legend that identifies the features numbered or shaded on your transect.
6 Give your transect an appropriate title.
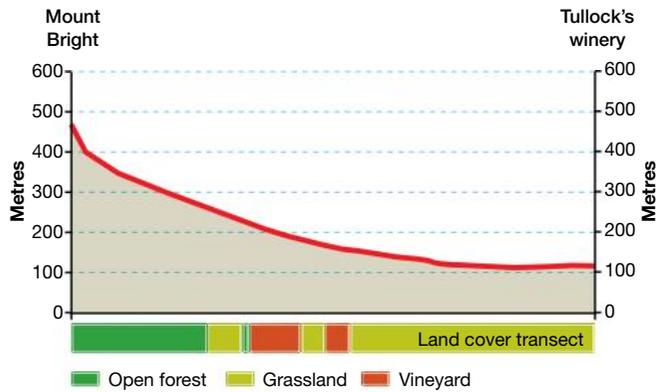
5.2.4 A cross-section from Mt Bright to Tullock's winery (GR402704) and an associated land cover transect

Précis maps

A précis map shows the main features of a topographic map (see Figure 5.2.5). By comparing précis maps it is often possible to identify the relationship between two features, for example, between landform and settlement patterns. Précis maps are sometimes referred to as single-feature maps.

Drawing a précis map

To draw a précis map, follow these steps.

1   Identify the feature or pattern to be studied (for example, landforms, vegetation, settlement, transport or land use).

2   Examine the distribution of the features on the map and the pattern created.

3   Draw in the distribution of the feature.

4   Label each area or construct a legend that identifies the features numbered or shaded on the map.
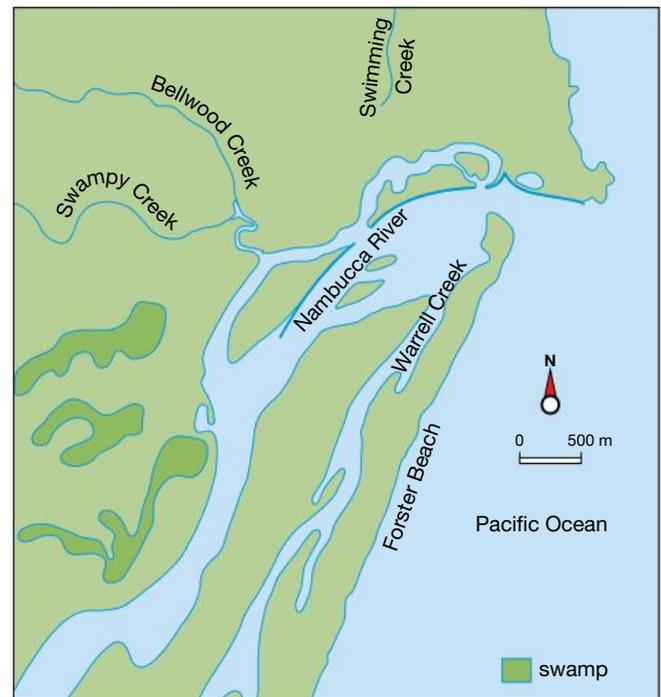
5.2.5 A sample précis map showing the drainage pattern on the Nambucca Heads topographic map extract (drawn from Figure 5.2.2)

Activities

Geographical skills

1   Study Figure 5.2.1. Construct the cross-sections A–B and C–D.

2   Study Figure 5.2.2 and do the following tasks.
   a   State the scale.
   b   State the contour interval.
   c   Identify the biophysical features at:
      • GR019093   • GR008096
      • GR981076   • GR017096
   d   Identify the managed or constructed features at:
      • GR986077   • GR995086
      • GR987102   • GR013096
   e   State the direction of the lookout (AR0109) from Belwood (AR9808).
   f   State the general direction in which Bellwood Creek flows in AR9809.
   g   State the bearing of the lookout (AR0109) from the bridge in AR9807.
   h   State the length of the upstream breakwater.
   i   State the density of buildings in AR9807.
   j   State the vegetation type found in AR9909.
   k   State the elevation of the lookout in AR0109.
   l   Describe the nature of the riverine environment.
   m   Describe the nature of the coastal landscape to the north and south of the Nambucca River entrance. Identify the dominant coastal processes responsible for the formation of the landform features.
   n   Identify the main economic activity in the Nambucca River.
   o   Outline the ways in which people have modified the biophysical environment in the area covered by the Nambucca Heads topographic map extract.
   p   Construct a précis map showing the major transport links on the Nambucca Heads topographic map extract.

Murray Valley National Park

The Murray Valley National Park is located in the Riverina region of New South Wales. The national park was created in 2011 with the amalgamation of separate state forests. The park is 41 601 hectares in size. The aim of the national park is to protect the majestic river red gum forests of the Riverina's Ramsar-listed wetland. The local Aboriginal people are the Ulupna and Bangerang, of the Yorta Yorta people.

Boomanoomana

One section of the Murray Valley National Park was once known as the Boomanoomana State Forest. The area forms part of the River Murray flood plain. It is known for the river red gum forests and box woodlands with grasslands and marshes that are located on the flood plains. The national park is an internationally significant breeding
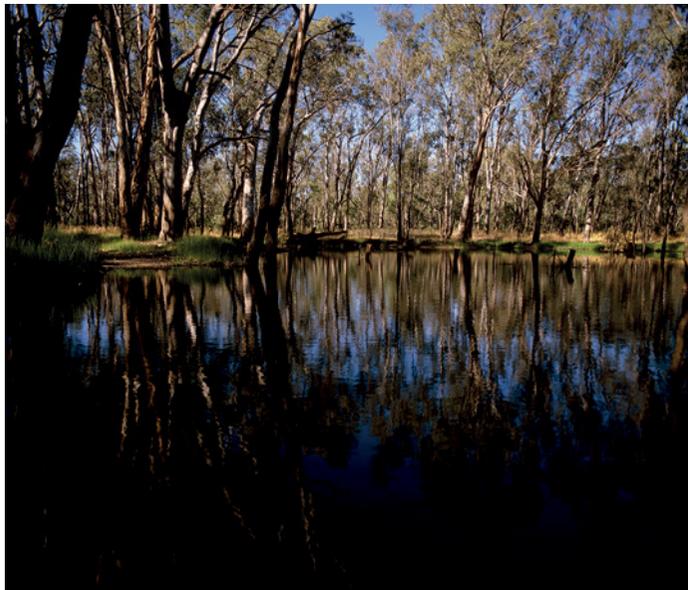
5.3.1 This part of the River Murray wetlands was once known as the Boomanoomana State Forest

Did you know?

- Signed in 1971, the Ramsar Convention aims to conserve and stop the loss of wetlands worldwide. Ramsar-listed wetlands have been recognised as being rare or unique, and important for conserving biological diversity. Australia currently has sixty-five Ramsar wetlands that cover a total of more than 8.3 million hectares.

habitat for eighteen migratory bird species, including the vulnerable pied honeyeater.

Over sixty native animals and forty plant species listed as threatened call the region home. Since European settlement, river regulation, irrigation practices and levee bank construction have reduced flood frequency. These changes to river flow have reduced the health of vegetation and the diversity of flora and fauna. The region is a Ramsar-listed wetland.

Activities

Geographical skills

1 State the scale of the Murray Valley National Park topographic map extract (Figure 5.3.2).
2 State the contour interval of the Murray Valley National Park topographic map extract.
3 Identify the features of the biophysical environment at:
   a GR025205   c GR000254
   b GR024197   d GR999202
4 Identify the features of the managed or constructed environment at:
   a GR984253   c GR027168
   b GR977252   d GR038207
5 State the direction of Gwynne Hill (AR9925) from the intersection of Yarrawonga Road and Mulwala–Barooga Road (AR0222).
6 State the bearing of the horizontal control point at GR000253 from the bridge at GR025230.
7 State the width of the River Murray flood plain from GR990185 to GR990228.
8 Estimate the distance along the Mulwala Canal from the bridge at GR052212 to the bridge at GR984253.
9 State the elevation of the River Murray in AR0019.
10 State the types of vegetation occupying the River Murray.

Remembering and understanding

11 Describe the nature of the riverine environment on the Murray Valley National Park topographic map extract.
12 Create a KWL (Know, Want and Learned) table on the impacts of forestry on the riverine environment.

5.3.2 Topographic map of the Murray Valley National Park

5.4 Photographic interpretation: Agriculture

Agriculture

Agriculture is the world's most important industry. It provides humans with essential supplies of food and many other raw materials. Agriculture accounts for more land than any other human activity and has a great impact on the biophysical environment. Soils, water, plants and other natural elements are important factors affecting the operation of a farming system.

Types of agriculture

Different types of agriculture are illustrated in figures 5.4.1 to 5.4.6. The type of agriculture depends on physical, human and economic factors. Agriculture is often classified as either commercial or traditional, and extensive or intensive.

- ➤ Commercial agriculture uses energy (mainly fuel oil for machinery), water and chemicals to produce huge amounts of food and other agricultural products, including fibres (such as cotton).
- ➤ Traditional agriculture consists of two types: subsistence and intensive.
  - Traditional subsistence agriculture involves people producing just enough food to meet their family's needs. Subsistence farmers rely on human labour and animal power. Examples are shifting agriculture in tropical forests and nomadic herding. Traditional subsistence agriculture is practised by almost half the people on Earth.
  - Traditional intensive agriculture involves farmers using increased amounts of human and draught (animal) labour, fertiliser and water to increase the amount of food produced. If there is more food produced than can be used by the family, some may be sold at market. The intensive production of rice is an example of this type of agriculture.
- ➤ Extensive agriculture operates in one of two ways: farming of a large area with limited use of labour and capital, or farming of a large area with limited labour and high investment of capital and technology.
- ➤ Intensive agriculture operates in one of two ways: farming of a small amount of land by a large labour supply with limited technology and investment (for example, rice growing in Bali), or farming a relatively small amount of land with a large amount of capital, labour and technology (as in horticulture).

5.4.1 Nomads grazing their livestock in the African Sahel are an example of traditional subsistence agriculture

5.4.2 Rubber plantations are an example of commercial agriculture. Most plantation crops are found in the tropics. Other plantation crops are cacao, copra, coffee, tea, pineapples and bananas.

5.4.3 The cultivation of rice is an example of traditional intensive agriculture. It involves farmers using human and draught labour, fertiliser and water to maximise the amount of food produced.

5.4.5 Grain production is an example of extensive commercial agriculture using high levels of capital investment and technology

5.4.4 Cattle grazing in the United States is an example of extensive commercial livestock production

5.4.6 Grape growing is an example of intensive commercial agriculture. High levels of capital investment and technology are used to produce wine.

Activities

Remembering and understanding

1 Explain why agriculture is considered to be the world's most important industry.
2 List the elements that are important for farming.
3 Explain what is meant by the term 'commercial agriculture'.

Applying and analysing

4 Distinguish between traditional subsistence agriculture and traditional intensive agriculture.
5 Classify each of the following types of agriculture:
   a the growing of rice in terraced paddy fields
   b the combination of wheat and sheep production in Australia
   c battery hen production
   d dairying in Western Europe
   e shifting agriculture in the Amazon Basin
   f rubber plantations in Malaysia
   g viticulture (the growing of grapes for wine production)
   h cotton growing in north-west New South Wales.
6 Analyse figures 5.4.1 to 5.4.6 and copy and complete the following table.

Image	Type of agriculture	Scale of production
5.4.1		
5.4.2		
5.4.3		
5.4.4		
5.4.5		
5.4.6		

Evaluating and creating

7 Create a Venn diagram comparing extensive and intensive agriculture.

5.5 Mental maps

Drawing mental maps

A person's awareness or perception of the world around them is known as their mental map. It is the mental representation of the person's known world—their 'personal geography'.

If you were asked to draw a sketch map of the town or suburb in which you live, it is very likely that the area you are most familiar with will be drawn in much greater detail than the rest of the town or suburb. It is also likely that the relative size of the area you are familiar with will be greater. Places you know well—your school, the local shopping centre and your favourite recreational facilities—are likely to feature more prominently than those you are only vaguely familiar with. Figure 5.5.1 is an example of a mental map.

Representations of places

People often draw simple maps to show someone the way to get to a place (for example, how to find their place of residence). Because such maps are drawn from memory, your ideas and your understanding of places, they give a good indication of what you think about a place, and how detailed your knowledge of particular features is. The signs and symbols you use to create your map reveal the elements of places that you perceive as being important. Figure 5.5.2 is a piece of art made up entirely of mental maps of the shape of the United States of America, as drawn by children. Figure 5.5.3 is an old illustration from a children's book, showing the shapes of countries as pictures, to help children remember the shapes.
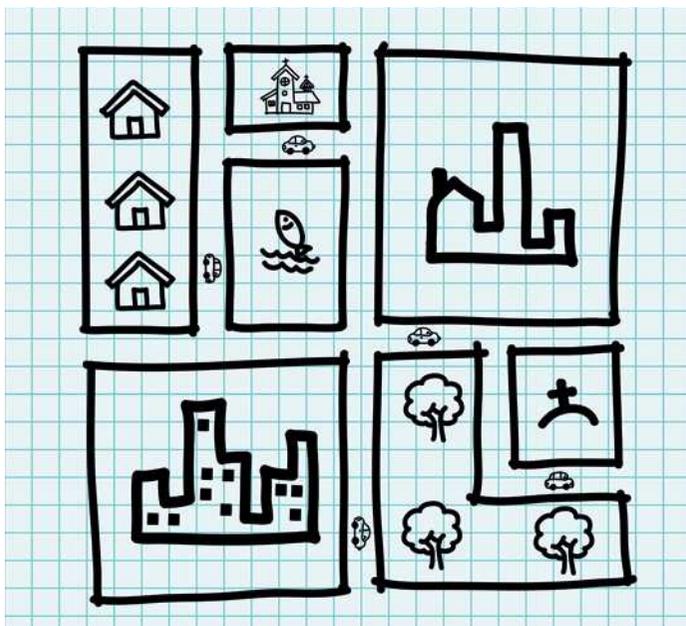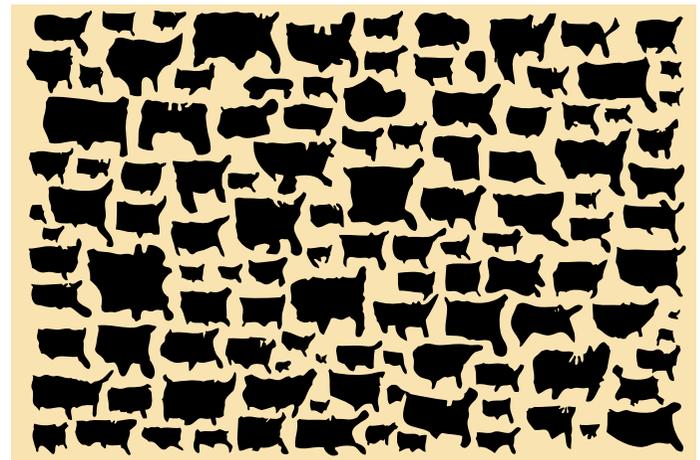
5.5.2 Mental maps of the Unites States

Italy
A boot kicking a ball

Straight line

Rabbit
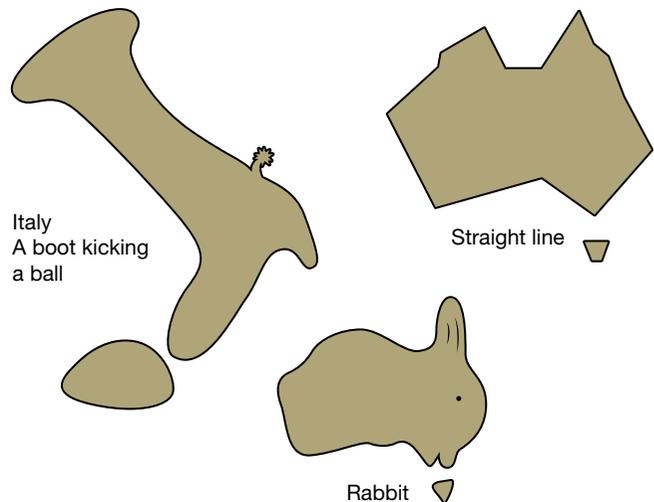
5.5.3 Mental maps of Australia and Italy

Your country

The shape of Australia is well known and easily recognised, but for most people it is hard to draw freehand. The features that people include in a mental map of Australia will differ, as will the details they include—such as size, capital cities and landscapes. The features people include will be the features they think are important.

Your state

For most people, drawing a map of their state or territory from memory is a difficult task. Most people would be able to locate borders and a few features such as the capital city, the ocean and major mountain ranges, but including more details could be a challenge. The details one person knows will be different from the details remembered by another person.

5.5.1 A mental map

Your neighbourhood

If you compare your map of your neighbourhood to the maps of other students who live in the same area, you will see all kinds of similarities and differences. These will probably tell you a lot about how all the map-drawers view the local neighbourhood.

Skills builder

Drawing a map of your neighbourhood

Before drawing a map of your neighbourhood, you would need to make some decisions.

1   What places would you choose as the limits and boundaries of your neighbourhood?
2   Which roads and streets would you include?
3   Which features of your neighbourhood are most important to you, and should be included?
4   What reference points would you include so that the map will be meaningful to someone else?

An example of a neighbourhood map is shown in Figure 5.5.4
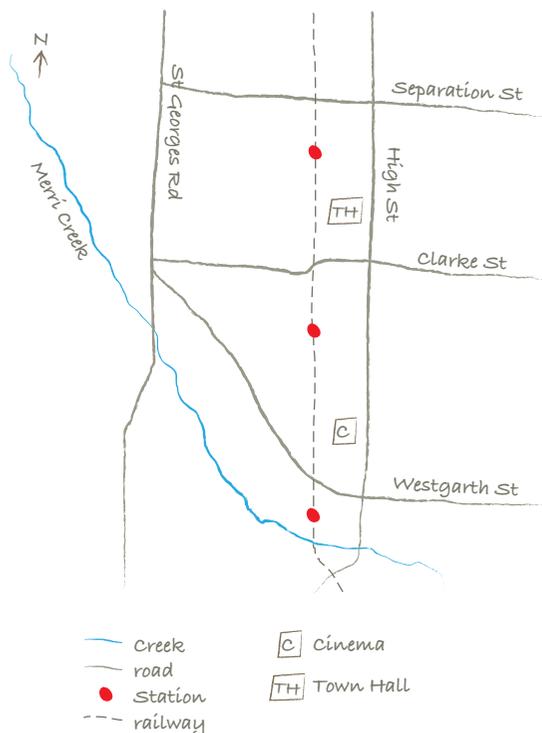
5.5.4 A mental map of a local area—Northcote, Victoria

Activities

Remembering and understanding

1   Explain what a mental map is and what it reveals about your 'personal geography'.

Evaluating and creating

2   Refer to the Skills builder box on this page and then answer the following questions.
   a   Draw a mental map of your 'place'. Include as much of your neighbourhood as you want to. Show the features that are important to you.
   b   Compare your mental map with the maps of others who live in the same neighbourhood. What are the main differences?
   c   What do these differences tell you about the interests, activities, families, length of residence and age of the map-drawers?

3   Draw a mental map of your state. Include towns, regions and features that you know.
   a   Compare your map with a map from an atlas. Describe the differences.
   b   State the reasons why you included some places on your map and not others.

4   Draw a mental map of Australia. Include state boundaries, state capitals and places known to you.

5   Identify a nearby location, such as a sportsground or shopping centre.
   a   Draw a mental map to give directions to a friend on how to get there. Include only the information that they will need.
   b   When it is finished, compare it to the map in a street directory or online, and comment on the differences.

6   Draw a mental map of a shopping centre you visit regularly.
   a   Can you remember the location of the shops that you do not use often?
   b   What does this tell you about your skills of observation and your visual memory?

5.6 Climate graphs

Climate graphs show the average temperature and rainfall experienced at a particular place throughout the year.

Climate statistics

In Australia, the Bureau of Meteorology collects weather-related data from more than 1000 sites. Once the bureau has collected data from any site for ten years, the data is made available to the public. Many sites have records going back more than 100 years.

Constructing a climate graph

Climate graphs are constructed using data collected by **meteorologists** (scientists who study the atmosphere, especially weather). The main features of a climate graph are shown in Figure 5.6.1.

When constructing a climate graph, follow these steps:

1   Transfer the relevant temperature and rainfall data from your data source into the table at the base of the climate graph. The data used to create the climate graph in Figure 5.6.1 is shown in Table 5.6.2.

2   Study the data to identify the wettest month and the highest and lowest temperatures. Use this information to select a suitable scale for both temperature and precipitation.

3   Add a heading that includes the name of the place being graphed and its latitude, longitude and elevation.

Describing climate

Climate can be broadly described as very hot, hot, warm, cool, cold or very cold. A more detailed description of climate can be given in relation to:

➤   the annual temperature range—the difference between the highest and lowest monthly average temperatures (see Table 5.6.3)

➤   annual rainfall, which is influenced by both the amount of rainfall and the broad type of climate (see Table 5.6.4)

➤   monthly average precipitation (see Table 5.6.5).

The heading tells us the name of the place being graphed.

Latitude and longitude can be used to pinpoint the location of Greenwich on a world map.

The temperature scale is located on the left-hand side of the graph.

When plotting temperature, be careful to mark the centre of the column.

The letters stand for the months of the year.

The precipitation scale is located on the right-hand side of the graph.

Average temperature is shown by a line graph, which is coloured red.

Average monthly rainfall is shown by a column graph, which is coloured blue.

Greenwich, UK
Lat. 51° 50' N   Long. 00° 00' E   (7 m asl)
Annual average:
temperature 9.9°C rainfall 609 mm

5.6.1 Climate graph for Greenwich, United Kingdom

5.6.2 Climate statistics for Greenwich, United Kingdom

	J	F	M	A	M	J	J	A	S	O	N	D	Year
average temperature (°C)	3.9	4.2	5.7	8.5	11.9	15.2	17.0	16.6	14.2	10.3	6.6	4.8	9.9
rainfall (mm)	49	39	39	41	47	48	59	60	52	65	59	51	609

5.6.3 Describing annual temperature range

Temperature range (°C)	Description
less than 5	small
between 5 and 15	moderate
between 15 and 30	large
more than 30	very large

5.6.4 Describing annual rainfall

Amount—cold to warm climates (mm)	Description	Amount—hot to very hot climates (mm)
below 250	slight	Below 375
250–500	small	375–625
500–1000	adequate	625–1125
1000–1500	large	1125–1750
Over 1500	very large	Above 1750

5.6.5 Describing monthly average precipitation

Amount (mm)	Description
below 50	dry month
50–150	wet month
above 150	very wet month

For example, Greenwich (see Figure 5.5.1) has a moderate temperature range: the difference between the highest monthly average temperature (17.0°C) and the lowest (3.9°C) is 13.1°C. The annual average temperature (9.9°C) is classified as cool. Because of this, Greenwich's annual average precipitation (609 millimetres) is considered to be adequate. Greenwich has six dry months and six wet months; it does not have any very wet months.

Activities

Remembering and understanding

1 Name the data typically featured in climate graphs.

Evaluating and creating

2 Refer to the data in tables 5.6.6 and 5.6.7 and then do the following.

   a Construct climate graphs for New York City and New Delhi.

   b Access Bureau of Meteorology data and create a climate graph for your closest city or town.

   c On a blank map of the world, mark in New Delhi, Greenwich, New York City and your closest city or town. Next to each city, write a short paragraph describing its climate.

   d Does the location of a city have an impact on its climate? Explain.

5.6.6 Climate statistics for New York City, USA

	J	F	M	A	M	J	J	A	S	O	N	D	Year
average temperature (°C)	–0.4	–0.1	4.1	10.1	16.1	21.3	24.3	23.3	19.5	13.5	7.3	1.5	11.7
rainfall (mm)	83.6	78.8	98.5	93.4	106.0	84.5	105.0	104.3	91.2	83.5	106.6	92.3	1128.9

5.6.7 Climate statistics for New Delhi, India

	J	F	M	A	M	J	J	A	S	O	N	D	Year
average temperature (°C)	14	17	22	29	33	34	31	30	29	26	20	15	25
rainfall (mm)	23	20	15	10	15	68	200	200	123	19	3	10	706

Biomes

6

The Earth's major ecosystems are often referred to as biomes. A biome is a community of vegetation that occupies a large area of the Earth's surface. Biomes are defined by factors such as plant types (for example, trees, shrubs and grasses), leaf type (broadleaf or needle-like), plant spacing (forest, woodland or savanna) and climate (for example, desert). The main world biomes are deserts, forests (equatorial and tropical rainforests, deciduous and evergreen forests, and coniferous forests), grasslands and tundra.

In this chapter we examine the distribution and characteristics of biomes as regions in terms of climate, soil, vegetation and productivity. We also examine human alterations to biomes, especially those related to agriculture.

OVERVIEW QUESTIONS

As you work through this chapter, think about these key questions:

6A What factors determine the spatial distribution and physical characteristics of the Earth's biomes?

6B What factors determine the productivity of biomes?

6C How do energy and matter flow within biomes?

6D How have humans altered biomes and what are the environmental effects of these alterations?

LS↗ Before you begin

GLOSSARY

aquatic ecosystems water-based communities of plants and animals

biomass the total weight or quantity of organisms in a particular place

biome a vegetation community occupying a large area of the Earth's surface

chlorophyll a green pigment that is present in all green plants and is responsible for the absorption of light to provide energy for photosynthesis

consumers organisms that gain their energy requirements by eating plant or animal matter

decomposers organisms that break down the remains of other living things

ecosystems communities of interacting plants and animals, and their physical surroundings

estuaries areas near the mouths of rivers, where the tide ebbs and flows

photosynthesis a process by which green plants make carbohydrates such as sugar, using water, carbon dioxide and sunlight

primary productivity the rate of energy accumulation (gathering), usually through photosynthesis

producers organisms (plants) that produce their own food via the process of photosynthesis

resilience the capacity of an ecosystem to respond to a disturbance by resisting damage and recovering quickly

respiration the production of energy in living organisms, often involving the intake of oxygen and the release of carbon dioxide

solar insolation the amount of solar energy that reaches a particular part of the Earth

species a group of organisms capable of interbreeding and producing fertile offspring

terrestrial ecosystems land-based communities of plants and animals

6.0.1 An aerial view of elephants in the Okavango Delta, Botswana

6.1 Ecosystems and biomes

Elements of life

Ecosystems are communities of interacting plants and animals and their physical surroundings, and exist on a local scale. Biomes are made up of physical or vegetation ecosystems and occur on a global scale.

Life can be created and sustained only in the presence of moisture, sunlight and nutrients. These elements only occur together on or near the surface of the land and in the sea. No organism can live in isolation, including humans. Yet the ecosystems that we depend on for survival are being significantly altered by our actions.

The biosphere

The biosphere encompasses all living things. This includes the creatures on the ocean floor and the animals burrowing in the soil, the plants anchored to the Earth's surface and the insects floating high in the atmosphere. It includes all the living organisms and their excrement (waste) and dead remains. It also includes the non-living environment, which is made up of rocks, water and air. The levels and components of the biosphere are shown in Figure 6.1.1 and outlined in Table 6.1.2.

Ecosystems

An **ecosystem** is made up of interacting plants and animals, and their physical surroundings. Each individual plant or animal is a member of a population, which in turn forms a part of a larger community.

An individual of a **species** (a group of organisms that can breed and produce fertile offspring) is intimately related to others of the same species and the environment in which it lives. Individuals must come together and usually touch in order to mate and nurture their young. Feeding territories are established, with different species sharing the available resources (water and nutrients). These species interact in many curious and interdependent ways. There is also competition and predation, as some animals hunt and feed on others for survival. This is all part of the natural balance of an ecosystem.

A 2 square metre tidal pool on a rock platform or a huge expanse of tropical rainforest stretching across thousands of kilometres represents an ecosystem, although the two are very different sizes. Each ecosystem has a characteristic community of plants and animals that has adapted to that ecosystem.

Ecosystems can be divided into two broad groups: aquatic and terrestrial. Those associated with water are known as **aquatic ecosystems**. The major land ecosystems are called **terrestrial ecosystems**.

biosphere:
the sum of all the earth's ecosystems

biome:
very large ecosystems made up of specific vegetation types and specific fauna

ecosystem:
a community or species and its non-living environment

community:
all populations of species within an area

population:
a group of individuals of one species

organism:
an individual of a species
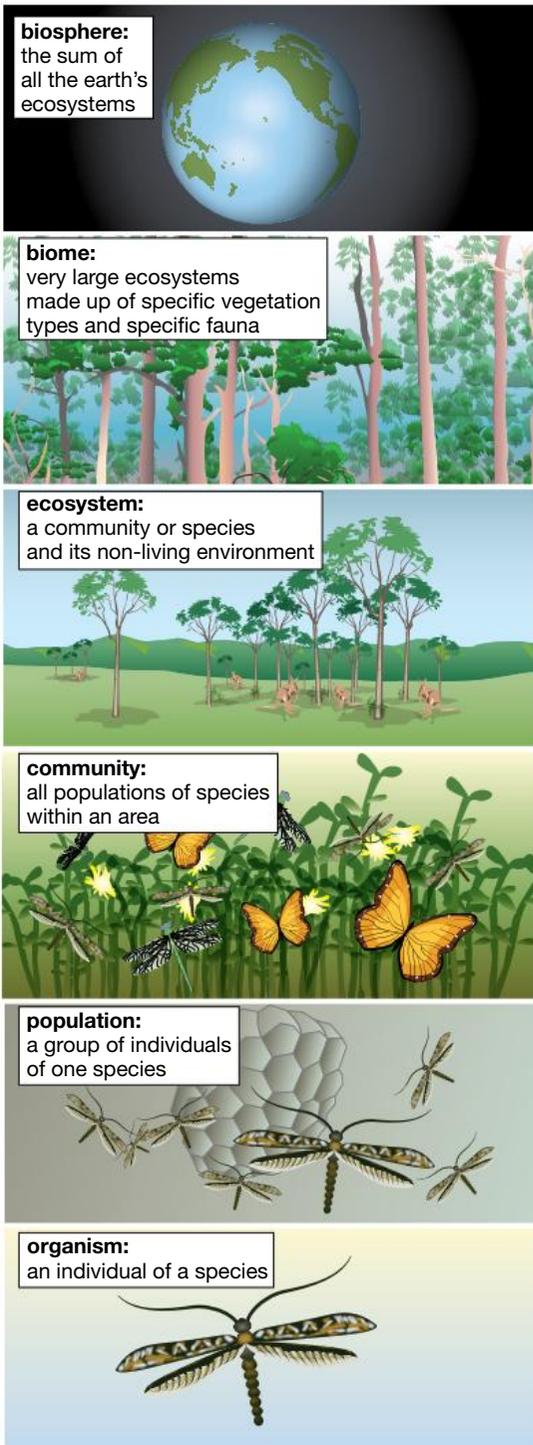
6.1.1 Levels within the biosphere

Biomes

Within terrestrial ecosystems, the largest recognisable subdivision is the **biome**. Biomes are very large ecosystems made up of specific vegetation types and their associated fauna (animals). Biomes can be found on different continents in areas with similar climates.

Component	Characteristics
Organism	Simply any form of life. There are a number of ways of classifying organisms, but a very important distinction needs to be made between producers (plants), consumers (most animals) and decomposers (bacteria and fungi that break down organic matter for recycling). Plants range from microscopic single-cell phytoplankton that float in water to the giant sequoia trees growing along the coast of California. Animals range in size from microscopic zooplankton, also living in water, to the 30-metre blue whale. While most decomposers such as bacteria are microscopic, others can grow to a metre in diameter, such as the rafflesia (also known as the 'corpse flower' because it smells like rotting meat).
Species	A single type of organism that is able to reproduce its own kind. The majority of species on earth are insects, mites and nematodes (worms). So far, only 2 million have been identified and named. Scientists estimate that there could be anywhere between 5 and 100 million species on the planet.
Population	A group of organisms of the same species living together in the same area. As the environmental conditions change in this area, so do the number of organisms. In good times, when plenty of food and water are available, populations soar, and when they are scarce, numbers drop.
Habitat	The area within which an organism or population lives.
Community	Several populations that live together within a particular habitat. Caves, for example, will often have several species of spiders, moths and bats.
Environment	The non-living or physical attributes of an area, such as temperature, precipitation, soils and topography on land, or the temperature, clarity and salinity of water.
Ecosystem	A community of organisms that interact with each other and their non-living environment.
Biome	Very large ecosystems made up of specific vegetation types and associated fauna.
Biosphere	The zone of habitation containing all the earth's ecosystems.

Tropical rainforests, for example, grow in hot, wet climates such as those found in Brazil, the Democratic Republic of the Congo, Kalimantan in Indonesia and parts of coastal Queensland.

A biome includes all organisms interacting within the biosphere. However, the vegetation, with its enormous **biomass**, forms the most visible part of a biome. Biomes are classified according to the characteristic vegetation within the ecosystem, which is a response to the availability of soil, water and heat. They are broadly identified as:

➤ forest—abundant soil, water and heat
➤ savanna—transitional between forest and grassland
➤ grassland—moderate shortage of soil and water, and adequate heat
➤ desert—extreme shortage of fertile soil and water, and adequate heat
➤ tundra—insufficient heat to sustain vegetation growth throughout the whole year and rainfall is low.

Just as climates across the Earth transition (change) from one type to another, so do vegetation types. The concept of biomes is an attempt to describe on a global scale how similar climates in different places support similar vegetation types.

Changes to the natural world

Humans possess intelligence, and through technology have sought to control nature, perceiving their needs as supreme, no matter what the cost to other species. The imprint of humans is evident and growing. In our efforts to exploit resources and secure water and food supplies, we have altered many ecosystems and biomes.

Activities

Remembering and understanding
1 In your own words, define 'biosphere'.
2 Explain why no organism can live in isolation.
3 Explain how biomes are classified.

Applying and analysing
4 Identify the two main identifiable features of a biome.
5 Study Figure 6.1.1. Select a different organism and create your own annotated diagram showing levels within the biosphere.
6 Working in pairs, consider the following question and then share your thoughts with the rest of the class.
Why do plants and animals change when they move from one biome to another?

6.2 Energy flows within biomes

Energy flows

Living organisms interact with each other and with their non-living environment. The nature of these interactions determines the variety of biomes. Each biome has its own characteristic community of plants and animals that have adapted to a particular set of environmental conditions. Ecosystems exist on a local scale (for example, a small area of wetland). Biomes occur on a global scale (for example, a forest community dominated by a particular type of tree, such as conifers or eucalypts).

The links, or energy flows, between climate, plants, animals and soil, as well as with solar energy and the Earth's surface, are shown in Figure 6.2.1. Each arrow in this illustration represents one set of interactions, and shows the effect that one element has on another. Plants influence the type of soil found in an area. In turn, the soil type found in an area may favour certain plants and particular plant communities. A biome may also include birds that distribute the seeds of a plant. In turn, this provides food and shelter for other species of birds.

Did you know?

Aquatic environments (such as coral reefs, estuaries, swamps and marshes) and terrestrial environments (including tropical rainforests, tropical seasonal forests, temperate evergreen forests and temperate deciduous forests) have the highest levels of primary productivity. This means that they have the highest energy flows, usually through photosynthesis.

The variety of biomes on the Earth's surface depends mostly on climatic differences. The main types of biomes on land are forests, grasslands and deserts; the other two are tundra and savanna. In general, areas of high rainfall have forest, areas of medium rainfall have grasslands and areas of low rainfall have deserts. The ways in which rainfall and temperature interact to produce different types of biomes is shown in Figure 6.2.2. The ways in which latitude and height above sea level influence biomes and ecosystems is illustrated in Figure 6.2.3.

6.2.1 The major elements of a biome and the interactions between them

plants

solar energy

climate

soil

Earth's surface

animals
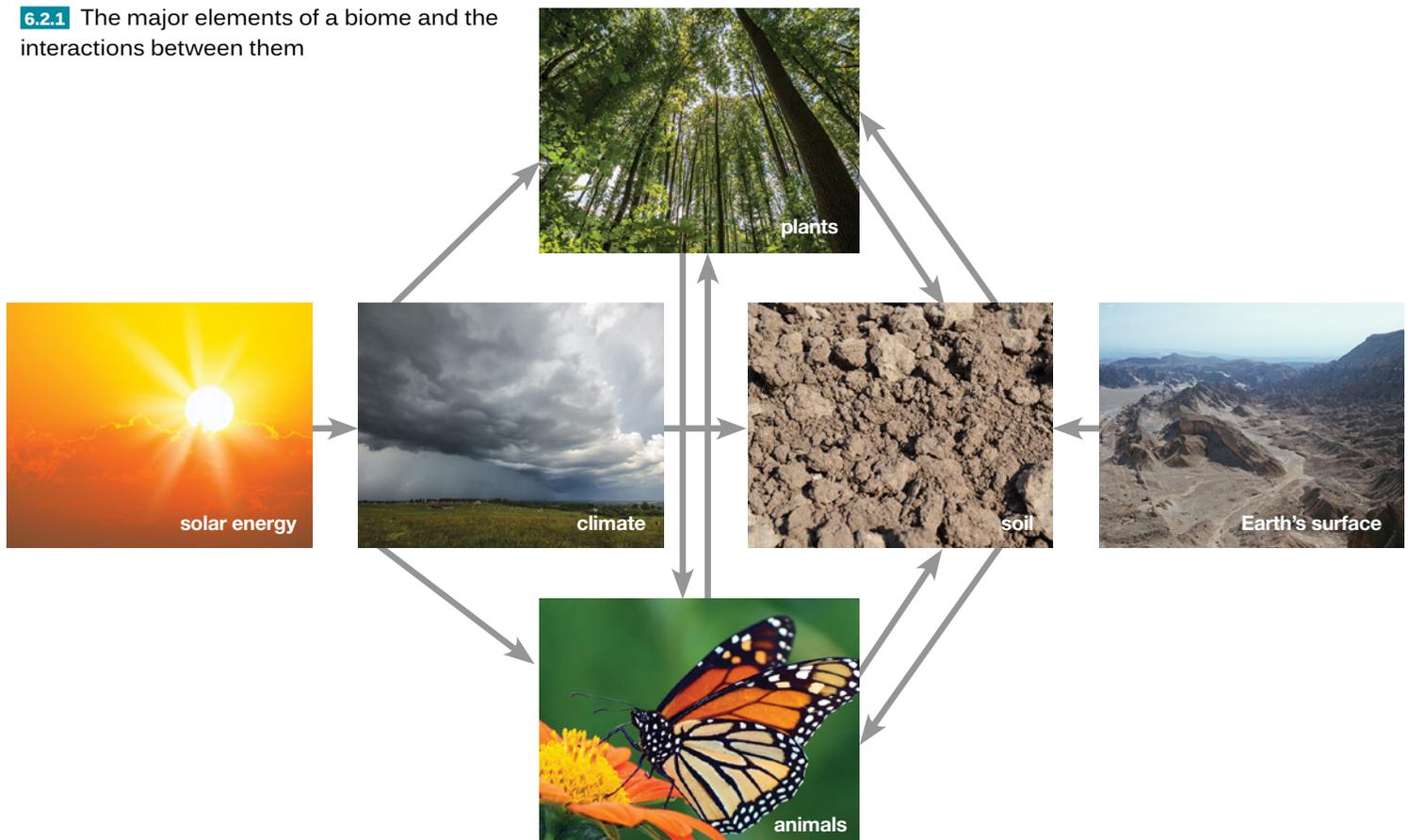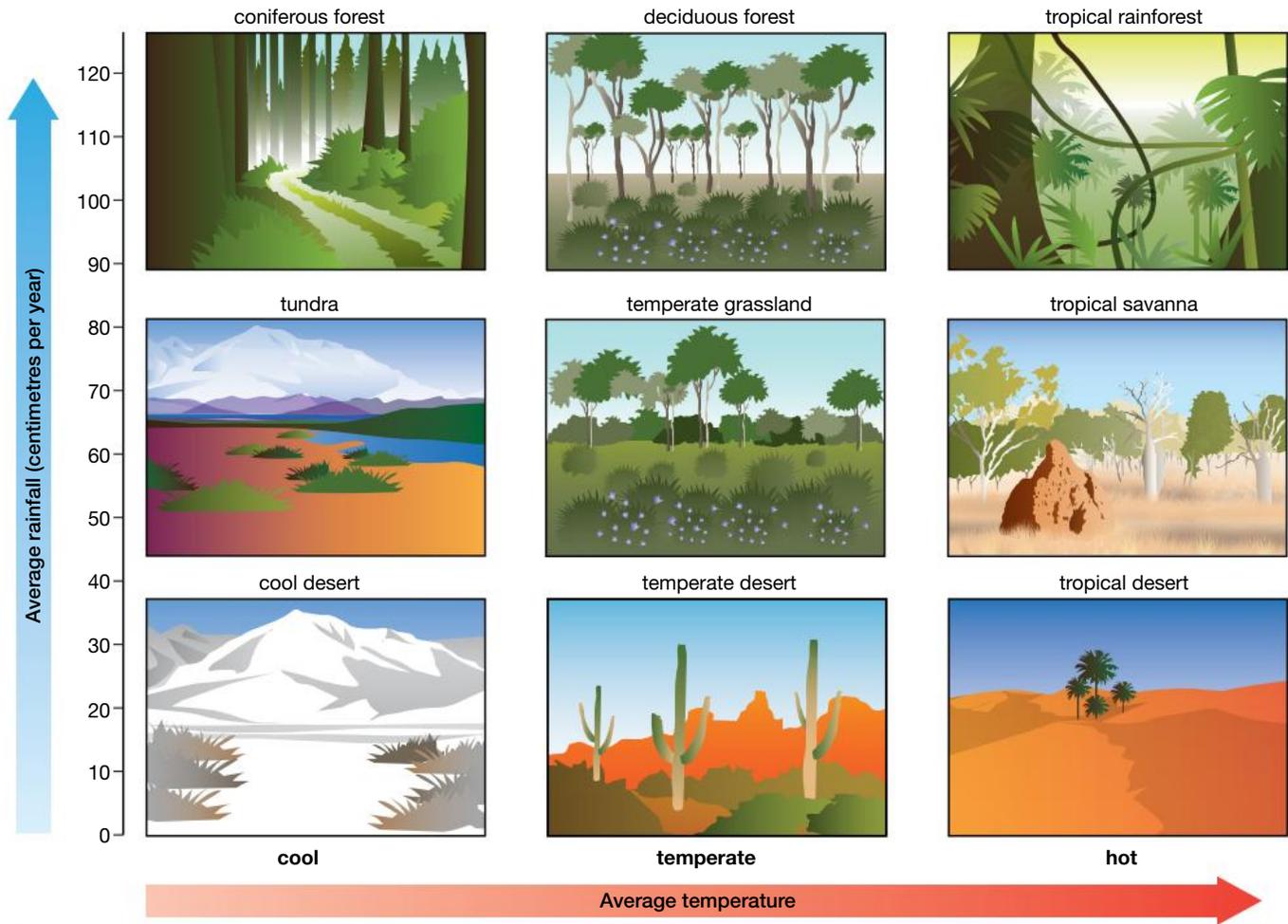
6.2.2 Temperature and rainfall interact to produce different types of biomes
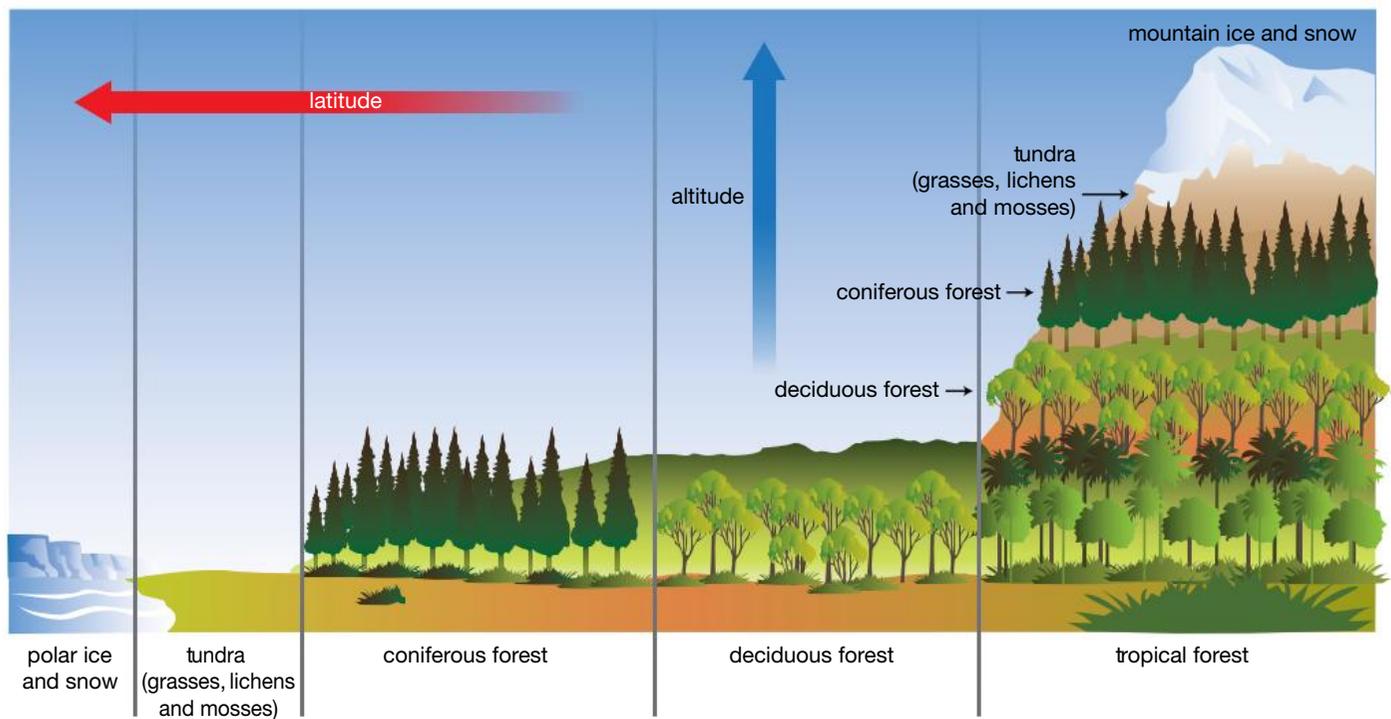
6.2.3 Latitude and height above sea level are important factors in producing different biomes

Food chains

A food chain (such as the one shown in Figure 6.2.4) indicates the flow of energy from the sun through to the various kinds of animals in the ecosystem. Within every biome and ecosystem there are food chains, made up of producers, consumers and decomposers.

Heat is lost during movement in animals and in the production of energy in mammals and birds

Smaller and smaller amounts of energy are available at each level of the food chain
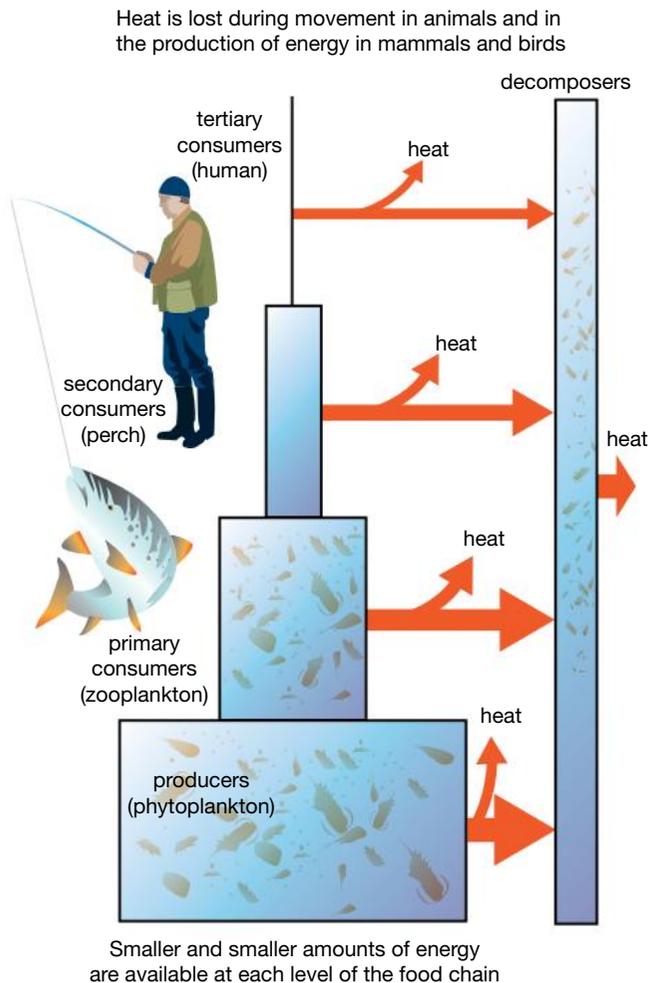
6.2.4 This food chain shows the transfer of energy and nutrients. The sun is the source of energy for all the levels of the biosphere, including the decomposers, which return the minerals to the producers.

Producers

Producers in a biome are organisms that produce their own food. Only plants and a few bacteria can produce their own food. Plants are producers, creating their food via the process of **photosynthesis**. They use energy from the sun to convert carbon dioxide and water into sugars, starches and cellulose (carbohydrates), producing oxygen as a by-product. All other organisms are either consumers or decomposers.

Consumers

Consumers are organisms that gain their energy requirements by eating plant or animal matter. Animals and humans are the most obvious examples of consumers. Herbivores are primary consumers—they eat only plants. Herbivores include animals that graze on grass, birds that eat seeds, and animals that browse on leaves. These herbivores are eaten by the secondary consumers—carnivores (meat eaters). Some carnivores eat only herbivores; others eat only other carnivores. Those animals and birds that feed on other carnivores are called higher-level, or tertiary, consumers. Examples of these are sharks, hawks and lions. They are said to be at the top of the food chain. This is because the energy from the sun has worked its way through the producers, the herbivores and the lower-order carnivores before it reaches them.

Some animals (including pigs, cockroaches and humans) are both herbivores and carnivores. They eat a mixture of plants and animals, and are called omnivores.

Decomposers

Decomposers are organisms that break down the remains of other living things. They include many kinds of bacteria and fungi. Their function in the food chain is to decompose the wood, leaves and dead bodies of other living things, so that every living thing is recycled. This recycling means that there is no waste in a biome or an ecosystem. For example, a mouse eats grain, an owl eats the mouse (see Figure 6.2.5), and a fox eats the owl. Other grains, owls and foxes die naturally, and their remains are broken down by decomposers, such as insects and microorganisms.

6.2.5 An owl is a secondary consumer (a carnivore) in the food chain. It is also part of the recycling cycle in a biome.

Food webs

Although a food chain shows in a simple way how energy moves through different feeding levels in a biome or an ecosystem, it does not show all the relationships. Each animal does not eat only one type of plant or one type of animal. A food web shows the more complex interactions between different food chains within a biome or an ecosystem. A simplified model of a food web is shown in Figure 6.2.6.

At each level of the food chain or food web, energy passes from one organism to another. The energy for plants comes from the carbohydrates produced by photosynthesis; the energy for animals comes from eating plants and other animals. Most of the energy taken in by an animal is used in the process of living. However, a small percentage is passed on to the next-level consumer when the animal is eaten, or to the decomposers when the animal dies.

At each level of the food chain, most energy is used by an organism in living; only a little goes to the next level. This means that less energy is available at each higher level of the food chain. For example, when people eat meat from animals that have had a plant diet (sheep and cows), of 100 units of energy produced by plants, only 0.1 unit of energy passes to humans. A more efficient use of energy would be for people to eat more grains and vegetables. People can get more energy if they eat grains and vegetables, because there is less energy loss.
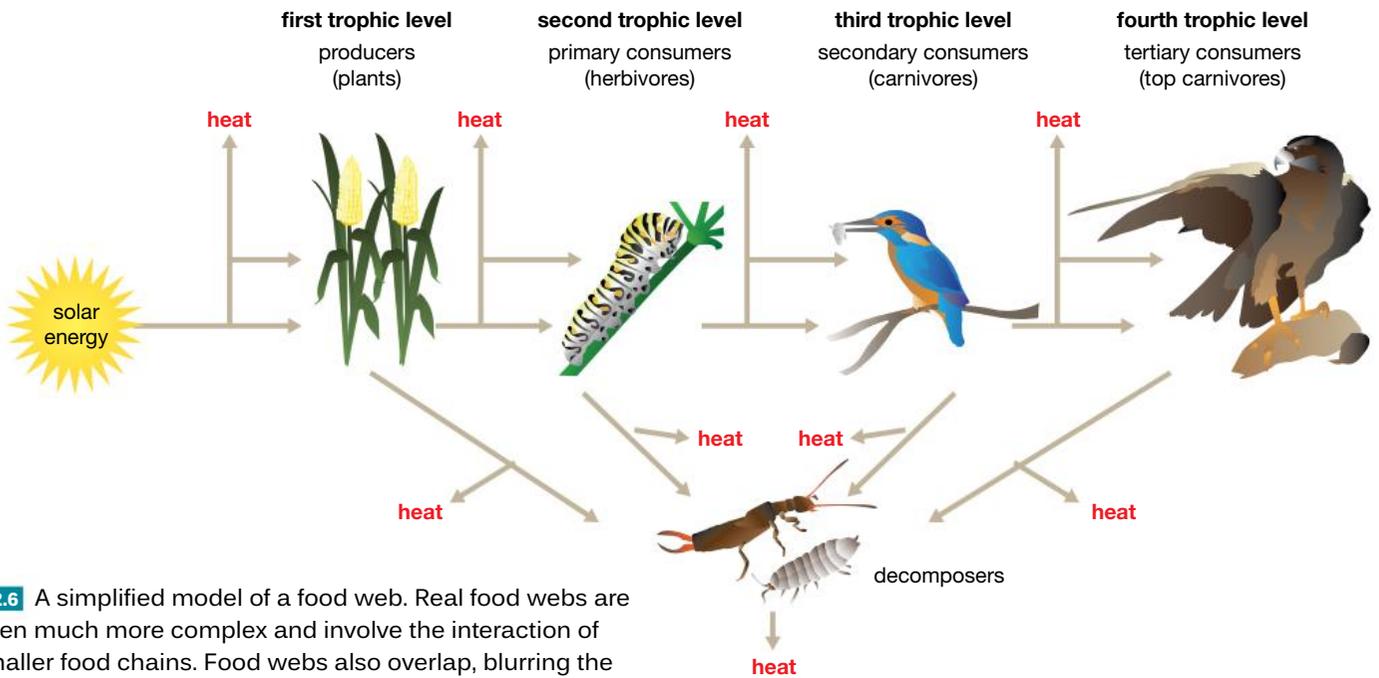
6.2.6 A simplified model of a food web. Real food webs are often much more complex and involve the interaction of smaller food chains. Food webs also overlap, blurring the edges of a biome or an ecosystem.

Activities

Remembering and understanding

1 Outline the factors that interact to produce the variety of ecosystems on Earth.
2 Explain how ecosystems get their energy.
3 Explain the difference between a producer and a consumer in a food chain.
4 Outline how green plants manufacture their own food.
5 Explain the difference between a herbivore and a carnivore. What is an omnivore?
6 Outline the role of decomposers in the food chain.

Applying and analysing

7 Discuss why there is no waste in an ecosystem.
8 Distinguish between a food web and a food chain.
9 Explain how energy is taken in by an animal when it eats some grass.

Evaluating and creating

10 Study Figure 6.2.4 and conduct your own investigation into food chains. Select a food chain to investigate and write a short report describing the flow of energy within an ecosystem.

6.3 The global distribution of biomes

Factors and location of biomes

There are many factors that affect the types of biomes and ecosystems found across the Earth's surface. These factors operate on both local and global scales. The type of ecosystem at the bottom of a steep-sided valley is usually different from the ecosystem at the top, due to factors such as shade, wind and moisture. At the global level, climate factors have the most significant impact on the distribution of biomes.

Latitude

Latitude plays a crucial role in determining climate on a global scale. Latitude is a measure of the distance from the Equator (the imaginary line that runs around the Earth at its widest circumference). At the Equator the Earth presents the greatest landmass towards the sun, as shown in Figure 6.3.1. The amount of solar energy that reaches a particular part of the Earth is referred to as **solar insolation**. Solar energy is greatest at the Equator and lowest at the poles. The relationship between latitude and the amount of solar insolation is shown in Table 6.3.2.

Solar insolation is important to ecosystems because it is from the sun that ecosystems derive their energy. Without the sun, plants are unable to photosynthesise and therefore are unable to produce the energy to grow and survive. Without plants, there could be no animals, and ecosystems could not function. Ecosystems close to the Equator have the most amount of energy and are therefore able to support the greatest diversity of life. Tropical rainforests (such as the one shown in Figure 6.3.3) grow in the world's equatorial region and are thought to contain about 50 per cent of all the plants and animals on Earth.

At the other extreme, the polar regions receive the least amount of solar insolation. They have almost 24 hours of total darkness in winter. Such ecosystems are the harshest places of all to survive in. They have the least diverse ecosystems. Antarctica (shown in Figure 6.3.4) is the coldest, driest and windiest place on Earth.

Did you know?

Most plant and animal life is found in rainforest biomes. Some tropical rainforests have existed since dinosaurs roamed the Earth.

low angle of incoming sunlight

sunlight directly overhead

low angle of incoming sunlight

atmosphere

North Pole
60°N

30°N
Tropic of Cancer

0° (Equator)

Tropic of Capricorn
30°S

60°S
South Pole
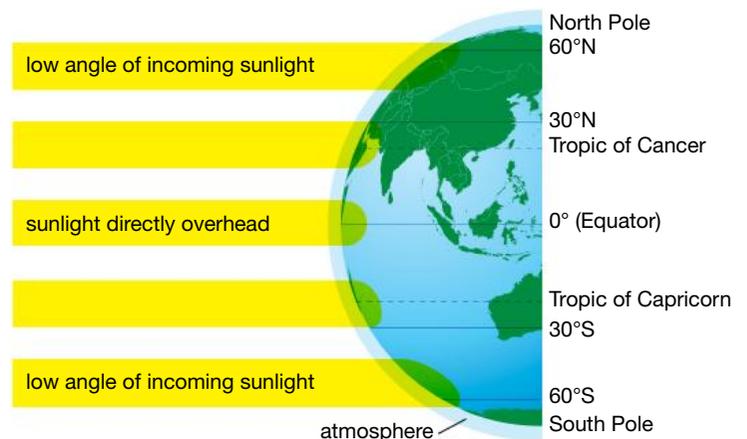
6.3.1 Solar insolation is the amount of solar energy that reaches the surface of the Earth. It is greatest at the Equator.

6.3.2 The impact of latitude on solar insolation

Latitude (°)	Insolation (%)
0 (Equator)	100.0
10	98.6
20	94.5
30	88.0
40	79.2
50	68.5
60	57.0
70	47.4
80	43.0
90 (poles)	41.6
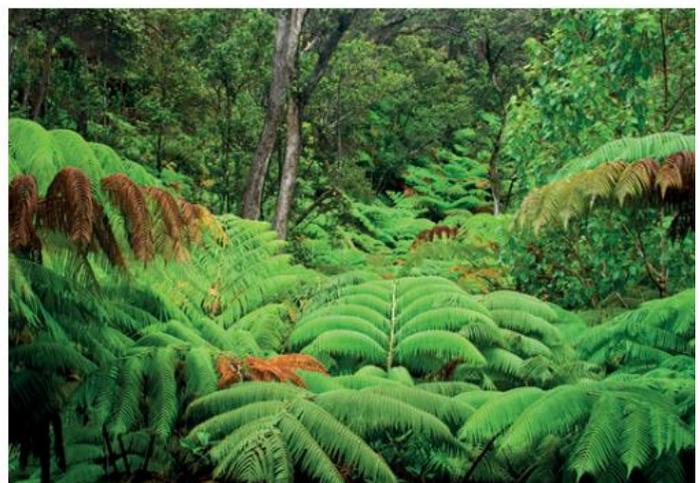
6.3.3 Tropical rainforests grow at the Equator and are the most productive of biomes

6.3.4 Along with the Arctic, Antarctica receives the least amount of solar energy and therefore has little energy to support diverse life

Precipitation and temperature

Rainfall is the main component of precipitation (sleet, snow, hail and dew are the other forms). Water is critical for plant growth and is essential for animals. Life is limited in areas with low levels of precipitation, such as deserts. Due to the lack of rainfall, plants and animals have had to become highly specialised and this has resulted in there being less species diversity in deserts (see Figure 6.3.5).

Temperature is another key factor in determining the distribution of ecosystems on a global scale. Most plants prefer a temperature range of between 10 and 35 degrees Celsius. Outside this range, photosynthesis is more challenging and plant growth is limited. Less plant growth means less food available for animals.

There is a strong link between precipitation, temperature and latitude. Solar energy is a key factor in determining temperature, and the Equator has the most constantly warm temperatures. Precipitation is also affected by solar insolation. When solar energy is high, the amount of evaporation increases and rain is more likely.

6.3.5 Desert plants have had to become highly specialised to adapt to a lack of precipitation

Activities

Remembering and understanding

1. State what solar insolation is.
2. Explain the importance of solar insolation to biome formation.
3. Describe the importance of precipitation to biomes.
4. What is the optimum temperature range for plant growth?

Applying and analysing

5. Examine Figure 6.3.1 and Table 6.3.2. Demonstrate how latitude affects solar insolation.
6. Using Table 6.3.2 and an atlas or an online map, find the latitude where you live and calculate the nearest solar insolation percentage.
7. Investigate the importance of latitude in determining the global distribution of biomes. Write a short report explaining your findings.
8. Using the information in the text, create a Venn diagram comparing polar and tropical rainforest biomes. Are there any similarities? Explain.

6.4 The world's major biomes

Ecosystems

One way to classify the Earth's biophysical environments is to look at the different types of biomes found on the Earth's surface. The many ecosystems that exist can be divided into two groups: aquatic ecosystems and terrestrial ecosystems.

Aquatic ecosystems are water-based communities of interacting plants and animals, and their physical surroundings. They include open oceans, river **estuaries** (the part of a river influenced by the sea) and coastal wetlands.

Terrestrial ecosystems are land-based communities of interacting plants and animals, and their physical surroundings. The Earth's major terrestrial ecosystems are shown in Figure 6.4.1. The Earth's biomes are usually named after the type of vegetation that dominates the area. The type of vegetation depends mainly on climate.

6.4.1 The Earth's major terrestrial (land-based) biomes

Deserts (21%)—very dry, low humidity, both hot and cold; large daily range in temperatures

Broadleaf (deciduous) forest (1.5%)—seasonal variations in temperature; cold winters, warm summers; moderate to high precipitation

Mediterranean shrubland (1%)—wet winters, dry summers

Tundra (5%)—long severe winters, short cool summers
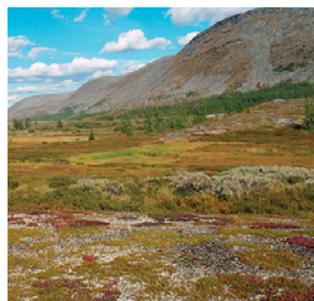
Mountains (alpine) (11%)—temperatures decrease with elevation
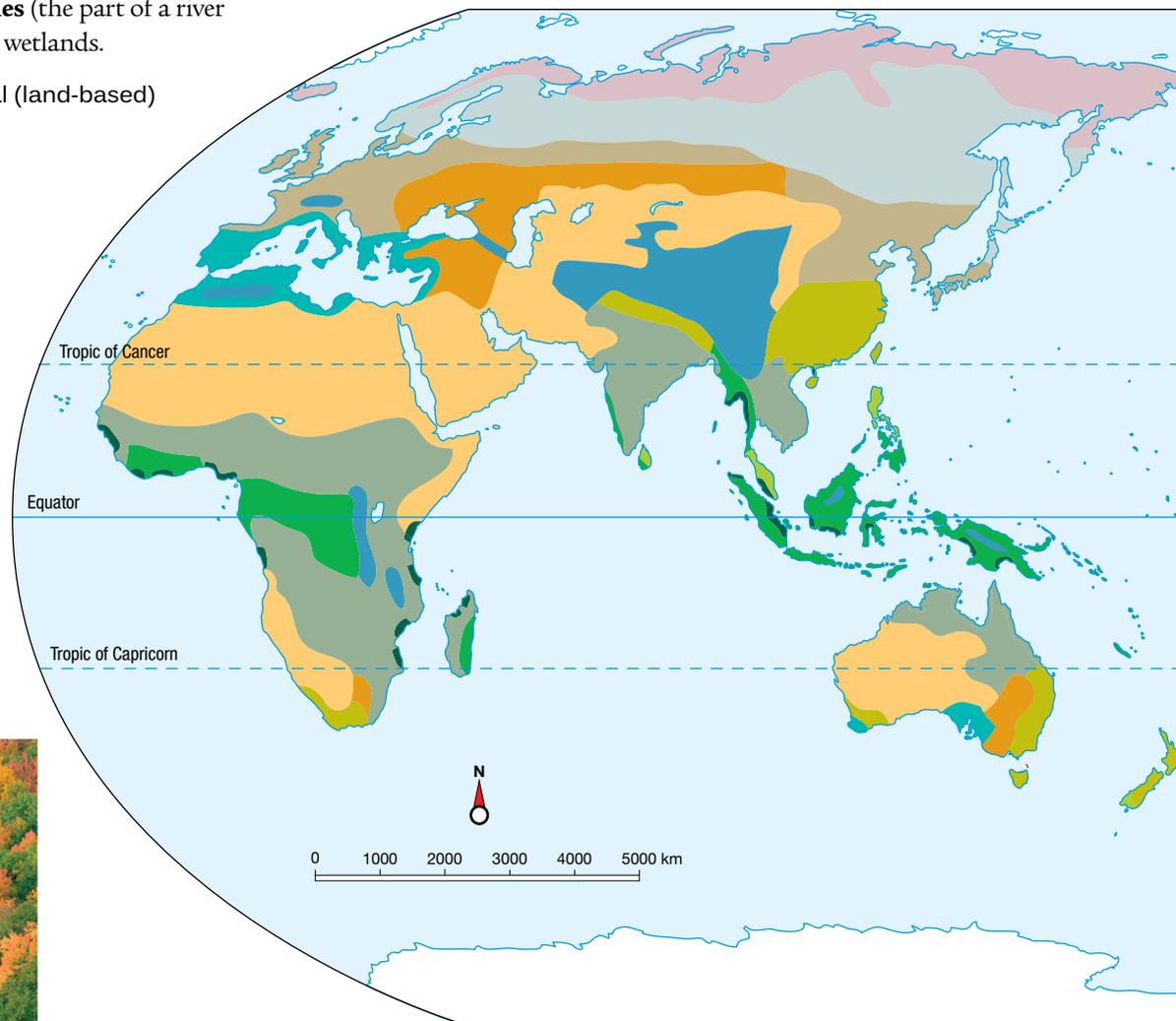
Tropical rainforest (2%)—warm to hot temperatures throughout the year; high rainfall

Tropical savanna (24%)—distinct wet and dry seasons; high temperatures in summer

Temperate grassland (9%)—warm to hot summers, cold winters; relatively low rainfall

Broadleaf (evergreen) forest (9%)—cool wet winters and dry mild summers
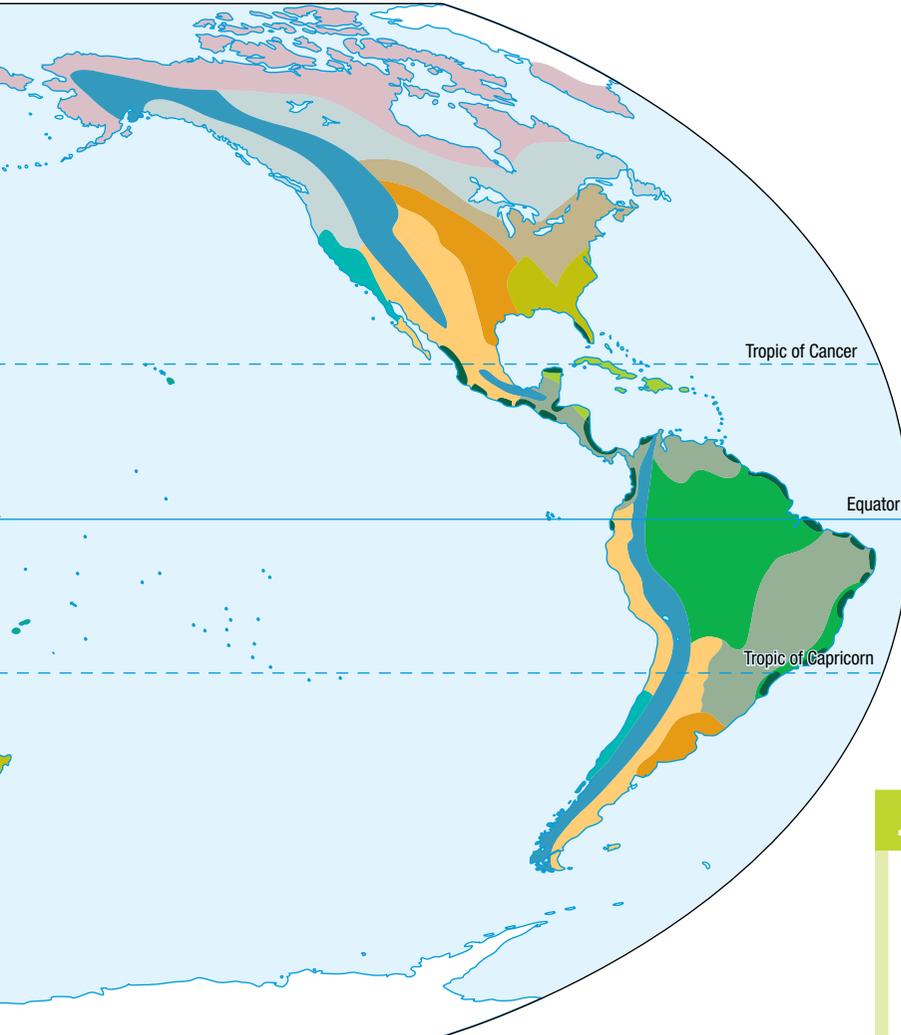
Coniferous (taiga/boreal) forest (14%)—long cold winters, short cool summers

Mangroves (<1%)—variable rainfall, temperate climates

Tropic of Cancer

Equator

Tropic of Capricorn

Polar (11%)—very cold, low precipitation

Activities

Remembering and understanding

1   Explain the role of climate in determining the type of biomes that exist in an area.

Applying and analysing

2   Distinguish between aquatic and terrestrial ecosystems.

3   Study Figure 6.4.1. With the aid of an atlas, write a report describing the distribution of the Earth's major terrestrial biomes.

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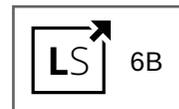
6.5 Australia's major biomes

Diverse biomes

Australia has a diverse selection of aquatic and terrestrial ecosystems. The immense diversity found on and around the continent is a product of its large size, latitudinal extent (located between latitudes 11oS and 44oS) and long coastline, as well as a long geological history. (The geology of Australia includes all rock types and the oldest areas have been dated to over 3.8 billion years old. This long history has contributed to the diverse rock and soil types and topography of the land.) Australia's diversity is reflected in the particular combinations of plants and animals found within the different ecosystems.

Australia is one of the Earth's seven continental landmasses. Among the continents, Australia is unique in many ways and possesses a remarkable wealth of life, despite the harsh natural environment.

Aquatic ecosystems

Australia's aquatic ecosystems are found in marine and freshwater environments. These are illustrated in tables 6.5.1 and 6.5.2

6.5.1 Australia's marine aquatic ecosystems

Marine ecosystems

With such a long coastline, Australia has many highly specialised marine ecosystems.

a Rottnest Island, Perth, Western Australia

b Gippsland Lakes, Victoria

c Great Barrier Reef, Queensland

The coastal zone is formed by the warm, nutrient-rich, shallow waters that extend from the high-tide mark on land to the gently sloping, shallow edge of the continental shelf (the submerged part of the continent). This water is disturbed by wind (producing waves at its surface) and ocean currents. Large amounts of seaweed float in the water, supporting animals such as sea snails, crabs and lobsters. Fish abound and larger animals, such as turtles and whales, move through on their migration routes.

Along the shoreline of the coast there are beaches and rock platforms under the cliffs of headlands, where tidal pools are found.

Estuaries and their associated coastal wetlands are where seawater mixes with fresh water and nutrients from rivers and surface run-off. They include inlets, bays, river mouths and the fringes of land that are inundated by the changing tides. Many of these sheltered areas are covered with mangrove forests. In northern Australia the tidal range is quite substantial, and so the tidal reach inland is considerable. This is the habitat of the freshwater crocodile.

Coral reefs occur in shallow seas along much of north-eastern Australia, where the Great Barrier Reef (the largest coral reef system in the world) is found. Scattered reefs, such as Ningaloo Reef, are found along the Western Australian coast. Coral reefs are one of the most complex ecosystems on Earth and support immense biodiversity.

Freshwater ecosystems

Despite being such a dry continent, Australia does have distinct and valuable freshwater ecosystems.

A number of watercourses wind across the surface of Australia. They mostly drain towards the sea, though inland rivers such as the Diamantina and the Barcoo empty into Lake Eyre in rare outback rain events. While river flow in Australia is characteristically quite low, it is also highly variable. A riverbed can become merely a chain of waterholes in a dry spell and then transform into a torrent after heavy rain. The ecosystem supports a multitude of life forms, from microscopic organisms in the mud on the bottom of the channel, to large populations of freshwater fish.

a Finke River, Northern Territory

Freshwater wetlands are associated with rivers, flood plains, lakes and groundwater discharges. Some bodies of still water are only linked to the main river by floodwaters, but they are very productive ecosystems rich in life forms. Many are like a soup of micro-organisms that young fish, such as the Murray cod fry, rely on to survive. The diversity of algae found in these wetlands ensures their continuing productivity because algae are an important part of the food chain.

b Kakadu National Park, Northern Territory

Lakes are large natural bodies of still or standing fresh water in depressions on the Earth's surface. They are not common in Australia, but they do support a variety of life forms in different layers, depending on the depth of the water and the amount of sunlight available.

c Cradle Mountain and Dove Lake, Tasmania

Terrestrial ecosystems

The Australian continent spans almost 33° of latitude from Cape York, Queensland (the most northern place) to South East Cape, Tasmania (the most southern place). Australia's climate ranges from the hot, wet tropical far north, to a cool temperate (with snow) south. Australia is the driest inhabited continent in the world, with the Lake Eyre region in South Australia averaging only 100 millimetres of rainfall a year. Tully, in northern Queensland, has an annual (yearly) average rainfall of 4204 millimetres. The responses to so many different climates across such a vast continent underpin the diversity found in Australia's terrestrial ecosystems. These are outlined in Table 6.5.3.

6.5.3 Australia's terrestrial ecosystems

a Rainforest in Queensland	Rainforests are only found in isolated pockets on the well-watered eastern side of the Great Dividing Range. Here annual rainfall exceeds 1200 to 1500 mm. Tropical rainforests are found in the hot climate of northern Queensland, but as the temperatures decrease towards the south, subtropical rainforests take over. In the cooler states of Victoria and Tasmania, cool temperate rainforests are found. Rainforests are characterised by a closed canopy of tree crowns and a large diversity of species of plants, animals and insects.
b Forest in southern Australia	Sclerophyll forests are dominated by eucalyptus trees, which have hard, leathery leaves and are able to survive in the nutrient-poor or phosphate-deficient soils of Australia. Wet sclerophyll forests have tall eucalypt trees that shelter an understorey of moisture-loving shrubs. They generally occupy moist gullies on the shaded southern side of highland areas and on the wetter eastern coast. Dry sclerophyll forests have smaller trees that are well spaced, allowing the sun to reach the understorey, where hardy plants such as banksias and grevilleas thrive. Such forests burn fiercely but then regenerate.
c Eucalypt woodlands near Horsham, Victoria	Eucalypt woodlands have fewer and shorter trees scattered among grasses and shrubs. In the semi-arid fringes, the mallee tree survives droughts and fires because it has a large lignotuber (a rounded woody growth at or below ground level that contains a mass of buds and food reserves, found on trees and shrubs in fire-risk areas) that is protected underground. Temperate grasslands have no trees but are dominated by extensive perennial grass tussocks such as kangaroo grass, which dominate the landscape.

	The Australian savanna is a large, generally flat area covered by extensive grasslands (such as Mitchell grass) with a few low, scattered trees, and it is found across northern Australia. The climate has distinct wet and dry seasons, with fires common in the dry season. Marsupials dominate the animals of the savanna.
d The Kimberley, Western Australia	
	Two-thirds of Australia is desert or semidesert (receiving less than 250 mm or between 250 and 300 mm of annual rainfall respectively). Some desert surfaces are covered with sand or stones. Others have tussock and hummock grasslands containing spinifex grasses, with acacias and low shrubs such as saltbush. Animals such as the bilby and reptiles such as the goanna survive by burrowing underground to avoid the extreme heat.
e Uluru-Kata Tjuta National Park, Northern Territory	
	Mountains with a high elevation have unique ecosystems. The highest parts of the Snowy Mountains in southern NSW are too cold for trees to grow. The alpine area only occupies 100 square km around Mt Kosciuszko. It is a mosaic of heathland, alpine grasses, herbfields and bogs, interspersed with protruding rocks. Highly specialised plant and animal communities are adapted to the extreme cold, such as the marsh marigold, which flowers under the snow, giving it enough time to spread seed in the brief summer.
f Snowy Mountains, Kosciuszko National Park, New South Wales	

Activities

Remembering and understanding

1 List the reasons why Australia has such diverse aquatic and terrestrial ecosystems.

Applying and analysing

2 Study tables 6.5.1, 6.5.2 and 6.5.3 and do the following tasks.

  a Create a three-column table with the following headings and fill in the table:
  - photograph letter (name of place)
  - type of ecosystem (select from the tables)
  - dominant features (include information about climate where available).

  b Individually rank the photographs, from the environment that appeals to you the most to the environment that appeals to you the least. List the criteria you used.

  c In groups of four, compare your individual rankings and criteria. Then rank the photographs as a group. What criteria did the group use?

  d Share your group's rankings with the rest of the class. How much agreement was there?

6.6 Productivity of biomes

Process of primary production

All life on Earth depends on the production of new organic matter within ecosystems. This production is carried out by the primary producers, which form the base of the food chain. Ecosystems differ in their **primary productivity**. This means that the production of new organic matter differs greatly depending on the ecosystem. This is significant because ecosystem productivity determines the food supply for humans and other animals. For example, when ecosystems are damaged this affects their ability to produce new organic matter.

The Earth's organisms either produce their own food or consume it after others have made it. The organisms responsible for primary production are known as primary producers, or autotrophs (self-feeders). They alone are able to capture and store the energy from the sun through photosynthesis.

Producers

On land, the producers are mostly green plants. In fresh water and marine ecosystems near the shoreline, algae and green plants are the major producers. However, in the open water of the oceans of the world, the dominant producers are phytoplankton. They are microscopic organisms that float or drift in the sunlit upper layer of vast stretches of seawater.

Process of photosynthesis

During photosynthesis, the producers convert the light energy of the sun into chemical energy that is stored within plant tissues. Using this sunlight, as well as carbon dioxide, water and nutrients, the producers create new organic compounds or simple sugars, such as glucose. These hold chemical energy. In the process of making their own food, plants also provide oxygen to the atmosphere.

The chemical energy within a plant supports it as it grows in size. Over time this primary production results in the addition of new biomass to the biome. Consumers derive their energy from these primary producers.

Chemosynthesis in the dark ocean depths

Chemosynthesis is the conversion of simple compounds from the environment into food, without any sunlight. There are only a few producers that can do this, and they are mostly highly specialised bacteria. They are found deep within the ocean near the deposits that form when superheated water shoots out of vents on the ocean floor near some tectonic plate boundaries. As this water mixes with the cold seawater, black particles precipitate out and accumulate as chimney-like structures known as black smokers. A variety of rare and exotic life forms (including giant clams, 2-metre tube worms and eyeless prawns) exist in the dark depths around these black smokers. These life forms are supported by bacteria that produce food through chemosynthesis from the minerals discharged by the vents. Figure 6.6.1 illustrates how life forms are supported by chemosynthesis.
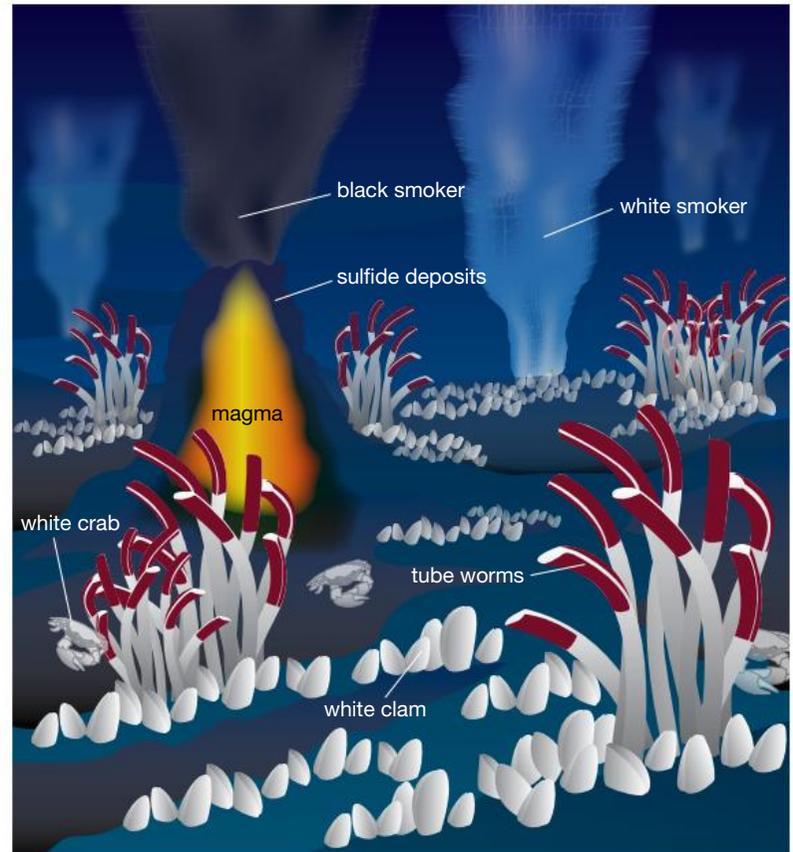
6.6.1 The sun's energy penetrates only about 200 m below the surface of the water. Exploration of the deep ocean floor as recently as 1977 resulted in the totally unexpected discovery of abundant and unusual sea life around black smokers, 2.5 km below the surface.

Types of primary productivity

Biomass is the total quantity or weight of organisms in a given area or volume. The rate at which photosynthesis occurs determines the rate at which biomass increases within a biome. The rate at which biomass increases is identified as the primary productivity (the rate of energy gathering) of that biome. When comparing the primary productivity of different biomes it is important to consider the different types of primary productivity. For example, a rainforest biome, where the rate of photosynthesis is high, has a high primary productivity, while a polar biome, where the rate is low, has a low primary productivity.

Gross primary productivity

Gross primary productivity (GPP) is the rate at which the primary producers in an ecosystem convert the sun's energy into chemical energy. This chemical energy takes the form of biomass found in their tissues. GPP is measured in terms of the energy produced per unit of area over a given time span, such as kilocalories per square metre per year (kcal/m²/yr). Figure 6.6.2 shows satellite data of the Earth's GPP in terms of ocean and land concentrations of **chlorophyll** (a green pigment that is present in all green plants and is responsible for the absorption of light in photosynthesis). Note that ocean chlorophyll concentration is often measured in milligrams per cubic metre (mg/m³). Land, rainforests and other highly productive areas are dark green. The least productive areas (mostly deserts) are brown. Note that the colours are the opposite in the oceans, with red, orange and yellow representing the highest values and dark blue the lowest values of the chlorophyll found in phytoplankton. The highest values are in the cooler waters near the polar regions, as cold water holds more oxygen.

Net primary productivity

Not all of the chemical energy produced is available to others in an ecosystem. The producers must use some of it for their own **respiration** (production of energy) in order to stay alive, grow and reproduce. Net primary productivity (NPP) is the rate at which producers use photosynthesis to produce and store chemical energy, minus the rate at which they use some of this for their own respiration. This is depicted in Figure 6.6.3.
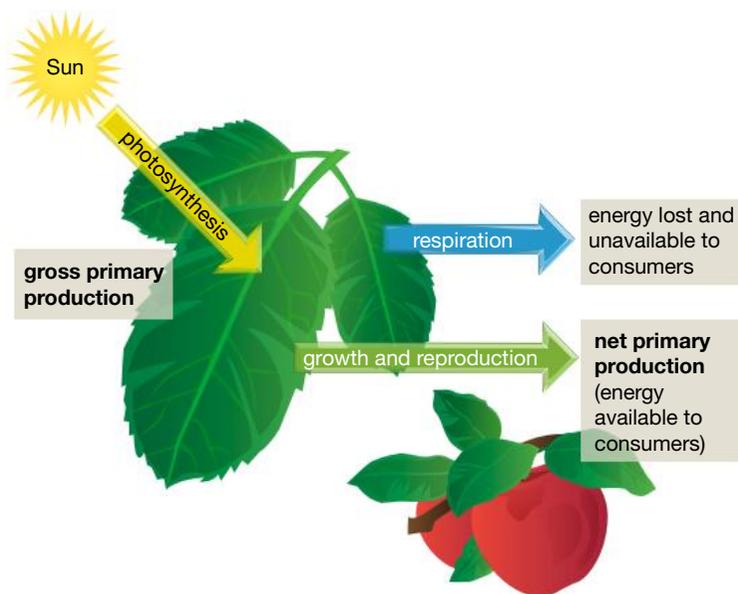
6.6.3 The distinction between GPP and NPP. A plant uses some of its GPP to survive through respiration. The remaining energy is available to consumers.

6.6.2 Image of the Earth's GPP. All plant life contains the primary photosynthetic pigment chlorophyll 'a'.
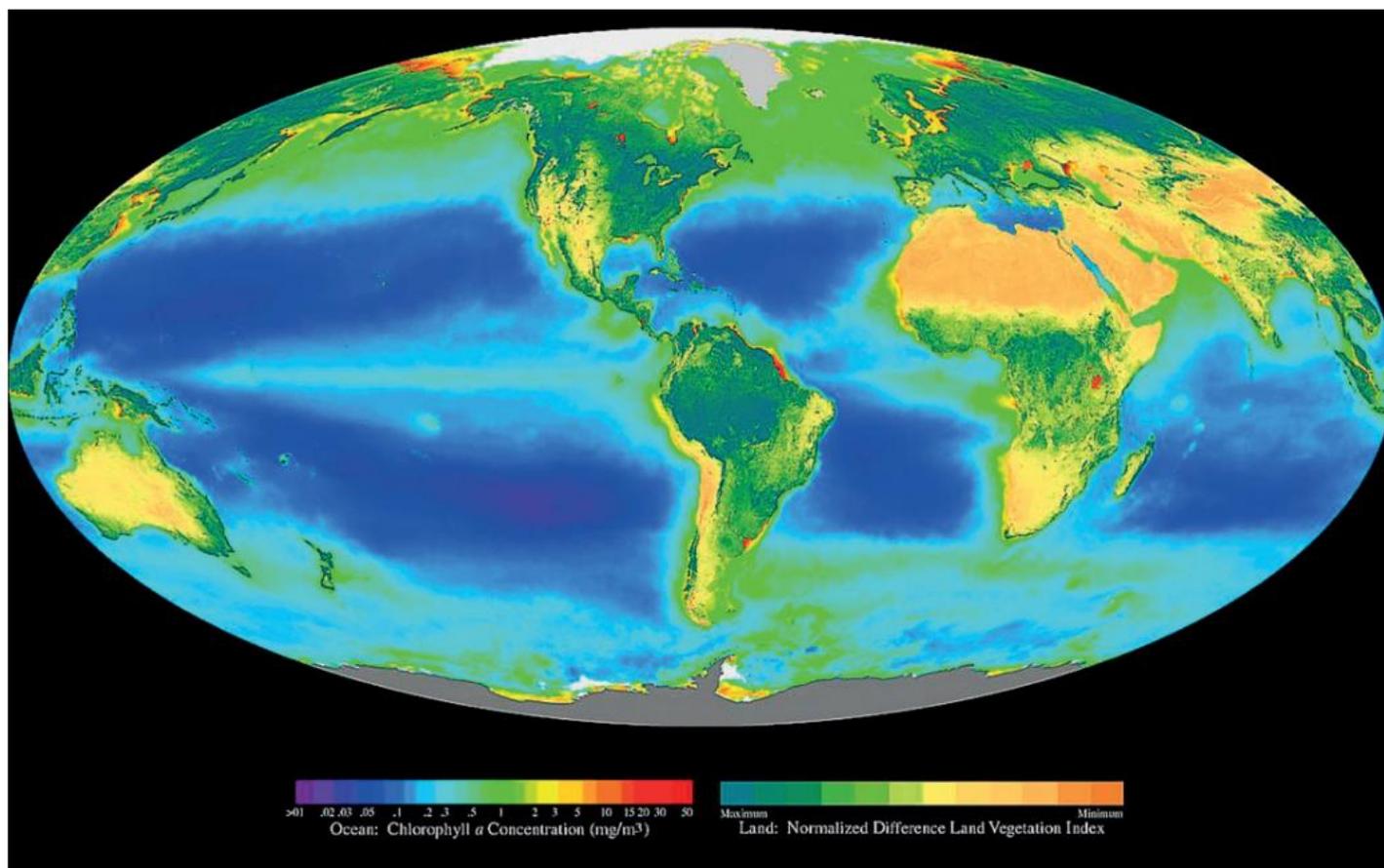
NPP is a measure of how quickly producers can make the chemical energy they store in their tissues that potentially becomes available to the consumer organisms within the biome. NPP is the base of the food supply for humans and other animals.

Primary productivity of biomes

The biomass within a particular biome is determined by how much solar energy its producers are able to capture and store as chemical energy, and how quickly they do it. Terrestrial and aquatic ecosystems differ in their NPP (see Figure 6.6.2). The highest NPP rates are in swamps and marshes, tropical rainforests and estuaries. The lowest rates are found in the desert, the tundra and the open ocean.

On land, NPP per square metre decreases between the Equator and the poles. This happens in response to the amount of solar radiation available to producers. It is highest at the Equator, as is evident in tropical rainforests, and lowest towards the poles, in tundra and arctic ecosystems.

In aquatic ecosystems, the highest NPP per square metre is found in estuaries, swamps and marshes, which are located in the transition zone between aquatic and terrestrial ecosystems. These areas are rich in the nutrients found in the sediments carried in by rivers. The open ocean has a very low NPP per square metre. This is because it is usually low
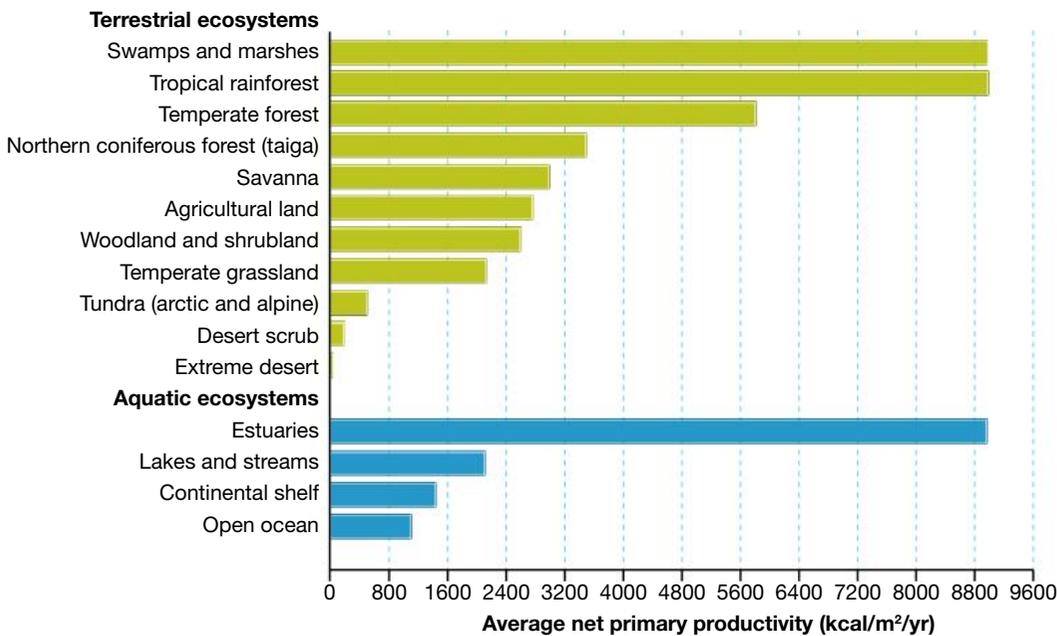
6.6.4 The estimated annual average NPP per square metre
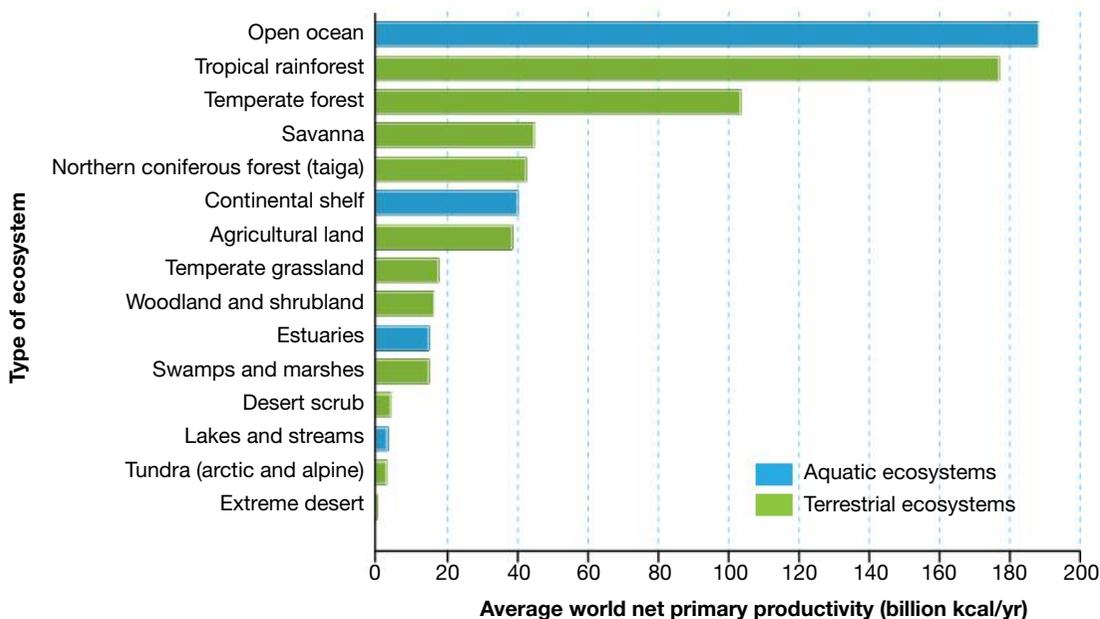
6.6.5 The estimated annual NPP of different ecosystems

in nutrients, except in locations where an upwelling of water from the bottom depths to the surface brings nutrients with it. The open ocean produces more of the Earth's biomass than any other biome, as shown in Figure 6.6.5. This is simply because there is so much open ocean—71 per cent of the world's surface. Even though estuaries are very productive, their total area is small (see Figure 6.6.6).

Primary productivity for humans

Primary producers are the source of all food available for every other organism within a biome. Furthermore, only the biomass represented by the NPP is available to support consumers. It is the planet's NPP that ultimately limits the number of species (including humans) that are able to survive on Earth.

6.6.6 Estuaries are coastal bodies of water that are a mixture of fresh and salt water

Spotlight

Humans and the NPP

Peter Vitousek, Stuart Rojstaczer and other ecologists estimate that humans now use, waste or destroy about 27 per cent of the Earth's total potential NPP and 10–55 per cent of the planet's terrestrial ecosystems. They believe this is the main reason why we are crowding out or eliminating the habitats and food supplies of so many other species.

Physicist Paul MacCready estimates that humans, their livestock and pets now make up 98 per cent of the Earth's total vertebrate (animals with a backbone or spinal column) biomass. This means that wild vertebrates make up only 2 per cent of the planet's vertebrate biomass, as humans have overtaken much of the planet. Many of the remaining tigers, elephants, birds and small mammals face extinction as the human footprint becomes heavier.

G Tyler Miller, *Living in the Environment*, fifteenth edition, Thomson Brooks/Cole, Belmont, 2007

Activities

Remembering and understanding

1 Explain why the primary producers of ecosystems are so important.
2 Outline the differences in the NPP per square metre of ecosystems from the Equator to the poles.

Applying and analysing

3 Distinguish between GPP and NPP.
4 Compare photosynthesis with chemosynthesis.
5 Study Figure 6.6.2. Compare the gross primary productivity (on land) of Australia, South America and Africa.
6 Model your family's weekly budget on the concepts of GPP and NPP.
7 Study Figure 6.6.4 and discuss the following statement:
   As swamps, marshes and estuaries are the most productive biomes, they should be protected before all other biomes.

Did you know?

Biomass is the dry weight of all the organic matter contained within the organisms of an ecosystem. The more productive an ecosystem is, the bigger its biomass.

LS 6B
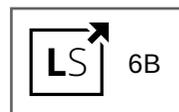
6.7 Biodiversity's impact on energy and matter

Biodiversity

Biodiversity (biological variety) is found in the variety of the Earth's genes, species, ecosystems and ecosystem processes. It is vital in sustaining the flow of energy and the cycling of matter that support life. All species, including humans, are dependent upon the maintenance of this biological wealth. Biodiversity is of great value and it must be protected to ensure our future wellbeing.

6.7.1 Major components of the Earth's biodiversity
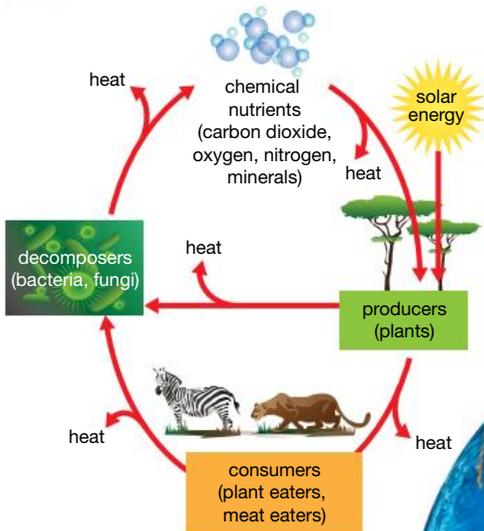
Functional diversity
The biological and chemical processes such as energy flow and matter recycling needed for the survival of species, communities and ecosystems

Components of biodiversity

Biodiversity is illustrated in Figure 6.7.1 and includes:

➤ *species diversity*—the number of species within particular communities
➤ *ecosystem diversity*—the variety of aquatic and terrestrial ecosystems/biomes
➤ *functional diversity*—chemical and biological processes such as the flow of energy and the cycling of matter needed for the existence of species, communities and ecosystems
➤ *genetic diversity*—the inherited variation that occurs within species populations as a result of different genes or biochemical processes, such as gene mutations.

Genetic diversity
The variety of genetic material within a species or population

Species diversity
The number and abundance of species present in different communities

Ecosystem diversity
The variety of terrestrial and aquatic ecosystems found in an area on the Earth

Biodiversity in biomes

Within a biome there are many interrelationships between numerous species. Because of this, energy flows through the food chain and matter is constantly recycled, sustaining life. Should a disturbance occur (such as a storm or a fire), a biome rich in diversity is more able to recover and restore functioning and so has greater **resilience**.

Feeding pathways

Feeding pathways are the means by which energy and matter move through a biome. When biodiversity is high, there are many pathways. If a few are destroyed, others can be used and the biome is able to continue to function. However, in biomes lacking biodiversity, the impact of disturbances can be catastrophic. A reliance on limited food pathways means that if they are lost, the flow of energy in the food chain is halted. This results in the threat of extinction of dependent species.

Tropical rainforests are renowned for their immense biodiversity. If a particular fruit tree favoured by a fruit-eating bat dies, the usual feeding path is lost. However, in the rainforest, the bat can simply turn to another source because of the abundance of fruit on offer. The Jamaican fruit-eating bat (shown in Figure 6.7.2) thrives on the number and variety of fruit-bearing trees in the rainforest.

Functional diversity for food production

Grasslands are the biome that humans most heavily rely upon for food production. Seeds from grasses such as wheat and barley provide the cereal grains that are staple foods. Throughout the temperate latitudes there has been widespread clearing of native grasses, which have been replaced with a monoculture of a cereal crop. Most significantly, the grassland biome grows on deep, fertile soils.

Around the world most grassland biomes have been replaced with farmland. The flow and cycling of energy have generally been maintained by good farming practices, and with them the productivity of the land.

Tropical rainforests have a much higher productivity than grasslands. However, they are a fragile biome and not suited to clearing for food production. They are also highly valued for their immense diversity, as they contain up to half the world's plant and animal species, many as yet undiscovered. Their continued productivity can be maintained only if rainforests remain intact, as the soil underneath is quite impoverished. The soil depends on all the decaying organic matter that reaches the ground from above to provide nutrients. The rainforest biome is very efficient at recycling nutrients that would be otherwise leached out (washed away) by the heavy rain.

Genetic diversity for future food production

Biomes provide a bank of genetic material that our future existence may well depend upon. Currently, 75 per cent of the world's food is provided by just seven staple crops. For this reason, it is important that genetic material from wild stocks of plants is kept for future use if needed. Genetic diversity will be vital in developing new crops if environments change with global warming.

Did you know?

The Svalbard Global Seed Vault officially opened in 2008. The vault is located in Norway and houses seeds from a wide variety of plants. The seed vault is an attempt to ensure that genetic biodiversity is not lost.

6.7.2 The Jamaican fruit-eating bat lives in the tropical rainforest. Its favourite fruits are mangoes and bananas.

Activities

LS 6C
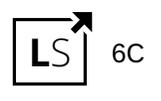
Remembering and understanding

1 Outline the components of biodiversity.
2 Explain why biodiversity is important in ecosystem functioning.
3 Discuss why resilience of biomes is important.

Applying and analysing

4 Compare the suitability of grasslands and rainforests for food crops.
5 Explain why genetic diversity is important for future food production.

6.8 Human alterations to biomes

Humans and their place in the natural world

While humans are only one of millions of species living on Earth, they have, more than any other, altered the world's biomes. Like all species, they have sought to meet their immediate needs of food, water and shelter—but humans have gone further. From the beginning of civilisation the scale of their alterations to biomes has increased. Recent technological advances have accelerated the process.

For thousands of years many indigenous peoples lived in harmony with nature. While they used their environment to support their way of life, and altered it to some extent, most acted as stewards (carers and protectors) of their environment. As human society evolved, the relationship with nature changed. In the scramble to develop, nature became a casualty.

6.8.1 The actions of humans, such as mining, have greatly affected the Earth's biomes

Did you know?

Due to land clearing, particularly in Queensland, koalas have been listed as vulnerable to extinction by the federal environment department. Approximately 40 312 hectares of forest have been cleared. It is estimated that between 1990 and 2010, koala numbers declined by 42 per cent across Queensland and New South Wales. A Queensland Government survey has shown a 68 per cent decline on the Koala Coast, south-east of Brisbane.

Humans have several traits that set them apart from other species.

➤ The ability to control or master nature, and the perception that success in doing so is progress, which can be regarded as good no matter what the cost to other species. (The extent of this control is outlined in Table 6.8.2.)

➤ The intelligence to develop new technologies that enable humans to achieve greater control over their environment. They have power far beyond their numbers in comparison to other species.

➤ The belief that the satisfaction of human needs is paramount. Any disturbance or even destruction of the natural world is usually discounted, ignored or deemed necessary.

Why humans alter biomes

Civilisations emerged when adequate food was produced to support them. Food production has continued to be of fundamental importance, and as the world's population has grown, more and more land has been needed for this purpose. As the world has industrialised and modernised, even greater demands have been placed on the natural environment to provide the fibres, fuels and raw materials needed. Many of the world's biomes have been affected by human activities in the scramble or competition for resources.

How humans alter biomes

The imprint of humans has spread across the Earth's surface as natural habitats have been lost to agriculture, settlements, mines, dams, transport routes, canals and cleared tracts (areas of land) for power transmission lines. Such features of the built environment stand out as evidence of the impact of humans. Humans alter their environment to make it more suitable to their purposes. This is done in a number of ways.

Vegetation clearance

Land clearing, primarily for agriculture, is probably the most widespread cause of damage to biomes. The biome most affected is the temperate grasslands, which have been either removed or modified on every inhabited continent of the world. The absence of trees, the flat terrain and the deep, rich soil made them attractive for farmland as well as urban settlements.

In 2013, the International Union for Conservation of Nature (IUCN) reported that the temperate grasslands have mostly disappeared. According to the IUCN, indigenous temperate grasslands are now the most altered ecosystem on the planet. The temperate grasslands biome occupies 9 million square kilometres (or 8 per cent) of the Earth's terrestrial surface. Of this 8 per cent, only 5 per cent is currently protected within the global system of protected areas. Indigenous temperate grasslands are now the Earth's most endangered ecosystem.

Globally, about 80 per cent of the original forest cover has also been cleared, fragmented, degraded or turned into plantations for commercial crops. About half of this area has been completely cleared. The loss of habitat of a biome rich in biodiversity has resulted in the demise of many species. Early casualties were the rainforests that covered the Côte d'Ivoire of West Africa. The same trend of deforestation continues in South America and South-East Asia.

6.8.2 Extent of human control of ecosystems

Type of control	Examples
Direct physical control	• Confinement of animals or plants by enclosures of any kind • Exclusion of animals or plants by devices of any kind (for example, by building fences) • Physical support given to organisms (mainly plants), such as stakes and trellising • Pruning, trimming and mowing • Weeding • Persecution of organisms by physical means, such as shooting, buffeting (hitting or striking repeatedly) and scarring • Performance of minor operations on livestock on a routine basis, such as shearing, dehorning, docking (shortening or removing a tail), castration and hoof care • Cropping/harvesting: removal of all or part of certain plants or animals and their transfer from the system to the point of consumption (for example, harvesting wheat to make bread or slaughtering beef cattle for steak)
Chemical control	• Poisoning unwanted organisms, whether plant, animal, insect, fungus or bacteria • Stimulating growth by adding nutrients • Chemically inducing changes in organism behaviour or characteristics, such as through the use of defoliants (weed killers), colourants (paint and dyes used for animal identification), hormones, attractants or repellents
Habitat control	• Ploughing or other modifications to soil, earth or rock • Provision of special environments, such as glasshouses, greenhouses and beehives • Provision of shelters such as windbreaks • Microclimatic modification to deter unwanted organisms (for example, removing trees surrounding a grapevine provides more light exposure and may limit fungal disease) • Introduction or exclusion of fire • Habitat deconstruction (such as deforestation, swamp draining and filling), leading to local or global extinctions
Biological control	• Spread of disease to unwanted species, such as myxomatosis in Australian rabbits • Introduction of predator or parasite specific to unwanted species, such as cactoblastis on Australian prickly pear • Introduction of species to specific locations, such as marram grass for sand dune stabilisation in south-eastern Australia
Genetic control	• Regular importing of strains of organisms with special characteristics (usually high yield) • Importing genetic material, such as use of artificial insemination • Control of plant or animal breeding within the system, such as use of selective breeding, selective hybridisation (for example, combining two different elements from different seeds or animals to produce an improved organism) • Scientific interventions to bring about genetic changes that act as a means of controlling and perhaps eliminating unwanted species
Behaviour control	• Subjugation (control and taming), such as 'breaking' of horses • Training of animals to respond to stimuli, such as to attack unknown humans and to feed at sound of buzzer to facilitate harvest • Stimulating inherent responses of organisms to light/dark, heat/cold, high/low humidity, etc., such as by extending day lengths with lamps and by refrigeration to simulate winter and induce 'spring' behaviour on removal from refrigeration. (For example, meat chickens in factory farms live in controlled conditions and are generally kept in dim light for 23 hours a day to discourage movement and increase food intake.)
Water-cycle control	• Supply or removal of water by any means • Weather modification

Biome	Percentage of the world's land	Vegetation	Effect of people on the ecosystem
Equatorial and tropical rainforest	8	Many different types of trees; dense layers of plants: adapted to high rainfall throughout the year.	The effect depends on the type of use: • hunters and gatherers: very little effect • shifting cultivators: large short-term effect, when forest is cleared; after fields are abandoned, forest regrows; that is, medium-term effect • timber-cutting: large effect over large areas • clearing for farming: large effect as forest is totally removed.
Temperate forest	7	Forests of different trees, many of which are deciduous; trees adapted to moderate rainfall and cool winters, warm summers.	Many of the world's temperate forests have been cleared and the land used for crop growing. People have had a major effect on this ecosystem.
Coniferous (or boreal) forest	14	Forests of evergreen trees, mainly conifers; trees adapted to cold winters and low rainfall.	People have changed some areas more than others. In Canada and the eastern part of Russia, some forests have not been used. In the USA and Norway, they are used for grazing and herding. In western areas of Russia, the effect of people is higher as the forests have been cleared for crop growing.
Savanna (grassland)	24	Areas near Equator have trees and grasses; closer to deserts, grasses dominate: grasses adapted to a wet and dry season.	Major effect of people: • herding and ranching: fires have been used to clear trees and encourage grasses • areas of overgrazing: high stock numbers cause erosion • grasslands ploughed for crops: danger of erosion.
Temperate grassland	7	Tall grasses in wetter areas, and scattered trees; shorter grasses where drier.	Most of these grasslands have been cleared and ploughed for crop growing. Areas of grassland have been improved, or replanted with better grasses, for livestock grazing.
Mediterranean	1	Shrubs and trees adapted to summer drought and winter rains.	Most vegetation has been cleared and soil ploughed for tree crops and other crops; some grazing.
Hot desert	21	Sparse cover of shrubs and grasses: plants adapted to low rainfall and long periods without rain.	Areas in Africa and Asia are used for nomadic herding. In the USA, Australia and South America, they are used for ranching (cattle/sheep). Very fragile ecosystem; although stock numbers are low, many areas are overgrazed and erosion is a problem.
Tundra	5	Mosses, lichens and plants adapted to cold temperatures and low rainfall.	People have had very little effect, although tourism can destroy the vegetation.
Polar	11	Ice caps: no vegetation.	People have had little direct impact on ice caps, but fishing of krill and other marine life is having an effect on polar ecosystems. Also, pollution from water areas is starting to affect marine life.
Cities and industrial areas	2	Natural vegetation cleared and people build new environment (houses, roads, and factories).	Major impact, as people change the nature of the ecosystem. Pollution of air and water is having a major impact on all the world's ecosystems.

Table 6.8.3 illustrates the extent of human influence on the main biomes of the world.

Sourcing water supplies

Water is a vital resource for humans. Irrigated agriculture has been the backbone of increased food production, and water is necessary to farm animals such as cattle and sheep. Water is also needed in large quantities to serve the daily needs of the concentrations of people living in urban centres. Many industries need water for cooling, washing and the chemical processes involved in manufacturing. Humans have found a number of ways to tap into the water cycle to secure an adequate supply of water for their needs. These include:

➤ constructing large engineering projects such as dams to store water—currently, there are around 40 000 large dams that obstruct the world's rivers. They can have a

6.8.4 Mountainous areas are farmed using terraces. They are common in China, the Philippines and Bali.

major environmental impact upstream (such as loss of habitat in drowned river valleys) and downstream (such as blocking fish migrations, changing temperature and reducing the level of dissolved oxygen in water released from the dams)

➤ using canals and pipelines to transport water

➤ sinking wells and bores to extract groundwater, which can lead to its depletion and a lowering of the water table

➤ using large bodies of water to dilute pollutants, such as dumping sewage into oceans.

Terracing

Terracing is an ancient farming technique that has existed for as long as two thousand years (for example, in China). It involves reducing the steepness of a slope by building structures such as earthen ridges or stone walls. These divide the slope into small flat or gently sloping sections. It has enabled rice to be grown on hillsides, where water flows downhill continuously through successive levels, flooding the paddy fields so the rice can be planted. As the plants mature, the fields are allowed to dry out. By harvest time the hillsides resemble a stairway of golden grain (seen in Figure 6.8.4).

Activities

LS 6D
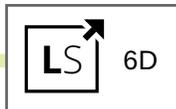
Remembering and understanding

1 Explain why humans have had more of an impact on biomes than any other species.

2 Describe how the forest biome has been affected by humans.

3 Outline the reasons why water supplies are very important to humans.

4 Explain how terracing enables the cultivation of steep slopes.

Applying and analysing

5 Identify the features that stand out as evidence of the impact of humans on biomes.

6 Study Figure 6.8.2. Rank each type of control from having the most negative impact to the least. Justify your ranking.

7 Study Figure 6.8.3. Create a pie graph that shows how the different ecosystems make up the world's land.

Food production

7

Food security, population growth, environmental stability and economic wellbeing are all critical to our future. However, they cannot be viewed in isolation, and they cannot be considered without recognising the role of food and fibre production. We need to know where the food and fibre that sustain our lives come from. We also need to be aware of the resources that are needed to produce the products we consume and use.

In this chapter we study the human alteration of biomes to produce food, industrial materials and fibres, and the environmental effects of these alterations. We also investigate the environmental, economic and technological factors that influence agricultural yields; the environmental challenges to food production; and the capacity of the world's biomes to achieve sustainable food security.

OVERVIEW QUESTIONS

As you work through this chapter, think about these key questions:

7A What factors determine the productivity of biomes?

7B What is the relationship between biomes and food security?

7C How do humans alter biomes to produce food, industrial materials and fibres, and what are the environmental effects of these alterations?

7D What are the environmental, economic and technological factors that influence agricultural yields?

LS↗ Before you begin

7.0.1 Humans alter biomes to produce food on large scales, as evident with this soybean field in Iowa, USA

GLOSSARY

acidification the build-up of hydrogen in soil, which reduces the soil pH

agrochemicals chemicals used in agriculture, such as pesticides and fertilisers

algal blooms high concentrations of microscopic aquatic plant life

annuals plants that complete their life cycle in one year

biofuels solid, liquid or gas fuels derived from biological material, or living matter

cash cropping the growing of agricultural crops for sale and profit

crop yield a measurement of the amount of crops harvested per unit of land

food security having reliable and adequate access to sufficient, safe and nutritious food to continue a healthy and active life

land degradation the downgrading of land and soils, and their productive capacity

nomadic a way of life that involves moving across a territory seasonally in search of food and water

pore spaces the spaces between individual soil particles

resilient able to resist damage and recover quickly; strong

shifting cultivation a farming system that involves moving from site to site as soil fertility declines due to leaching

soil compaction the process in which a weight applied to soil causes air to be displaced from the pores between the soil particles

staple food a food that is the main part of the diet of a community or society

water degradation the contamination of waterways with pollution

7.1 Biomes and food production

Biomes

The vegetation of biomes is vital for the survival of other species on Earth. This is because plants are the basis of all food chains. They capture the sun's energy and, through the process of photosynthesis, convert it into compounds that keep organisms alive and serve as food for others. Biomes sustain life, and humans, like other species, depend upon them for food.

Food for humans

Humans eat to live. Daily nourishment from food provides our bodies with fuel and the nutrients essential for vital body functions that maintain good health. A well-balanced diet contains vegetables, fruit, meat, fish and dairy products, as well as grains such as rice, wheat, rice, nuts and seeds. Such a diet is much more diverse than that of any other animal.

Humans are omnivores, as they eat both plant and animal products. This has enabled them to live in a range of environments, many of which are very harsh.

Some humans are able to survive the extreme aridity of deserts or the icy lands of the Arctic. They could not do this if they were unable to obtain sufficient food. The availability of food often determines the number of people that can be supported in a region. The fertile river valleys of South-East Asia support some of the highest rural population densities in the world. This is due to the rich alluvial soil, which is capable of producing up to three rice crops a year—plenty of food to support plenty of people. Some of the food crops produced in various regions around the world are shown in Table 7.1.1.

7.1.1 Centres of origin of the principal cultivated plants

Origin of crop	Main crops
Chinese–Japanese	bamboo, *millet*, mustard, orange, peach, *rice*, *soya bean*, tea
Indochinese	bamboo, coconut, grapefruit, mango, rice, sugar cane, *yam*
Australian	macadamia nut
Hindustani	banana, bean, chickpea, citrus, cucumber, eggplant, mango, mustard, *rice*, sugar cane
Central Asian	apple, apricot, bean, carrot, grape, melon, onion, pea, pear, plum, rye, spinach, walnut, *wheat*
Near Eastern	almond, *barley*, fig, grape, *lentil*, melon, pea, pistachio, *rye*, *wheat*
Mediterranean	beetroot, cabbage, fava bean, grape, lettuce, *oats*, olive, radish, *wheat*
African	coffee, *millet*, oil palm, okra, *sorghum*, *teff*, *wheat*, *yam*
European–Siberian	apple, cherry, chicory, hops, lettuce, pear
South American	cacao, *cassava*, groundnut, lima bean, papaya, pineapple, *potato*, squash, *sweet potato*, tomato
Central American and Mexican	French bean, *maize*, pepper, chilli, *potato*, squash
North American	blueberry, sunflower

Note: Staple crops are shown in italics.

History of food production

For most of human history, people collected food from the wild. They did this by gathering fruits, nuts and seeds, or by hunting wild animals for their meat. These **nomadic** hunters and gatherers wandered across the land, taking advantage of food where they found it and moving elsewhere when it ran out.

About 8000 years ago, people began to grow food by planting the seeds of plants that they ate most often. Farming had begun, and with it the skills of tilling the land and nurturing crops until they could be harvested. The earliest evidence of cultivation has been found in the Middle East, where wheat and barley were sown in fields. People also began to domesticate wild animals by collecting them in herds and then breeding them.

Once a reliable food supply was secured, people were able to live in settlements (such as towns and cities) and populations thrived.

Staple foods

A **staple food** is one that is eaten regularly by a community or society, and in quantities that make it the main part of their diet. Staples are often eaten at every meal or each day. Staple foods vary from place to place, but usually they are easily grown in that region and so are readily available and quite cheap. (Staple foods are shown in italics in Table 7.1.1.) Staples are well adapted to the biophysical environment of their source regions. For example, the plants may be tolerant to drought or nutrient-poor soils. Farmers rely on staple crops, as they are more **resilient** and therefore lower the risk of crop failure and a resulting food shortage.

Grains

Most staple foods are cereal grains, such as wheat, barley, maize (corn), rice, rye, oats and triticale. They are all grasses and their seeds are harvested to provide grain foods that can be stored for a long period of time without spoiling. These crops are known as **annuals** (plants that complete their life cycle in one year) and their seeds must be replanted each year. Cereals are the main food for most people in the world. Rice, maize and wheat are the staples of over 4 billion people, and rice feeds almost half of humanity.

Rice is usually eaten once it has been cooked as a whole grain. Most other cereals are refined; that is, they are milled or ground into a finer substance. Flour from wheat and maize is used to make bread and pasta. Maize, barley, oats and millet are often boiled for porridge or baked as flat cakes. Other staple foods include starchy root vegetables, such as cassava, potatoes, yams and taro. Over a billion people in developing countries depend on roots and tubers as their staple food. Roots and tubers are especially important in sub-Saharan Africa (see Figure 7.1.2). Although they may provide carbohydrates, they are poor in protein and nutrients.

As people drift to cities, they tend to replace roots and tubers with cereals, as these are easier to obtain. As affluence (wealth) increases, diets tend to become more varied. People eat more meat and dairy products. However, 1 billion of the poorest people in developing countries still rely on roots and tubers.

7.1.2 What people eat varies depending on location and levels of wealth

The main staple foods in the average African diet (in terms of energy intake) are cereals (46%), roots and tubers (20%) and animal products (7%).

In Western Europe, the main staples in the average diet (in terms of energy intake) are animal products (33%), cereals (26%) and roots and tubers (4%).

Traditional food crops gaining popularity

Many traditional food crops are becoming increasingly popular for a variety of reasons. Some are being grown on a larger scale because of their resilience, which means they can be grown successfully in areas where other crops do not thrive. Others are gaining popularity because of their nutritional value.

Cassava is one such crop. It is grown globally because it is a very hardy plant that survives well in poor soils and can withstand drought. The plant's starchy, tuberous root can be eaten only after it has been carefully prepared, as it contains cyanide. Despite this, it has become one of the most important staples in developing countries because it is easily grown in tropical and subtropical regions.

Quinoa is becoming increasingly popular, notably in wealthy countries, because of its high nutrient content. It is rich in essential amino acids such as lysine, as well as iron and calcium. Quinoa is grown for its edible seeds, and with improved processing it is now also being made into bread.

7.1.3 The Nenets of Siberia have migrated across their lands for thousands of years

Productivity of biomes

The productivity of biomes, in terms of the amount of food that can be gained from them, varies greatly.

Deserts

The extreme aridity of deserts greatly limits land use. Nomadic pastoralists such as the Tuareg and the Bedouin of the Sahara are able to survive in this inhospitable environment, where the vegetation is sparse. This is because they move around to find new sources of pasture for their stock.

Tundra

The extreme cold and permafrost (permanently frozen layer of the soil) of the tundra result in a very harsh environment. It supports only nomadic reindeer herders such as the Nenets (shown in Figure 7.1.3), who live in northern Russia.

Tropical savanna

The amount of vegetation that can grow in the tropical savanna is restricted by the dry season. This dry grassland is really only suitable for grazing, and very large areas are needed to support stock. Cattle properties in the tropical north of Australia are thousands of square kilometres in size.

7.1.4 Temperate grasslands, Australia. Temperate grasslands are very productive ecosystems because their soils are so fertile.

Tropical rainforests

Early hunter-gatherer societies managed to survive in tropical rainforests by hunting animals and birds, catching fish and collecting fruits, nuts and berries. Other groups, such as the indigenous peoples of the Amazon, engage in **shifting cultivation**. This practice involves clearing small patches of forest for gardens that yield food for four to five years, before they are abandoned once the fertility of the soil is lost. The impoverished soils are the biggest limitation on food production in rainforests. This is because the soils rely on decaying material from the forest above to maintain nutrient levels. Heavy rainfall leaches nutrients from the soil and also causes erosion if the vegetation is removed.

Temperate grasslands

Grasslands in the temperate zone overlie some of the richest soils in the world. For this reason, they have been heavily used for food production. Temperate grasslands have been ploughed up and planted with cereal crops such as wheat in Australia and the Canadian prairies. They have also been used as pastures for beef cattle (see Figure 7.1.4).

Activities

Remembering and understanding

1. Explain why the vegetation in biomes is so important to life on Earth.
2. Outline the history of food production.
3. Describe a staple food.
4. Describe how the diet of people changes as they shift from rural to urban areas.
5. Explain why cassava has to be carefully prepared before eating.

Applying and analysing

6. Working in groups of five, construct a newspaper headline that captures the issue of feeding the growing urban population of the world. Add a few sentences to convey the thoughts behind the headline (hint: consider how the types of food eaten change).
7. Study Table 7.1.1 and do the following tasks.
   a. On an outline map of the world, add text boxes locating the different food crops in the regions shown.
   b. Select three crops from regions that you are unfamiliar with and construct an illustrated report on how each food crop is grown and prepared for consumption.

7.2 Factors affecting crop yields

Crop yields

Crop production provides food for humans, fodder (food) for livestock, and fibres used for making cloth and paper. It involves exploiting plants to produce high yields from the land on which they are grown. While nature does set limits on what can be accomplished, humans have altered the environment in which many plants are grown. This has affected crop yields and also has implications for the future.

Measuring crop yield

Crop yield is a measure of the amount of a crop that is harvested per unit area of land. It is usually expressed in tonnes per hectare. It reflects the amount of seed or grain generated by the plant. Increasing the yield of a cereal grain requires the production of more grains or larger grains on the head of the plant.

7.2.1 The heads of wheat are densely packed with grains. Increasing the size or number of the grains increases crop yields.

Determining crop yields

All crops require basic resources from the biophysical environment in order to grow. These are:

➤ solar radiation—the sun's energy provides light to plants and determines temperatures
➤ carbon dioxide from the atmosphere
➤ soil water, which is contained in the **pore spaces** between soil particles
➤ mineral nutrients, which are dissolved in soil water
➤ oxygen above and below the ground
➤ nitrogen within the soil, which is contained in soil air.

Crop productivity depends on adequate quantities of these resources being available. They enable plants to grow and yield a successful harvest. In their attempts to produce high-yielding crops, humans have manipulated this environment. For example, they can:

➤ determine the amount of soil water available to plants through irrigation
➤ improve the quality of the soil through the addition of fertilisers, increasing the availability of nutrients; growing legumes also increases the level of nitrogen in soils, as legumes have nitrogen fixation nodules attached to their roots
➤ improve the supply of oxygen to plant roots by aerating soils—when soil is cultivated it is turned over, and large dirt clods are broken down into a fine soil that is an ideal environment for seed germination.

New technologies

The adoption of new farm technologies has raised crop yields in a number of ways.

➤ Mechanisation has improved the speed and efficiency of cultivating large areas of land and harvesting the crop quickly.
➤ Plant breeding has provided new high-yielding varieties of plants that grow vigorously, are more resistant to diseases or are able to do well in a wider range of conditions.
➤ **Agrochemicals** have been developed to protect plants and improve growth rates. These include herbicides, pesticides, insecticides, fungicides, fertilisers and growth hormones.
➤ Irrigation has become highly sophisticated. Piezometers are soil probes used to measure soil moisture and, when needed, irrigation water is applied to meet plant needs.

Maintaining high yields

The success of raising crop yields depends on how the crop is managed and how well the environment is protected. Some interventions in agriculture have come at a cost. If the resource base of the agricultural system (the land) is damaged through land degradation, then the practices are unsustainable and crop yields eventually fall.

High crop yields

In the past, technology was very important in generating the growth in food output. Despite this success, the world remains vulnerable to food shortages. Most suitable land is already under cultivation. This means that the real challenge in the coming decades is to expand food production without significantly increasing the amount of land used.

7.2.2 Improved irrigation and more intelligent use of fertilisers can increase agricultural production by as much as 70 per cent

There are concerns that crop yields are rising more slowly than they did in the past. There is an urgent need for new crop varieties that offer higher yields but use less water, fertiliser and other inputs. It is important that crops are grown in an ecologically sustainable manner to protect the resource base that supports them.
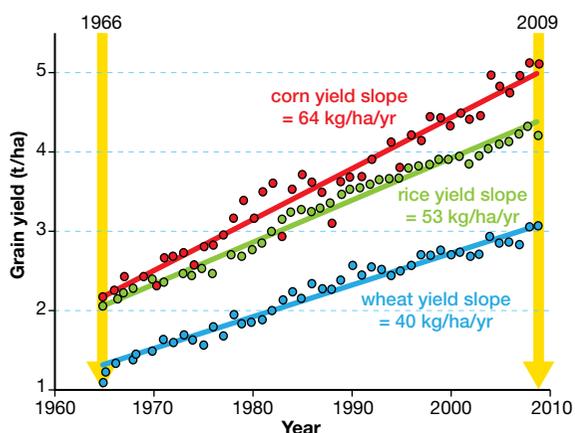
7.2.3 Grain crop yields, 1966–2009. The rate of increase in grain crop yields has fallen from 2.9 per cent of average yields in 1966 to 1.3 per cent in 2009, which is not fast enough to meet expected food demand without a large expansion of crop production area.

Activities

Remembering and understanding

1 Describe how crop yield is measured.
2 Outline the basic resources that crops need to grow.
3 Explain how new technologies have raised crop yields.

Applying and analysing

4 Demonstrate why the world is vulnerable to food shortages.
5 Study Figure 7.2.3 and answer the following questions.
   a Which crop has had the greatest increase in yield over the period from 1966 to 2009?
   b What was the yield for corn, rice and wheat in 1980?
6 Create a mind map explaining how new technologies have increased crop yields.

Evaluating and creating

7 Select a food crop to investigate, and prepare an annotated visual display of its specific resource requirements.

7.3 Environmental factors affecting crop yields

Constraints within the biophysical environment

Most of the crops we rely on have quite specific environmental requirements for growth and performance. Increasingly, other influences (which of course include humans) are affecting the actual yields reached. This is especially important when global **food security** (having reliable and adequate access to sufficient, safe and nutritious food) may be put at risk. Crops rely on the air above and the soil below to grow and prosper.

Aerial environment

Crops extend their stalks and leaves up into the atmosphere. They do this to take in carbon dioxide and oxygen, and to trap solar energy. Temperature and precipitation are therefore both very important. They determine the types of crops that can be grown within a region. Most crops have certain temperature and precipitation requirements, and when these are met they grow well.

Soil environment

The roots of plants anchor them to the ground. Roots are also the means by which plants absorb water, mineral nutrients and oxygen. The type and condition of soils can place significant restrictions on the productivity of crops. The nutrient level, water-holding capability and structure of soils are naturally changeable. These changes can either support or hinder plant growth. Fertile soils provide crops with all they need, but infertile soils impose limitations on growth and development.

Topography

The shape of the land surface can restrict land use, and is often related to soil type. Slope generally determines if the land can be cultivated safely. The most arable land, suitable for unrestricted agricultural use, is usually found on flat valley bottoms or plains where soils are deep and fertile. Typically, such areas are used to produce high-yielding crops such as those shown in Figure 7.3.1. Steep slopes and ridge tops are unsuitable for cultivation as they have thin, stony soils and are an erosion hazard if the land is disturbed. Terracing is one method people have developed to turn steep sloping land into crop-supporting land.

7.3.1 The fertile Canterbury Plains of New Zealand are used to produce high-yielding crops, such as grass, wheat and sunflowers

Inputs from the human environment

Historically, the major increases in crop yields have been due to human intervention. This has been done to overcome the physical limitations on crop production.

Technology has been particularly important in generating the growth in the output of food. It has brought about an intensification of agriculture. Conventional crop-breeding techniques have led to genetic engineering. New strains of high-yielding crops have been developed. Large inputs of agrochemicals and irrigation have been used to maintain these yields.

Economic and cultural constraints

The feasibility of growing a crop in a particular area is determined by the suitability of the biophysical environment. Yet the actual choice of a crop type is based on economic and cultural factors.

The choice between crops being grown for commercial purposes depends on the profit that is likely to be made. This is dependent on price stability (which will determine the return on production); the cost of inputs (such as agrochemicals, machinery, storage and transport); and distance to the market.

In some developing nations, culture exerts a strong influence over agriculture. Rules of inheritance and gender inequality are the core determinants of access to land for farming, and women are generally disadvantaged.

7.3.2 Cultivation of marginal land in sub-Saharan Africa. Crop yields are very low in a difficult biophysical environment, and the land can become unproductive if it is overexploited.

Pressures from humans

The push for higher yields in resource-intensive agriculture has resulted in environmental degradation in some areas. Erosion, the contamination of soil and water by agrochemicals, and the depletion of surface and groundwater supplies have resulted from unsustainable land practices and must be addressed. Pressure from growing populations and overexploitation of the land in poor nations also limit improvements in agricultural production. In their desperation to feed their families, people overuse marginal land. The damage can be irreversible.

Did you know?

The environment is the total surroundings. It includes the living and non-living features of the natural world, as well as all those features that are created or altered by humans.

Activities

Remembering and understanding

1   Outline the constraints that the biophysical environment places on crop production.
2   What pressures do people put on the land that then affect crop productivity?

Applying and analysing

3   Study Figure 7.3.2. Brainstorm and list the circumstances under which people might be forced to exploit the land, even when they know that what they do is unsustainable.
4   Assess the importance of technology in raising crop yields.
5   Study Figure 7.3.1 and draw an annotated photo sketch. Highlight the relationship between topography and land use in the region.

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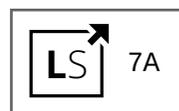
Climate

Climate is the most important factor in determining the viability of cropping and grazing. Most crops are suited to certain regimes of temperature and rainfall. With this, their seeds germinate and subsequent growth produces the desired grains or fibres. The actual yield of a crop at harvest reflects the seasonal conditions that were experienced while the crop was growing.

Climate and crop choice

The climate experienced in any area determines the types of crops that can be grown there. Crops vary in their yields. These variances closely reflect the growing conditions found within the various climate belts across the world (see figures 7.4.1 and 7.4.2). The key changes in climate are the temperature and precipitation ranges. Some crop types have quite specific tolerances to both of these.

Legend:
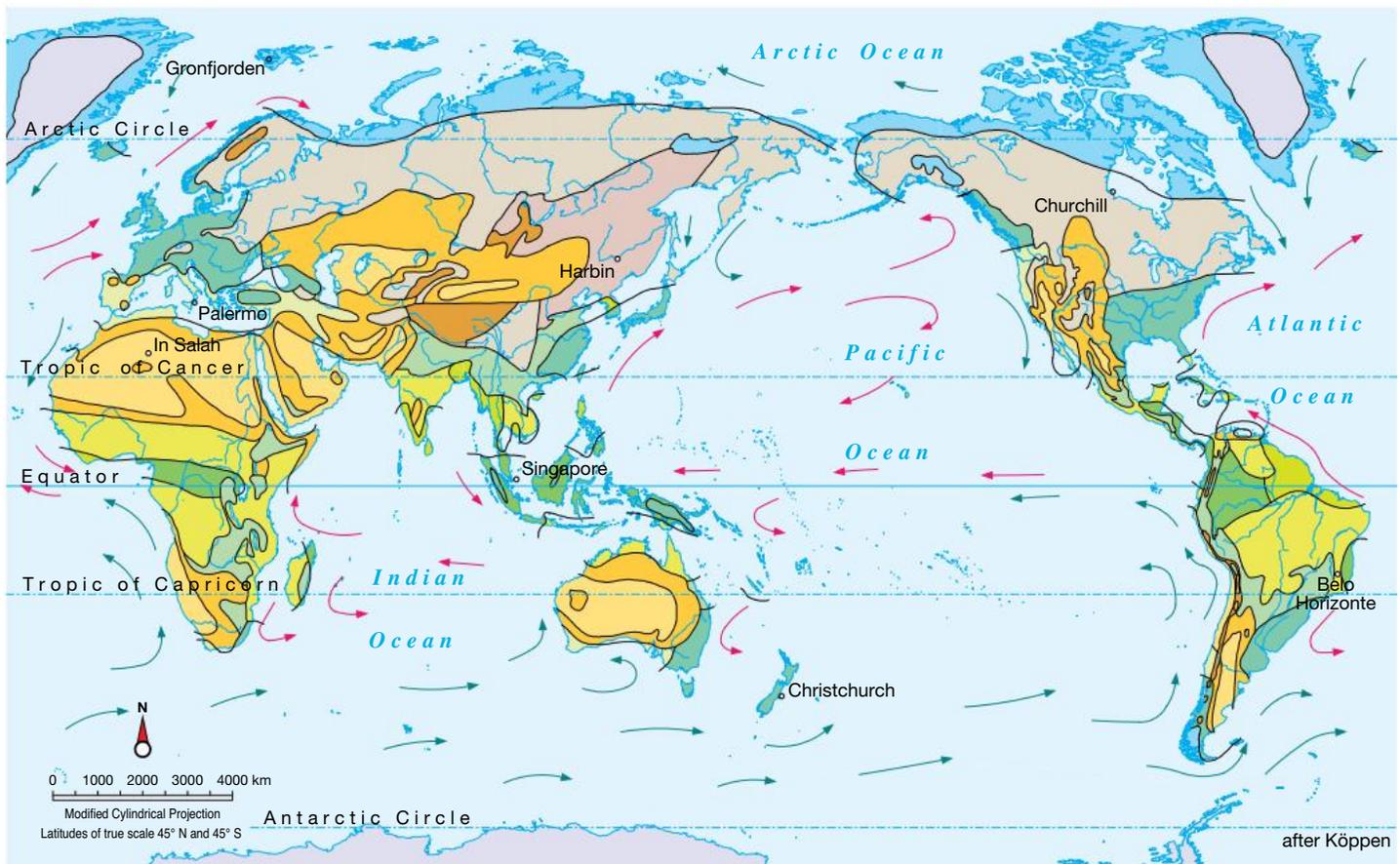
- Hot and rainy all year
- Hot and rainy most of the year
- Hot all year, rainy most months but with a definite dry season
- Hot and mostly dry all year; unreliable rainfall
- Hot and dry all year; unreliable rainfall
- Warm to mild months, wet all year
- Warm to mild months, dry in winter
- Hot dry summer, mild wet winter
- Warm to mild summer, cool to cold winter; wet all year
- Warm to mild summer, cool to cold and dry winter
- Cold most months with a short summer
- Cold all year
- Climate strongly affected by altitude
- Cold ocean current
- Warm ocean current

7.4.1 World climates

7.4.2 Global crop yields

Current yields
- High
- Medium
- Low
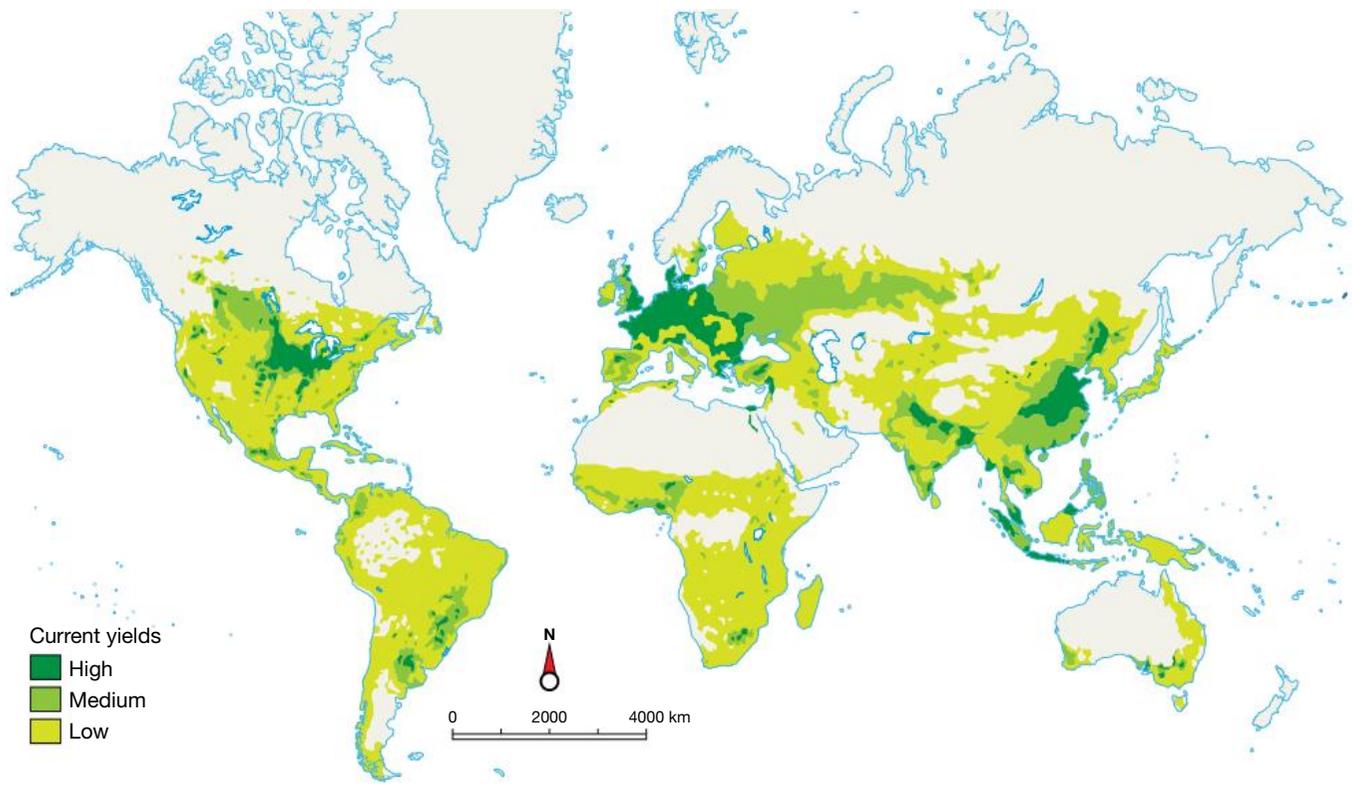
Temperature

The limits for crops being introduced to any region are set by a number of factors.

➤ *Daily maximum and minimum temperatures*—Wheat tolerates temperatures as low as 3°C and up to 32°C. Corn, however, is a warm-climate crop and its ideal temperature for germination is 21°C. It is frost sensitive, but can withstand temperatures up to 40°C. Rice also requires high temperatures, from 21 to 37 degrees Celsius throughout the life span of the crop.

➤ *Soil temperature*—This is crucial for many of the processes that enable seeds to germinate and crops to grow and mature. Adequate heat is necessary to support the billions of micro-organisms active in the soil. If the soil water freezes, it then becomes unavailable to plants, as it cannot move into the roots.

➤ *The length of the growing season*—This is set by the number of frost-free days from the last frost of spring to the first frost of autumn. This is usually the amount of time required for a crop to complete its life cycle and produce an economic yield. Cotton, for example, needs 200 days to be ready for harvest, so it cannot survive in a cold climate.

Did you know?

Rice is the main crop in the tropics because it requires both consistently high temperatures and substantial rainfall. It is particularly high-yielding as three crops can be grown in a year.

Spotlight

Harvested when frozen

Icewine is an intensely sweet and very expensive dessert wine. It is produced from grapes grown in the cool climate of southern Canada. The grapes stay on the vine and become dehydrated, which intensifies their flavour. The moment they freeze they are harvested by hand, usually when the temperature reaches –13°C.

7.4.3 The grapes must be just frozen through before they are picked to make icewine

7.4.4 Excessively high and low temperatures hinder crop yields

Excessively high temperature	Excessively low temperature
Increases the rate of evaporation of soil moisture.	Results in poor growth and low yields because photosynthesis is slowed down.
Increases the rate of transpiration from the leaf pores of plants.	Causes the plant to go into dormancy; that is, it stops growing because plant processes shut down.
Causes the plants, leaves and stems to droop or wilt and halts the growth of new shoots.	Reduces the germination of seeds.
Can cause the pollen to become unviable and so flowers do not grow, which means that there will be no seed or grain to harvest.	Kills the flowers, which also stops seed and grain being produced. If frosts hit plants that have just flowered, it can wipe out the entire crop for a season.
Can kill the plant as it dries and frizzles up.	Causes the death of many plants if temperatures drop below zero. When water inside plants freezes, it expands, which can kill the plant tissue by tearing its cell membranes. Plants often turn black after they have been hit by a frost overnight.

7.4.5 Drones are increasingly being used in agriculture to monitor crops and manage water use

Temperature extremes

Temperatures are especially important for crop production. Any extremes that are experienced can have an undesirable effect on crop yields, as is shown in Table 7.4.4. Crops are influenced by temperature in the following ways.

➤ Their growth depends on the combined processes of photosynthesis and respiration. These processes increase with temperature. For example, the rate at which photosynthesis occurs in corn increases until the temperature reaches 30°C. Then it levels off, even if the temperature increases further.

➤ Optimum temperatures mark the upper and lower limits at which a crop performs best. At optimum temperatures, crops accumulate the maximum amount of dry matter in the form of cereal grains or fibres.

➤ Adequate night-time temperatures must be maintained to enable the growth of new shoots on the plants.

➤ Temperature affects the amount of water a crop needs to stay alive and function properly. On hot days, crops need more water to sustain plant processes.

Precipitation

Without water, crops cannot grow. Given that they are 85 per cent water, it is easy to understand the importance of rainfall to crop growth. The individual water requirements of the main food and fibre crops are shown in Table 7.4.6.

Lack of water is a major constraint on productivity in much of the world's arable lands. If rainfall is inadequate,

water must be supplied to crops from other sources, such as irrigation. Too much water is also not good for many crops, especially when the soil becomes saturated. When this happens, all the pore spaces in the soil fill with water and there is no air available. Rice is the only crop that demands such conditions; it is grown in flooded paddy fields.

Seasonal variations

While climate largely determines the choice of crop grown, yield is influenced by seasonal variations within the climate. In fact, more than 50 per cent of the variation in crop yields is determined by seasonal variations. Both the extremes of drought (when precipitation is insufficient to meet crop needs) and floods (when excessive precipitation drowns crops) can be disastrous. Australia often experiences the variability of seasonal rainfall.

There are increasing concerns that climate change could bring more frequent and extreme weather events that will affect crop production in the future.

7.4.6 Water needs of various crops and their sensitivity to drought

Crop	Crop water need (mm/ total growing period)	Sensitivity to drought
alfalfa	800–1600	low–medium
banana	1200–2200	high
barley/oats/ wheat	450–650	low–medium
bean	300–500	medium–high
cabbage	350–500	medium–high
citrus	900–1200	low–medium
cotton	700–1300	low
maize	500–800	medium–high
melon	400–600	medium–high
onion	350–550	medium–high
peanut	500–700	low–medium
pea	350–500	medium–high
pepper	600–900	medium–high
potato	500–700	high
rice (paddy)	450–700	high
sorghum/millet	450–650	low
soybean	450–700	low–medium
sugar beet	550–750	low–medium
sugar cane	1500–2500	high
sunflower	600–1000	low–medium
tomato	400–800	medium–high

Activities

Remembering and understanding

1 Describe how temperature in a region limits what crops can be grown there.
2 Explain why water is crucial to crop growing.
3 What determines the actual crop yield achieved in any particular season?

Applying and analysing

4 Study Table 7.4.6 and answer the following.
   a Identify the three crops that need the most water and are the most sensitive to drought.
   b Identify the three crops that need the least water and are the most tolerant of drought.
5 Study figures 7.4.1 and 7.4.2, and Table 7.4.6, and do the following tasks.
   a Describe and account for the crop yields across the Australian and African continents.
   b Explain why many farmers in Africa choose to grow sorghum and millet.
   c Explain why the banana and sugar cane farms in Australia are located on the east coast of Queensland and northern New South Wales.
6 Assess the impact of temperature extremes on crop productivity.

Evaluating and creating

7 Investigate the crops that are most commonly grown in either the United States of America or China. Prepare a multimedia presentation identifying:
   • the choice of crops
   • where they are grown
   • the suitability of the climate to these crops
   • the productivity of these crops
   • any limitation on farming due to climate in parts of the country.

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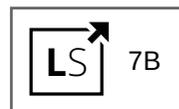
7.5 Significance of soils

Not just dirt

Most people who are not farmers tend to think of soil as just dirt—something not wanted on hands, clothes or carpet. While we are very aware of our need for air and water, we are not all aware that our lives, and the lives of other living organisms, depend on soil, especially the upper layer known as topsoil.

Soil is the foundation for life on land. It provides the nutrients needed for plant growth and also sustains the animals that feed on these plants. Historically, the fertility of soils has strongly influenced the distribution and activities of people. It has determined agricultural patterns, settlement locations and the number of people living in an area.

The nutrients in the food you eat come from the soil. Soil also provides us with wood, paper, cotton, and the many other vital materials people use on a daily basis. It also helps purify the water we drink.

As long as soil is held in place by vegetation, it stores water and releases it in a nourishing trickle instead of a devastating flood. The decomposer organisms of soils recycle the key chemicals needed by humans and most other forms of life. Bacteria in the soil decompose degradable forms of rubbish. The buildings, roads, infrastructure and waste treatment plants we use are all built on and supported by soil. Soil is truly the basis of life and civilisation, as is shown in Table 7.5.1.

Soils influencing agriculture

Soil is fundamental to agriculture. We depend on the nutrients and water available in soil for our food and fibre crops, as well as for pasture for the grazing of animals. The suitability of soil for different activities depends on a number of characteristics, including fertility, texture, water-holding capacity and aeration (air content).

Colour

The colour of the topsoil is an indicator of how good the soil is for agriculture. If the topsoil is dark brown, then it is rich in organic matter and nutrients (see Figure 7.5.2). Most of the world's crops are grown on land that has been cleared of grasslands and deciduous forests. This is because these are the soils that are fertile, due to their high humus content and good texture. Soils that are pale, or grey, yellow or red in colour are generally low in organic matter. They are not as fertile.

7.5.1 Importance of soil to different people

Person	Importance of soil to wellbeing/livelihood
Gardener	A home gardener wants to use the soil in the garden to grow flowers, herbs, vegetables, ornamental shrubs and trees to beautify the living environment and supplement food supplies.
Farmer	A farmer is interested in the complex factors that contribute to a soil's productivity to maximise production and income from crops and livestock. Knowing the capabilities and limitations of different soils is fundamental to successful farming.
Builder	A builder uses the soil as a foundation for construction. It should provide a stable base that is free from waterlogging. Soil is also an important source of clay which is the basic material for brick making.
Engineer	An engineer is concerned with the properties of soil that will contribute to a stable, long-lasting structure that will not crack or collapse. Soil is also used as a construction material for dams and road bases.
Hydrologist	A hydrologist is involved in determining how quickly and to what extent soils will absorb rainfall after a storm event and how this water moves across a landscape.
Urban planner	Urban planners are responsible for appropriate development within an urban area which entails knowledge of soil capabilities and any problems with drainage.
Conservationist	Conservationists are bound to protect soils, as they are a fragile resource that is subject to degradation when used beyond capacity. Soil is vital for the maintenance of biodiversity above and below the ground. With much of this activity hidden from view, conservationists work to increase awareness of the importance of soil and its myriad micro-organisms in sustaining landscapes.

Did you know?

It takes approximately 500 years to produce around 2 cm of topsoil, which is the most productive layer of soil.

7.5.2 Fertile, dark-brown topsoil is highly productive

Texture

The texture of the soil also determines its suitability for agriculture.

➤ Sandy soils contain large, angular sand grains that are loose. Water therefore passes through them very easily. While these soils are easy to cultivate because they are light, well drained and aerated, they are not very fertile. They have little organic matter and the water quickly leaches out any minerals. Therefore, they require a lot of fertiliser to remain productive. Sandy soils tend to be used for growing vegetables and fruit. The roots of crops such as carrots find the soil easy to penetrate.

➤ Clay soils are the opposite to sandy soils, as nutrients cling to the tiny clay particles. Such soils are very fertile and usually high in organic matter. This makes them especially productive. However, if the clay content is too high, they are considered heavy soils which are hard to cultivate, especially after rain. Heavy clay soil areas are often left under permanent grass as pasture for stock.

➤ The best soil for agriculture is a loam. It has enough clay to retain moisture and nutrients, sufficient sand to be well drained and aerated, and enough silt to hold the clay and sand together. These fertile soils are highly favoured for food and fibre crops.

Activities

Remembering and understanding

1. Describe how soils have influenced the activities of people throughout history.
2. What are the characteristics of soil that determine its suitability for agriculture?
3. Given that sandy soils are not very fertile, explain why they are good for growing vegetables.
4. State the land use that clay soils are most suitable for.
5. Explain why loam soils are favoured for cropping.

Applying and analysing

6. Use the 'think, pair, share' strategy to complete the following statements.
   a 'I used to think soil was just dirt …'
   b 'Now I think soil is …'
7. Study Table 7.5.1 and the section 'Not just dirt'. List all the ways your family depends on soil.

7.6 Australia's soils

Australia's ancient soils

Australia is often described as an ancient land because it has been stable over a very long period of geological time. This means that the surface of the continent has been exposed to the processes of weathering and erosion for millions of years. As a result, Australia has one of the world's flattest and most ancient landscapes, with soils that are among the world's oldest and least fertile (see Figure 7.6.1).

Australia's soils are less fertile because many minerals have been lost to deep chemical weathering and leaching of the continent's ancient rocks over time. When these rocks break down into sediment, the soils that result tend to lack the nutrients needed to support agriculture.

Rich and fertile soils are formed from volcanic rock that is produced from volcanic activity. This volcanic activity has been largely absent from Australia, and hence so is new, fertile volcanic soil. The volcanic activity that did occur millions of years ago was mainly concentrated along the eastern edge of the continent—there, it poured out basalt. This formed the basis of the rich basaltic soils found in areas along the length of the Great Dividing Range. Another way fertile soils are created is when exposed bedrock (the solid rock layer under soil) is transformed into sediment through weathering. The absence of large-scale tectonic mountain building in Australia meant that there was little erosion rapid enough to expose and transform bedrock into sediment.

Fertile soils can also be created by large ice sheets grinding down unweathered rock when they move. Unlike areas that have quite fertile soils, such as Europe and North America, Australia was not covered by an ice sheet during the Pleistocene Ice Age (1.8 million to 11 700 years ago). The last ice sheets to cover Australia—and to create fertile soil—existed more than 300 million years ago.

Impacts of European settlement

European settlers found the soils of Australia difficult to manage. Their knowledge of agriculture had been gained in temperate lands with deep, productive soils and predictable weather patterns. They applied these farming practices, which had proved highly effective in Europe, in Australia. The result was widespread degradation of the land, which has produced landscapes such as the one shown in Figure 7.6.2.

Many Australians are now beginning to realise that the degradation of their life-supporting resources of soil and water has reached a crisis point. Government authorities and community-based groups, such as Landcare and Greening Australia, are tackling the problem of land degradation. They are doing this through the promotion of sustainable land use practices.

Agricultural potential of Australian soils

The potential of the land to support agriculture depends on the soil type and its associated properties. These include, in particular, its fertility and water-holding capacity. In the agricultural zone of Australia, areas of land with poor soils are generally left uncleared. Agriculture in Australia is supported by a great range of soils.

The arid and semi-arid expanses of the continent have ancient, very weathered and infertile soils. These areas fall in northern Australia and the drier western margins of Queensland and New South Wales. In these places, the soil lacks nutrients, organic material and soil moisture. At best, this land can only support extensive cattle grazing, as it cannot carry much stock.

0   500 km
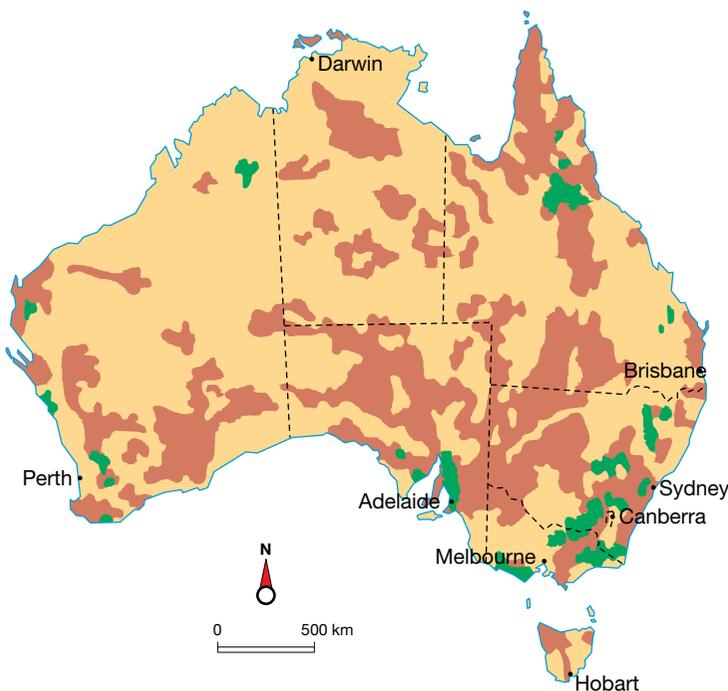
Soils without limitations. These are rich, high-quality soils that are usually associated with alluvial deposits of rivers, or those that result from volcanic activity.

Soils with chemical limitations. These are soils lacking nitrogen, phosphorus and/or trace elements, such as zinc.

Soils with physical limitations. Topography and climate can make some regions unsuitable for agricultural landuses.

7.6.1 Only 6 per cent of Australia's soils are suitable for agricultural industries

Other Australian soils are younger, deeper and more fertile. This is especially true of the alluvial soils found in river valleys, particularly along the east coast. They are used for more-intensive forms of agriculture, such as dairying, and growing vegetables and fodder crops for haymaking. Rich, red volcanic soils are also very productive: in Queensland they support the growth of peanut crops, as well as sugar cane and tropical fruits.

The red-brown soils (which have a sandy loam topsoil over a clay subsoil) and black cracking clay soils support the wheat-growing regions of Australia. Summer crops such as sorghum, sunflowers and soybeans are also grown there. Such soils are also irrigated to grow cotton and rice. The valuable grazing lands of the tablelands that produce fine wool are mainly on red soils which are predominantly sandy and porous.

7.6.2 European farming practices have resulted in heavily eroded landscapes, such as this one, west of Charters Towers in Queensland

Activities

Remembering and understanding

1 Explain why Australia's soils are described as ancient.
2 List the factors that contributed to the comparative infertility of Australia's soils.
3 Explain the impact that the arrival of Europeans had on Australian soils.
4 Outline what is now being done to address the impact that Europeans have had on the land.
5 Describe the range of soils that support agriculture in Australia.

Applying and analysing

6 Identify the properties of soil that are needed to support agriculture.
7 Study Figure 7.6.1. Analyse the distribution of Australia's high-quality soils (soils without limitations).

Evaluating and creating

8 Landcare and Greening Australia are both organisations involved in improving soils in Australia. Investigate one of these organisations and produce an oral report that includes the following information.
   a Background information, including:
      • when the organisation was established and its main aim
      • where in Australia the organisation works
      • with whom the organisation works.
   b Select one program and describe the work of the organisation.
   c Evaluate the work of the organisation.

Food security

Food security is about more than just having enough food to feed a population. The United Nations Food and Agriculture Organization (FAO) notes that food security is achieved when all people at all times have physical and economic access to sufficient, safe and nutritious food that meets dietary needs and food preferences for a healthy and active life.

Food security means that the following conditions are met.

➤ *Enough good-quality food is available*—Food supplies can be affected by many different factors. These include adverse weather (hailstorms, heatwaves), natural hazards (droughts, floods, tropical cyclones, tsunamis), conflict (civil unrest, wars), population growth, unsuitable agricultural practices, environmental degradation, trade barriers and inequalities within societies.

➤ *Food is affordable and within the reach of all*—When food supplies are interrupted and become expensive, wealthy people can still afford to buy them, but poorer people do not have the means to do so.

➤ *The food available is the right sort of food*—Variety of food types is essential for a balanced diet that ensures normal growth and development, and good health. Such food needs to be stored safely and prepared hygienically.

Enough food is currently produced to adequately feed all of the world's people, yet 1 billion are undernourished (see Figure 7.7.1 and Table 7.7.2). It is the desperately poor who are going hungry because they lack the means to acquire even the bare minimum of food. The desperately poor will often spend up to 80 per cent of their household budget on food.

Legend:
- Missing or insufficient comparative data
- 5–14% Moderately low undernourishment
- 25–34% High undernourishment
- No data
- <5% Very low undernourishment
- 15–24% Moderately high undernourishment
- 35% and over Very high undernourishment
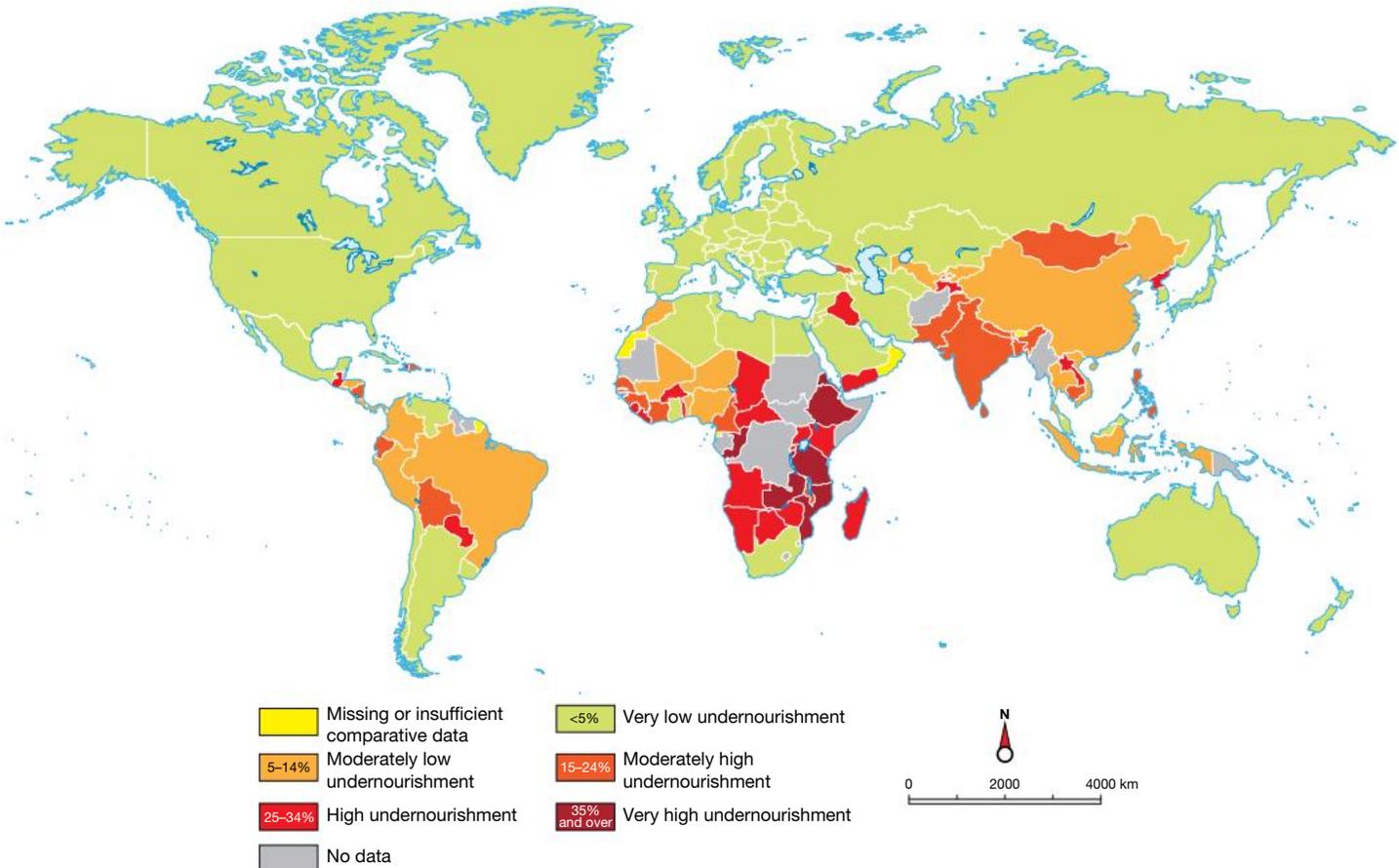
7.7.1 World Hunger Map 2015, showing the proportion of the global population that is undernourished

Regions with the highest percentage of undernourished people as a percentage of their total population in 2016

Region	Percentage of total population of region
World	**11.0**
Northern Africa	8.3
Sub-Saharan Africa	22.7
Central Asia and Southern Asia	14.2
Eastern Asia and South-Eastern Asia	9.7
Western Asia	10.6
Latin America	5.9
Caribbean	17.7
Oceania	6.8
Northern America and Europe	<2.5

Food shortages

When food shortages occur, it is the poor who suffer the most. This was evident when the prices of staple grains soared in 2008 as people and governments panicked because the global stockpile had shrunk. Public unrest and riots spread across the developing world and 1.5 billion people were put at risk by the food crisis. Violent food riots broke out in some thirty countries throughout the world in 2007–08, including India, Peru, Morocco, Egypt and Bangladesh. Figure 7.7.3 shows a scene from food riots in Haiti.

While the situation has eased, there are grave concerns that more food shortages are inevitable. This would cause instability and major disruptions in many countries. There could well be a humanitarian catastrophe across some of the poorest regions of the world. The issue of food security has become more complex than it was in the past. There are now multiple threats that tend to amplify each other and compound the problem.

7.7.3 Food riots in Haiti, 2008

Increasing demand for food

A combination of population growth and higher consumer (buyer) expectations means that the global requirement for food is increasing. It is thought that by 2050, global food requirements will be 70 to 100 per cent greater than those of today.

Population growth

While the rate of growth of human numbers is slowing, about 100 million people are still being added to the world's population each year. This upward trend is expected to result in the global population reaching 9.1 billion in 2050. Every year there are simply more mouths to feed.

Changing consumption patterns

As people move out of poverty, their diets improve. They eat different foods, particularly those that are rich in protein, such as meat, milk and eggs. As demand for meat products increases in developing countries, livestock production also grows. Livestock are being fed vast quantities of corn, wheat, soybeans and barley. This means that those products are then no longer available as grain foods. As these grains are converted into meat, they lose as much as 95 per cent of their kilojoule value.

Limitations on food production

Population and demand for food are together rising at about 2 per cent a year. However, food output is now increasing at only about 1 per cent a year. There are a number of potential threats that could prevent food production from rising as much as needed to achieve global food security.

Crop yields

Although total yields for grain crops continue to increase on a global basis, there has been a slide in the yield advances being made. This has been detected in many of the major cereal crops, such as maize, wheat and rice. Yields were once rising by 5–10 per cent each year (due to improvements in technology and the sharing of skills). They have now dwindled to only 1 per cent a year (see Figure 7.7.4).

Competing uses of the land

As large amounts of cereal grains are being used to feed livestock and to produce **biofuels** (fuels derived from biological material), land has been diverted away from food production. Arable land is also being lost as cities expand outwards.
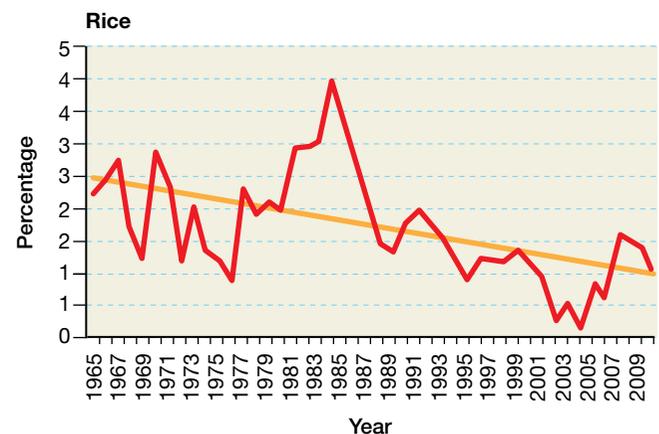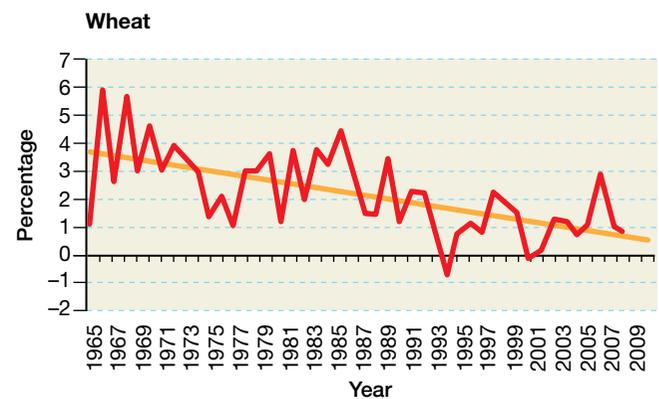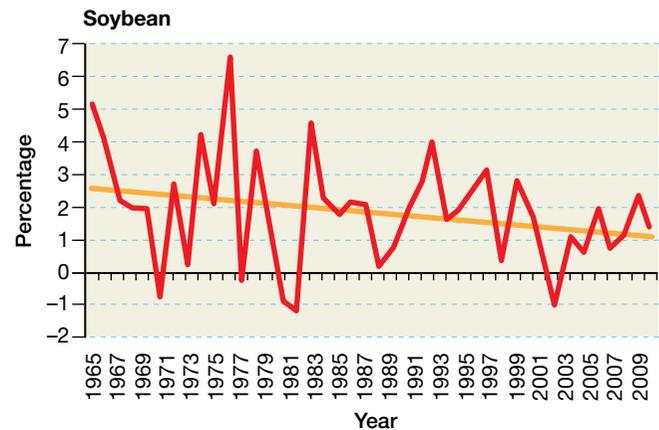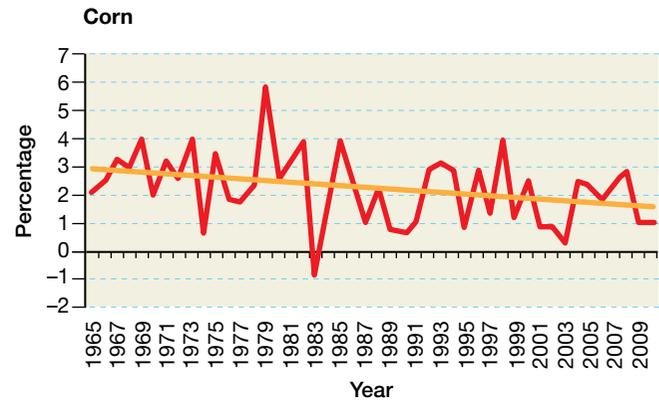
7.7.4 Global yield change, 1965–2009

Globalisation

With increased globalisation, food has become a commodity. The profit motive now dominates global food production, as huge agribusinesses have taken control of all aspects of food production. The physical resource base that supports agriculture is being put at risk by this industrial agriculture. Farmers are getting lower returns for their produce, as they are locked into supplying the big corporations. International trade in food products has also soared and many poorer countries are disadvantaged by trade restrictions.

Spotlight

The chocolate industry may be melting

More than half of the world's chocolate comes from cocoa produced by smallholders in Ghana and Côte d'Ivoire. Research undertaken by the Centre for Tropical Agriculture predicted a 1°C temperature rise by 2030, increasing to 2.3°C by 2050. Such an increase could be catastrophic for this heat-sensitive crop. A rise in temperature of this extent is enough to inhibit the growth of cocoa pods. Scientific modelling predicts that the increase in temperatures will dry out the soil and the plants, and that there will also be less rainfall. By 2050, nearly 90 per cent of land currently growing cocoa will become less suitable for growing the crop. This would send yields crashing, depleting supplies of cocoa and causing prices to soar.
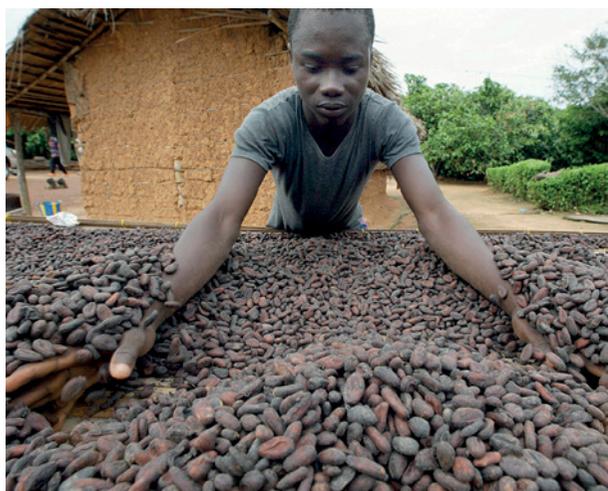
7.7.5 Cocoa production, Ghana

Shortages of fresh water

Water is crucial to food production and some of the most intensive food emergencies have been associated with severe water shortages. Declining water quality and the increasing overuse of both surface and groundwater supplies are threatening the availability of fresh water. Dwindling supplies will affect agriculture and put at risk the world's food supply.

Climate change

Climate change will add to the existing and substantial pressures on global food security. Higher temperatures, shifting rainfall patterns and more frequent extreme weather events may change the environment that crops and animals have to grow in.

Activities

Remembering and understanding

1 Define the term 'food security'.
2 Describe what happened in 2008 when food shortages occurred.
3 Explain why the demand for food is increasing.
4 Outline the threats to food production.

Applying and analysing

5 Working in pairs, consider the following statement and share your thoughts with the rest of the class.
Poverty pushes population growth; however, its elimination impairs food availability.
6 To what extent do you agree with the following statement?
Improvements in technology will ensure global food security in the future.
Discuss.
7 Study Table 7.7.2 and construct a column graph showing the percentage of undernourished people for the regions represented.
8 Study Figure 7.7.4 and answer the following questions.
   a Which two crops have had the most notable decrease in crop yields?
   b Which crop has experienced the most volatile changes in crop yield improvements?

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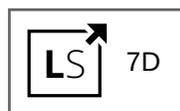
7.8 Land and water degradation

Land degradation

One-quarter of the Earth's lands are highly degraded. Another 8 per cent are moderately degraded, 36 per cent are stable or slightly degraded, and 10 per cent are ranked as 'improving'. The remaining shares of the Earth's land surface are either bare (around 18 per cent) or covered by inland water bodies (around 2 per cent). The extent of land (or soil) degradation is shown in Figure 7.8.1.

Land degradation is any change in the land that reduces its existing or potential productivity. It occurs wherever the natural balance in the landscape is changed by human activity, through misuse or overuse. It is the result of using land beyond its capability. The United Nations estimates that 1.5 billion people (one-quarter of the world's population) depend directly on land that is being degraded.

The causes of land degradation are environmental and socio-economic. Environmental causes are shown in Figure 7.8.2. They include:

➤ overgrazing of livestock, especially in times of drought
➤ deforestation (removal of trees for industry or farming)
➤ land clearance for fuelwood collection

➤ agricultural practices
  • reduction in soil nutrients through poor farming practices
  • excessive irrigation, resulting in salinity
  • **soil compaction** (when weight applied to soil causes air in the soil to be displaced) by animals and vehicles
  • exposure of soil to wind and water erosion during cultivation
➤ bio-industrial activities (soil contamination by toxic substances such as pesticides and heavy metals).

Economic causes include:

➤ poverty (forcing people to abandon more sustainable land use practices, as illustrated in Figure 7.8.3)
➤ urbanisation and urban sprawl, people moving to the cities and cities increasing in size
➤ population growth, requiring more land for food production.

Land degradation leads to reduced productivity, forced migration (environmental refugees), food insecurity, damage to basic resources and ecosystems, and loss of biodiversity through changes to habitats. Trends in land degradation around the world indicate that only 18 per cent of land is improving (see Figure 7.8.4).

Key
- Very degraded soil
- Degraded soil
- Stable soil
- Without vegetation
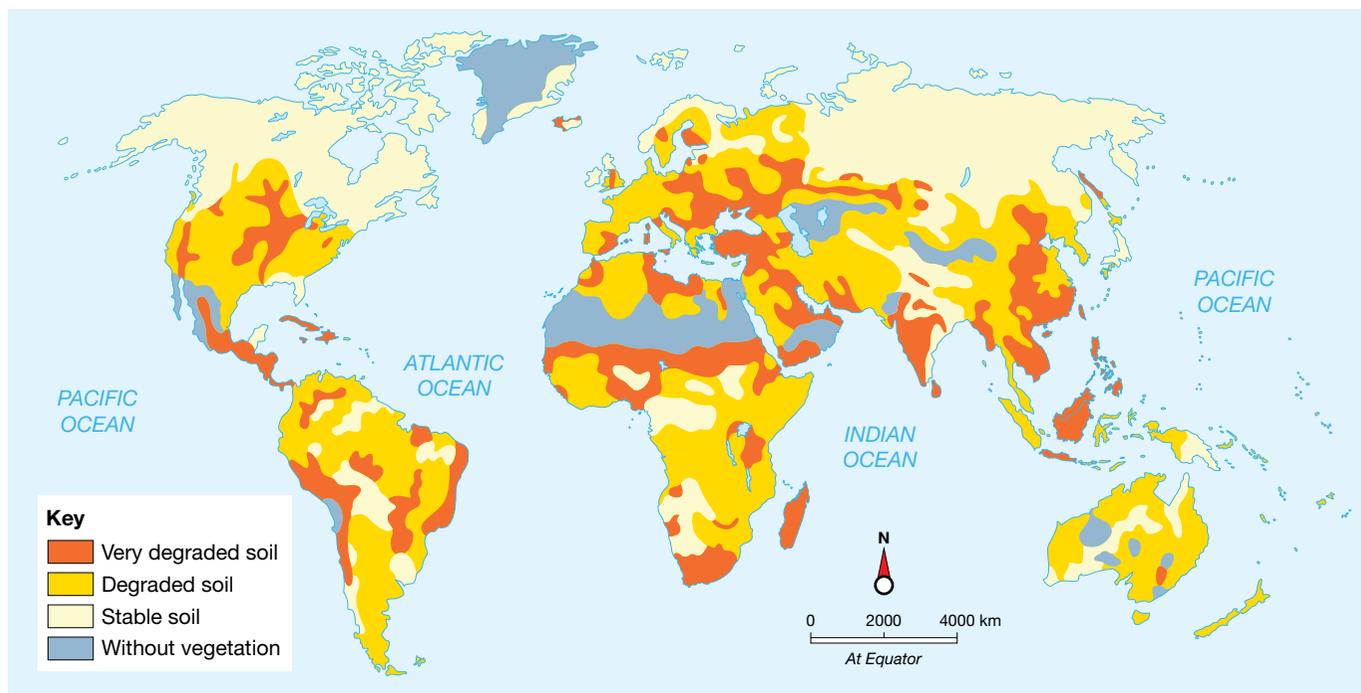
7.8.1 Soil degradation around the world
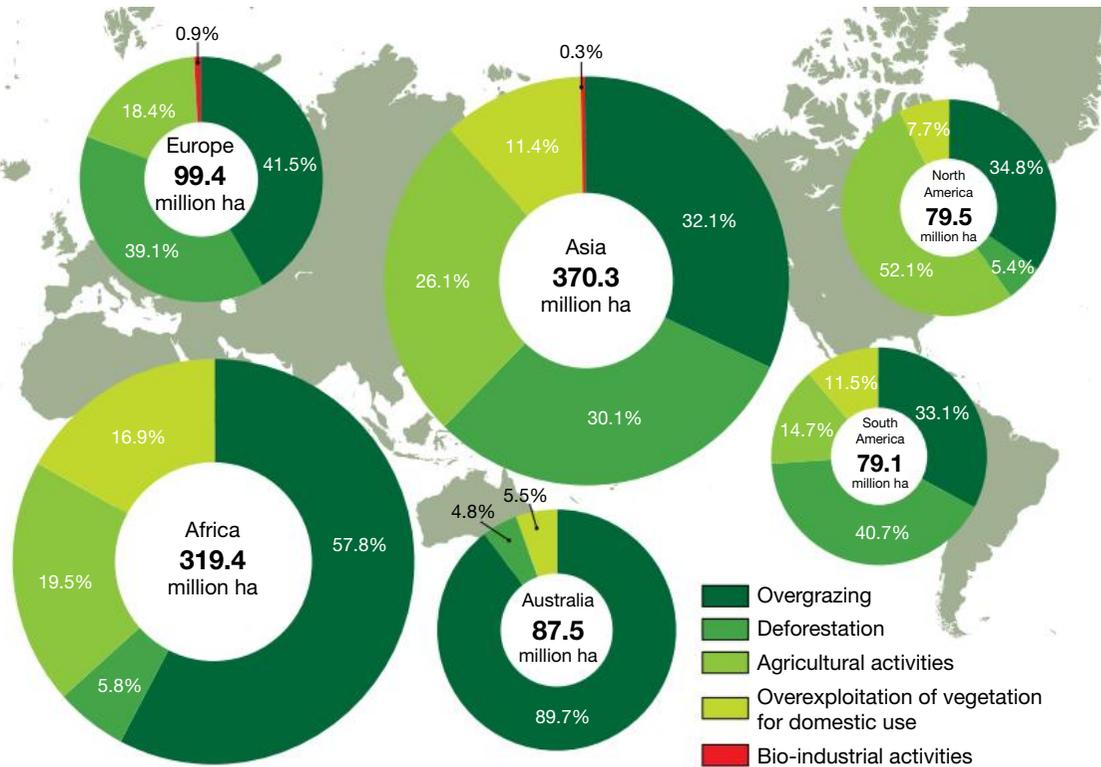
7.8.2 Extent and causes of land degradation by continent. The area of degraded land in the dryland is 1035.2 ha.

Legend (donut charts):
- Overgrazing
- Deforestation
- Agricultural activities
- Overexploitation of vegetation for domestic use
- Bio-industrial activities

Europe **99.4** million ha — 0.9%, 18.4%, 39.1%, 41.5%

Asia **370.3** million ha — 0.3%, 11.4%, 32.1%, 30.1%, 26.1%

North America **79.5** million ha — 7.7%, 34.8%, 5.4%, 52.1%

Africa **319.4** million ha — 16.9%, 19.5%, 5.8%, 57.8%

South America **79.1** million ha — 11.5%, 14.7%, 33.1%, 40.7%

Australia **87.5** million ha — 4.8%, 5.5%, 89.7%

7.8.3 Poverty and the cycle of degradation

Cycle: poverty → population increase → a decline in the amount of land per person → population pressure results in a growing reliance on marginal lands → unsustainable landuse practices (i.e. poor land management practices) → land degradation → declining agricultural production → poverty

Legend:
- High degradation. Rehabilitate if economically feasible or mitigate
- Moderate degradation. Introduce measures to mitigate degradation
- Stable land (slightly or moderately degraded). Preventive interventions
- Improving lands

18% improving lands

18% bare areas

2% water

25% high degradation or highly degraded lands

8% moderate degradation in slightly or moderately degraded land

36% stable land, slightly or moderately degraded

7.8.4 Trends in global land degradation

Types of land degradation

The productive capacity of soil can be damaged, or degraded, in four main ways: through salinity, erosion, compaction or **acidification**.

Soil salinity

Increasing levels of salt in soils is known as salinity. Salinity is common in some parts of the world, including Australia. This increase is caused by salty groundwater (water that is stored in rock and soil below the surface) reaching the surface of the soil. Normally, this groundwater level (known as the water table) is controlled by large trees, which pump water from the soil as they transpire. However, when trees are cut down, salty water may rise to the surface (see Figure 7.8.5). When the water evaporates, it leaves a salty crust.

Soil erosion

Soil erosion is the removal of topsoil by water or wind. This happens wherever the soil is unprotected by plant cover. Once the original plant cover is removed, soil can be carried away easily by strong winds or heavy rain. Winds can strip the land of its topsoil and carry it hundreds of kilometres. Heavy rain and run-off can cut deep gullies into the soil.

Soil compaction

Soil can be compacted by the weight of heavy machinery or the trampling of hard-hoofed animals. Both of these can compress the air spaces in the soil so that it develops a hard layer on top. This reduces infiltration (water entering the soil) and makes it difficult to use the land for crops or pasture.

Soil acidification

Soil can be made acidic by the overuse of chemical fertilisers. Often, the use of some fertiliser is essential to ensure that the soil keeps producing crops. However, when used over a long period of time, fertilisers can also harm the soil.

Water degradation

Widespread **water degradation** (the contamination of waterways with pollution) has placed a number of key food production systems around the globe at risk. It poses a major challenge to the task of feeding a growing world population.

Water scarcity is growing, as are the salinisation and pollution of groundwater and surface water bodies. Water-related ecosystems are also being degraded. Large inland water bodies are under pressure from a combination of reduced inflows and higher nutrient loading (the excessive build-up of nutrients such as nitrogen and phosphorus). Many rivers do not reach their natural end points, and wetlands are disappearing.

In key cereal-producing regions of the world, intensive groundwater withdrawals have resulted in a lowering of aquifers. In turn, this has reduced the accessible groundwater stores that many rural communities rely on.

Algal blooms are the rapid increase or accumulation of algae populations in waterways. They are a growing water-quality issue. Some algal blooms are toxic and can render the water unfit for use. Freshwater algal blooms are the result of an excess of nutrients, especially phosphates. The excess of nutrients may originate from fertilisers used in agriculture.

7.8.5 Land clearance is the main cause of soil salinity

Before land clearance

Evapotranspiration: Trees return rainwater to the atmosphere; rainwater would otherwise seep down and raise the water table.

Salty water table is kept low because trees intercept rainwater.

After land clearance

When trees are cleared, much more rainwater seeps into the soil, raising the water table.

Salty water runs off into rivers and wetlands, causing serious ecological damage.

Pasture is killed when salt reaches the root zone of pasture grasses.

A salt pan forms where the water table reaches the surface.

The water table rises, bringing salty water into the root zone of remaining trees. The trees die. This causes the water table to rise even further.

Desertification

One of the most serious forms of land degradation in the world is **desertification**, or the creation of deserts. Desertification is a problem in parts of Africa, where the desert is steadily advancing over what used to be good farming land. Desertification in northern Africa has occurred at the edges of the Sahara. These marginal lands have variable rainfall and can only be used with great care. A mixture of overuse and periodic change in the rainfall has destroyed the productive capability of the land. The results are creeping desert sands and salty waterholes.

7.8.6 The top diagram shows good farming land. The bottom diagram shows how population growth increases the pressure on agricultural land, leading to its degradation. When the trees are removed there is less evaporation; less evaporation means fewer clouds and fewer clouds mean decreased rainfall, or drought.
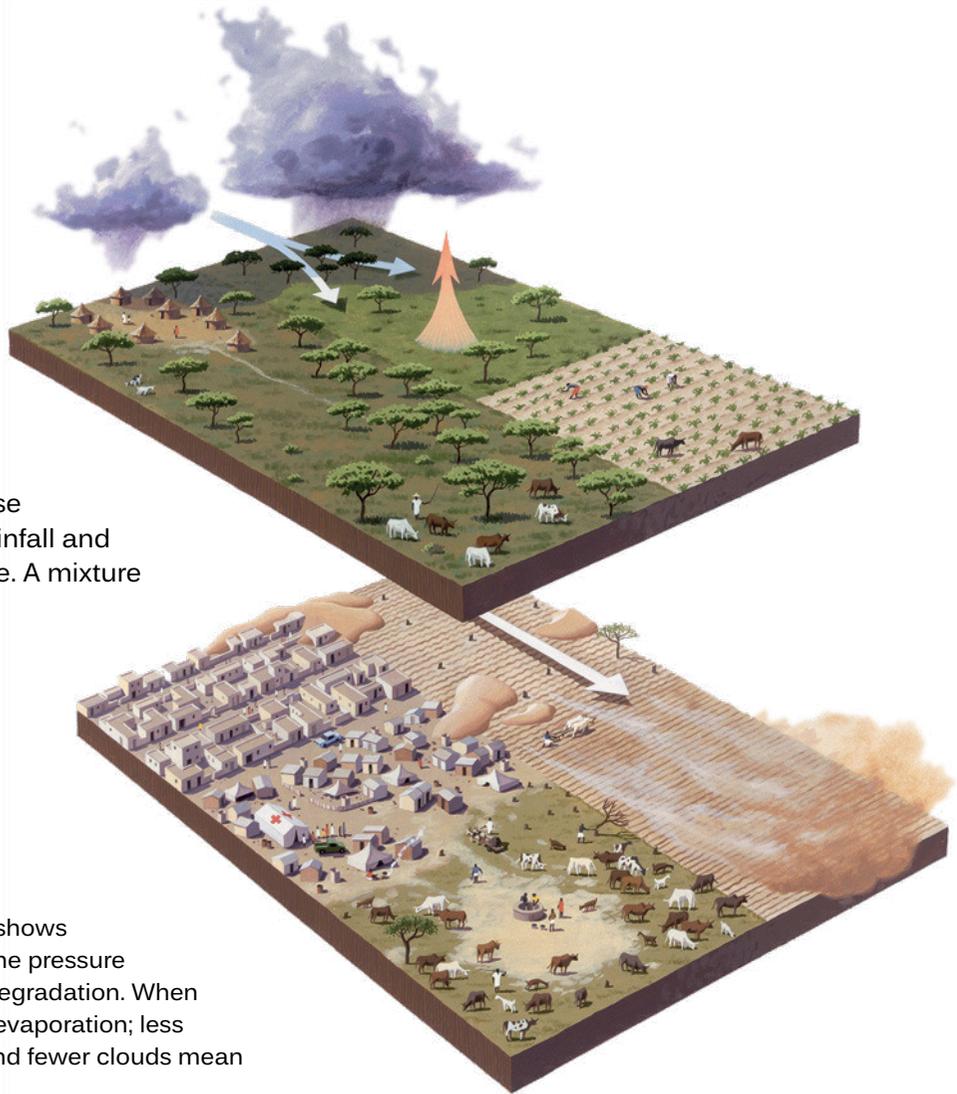
Activities

Remembering and understanding

1   Define the term 'land degradation'.
2   Outline the causes of land degradation.
3   Outline the various types of soil degradation.
4   Define the term 'desertification'.

Applying and analysing

5   Identify the various ways in which water supplies are degraded.
6   Study Figure 7.8.5. Explain how land clearance can cause salinity-related land degradation.
7   Study figures 7.8.3 and 7.8.6. Write two to three paragraphs explaining the relationship between population increase and the process of land degradation.

8   Construct a block diagram illustrating the various causes of land degradation.
9   Study Figure 7.8.2 and answer the following questions.
    a   Which continent has the largest area of land degradation?
    b   On which continent is overgrazing the major contributor to land degradation?
    c   On which continent is deforestation the major contributor to land degradation?
    d   On which continent are agricultural activities the major contributor to land degradation?

Shortages of fresh water

Water usage in food production

All food sources require adequate quantities of water, from crop and livestock production to aquaculture and inland fisheries. Freshwater resources are central to the challenge of achieving global food security. Yet water scarcity is growing. Many of the world's key food-producing systems are being stressed by unprecedented demand for surface and groundwater supplies. Declining water quality is compounding the problem.

The production of adequate food supplies is directly related to the availability of sufficient water. Agriculture consumes 85 per cent of the world's fresh water. To produce a kilogram of rice, 3400 litres of water is required. Figure 7.9.1 shows the 'water footprint' of a range of foods.

Rain-fed agriculture

Globally, over 80 per cent of cultivated land relies on rainfall and moisture stored in the soil to support crops and pastures. If rainfall is erratic or below average, crop yields drop. When prolonged or severe droughts occur over wide regions, crops may fail altogether. This raises prices and triggers major food emergencies, such as the 2008–09 crisis resulting from droughts occurring across China, the United States of America and Australia.

Those hardest hit by rainfall deficiencies are smallholders, who make up the majority of the world's rural poor. They often occupy marginal land in arid and semi-arid regions, such as sub-Saharan Africa. These places have great climatic variability.

Irrigated agriculture

Irrigation can supply crops with an adequate and reliable supply of water. In irrigated agriculture, water is withdrawn from watercourses, lakes and aquifers, and used to nourish crops. Irrigation lifts the yields of crops by 100 to 400 per cent. Although only 20 per cent of global crop land is irrigated, this land is very productive and contributes 40 per cent of the total food supply.

7.9.1 The water footprint of food produced includes the volume of water taken to produce the food from the land, as well as all the water needed in the various stages of the production process, such as washing and processing

= 50 litres

650 **Barley** litres of water for 500 g

650 **Wheat** litres of water for 500 g

1400 **Sorghum** litres of water for 500 g

2500 **Millet** litres of water for 500 g

650 **Bread** litres of water for one loaf (500 g)

750 **Cane sugar** litres of water for one package 500 g

90 **Tea** litres of water for one pot (750 ml)

840 **Coffee** litres of water for one pot (750 ml)

2500 **Burger** litres of water one burger (150 g beef)

4650 **Beef** litres of water for one steak (300 g)

1000 **Milk** litres of water for 1 litre

2500 **Cheese** litres of water for one big piece (500 g)

7.9.2 Global distribution of water scarcity by major river basin

Water scarcity

Water scarcity often has its roots in water shortages, and the problems are most severe in marginal areas. Water scarcity has become an issue of global concern, because water use has been increasing at twice the rate of population growth. With excessive amounts of water being withdrawn, groundwater and river levels have dropped. This places agricultural regions at risk all around the world (see Figure 7.9.2). It is estimated that 10 per cent of all food harvested is produced by depleting groundwater supplies, which are being used at a faster rate than they can be replaced.

The North China Plain, for example, is running out of water. Water scarcity also threatens food production in Australia's Murray River Basin. In northern Africa, Lake Chad was once one of the largest freshwater lakes in the world. Now it is rapidly disappearing. As 20 million people live in the region and depend on the lake for irrigation, watering livestock, fishing and drinking water, conflicts have already erupted between competing water users. In parts of India, groundwater tables are falling by more than 1 metre a year. Future agricultural production is under threat.

Water pollution

Despite food production relying heavily on water, inappropriate agricultural practices are fouling this water and making it unusable. Excess nutrients from over-fertilisation end up in water bodies. This leads to toxic algal blooms. Agrochemicals such as pesticides contaminate the water and accumulate in living organisms. The more intensive the land use becomes, the greater the risk to supplies of fresh water.

Did you know?

By 2025, 1.8 billion people will be living in countries or regions with absolute water scarcity. Furthermore, two-thirds of the world's population could be living under water-stressed conditions. The lack of water limits farmers' ability to produce enough food to eat or earn a living. South Asia, East Asia and the Middle East are already close to their resource limits, and their populations are still growing.

Activities

Remembering and understanding

1 Describe the sources of water used in agriculture.
2 Explain why Africa is so vulnerable to water shortages.
3 Outline the impact of agricultural practices on water quality.

Geographical skills

4 Study Figure 7.9.1. Identify the most water-demanding foods and the most water-efficient foods.
5 Study Figure 7.9.2. Describe the location of the regions experiencing the highest water scarcity.

Applying and analysing

6 Justify the importance of fresh water for food production.

7.10 Competing land uses

Urbanisation and agriculture

Increased competition for land and water resources is a major threat to global food security. As the world urbanises, cities spread across arable land and consume a larger share of available water supplies. There is also competition within the agricultural sector. Alternative forms of agricultural land uses (such as staple crops, livestock, non-food crops and biofuel production) compete for the arable land.

The impact of urban growth

The world is running out of good arable land, as some of the most productive land is lost to cities. Historically, cities occupied fertile river basins and coastal plains in better-watered areas close to food supplies. With increasing urbanisation and associated urban growth, cities have sprawled outwards. Farmers often sell their land to developers. Modern cities cover the rich soil with concrete and asphalt. By 2010, the total of the world's built-up areas was 4.75 million square kilometres. This is equivalent to half the size of China or the United States of America. These areas occupy some of the world's best farmland.

The demand for water generated by population and economic growth is increasing much more quickly than the demand from agriculture. As a result, there is increased competition for a resource that has a finite supply. City dwellers want water in their homes, and industry and waste treatment facilities want access to it as well. This demand is expected to grow, crowding out the allocations to agriculture. Yet urban dwellers need food and rely on agriculture to provide it. By 2050, urban centres could swallow half or more of the world's available fresh water at a time when many rivers, lakes and aquifers will be drying up.

Competition for land and water

Staple grain crops, livestock, non-food crops (including biofuels), inland fisheries and aquaculture already compete for land and water resources. With profit being the driver of commercial agriculture, market forces are determining what the land is used for.

Cash cropping

Governments in developing countries often focus on **cash cropping** (growing agricultural crops for sale and profit) to drive economic growth. The prospect of generating revenue and export sales can blind them to the effect this has on other competing land uses, especially food production. The government of Pakistan, for example, has promoted cotton farming as the country's biggest cash crop. As a result, the production of sunflower seeds, which are used to make edible oil, has almost disappeared from the country's fertile golden triangle. Pakistan now has to import edible oil, at a cost that is second only to what the country pays for imported petroleum products. The problem has been compounded by falling prices for cotton exports.

Biofuels

The world has become concerned about diminishing oil supplies and the need for a greener and more secure transport fuel. As a result, large amounts of land are now used to grow crops for biofuels such as ethanol and biodiesel. Ethanol can be made from plants like sugar cane and corn. Biodiesel is produced from oilseeds such as soybeans, canola and sunflower seeds.

7.10.1 As urban centres like Melbourne expand, rich farming country once located on the fringes of cities, like this image from Cranbourne, are lost

7.10.2 The aquaculture industry uses vast quantities of water to incubate fish eggs and rear juvenile fish. Fish farms can also pollute waterways with nutrients, antibiotics and fungicides.

Aquaculture

Fish and fishery products are among the world's most traded food commodities. As a result, aquaculture has become the fastest-growing animal-producing sector. While it is heavily dominated by countries in the Asia–Pacific region, aquaculture is developing, expanding and intensifying in almost all regions of the world.

Fish farming makes heavy demands on the land. As it takes more than 5 tonnes of wild-catch marine fish stocks to feed a single tonne of farmed fish, they are fed grain. This imposes another strain on available grain stocks, which are also being fed to livestock, and diminishes even further the availability of staple grains as human food.

Water wars

The fiercest competition for water is over that withdrawn from watercourses and storages to water stock and irrigate crops. Local disputes are common, and fighting can break out. For example, in 2005 fights arose between farmers and herders in the arid regions of western Sudan after the rains failed to arrive. In recent years, the regions of Africa, the Middle East and Central Asia have been drawn into conflict over water. Such disputes could well lead to war this century, if tensions increase as climate change takes hold.

Activities

Remembering and understanding

1   Describe the impact of urban growth on land and water resources that have been traditionally used for agriculture.
2   Explain why governments favour cash cropping and how this can affect food production.
3   Outline the competition for land and water from biofuels and aquaculture.

Applying and analysing

4   Read the following statement and complete the table.
    To protect food security in Australia and around the world, the selling of farmland for housing should be stopped.

Arguments for	Arguments against

Evaluating and creating

5   Create a cartoon highlighting how competing land uses threaten global food security.
6   Investigate either biofuel or aquaculture. Research the nature of its production and how it may continue to affect food production. Create a T-chart to present your findings, showing arguments for and against.

7.11 Climate change

Climate change and farming

Climate affects almost every aspect of food production. It determines what can be grown and where. Climate influences both the quality of the produce and, most importantly, the yield. If the climate changes, then the nature of food production will also change. Most significantly, so will the amount of food that is actually produced.

Understanding climate change

According to the 2013 report by the Intergovernmental Panel on Climate Change (IPCC), there is a 95 per cent certainty that the atmospheric concentrations of greenhouse gases (such as carbon dioxide, methane and nitrous oxide) are rising as a result of human activity. These gases trap additional heat in the atmosphere, keeping it warmer than it would otherwise be. There is strong evidence that such changes in the composition of the atmosphere are affecting global climates. The global mean surface temperature is expected to rise between 1.8 and 4.0 degrees Celsius by 2100.

Food production in a warmer world

Climate change may have disturbing consequences for food production. This is due to an increase in extreme weather events and greater climatic variability. Data collected by the IPCC strongly points to a worldwide decrease in productivity if global temperatures rise by more than 2.7°C—which is well within the range of current predictions. Rain-fed agriculture could be hit hardest, with yields halving as soon as 2020 because of prolonged and severe droughts.

There is wide consensus among scientists that climate change is already happening. However, the extent of the change in various parts of the world is less clear. The geographical distribution of the effects of climate change on food production is very uneven. An example of the impact on grain and cereal production can be seen in Figure 7.11.1.

Winners

Some aspects of climate change are positive. Rising carbon dioxide levels may increase the efficiency of photosynthesis in crops and lead to marginally higher yields. According to the IPCC report, crop productivity is projected to increase slightly in the middle to high latitudes if there is moderate warming.

7.11.1 Projected percentage gains and losses in rain-fed cereal production potential by 2080

Legend:
- >+50%
- +20 to +50%
- +5 to +20%
- −5% to +5%
- −20 to −5%
- −50 to −20%
- <−50%

7.11.2 Due to prolonged drought, the water storage level in Sempor reservoir, near Kebumen in Central Java, Indonesia, has dropped to 8.5 million cubic metres. The capacity of the reservoir is 39.9 million cubic metres.

However, it will then decrease if warming goes too far, which is likely to occur in the second half of this century. Most of the land found in these latitudes is in the Northern Hemisphere. There, higher temperatures would lengthen the growing season and open up more land for cereal production. Russia and Canada could expect to benefit from moderately warmer temperatures and increased precipitation.

Losers

Countries of the Southern Hemisphere are not the main originators of the emissions responsible for climate change. However, they may suffer the most from extreme weather events that accompany climate change, such as floods and droughts. Those areas that will first be hit hardest by climate change are those in which the poorest people live, such as Indonesia.

The IPCC predicts that rising temperatures will decrease the yields in forty developing countries, mainly in sub-Saharan Africa. It also reports that a 3°C increase in warming will increase the price of food by 40 per cent. This will exacerbate food insecurity in the world's poorest regions. Scientists warn that between 200 and 600 million of the world's most vulnerable people could face malnutrition and even starvation due to the effects of projected climate disruption.

Productivity is expected to decline in the coastal tropical and subtropical regions. This is because these areas will experience flooding and damage caused by higher seasonal rainfall and severe storms. Rising sea levels would cover river deltas and disturb fish production in aquaculture ponds. Saltwater intrusions are already contaminating water supplies.

Activities

Remembering and understanding

1   Explain why climate is important to food production.
2   Outline the findings of the 2013 IPCC report.

Applying and analysing

3   Identify the positive aspects of climate change for food production and those parts of the world that may benefit.
4   Identify those parts of the world that are most at risk from climate change and explain why a drop in food production would be difficult for people living there.

Geographical skills

5   Study Figure 7.11.1 and do the following tasks.
   a   Identify the continent most at risk of reduced grain production due to climate change.
   b   Identify five countries that are likely to have gains in rain-fed cereal production. Explain why this would be the case there.

LS↗ 7D
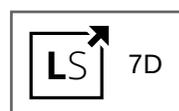
Food security

8

Increasing population and consumption are placing unprecedented demands on agriculture and the Earth's natural resources. Today, approximately 1 billion people do not have enough to eat, while many of our agricultural processes and other land uses are degrading resources, biodiversity and climate on a global scale. To meet the world's future food security, food production must grow significantly. At the same time, agriculture's environmental footprint must shrink.

Strategies used to address the issue include halting agricultural expansion into areas now occupied by natural ecosystems, increasing yields on underperforming lands, increasing cropping efficiency and reducing waste. In this chapter we study the challenges to food production, including land and water degradation, shortage of fresh water, wastage and trade barriers. We also look at opportunities for increasing food production through sustainable agricultural practices.

OVERVIEW QUESTIONS

As you work through this chapter, think about these key questions:

8A What is the capacity of the world's biomes to achieve sustainable food security for Australia and the world?

8B What are the barriers to expanding food production?

8C What are the opportunities for increasing food production?

8D What is meant by sustainable agriculture?

LS⬀ Before you begin

8.0.1 The invention of farming machinery designed to till the land and harvest crops has greatly improved agricultural output

GLOSSARY

agrobiodiversity all forms of life directly relevant to agriculture, including seed varieties and animal breeds, soil fauna, weeds, pests, predators, and all of the native plants and animals (wild biodiversity) existing on and passing through a farm

biodiversity the variety of all life forms in a habitat—this includes plants, animals and micro-organisms, the genes they contain, the ecosystems of which they form a part and the processes that link them

desertification the expansion of deserts due to overgrazing, soil erosion, climate change or prolonged drought

ecological footprint a measure of the load imposed on nature by a given population

environmentalism advocacy for, or work towards, protecting the natural environment from destruction or pollution

monoculture the cultivation of a single crop on a farm

natural systems cropping systems based on processes found in nature

net primary production the capacity of the Earth to support life through its biophysical processes

organic food movement the organisations and individuals involved in promoting organic products and organic farming methods

perennial crops crops that live for more than 2 years

sustainable agriculture environmentally friendly farming methods that preserve an ecological balance by avoiding depletion of natural resources

8.1 Potential for expanding food production

Meeting the needs of a growing population

In the period following World War II, which ended in 1945, the world's population began to grow rapidly. There were fears that the world might run short of food, but this did not happen.

Today the world's population is well over 7 billion. Based on statistics from the United Nations Food and Agricultural Organization, about 925 million people are estimated to be malnourished (they do not receive enough food). The developed world, on the other hand, is facing a problem of obesity. While the population of the developing world continues to grow, there is a need to expand global food production.

Green Revolution

In the 1940s, US scientist Norman Borlaug began research into improved agricultural techniques that would allow expanded food production. By the 1960s, Borlaug's research was being put into place around the world in what became known as the Green Revolution.

The impact of the Green Revolution on production of the world's major crops throughout the second half of the twentieth century is shown in Figure 8.1.1.
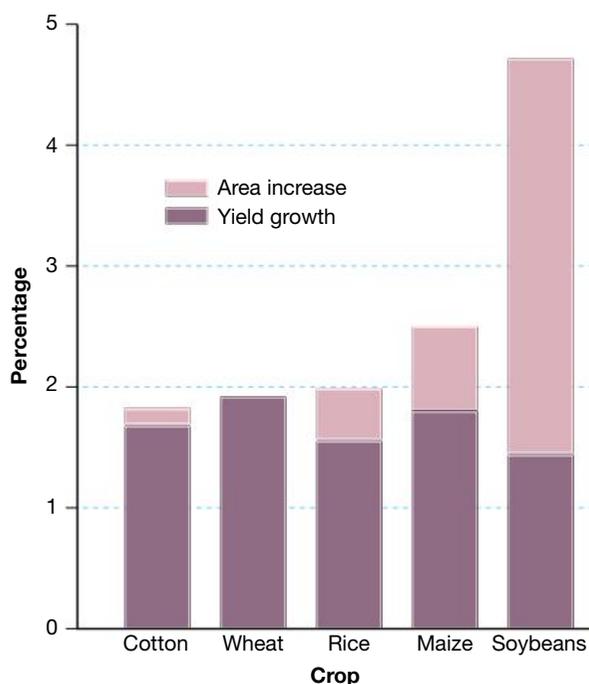
8.1.1 Impact of the Green Revolution on global crop production in the second half of the twentieth century

Expanding food production

The potential to expand food production in the twenty-first century is likely to come from four main factors. These are:

➤ enhanced technologies—in particular, genetically modified (GM) crops and irrigation techniques
➤ improvements in the efficiency of growing meat
➤ decreasing food wastage
➤ dietary changes—especially reducing intake of animal-based food products, particularly meat and dairy.

GM crops

Genetically modified food is one of the most debated issues in agriculture. Many scientists believe that it holds the answer to improving food production. Modifying the genes of plants can increase production by reducing crop losses to pests and natural events, such as drought. However, many people fear the environmental consequences and unintended health effects of such modifications.

Meat

Meat is an increasingly important source of protein for much of the world's population. However, production of meat is a fairly inefficient process. This is because it requires considerable inputs in the form of land, water and energy. Improving the efficiency of these inputs will enable an increase in meat production. For example, some agricultural scientists believe that by more intensively using aquaculture (fish farming, as shown in Figure 8.1.2), we can eat more fish protein. Fish tends to grow more efficiently than traditional meat sources, such as cattle and pigs. A more radical proposal put forward by some groups is to promote a vegetarian diet, or at least one that contains less meat and other animal-based products.

Reduced waste

In 2013, a study conducting by the British Institution of Mechanical Engineers found that almost half of all the food produced in the world is wasted. (An example of enormous food wastage is shown in Figure 8.1.3.) A study in New South Wales found that, on average, families throw away more than $1000 worth of food each year. Reducing the amount of wasted food is a simple but highly effective strategy for ensuring the world has enough food. Education programs designed to help consumers preserve and conserve food are being developed in many countries. There is also pressure on food producers to reconsider their labelling systems.

8.1.2 Intensive farming, as practised in these fish farms, offers possibilities for increasing protein production

Many people argue that producers place unnecessarily short 'best before' dates on food. This is done to promote more sales by having consumers and retailers throw away the food more quickly than is required. In many countries, charitable organisations collect food from retailers to distribute to communities in need, rather than allow it to be thrown away.

Changing diets

Meat and dairy production uses resources such as water and fodder (food). Fields are being used to grow grain to feed animals, when they could be used to grow crops consumed by people. There are also negative environmental outcomes from animal farming. For example, the methane gas produced by cattle accounts for about 20 per cent of the world's methane.

8.1.3 This carrot mountain was created after the price of carrots fell below the cost of selling them

Activities

Remembering and understanding

1 Explain why increasing food production is so important.
2 Describe the Green Revolution.
3 Describe the strategies proposed to improve efficiency of meat production.
4 Outline the extent of food wastage.

Applying and analysing

5 Research and describe some of the strategies that have been proposed or are in place to reduce food wastage.
6 Study Figure 8.1.1 and answer the following questions.
   a By what percentage did rice and wheat production increase in the second half of the twentieth century?
   b How much extra land was being used for soybean production by the end of the twentieth century?
   c Describe the relationship between the amount of land used and the increase in yields.
7 Copy and complete the following table by investigating each of the strategies listed.

Strategy	Advantages	Disadvantages
Grow GM crops		
Adopt a vegetarian diet		
Reduce consumption		
Reduce waste		

8.2 Innovations in agriculture

Overcoming the limitations on crop yields

The majority of the world's food comes from agriculture—the cultivation of plant and animal species. Agriculture exploits (makes full use of) the processes of growth and reproduction that occur within nature. The amount of food (the yield) that can be obtained from the land depends on the efficiency of these processes. Overcoming any limitations of these processes increases yields.

Rapid improvements in productivity

Agricultural productivity has increased rapidly as technology has improved (see Figure 8.2.1). The development of new technologies and the growing knowledge base and skills of farmers have resulted in spectacular improvements in productivity over the last fifty years. This progress has been underpinned by three factors: new breeding technologies, the expansion of land under irrigation and the widespread use of agrochemicals.

8.2.1 Throughout history, innovations in agriculture have greatly improved agricultural output. The ox-drawn plough has been used since 2500 BC to break up the ground for seeds to be planted.

New breeding technologies

Scientific research into new varieties of crops and breeds of animals uses genetics to shape strains that are more suitable for human needs. New hybrid crops have much higher yields, ripen more quickly during shorter summers and are disease resistant. For example, cocoa research in Nigeria led to the introduction of a hybrid seed and effective control of pests. This led to an increase in production of more than 40 per cent. Breeding programs using artificial insemination are used to boost livestock productivity, with more meat or milk and more offspring.

Expansion of land under irrigation

Irrigation helps overcome the limitation of water shortages. About 20 per cent of arable land now uses this system of watering. Irrigated land is very productive, providing 40 per cent of global food. In India, the area of crop production under irrigation grew from less than 20 per cent to over 40 per cent between 1961 and 2004. Over that same period, India's cereal production rose from 87 to 230 million tonnes.

Widespread use of agrochemicals

The cultivation of modern varieties of crops has necessitated the intensive use of agrochemicals. These include chemical fertilisers that retain nutrient levels in the soil and chemicals used to control weeds and pests that damage crops or compete with them for water and nutrients.

New research

Precision agriculture and biotechnology are emerging technologies that are becoming increasingly important.

Precision agriculture

There are different types of agricultural land and the differences affect the productivity of the land. These differences can occur between agricultural areas and on specific farms. Farmers have always been aware of this, but have not had the technology to identify detailed land differences and comprehensively record and track crop and livestock data. Precision agriculture involves using new technologies, such as soil sensors, yield monitors, global positioning systems (GPS) and geographical information systems (GIS). These developments have given farmers the sophisticated tools they need to recognise the variations within their paddocks (see Figure 8.2.2). They are then able to manage the land differently and more efficiently.

Plant biotechnology

Along with traditional research from agricultural scientists, plant biotechnology research has improved productivity. It has also enabled advances in overcoming environmental limitations such as drought and salinity. Biotechnology includes genetic engineering and the transfer of genes from unrelated plants and micro-organisms to develop crops with desirable traits. Despite improvements in production, there is some consumer concern about the effects of genetically modified food.

Future challenges

Scientific advances have contributed to yield improvements in crops. However, breakthrough innovations are required to ensure that enough food is produced in the future.

8.2.3 Crop technology breakthrough predictions in 2020 and effects on crop production in China

Technology	Expected effects on crop production (percentage of those expecting a breakthrough in the technology)				
	Likelihood of significant technological progress	Increases in yields and efficiency	Allows increase in sown area	Allows increase in cropping intensity	Other effects (e.g. on nutrition or pollution)
Conventional plant breeding	97	49	17	10	24
Genetic engineering	97	43	23	6	28
Precision technology	71	56	11	15	18
Information technology	76	41	8	13	38
For use in water-short areas	97	49	31	10	10
Labour-saving technologies	76	53	16	14	18
For increasing nutrition	82	30	2	2	66
For sustaining productivity	85	54	14	16	16
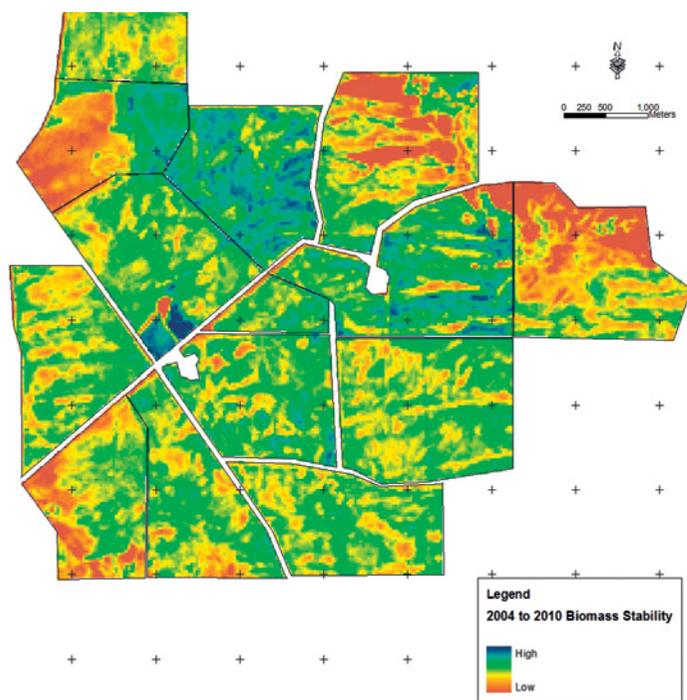
8.2.2 After a satellite image of a property is captured, sophisticated GIS tools are used to compare it with yield data and determine the response of the crop to certain treatments

In China, research indicates that technological innovations will have a huge impact upon crop production, as outlined in Table 8.2.3. Future productivity gains will rely on removing inefficiencies in production and investing heavily in research. Above all, the resource base that supports crops needs to be protected for future production. Ecological sustainability must be a priority.

Activities

Remembering and understanding

1 Explain how innovations in agriculture have lifted productivity in the last 50 years.

2 Describe plant biotechnology and precision farming.

Applying and analysing

3 Identify the growing concern about future global food production and the role innovations will have in addressing this.

4 Create a T-chart to show the arguments for and against producing genetically modified food.

Evaluating and creating

5 Using the internet, investigate various forms of controlled environment agriculture, including greenhouses, hydroponics, aeroponics and vertical farming. Present your findings on a poster with illustrations and text boxes.

6 Investigate the research into precision agriculture that is being undertaken by the CSIRO in Australia. Present your findings as an oral report.

LS↗ 8A
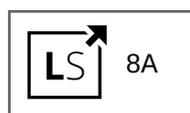
8.3 Barriers to increasing world food production

Use of chemical agents

During the 1950s and 1960s there was a massive increase in the use of chemicals in agriculture. Pesticides, chemical fertilisers and herbicides were all widely used, allowing food production to boom. However, many of these chemicals had disastrous side effects. For example, the chemical DDT (dichlorodiphenyltrichloroethane) was used to control insect pests throughout the world. But DDT poisoned wildlife and is suspected of causing a number of cancers, which led many countries to ban its use. The extensive use of chemicals to control pests has also led to many insect and weed species becoming increasingly resistant to chemicals. This has the potential to decrease food production, as pests reduce productivity.

8.3.1 The extensive use of chemicals to control pests has led to many pest species becoming resistant to these chemicals

Changing attitudes

In addition to the Earth's systems simply not being able to support an ever-increasing human population, there are also important social factors that act as barriers to increased food production. These include: the rise of **environmentalism** and the organic food movement.

Rise of environmentalism

Since the second half of the twentieth century there has been an increasing awareness of the impact human activities have on the Earth's environment. This awareness has meant that society now expects the needs of the environment to be considered along with the need for increased food production. For example, in Australia the importance of environmental flow (water flow required to sustain rivers) has become more apparent. As a result, the percentage of water made available for irrigation has gradually declined in recent years. Many communities in the irrigation districts of the Murray River Basin have argued that as environmental flows are increased, their capacity to grow food has declined. Environmentalists argue that without the environmental flows the entire river system could collapse.

Organic food movement

The **organic food movement** is led by organisations and individuals who promote organic products and organic farming methods. That is, farming that does not involve the use of modern synthetic inputs such as synthetic pesticides, chemical fertilisers and genetic modification. Many scientists believe that modifying the genes of major food crops to increase their yields could be the answer to increasing world food production. However, there are considerable social barriers to this. Many people fear that genetically modified food may cause disease and other problems in the same way that chemicals such as DDT did in the past. This has led to protests against the production of genetically modified foods.

8.3.2 A Greenpeace anti-GM protest in Berlin, Germany

Net primary production

Net primary production refers to the capacity of the Earth to support life through its biophysical processes. One example of this is the capacity of soils to support plant growth. Human appropriation of net primary production (HANPP) is a measure of the extent to which humans have taken over the Earth's systems to support themselves. Estimates of HANPP vary widely. Some studies have found that it is as high as 83 per cent, while others put it as low as 35 per cent. Most researchers believe that 50–60 per cent of the total net primary product of the Earth is consumed by humans.

Even at the lowest estimate, the extent to which humans are consuming the world's resources is enormous. It leaves less and less for the rest of the planet's species. Ultimately there is a limit to HANPP—and that limit is approaching. For example, the world's fish stocks are dwindling. Over the last few decades the total number of fish caught has been in steady decline, despite the fact that fishing technology has improved considerably. There are simply fewer fish to catch, as humans have overfished many key species and fishing grounds.

8.3.3 Overfishing has seen global fish stocks decline

Activities

LS 8B

Remembering and understanding

1 Outline the cause of chemical resistance among pest species.
2 Describe the concept of net primary production.
3 Explain why environmentalism can be seen as a barrier to world food production.

Applying and analysing

4 As a class, discuss the concept of whether humans have the right to appropriate net primary production. What are the implications of this for the world? Following your discussion, write an exposition outlining your views on the topic.
5 Discuss the following topic with a partner and then list the views you both presented. *Feeding the world's population is more important than protecting the environment.*

8.4 Sustainable agriculture

Sustainability

Sustainability is central to the future of food production. This is because it is aimed at meeting the needs of the present generation without compromising the ability of future generations to meet theirs. It involves farmers understanding the ecological processes that support their production of crops and livestock, and working with nature rather than against it.

Importance of sustainable agriculture

Sustainable agriculture incorporates environmentally friendly farming methods that preserve ecological balance by avoiding the depletion of natural resources. It includes growing crops and raising livestock in ways that mimic and support natural ecological processes. It also involves farming practices that use organic fertilisers and biological pest controls. Sustainable agriculture minimises water use, disturbance of the land surface and reliance on non-renewable fossil fuel energy.

The future of agriculture and our ability to provide food security for the world's growing population are closely linked to the improved stewardship of natural resources. Major reforms and investments are needed in all regions to cope with future challenges. These challenges include rising scarcity and degradation of land, water and **biodiversity** (the variety of all life forms in a habitat), as well as added pressures resulting from rising incomes, climate change and energy demands. To meet these challenges, we must develop and implement ways to protect water sources and biodiversity, and to ensure food production using sustainable technologies.

More sustainable production

The world faces some serious long-term challenges to food production. These come from limits to the resources that support it, including land and water, as well as energy. The onset of climate change adds even more uncertainty. What is clear is that a strong natural resource base is crucial to the planet's capacity to produce food. This productive capacity must be maintained in order to provide the food security necessary for future generations.

Environmental costs of industrial agriculture

The main environmental impacts of industrial agriculture come from the conversion of **natural systems** (cropping systems based on processes found in nature) to agricultural production systems. Modern industrialised agriculture is considered unsustainable. This is because it violates a number of important principles that are considered fundamental to ensuring the future wellbeing of humans.

➤ It relies heavily on the use of fossil fuels to power farm machinery, and for transport and food processing. Many of the agrochemicals that are used are petroleum-based. This adds greenhouse gases to the atmosphere, a process that is driving climate change.
➤ It reduces biodiversity, as natural habitats are cleared for farming. **Agrobiodiversity** (biodiversity that includes all forms of life directly relevant to agriculture) is also being lost. This will limit the potential number of crop strains that may be needed in the future, especially as climate change affects agriculture.
➤ As crops are harvested and removed for consumption elsewhere, the cycling of plant nutrients back into the topsoil is halted. This results in the need for artificial fertilisers to be used, to support continued cropping.

Sustainability experts agree that future food supplies can only be assured if a major shift occurs. This would involve implementing more low-input agricultural systems over the next few decades. The major components of more-sustainable, low-input agriculture are listed in Figure 8.4.1. Compared to high-input industrial farming, low-input agriculture uses less energy per unit of yield and has lower carbon dioxide emissions. It also lifts topsoil fertility, can often be more profitable for farmers, and is especially helpful to poor farmers trying to feed themselves.

Sustainable farming practices

Sustainable farming practices protect and enhance the resource base of the biophysical environment, thereby enabling continued productivity. This generally occurs through small-scale diversified farming systems that imitate nature. They therefore need fewer inputs from outside the farm. They involve:

➤ minimal soil disturbance
➤ permanent ground cover
➤ a variety of crop or pasture species grown in rotation or association to retain soil fertility and guard against pests and weeds.

Sustainable agriculture encompasses a wide range of techniques, including organic, free-range (increasingly popular in egg production), low-input and biodynamic farming.

Organic farming

Organic farming emphasises a holistic farm management approach, the benefits of which are shown in Figure 8.4.2. Crop rotations and animals play important roles in the production system. This approach to farming involves growing crops without any synthetic pesticides, synthetic fertilisers or genetically modified seeds. Livestock are raised without any feed additives or synthetic growth promoters.

8.4.1 More-sustainable, low-input agriculture is based mainly on mimicking and working with nature

More	• high-yield polycultures • organic fertilisers • biological pest control	• integrated pest management • efficient irrigation • perennial crops	• crop rotations • water-efficient crops • soil conservation	• subsidies for sustainable farming
Less	• soil erosion • soil salinisation • water pollution	• aquifer degradation • overgrazing • overfishing	• loss of biodiversity and agrobiodiversity • fossil fuel use	• greenhouse gas emissions • subsidies for unsustainable farming

8.4.2 Benefits of organic farming

Organic farming	• improves soil fertility • reduces soil erosion • retains more water in soil during drought years	• uses about 30% less energy per unit of yield • lowers CO_2 emissions	• reduces water pollution by recycling livestock wastes • eliminates pollution from pesticides	• increases biodiversity above and below ground • benefits wildlife such as birds and bats

Insects—friends to farmers

Ladybirds

Ladybirds help farmers protect crops, because they consume plant-eating insects such as aphids. On average, a ladybird will consume up to 5000 aphids in its life. When the ladybird larvae hatch, they can eat around 350–400 aphids in 2 weeks before they become fully grown. Ladybirds also eat other plant-damaging insects such as fruit flies, thrips and mites.

On some organic farms, planting systems place suitable habitat for ladybirds on the edges of paddocks. The ladybirds have been known to travel over 80 metres into adjacent crops to feed on insects. Field tests have demonstrated the benefit of strip harvesting a crop rather than clear-cutting an entire field. Strip harvesting leaves part of the plant behind, which the ladybirds can then feed on. This allows the ladybirds to survive.

8.4.3 The ladybird is a good insect to have within a crop. As soon as ladybirds hatch they begin to feed, taking out 5000 aphids in their brief 3–6 weeks of life.

Bees

Bees are important pollinators for many plants, including food crops. It is estimated that approximately 30 per cent of the world's crops are dependent on bees for pollination. The European honey bee is the most important insect pollinator of cultivated agricultural and horticultural crops worldwide.

An average beehive colony holds around 50 000 bees. In the colony there are worker bees (females that collect pollen and nectar), drone bees (males that mate with the queen) and the queen bee (which lays eggs—up to 1500 a day). Beehives are often moved around to different farms to pollinate crops.

Bee populations are under threat. Many bee colonies have been destroyed by the varroa mite. This mite is an external parasite which attacks the honey bee.

8.4.4 Rows of almonds trees in bloom with beehives to aid in pollination

Fertility and pest control

The fertility of soil can be enhanced with manure, compost or even crops. Crop rotation is the practice of growing different types of crops in the same area in successive seasons. This helps to maximise yield by minimising pests and diseases, reducing chemical use, and building and maintaining healthy soil. For example, nitrogen-fixing legumes replenish the soil and are therefore often planted in crop rotations.

Harmful pests are kept at bay by planting crops that repel them (see Figure 8.4.5). Some crops are planted to attract good bugs, which eat the harmful pests.

8.4.5 Fennel is planted alongside other crops to ward off insects and rodents, which are deterred by its smell

How to feed a hungry world sustainably

The real challenge in coming decades will be how agricultural output can be expanded on existing agricultural land. The critics of industrial agriculture insist on a return to low-input, small-scale agriculture. However, this would most likely lead to mass starvation. The reality is that both types of agricultural production are needed in order to feed the world as food demand grows.

High-input agriculture will be necessary to grow the far bigger volumes of food for the huge urban-based populations. Low-input agriculture will not be able to achieve the higher yields in the staple grain crops that will be needed. However, there are a billion subsistence farmers in developing countries who could improve their output using organic farming. A 2008 study by the United Nations Environment Programme surveyed 114 small-scale farms in twenty-four African countries. It found that yields more than doubled when organic farming practices were used.

The way forward may be a sustainable intensification of agriculture that makes more effective use of land and water resources without causing them any harm. This will require agricultural research into crop varieties that provide higher yields using fewer inputs, such as water and fertiliser. Innovations used in precision agriculture are a move in the right direction to address adverse environmental impacts.

Activities

Remembering and understanding

1 Define the term 'sustainable agriculture'.
2 Outline the ways in which modern industrialised agriculture is unsustainable.
3 Describe the approach of organic farming.

Applying and analysing

4 Create a PMI (Plus, Minus, Interesting) chart about organic agriculture.

Evaluating and creating

5 Insectary plants attract insects such as ladybirds. Investigate the role of insectary crops. Prepare an annotated visual display of a selection of such crops.
6 Create a flow diagram that outlines the environmental costs of industrial agriculture.

a Using poster paper, draw a natural system, a model industrialised farm with lots of high-tech machinery and few workers, and a sustainable farm.
b Using information in this unit as a guide, add text, images and arrows to your diagram in order to explain the environmental costs of industrial agriculture. For example, you might include an arrow from a tractor to the sky and a note about fossil fuels increasing pollution.

7 Investigate one of the following types of sustainable agriculture: free-range, low-input or biodynamic farming. Prepare a feature article for a rural publication to inform farmers about the benefits of this type of agriculture.

8.5 The environmental impacts of agriculture

Industrialised agriculture

The shift towards large-scale, industrialised agriculture in the search for higher yields has damaged the environment. This form of agriculture has restricted the resource base that supports it. The implication of this damage for the security of the global food supply is obvious. It has prompted efforts to repair the damage done by agriculture and to develop strategies for making it more sustainable.

Threatened ecosystems

Many of the Earth's natural resource bases show worrying signs of degradation. According to the United Nations Millennium Ecosystem Assessment, fifteen out of twenty-four ecosystem services examined are already being degraded or used unsustainably. These include the world's fisheries and water supply. In addition, actions to intensify some ecosystem services (such as those associated with food production) often cause the degradation of others. Clear indicators of this are soil nutrient decline, erosion, **desertification** (the expansion of deserts), depletion of fresh water reserves, loss of tropical forest and declining biodiversity. Investments in maintenance and rehabilitation must be increased, and land use practices made more sustainable. If not, the productive potential of land, water and genetic resources (the diversity of plant and animal life) will continue to decline at alarming rates.

Environmental management

In too many places, increased production has been coupled with management practices that have degraded the land and water systems on which the production depends. Exposure of the damage done by chemical pesticides was a major factor in the rise of the environmental movement. Modern agriculture has moved well beyond the practices of industrialised agriculture that were justifiably criticised in the 1960s. As a result, the worst of the chemicals have been banned. They have been replaced by chemicals that are just as effective when applied at lower concentrations and are less persistent in the environment. Today, many chemicals are inert once they hit the ground. Total chemical use on farms in the United States of America peaked in the 1970s and has since declined.

Innovations that reduced the environmental impact of agriculture gained momentum during the 1970s and have continued to be developed. Responsible farmers embrace the importance of addressing the adverse impacts of their practices. This is because they realise that the success of their future production lies with the ability of their land to continue supporting crops and pastures. Without such awareness, their profits decline and the viability of their farms is put at risk.

Repairing the damage

Reducing the impact of agriculture on the wider environment has involved the adoption of farming techniques that protect soil cover and return its fertility. These techniques also use water resources efficiently and do not load them with pollutants.

Land used for agriculture must have fertile topsoil, which takes thousands of years to form. Therefore, the single most important aspect of achieving more sustainable agriculture is to stop soil erosion and repair the land. Soil conservation strategies include a variety of measures that reduce topsoil erosion. They do this by slowing down the rate of water flow that carries away soil particles, as well as helping retain the water within the soil for crops to use (see Table 8.5.1).

Spotlight

The 'greening' of agriculture

The 'greening' of agriculture does not rule out technologies or practices on ideological grounds. If a technology works to improve farmers' productivity and does not cause undue harm to society or the environment, then it is very much part of the efforts for making agriculture more sustainable. Natural methods of pest and weed management are an example of green agriculture. However, the highly efficient and precise use of inorganic fertilisers, pest controls and technological solutions may also be included in the broad range of sustainable farming practices. So the greening of high-input agriculture, which has a high **ecological footprint** (a measure of the load imposed on nature), could start by making use of inputs that are the most precise and efficient. It could then gradually move towards farming practices that have a low or no ecological footprint.

8.5.1 Conservation strategies used to repair and protect the land used for agriculture

Conservation strategies		
Terracing		Terracing enables steep slopes to be cultivated by converting the slope to a series of broad, nearly level steps that run across the contour of the land. Small banks on the outer edge of each terrace also catch water and retain it for the crop to use.
Contour planting		Running water can quickly cut into and erode a slope if it runs straight downhill. Ploughing and planting a crop across the slope, following the contours of the land, helps to slow run-off and reduce erosion. Farmers also construct contour banks that effectively divert the water across the slope. The water runs into broad, flat, grassed waterways that safely discharge the water into a dam at the bottom of the slope.
Strip cropping		Strip cropping involves planting alternating strips of crops in various stages of growth. When one crop is harvested, or the soil is cultivated for planting, another crop that covers the ground will catch excess water running off. This will then infiltrate the ground and the plant cover will trap any soil particles being carried along by the water. The inclusion of nitrogen-fixing cover crops lifts soil fertility.
No-till farming		When crop residue or stubble is left lying on the ground after harvesting, it holds onto the topsoil. Further benefits come as it decomposes, returning nutrients to the soil. New technologies enable farmers to direct-drill seeds into the undisturbed topsoil without any cultivation or tilling, which would leave the land bare to wind or water erosion. No-till farming also reduces water pollution from sediments and agrochemicals that may flow off unprotected ploughed paddocks.
Alley cropping		With alley cropping, one or more crops are grown together in rows or alleys between orchard trees or fruit-bearing shrubs. The trees provide shade, help retain water and provide mulch and nutrients for the crops.

Precipitation from storm event

Contour banks are constructed across the slope. They intercept the downhill flow of surface run-off and divert it into the grassed waterway.

Dam collects water at the base of the slope

The waterway is a broad, flat channel planted thickly with grass, which allows the water it collects from the contour banks to infiltrate (as well as catching any sediment). This paddock is fenced off and stock kept out to protect it.

8.5.2 Contour banks are constructed across a slope to conserve soil and water resources

8.5.3 Selected evidence on the benefits and costs of soil management strategies

Strategy	Crop and country	Costs	Benefits	Trends in revenues and profits after including additional costs of greening
Use of nitrogen-fixing fodder and green manure cultivation	Cultivation of maize in Spain and rice in India, Indonesia and the Philippines.	Costs varied depending on methods and country. Rice straw use (for green manure) costs ranged from US$18/ha in Indonesia and the Philippines to $US40/ha in India. Azolla (a type of fern) use for nitrogen fixing and green manure meant additional costs ranging from US$34/ ha in India to US$48/ha in the Philippines.	Maize crop yields increased approximately 40% in the first year, 5% in the second year and 20% in the third year. No significant increases in yields were observed in rice crops compared to the use of inorganic fertilisers but there were long-term soil improvements.	Revenues increased even though there was no difference in the costs of using green manure or inorganic fertiliser for rice crops.
No-tillage practices	Maize in Mexico, wheat in Morocco and cereal grain crop in England. Sorghum and maize in Botswana. Maize, sorghum and cowpea in Nigeria. Soybean in Australia.	The capital costs for a small-scale no-tillage planting system are estimated to be US$25 000 to $50 000. The no-tillage system was cheaper by US$156/ha when rented from a contractor in England, compared to renting tilling systems. In Botswana, the cost per household of a tractor was US$218.	Maize yields increased by 29%; wheat yields by 44%. No impact on total cultivated areas, crop yields and total crop output in traditional tillage systems vs. animal power or manual usage (Botswana and Nigeria). An average yield increase in soybean yields of 27% over 14 years in no-tillage vs. till systems.	No-tillage systems are economically profitable, even after incorporating the costs of installing them.
Biochar use	Cultivation of maize intercropped with soybean (Colombia) and wheat (USA).	Biochar production costs range between US$87 and $350/ tonne depending on source of inputs and mode of production.	Maize crop yields increased after the first year, by 28%, 30% and 140% in the last 3 years of the study. No impact was seen on soybean crop yields.	In the USA, wheat production increased sufficiently to generate a profit of US$414/ acre, but only while using low-price biochar. Higher-cost biochar reduced profits.

Farming strategies

Different strategies used by farmers to repair the land and conserve water and soil resources are illustrated in Table 8.5.1 and Figure 8.5.2. Evidence of the benefits and cost of such soil management strategies can be seen in Table 8.5.3.

Precision farming

Improvement in food security across the world will come from the sustainable intensification of agriculture on existing land. It will involve practices that make effective use of land and water resources without causing any damage. Environmental gains have been made with the emergence and acceptance of low-impact and precision farming. Water efficiency and reduction of excess run-off have improved with practices such as the use of drip-irrigation systems in laser-levelled fields, where piezometers (soil probes) are linked to computers that switch them off when optimum soil water levels are achieved. Infra-red sensors that assess the greenness of a crop enable farmers to then apply the correct amount of additional fertiliser needed.
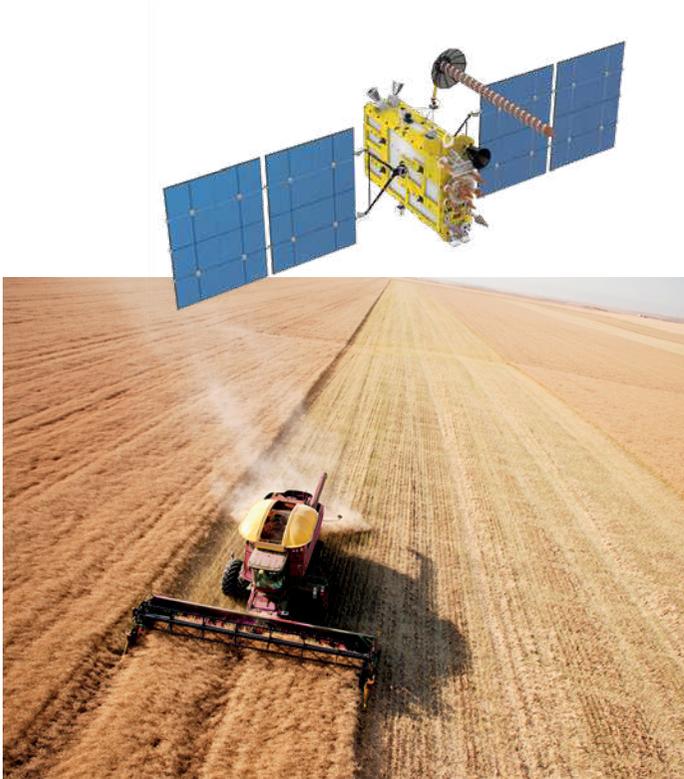
8.5.4 Auto-steer tractors are guided by GPS systems

Did you know?

In the future, precision agriculture might involve small, solar-powered robots moving through the paddocks digging out weeds, picking off insects and harvesting crops. This would mean farmers wouldn't need any agrochemicals or fossil fuels.

8.5.5 A row of cucumber plants growing in a greenhouse with drip irrigation

Activities

Remembering and understanding

1 Assess the state of the resource base that supports agriculture.
2 Explain why concern about the environmental impact of agriculture arose.
3 Describe how environmental concerns have affected the use of fertiliser.

Applying and analysing

4 Identify the most important aspect of sustainable agriculture.
5 List the arguments for and against the following statement.
Agricultural production should return to natural methods that do not harm the environment.
6 Study Table 8.5.1 and create photo sketches of each of the conservation strategies. Annotate each sketch to explain how they are designed to conserve soil and water resources.

LS↗ 8C
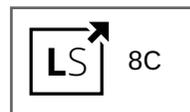
8.6 Restoring the functioning of ecosystems

Annual crops

When humans started cultivating wild plants 10 000 years ago, they grew plants known as annuals. These plants last only for a single season, as they will not regrow after the grain has been harvested. Seeds must be resown to generate new plants every year. The first annuals that were cultivated were fast-growing and, importantly, had large seeds. Since then, the seeds of the most productive plants have been replanted year after year. Now, annual plants supply all the grains that feed billions of people—wheat, rice, corn and soybeans.

While annual varieties have given big yields, the land used for growing them has suffered since agriculture began. Conventional methods of planting seeds for a new crop require the ground to be broken up, using ploughs, to create a fine seedbed. Every time a paddock is ploughed to plant an annual crop (and also when the crop is harvested), the land is left unprotected, and valuable topsoil is washed or blown away.

The problem is made worse by the shallow root systems of annuals. They occupy only the top 0.3 metres of the soil and die after harvest. The top layer of the soil is quickly depleted of nutrients, forcing farmers to apply large amounts of fertilisers to maintain yields. The plants usually take less than half of this up, with the rest washing into waterways. Annual crops need the frequent input of many resources to remain productive and to fend off pests and diseases. Such agriculture is heavily dependent on fossil fuels. These are used to power farm machinery and also to manufacture the many petroleum-based fertilisers and agrochemicals.

Reinventing agriculture

There is growing recognition of the merits of developing new, sustainable approaches to agriculture. For example, support is growing for grain-cropping systems that will function much more like the natural ecosystems that agriculture displaced. The push is coming from agronomists (agricultural scientists), plant breeders and ecologists. They are seeking a more ecologically sustainable approach to agriculture that works with, rather than against, nature.

Maintaining annual **monoculture** (the cultivation of a single crop on a farm) is the problem in many places. The solution to this may lie in restoring the functioning of ecosystems. This involves copying nature by growing a variety of **perennial crops** (those that live for more than two years) in diverse ecosystems that replicate nature.

The key to sustainable food production may involve developing grain-cropping systems of perennials that can live for many years and develop deep root systems.

Perennial grains

When compared with annuals, perennials may start off at a disadvantage because there is little to be harvested in the first year. However, once they become established, the benefits soon become evident (see Figure 8.6.1).

➤ They have deep root systems that protect soils—the massive underground root mat can extend to over 2 metres below the ground. This holds the soil particles in place and increases the infiltration of water. As perennial plants are long-lived, the land surface remains covered with vegetation and does not have to be ploughed for planting each year.

➤ They are efficient managers of water and nutrients— perennials can capture both water and nutrients to a great depth, enabling the plants to cope with weather extremes. The roots host numerous micro-organisms that are critical to maintaining a healthy soil (see Figure 8.6.2). They also restore efficient nutrient cycling within the ecosystem.

➤ They exclude weeds and pests—because weeds find it difficult to get a hold in the dense cover of plants, herbicides are generally not needed. With the diversity of plants there is not a proliferation of the pests that are attracted to monocultures.

Ongoing research

The idea that the future of farming may well lie in returning to cropping that mimics natural ecosystem functioning using perennial crops is decades old. However, it is still in the experimental stage. Significant advances are being made in the plant-breeding science to improve the yield of different varieties of perennial crops.

Did you know?

Maize, or corn, originated in the Americas and was taken to Europe in the 1400s. The maize plant was first grown about 10 000 years ago in what is now Mexico. On average, an ear of corn has 800 kernels in 16 rows and will always have an even number of rows on each cob.

SUSTAINABLE FARMING: PERENNIAL VS. ANNUAL

The following diagrams compare growing a perennial grain crop (left) and annual wheat (right). By growing perennial crops, farmers can use resources more effectively and be more productive in the long term. Annual, short-lived and short-rooted crops result in water and soil nutrient loss, while perennial crops benefit their ecosystem.

Perennial	Annual

Perennial

Carbon dioxide is used up during photosynthesis

Livestock can graze after harvest

Growing period of crop extended by seasonal growing

Plants provide shelter for wildlife

Perennials create a more complex root system, which discourages weeds, meaning fewer herbicides are used

Roots store and capture more rainwater, reducing the threat of salinity

Planting different crops with different root lengths side by side means the roots tap into different soil levels

Long roots extending more than 2 metres replenish the soil with carbon-rich plant sugars, which then feed soil organisms

Annual

Requires many inputs by farmer: machinery to plough and sow seeds, to fertilise the soil and to apply herbicides; all of this uses fossil fuels and generates carbon dioxide

Topsoil not bound by deep roots is subject to wind and water erosion

Fields are often barren most of the year

Shallow and small roots do not access water deep in the soil

Herbicides and fertilisers run off into waterways

Nitrogen from soils and chemical run-off creates dead zones in waterways

Short growing season means crops do not capture sunlight or enrich the soil with carbon-rich plant sugars

8.6.1 Sustainable farming: perennial vs. annual

8.6.2 Roots in the soil sample on the right, collected more than 1 metre deep in a meadow of perennial prairie plants, feed the soil's many living organisms. The teeming life in turn builds dark, healthy soils. The lighter soil on the left was collected at the same depth from an adjacent annual crop field.

Activities

Remembering and understanding

1 Define 'annual crops' and 'perennial crops'.
2 Explain why the first farmers chose to domesticate annual plants.
3 Outline why the cultivation of annual crops may be responsible for the problems being experienced in agriculture today.

Applying and analysing

4 Study Figure 8.6.1 and assess how each approach to agriculture supports ecosystem functioning.
5 Why do you think large agribusinesses that produce seeds, fertilisers and agrochemicals oppose the development of perennial crops? Should more government funding be directed towards researching more sustainable technologies, such as perennial crops?
6 Discuss perennial cropping as a class, and then write a letter to the editor of a national newspaper with your opinion of perennial cropping and its place in modern agriculture.

8.7 Food production in Australia

History of production

Australia's agricultural industries have undergone significant change in recent decades. Productivity has improved, and the nation's agricultural output has more than doubled. However, this growth has been uneven. Some of the most notable trends that have emerged have been in the size of properties and the intensity of land use.

Where food has been produced

Within Australia, three broad zones of distinctive agriculture can be identified.

➤ *Pastoral zones*—these are in the semi-arid inland and tropical north, where beef cattle are grazed on sparse native pastures. The stocking rates are very low and the properties are huge. Some are over 1 million hectares in size.

➤ *High-rainfall coastal zones*—these areas fall in a narrow strip of highly productive land along the east coast of the continent, as well as in Tasmania and on the south-west corner of Western Australia. Dairying, fruit and vegetable growing are predominant in the south, while sugar cane, tropical fruits and vegetables are important in the north. Beef cattle are also fattened on permanent sown pastures, and this land has the highest stocking rates. With such intensive land use, the properties are small.

➤ *Wheat belt*—this area falls between the well-watered coast and the arid interior. It produces most of Australia's cereal grain, often in combination with raising livestock. Wheat is grown throughout, with barley, oats and sheep in the south. Further north, where it is warmer, sorghum and oilseeds are also grown, cattle are common and cotton is grown under irrigation.

Constraints such as climate, landforms and soils limit how land can be used. They also determine the yields gained. The availability of irrigation water has enabled some water-deficient regions to be brought into production. The difference in value between regions is usually a reflection of the quality of the biophysical environment (see Figure 8.7.2). As a result, the growth and value of Australian farm and fisheries production has been uneven since 1997 (see Figure 8.7.1).

Did you know?

The Murray River Basin produces almost 95 per cent of Australia's orange crop and 54 per cent of its apples.

Legend:
- Sugar
- Horticulture
- Fish
- Milk, eggs
- Livestock products
- Other crops
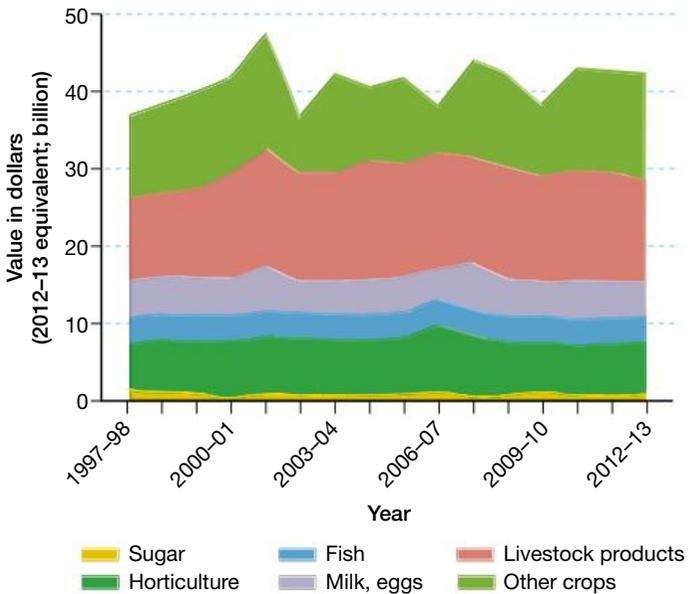
8.7.1 Value of Australian farm and fisheries production, 1997–98 to 2012–13

Legend ($ million):
- 0–199
- 200–399
- 400–599
- 600–799
- 800–1099
- 1100–1500
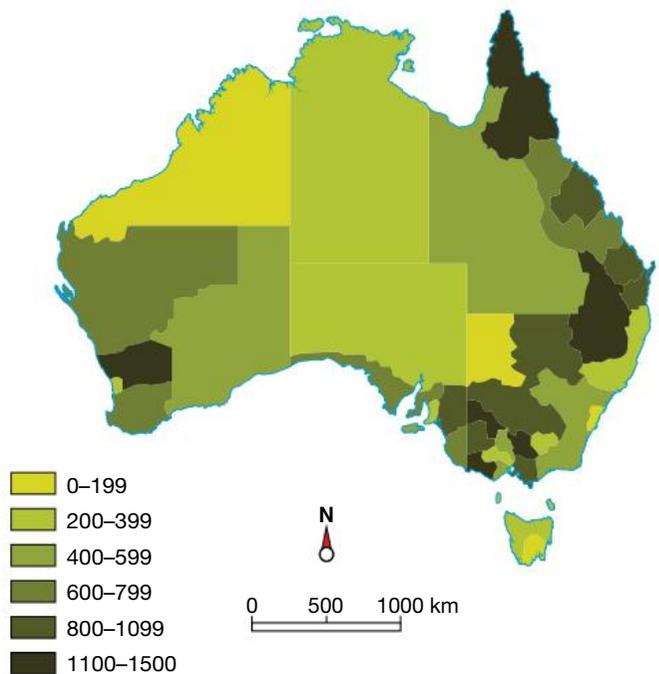
8.7.2 Value of agricultural food production in Australia, 2009–10 ($ million)

Drivers of change in food production

In the past, changes occurred as producers grappled with and overcame the challenges associated with water availability and reliability, as well as soil fertility and pests. The adoption of new technologies and farming methods has led to an expansion of agriculture. The volume of food produced has been growing progressively over time, as more land has been brought into production. The key drivers of change in recent decades have been globalisation, changing consumer tastes, technological advances and environmental concerns.

Globalisation

Australian producers operate within a global food market, where they must compete with other countries. Agriculture has become increasingly export-oriented over the last twenty years. In fact, two-thirds of the food produced here is intended for export. There has been a shift to a diverse range of processed products, and Australian wine and cheese have sold strongly overseas.

Globalisation has also meant that producers face more competition from imported food on the domestic market. Overseas interests can also influence production, as large corporations or agribusinesses extend their interests into Australia.

The impact of globalisation can be seen in Western Australia's Ord River Irrigation Scheme in the Kimberley region. In 2012, a large Chinese conglomerate, Shanghai Zhongfu, won the sole right to develop all the available land in the second-stage expansion of the scheme. Shanghai Zhongfu is going to turn the region into a new Asian food bowl, growing sugar cane across the entire region. The cane will be processed into sugar and ethanol biofuel for export.

Consumer trends

Consumers are becoming increasingly conscious of their health and wellbeing. This affects their food choices. Because food production in Australia is commercially based, meeting consumer expectations of diversity, quality and value is fundamental to profitability. Food producers are therefore greatly influenced by consumer trends and expectations.

Technological advances

Experimentation, research and innovation have been used to help overcome limitations to food production and lift productivity. New technologies provide opportunities to convert, intensify or develop new land uses. Computers have moved on from being novelties to commonplace tools on properties.

Environmental concerns

Some of Australia's agricultural lands are fragile and degraded. Careful management is necessary to ensure sustainable food production. There is also uncertainty regarding the impact of global warming. As well as affecting productivity, it could also determine where crops can be grown in the future.

Spotlight

Ancient grain becomes a modern superfood

It's not often that you can find an obscure product, see its potential and in a few short years become the world's leader in marketing and selling it. Western Australian farmer John Foss has done just that. He revived an ancient, little-known plant grown in Central and South America, and turned Australia into the biggest producer of its grain in the world—all within a decade.

Chia is a plant once grown by the Mayan, Aztec and Inca civilisations as early as 3500 BC. It produces seeds that are about 1 millimetre in diameter. They are high in dietary fibre, omega-3 fatty acids, protein and antioxidants. While its nutritive powers were no secret to the Mayans, Aztecs and Incas, it is only in recent decades that chia has become known to modern civilisation as a 'superfood'.

8.7.3 A chia plant looks similar to lavender and produces an oilseed that is highly nutritious

The fertile fringe

A substantial proportion of Australia's most fertile farmland now sits within Melbourne's expanded urban growth boundary. It has been argued that the sandy loam soils that produce much of Melburnians' daily greens should be set aside for growing food, not houses. Ongoing sprawl threatens 70 per cent of Victoria's fresh vegetable production, which still occurs in and around Melbourne.

Two of Melbourne's most productive horticultural areas, Werribee on the city's western fringe and the Cranbourne area to the south-east, are now facing mounting pressure from development (see Figure 8.7.4). From these areas, trucks deliver freshly picked fruits and vegetables such as spinach, celery, leeks and herbs to the distribution centres of the two major supermarkets in the city.

8.7.4 New housing encroaches on market gardens in Wyndham Vale in Melbourne's west

Did you know?

There are approximately 134 000 farm businesses in Australia. Of these, 99 per cent are family owned and operated. Each Australian farmer produces enough food to feed 600 people—150 at home and 450 overseas. Australian farmers produce almost 93 per cent of Australia's daily domestic food supply.

Current trends in food production

Larger farms

Farms in Australia have typically been run as family businesses and passed on from one generation to the next. However, the impact of new technologies and globalisation has made large farms more economically viable than small ones. The average size of farms has increased. As a result, the number of farming families has declined. The increase in farm size has been most evident in the grain and cotton industries.

Intensification of land use

Today's farmers use more-intensive production techniques, such as the increased use of irrigation, feed and chemicals, to produce more food per hectare. This is common on cotton and poultry farms, and in nurseries and vineyards. Farmers are seeking to improve profitability, particularly as they face increasing international competition.

Organic foods

Consumers have become increasingly concerned about the environment and more interested in knowing about how their food is produced. As a result, organic foods have become popular. The basic principle of organic farming is that no agrochemicals are used and environmental quality is maintained. There are now a substantial number of certified organic producers in Australia across a broad range of industries, such as viticulture, meat and horticulture (see Figure 8.7.5).

Loss of agricultural land to urban areas

Most of the best agricultural land in Australia is found on the coastal fringe. This is also where most of the population growth is occurring. As large cities spill over into rural areas, their market gardens are buried under new housing subdivisions.

8.7.5 Organic food production, like this organic hydroponic vegetable farm, is gaining in popularity as consumers become more aware of the importance of sustainable agriculture

Activities

LS↗ 8D
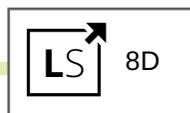
Remembering and understanding

1 Outline the biophysical constraints on food production.
2 Describe the main food production zones in Australia and explain why they differ in productivity.

Geographical skills

3 Identify the current trends in food production.
4 Study Figure 8.7.1 and answer the following questions.
   a In what year did food production peak?
   b What type of production increased the most over the period shown?
   c What was the value of fisheries production in 2012–13?

Applying and analysing

5 Conduct a class debate on the following topic: *The second-stage expansion of the Ord River lease should have been given to Australian interests.*

6 Study Figure 8.7.2. Identify the high-value production areas of Queensland. Prepare a report on their location, the biophysical environment and the nature of the food production.
7 Superfoods are particularly high in vitamins, minerals, antioxidants, essential fatty acids and amino acids. Working in pairs, select one superfood and design a leaflet outlining its nutritional benefits.
8 Evaluate the following statement by creating a PMI (Plus, Minus, Interesting) chart. *Agricultural land provides a source of employment and fresh food that needs to be protected from urban expansion and development.*

Indigenous food production and resource management

Early agriculture

Early Aboriginal and Torres Strait Islander peoples changed the environment and created complex systems of agriculture and land management. Prior to European settlement, Indigenous people practised farming and irrigated their crops. When Europeans arrived, they saw Aboriginal people growing and harvesting a wide variety of grains, tubers and fruits.

There is evidence that Aboriginal people domesticated strains of native rice, barley and oats. The spread of grain farming by Indigenous peoples is shown in Figure 8.8.1. In some parts of Australia, seeds were stored on a large scale. Large-scale grindstones have also been found. They are a sign of agricultural-scale grain production and bread making. The oldest grindstone was discovered in Cuddie Springs near Walgett, in New South Wales. It dates back over 30 000 years. This precedes the earliest known bakers, the Egyptians, by more than 15 000 years.

Farming also included growing nut and fruit crops, such as the macadamia. In addition, Aboriginal people reared animals such as dingoes, possums, emus and cassowaries.

Early aquaculture

Throughout Australia, Indigenous people practised aquaculture (the farming of fish) along the coast and rivers.

Budj Bim eel traps

In south-western Victoria, the Gunditjmara people built a complex series of eel traps at Lake Condah (Tea Rak). The channels spread over an area of 6 hectares, and are over 2 kilometres in length. The fish- and eel-trapping system included channels that diverted water and eels into holding ponds. This made it easier to catch the eels.

8.8.2 The funnel-shaped Budj Bim eel traps at Lake Condah in Victoria are an example of very early aquaculture

Ngunnhu fish traps

On the Barwon-Darling river system in western New South Wales, near the town of Brewarrina, are some of the oldest and largest fish traps in Australia. The area became an important meeting place for twenty nations/language groups. The Ngunnhu traps caught fish but did not disrupt the flow of the river. Most of the stone complex was removed by European settlers.

8.8.1 The Aboriginal grain belt. This map shows the contemporary location of grain farming in Australia and the Aboriginal grain harvest map, based on work by Norman Tindale, 1974.

Aboriginal grain belt
(after Tindale 1974)

N

0   1000 km

contemporary grain belt

■ Aboriginal grain belt
■ Contemporary grain belt
‑ ‑ ‑ Border contemporary grain belt

Alterations of biomes

Early Aboriginal peoples used fire to plan and predict plant growth. Fire was also used to herd animals, and the new grass that grew after burning would attract animals for hunting. The use of fire was controlled, because uncontrolled fires could destroy food sources. Aboriginal people created vast grasslands that enabled them to farm and hunt. This land was then carefully managed over generations to ensure a continuous food supply.

Spotlight

Native yam daisy

The native yam daisy, or murrnong, was an important food source for early Indigenous people. The tubers can be eaten raw or roasted. The daisy was found throughout most parts of southern Australia. Since the arrival of Europeans, and the introduction of European agricultural practices and hard-hooved animals, the plants have nearly all disappeared.

8.8.3 The yam daisy

Activities

Remembering and understanding

1 Describe the environment written about by the early Europeans in Australia.
2 Outline the importance of the yam daisy.
3 Outline the importance of fire in Aboriginal and Torres Strait Islander peoples' land management.

Applying and analysing

4 Explain why it is incorrect to call Indigenous Australians hunter-gatherers.
5 Study Figure 8.8.1. Describe the locational differences between the Aboriginal grain belt and the current grain belt.

Evaluating and creating

6 Collect images of ten to fifteen different native crops and present them as an annotated collage.
7 The demand for Australian native foods is currently exceeding supply. Native (or bush) foods include fruits, nuts, vegetables, spices and processed foods. Working in pairs or groups, select an Australian bush food to investigate and promote in a marketing and advertising campaign. The campaign can include one or more of the following formats:
   • poster
   • short multimedia presentation
   • social media plan
   • short video.

Geographies of interconnection

9

We are all products of our surroundings. The place in which we live, together with all the things that make up the local environment, helps to shape us as individuals. We are also part of a social network of people that links us to other places. The environment around us therefore shapes our 'personal geography'—the way we view and make sense of the world around us.

Advances in transport and communications technology have also transformed the way humans live, work and travel. Today, information flows almost instantaneously around the globe.

In this chapter we focus on the perceptions people have of place, and how this influences their connections to different places. We pay particular attention to the impact travel has on the person undertaking the journey and those living in the places visited. We also examine how advances in information and communications technologies (ICTs) have transformed the ways in which people interact with each other and the world.

OVERVIEW QUESTIONS

As you work through this chapter, think about these key questions:

9A What factors shape our perception and use of places?

9B How do people create and modify places?

9C How have developments in transportation and information and communications technologies enhanced people's connection with goods, services, information and people in other places?

9D What are the impacts of increasing global connectivity on people and places?

LS↗ Before you begin

GLOSSARY

culture the complex mixture of the origin and heritage, language, religion, customs and way of life of a group of people

e-commerce the buying or selling of products or services using the internet

hinterland an area surrounding a place that is linked to that place through lines of exchange or interaction

perceptions the way in which something is regarded, understood or interpreted

places specific areas of the Earth's surface that have been given meanings, or which have been shaped by people

place perception people's awareness of places and the particular opinions they have about them

sense of place the characteristics that make a place special or unique, and which contribute to a sense of human attachment and belonging

social media communications technologies through which users create online communities to share information, ideas, personal messages and other forms of content (such as videos)

tourism travel for recreational, leisure or business purposes

virtual communities communities or groups of people sharing common interests, ideas and feelings over the internet or using other collaborative technologies

virtual space a computer environment that can simulate a physical presence in the real world or imagined worlds

9.0.1 Young Somali refugee women look at a smart phone, at the Dadaab refugee complex, in north-east Kenya

9.1 Perception and use of places

Place perception

Place perception refers to our awareness of **places** and the particular opinions we have about them. Our feelings and interpretations about the characteristics of a place help us to develop place perception. Place perception influences the decisions we make about a location.

However, our feelings are not always well reasoned. Sometimes they are irrational and result in **perceptions** (views) that are not based on reality. One example of this is the decisions we make about living in areas affected by natural hazards, such as earthquakes, volcanic activity and tropical cyclones. Our perception of a place as attractive or desirable is very separate from our understanding of its hazard potential.

The perception of place is a very individual thing. People can perceive the same place very differently. For some, ordinary places can have a special meaning. The family holiday destination visited each year will be seen as very special to that family, even years after they have stopped going there. Your local neighbourhood will be viewed very differently by outsiders than by you. This is because the neighbourhood is a place with signs and symbols that provide personal meaning and significance.

Gender difference

There are differences in the way women and men perceive danger. Even though men are more likely to experience actual violence, many studies have shown that women's fear of violence is likely to be far greater. Women tend to perceive a greater increase in crime compared to the actual statistics (see figures 9.1.1 and 9.1.2). The reasons for this difference in perception have been linked to the nature of urban public spaces.

Urban places tend to reflect a male-dominated social structure. This results in perceptions of familiarity and comfort for men, but much less so for women.

A recent study about tourists in London found that the perception of danger was greater among females than males. One reason such studies are important for geographers is that the perception of danger influences behaviour and the use of leisure spaces. In countries where the roles of men and women are very distinct, women are less mobile than men. In these cases, women perceive the accessibility of moving from one place to another to be very important.

9.1.1 Australians' perceptions of crime trends, by gender
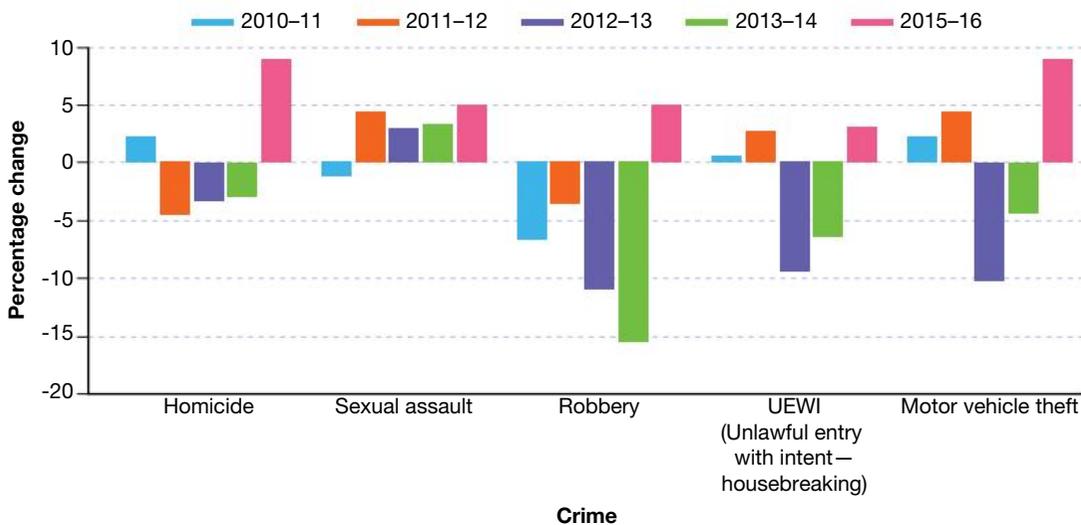
9.1.2 Annual change in incidence of violent crimes, Australia, 2010–16

Developing a perception

The perception of place is developed by direct and indirect experiences. In these experiences, people develop an understanding of their surroundings through filters. These filters include personal or group characteristics, such as race, gender, age, religious beliefs and the time in which they live. For example, the perception and use of a park, similar to the one shown in Figure 9.1.3, will most likely be different for a 5-year-old boy and a 68-year-old woman.

When people think about a place, they organise various parts of it into elements. These elements include paths, edges, districts, nodes and landmarks, as shown in Figure 9.1.4. These elements help people orient and navigate within a place. They may also segregate or alienate people.

9.1.3 Parks are perceived differently by different groups of people

Familiarity of places

Places that are well understood and easily read are places in which it is easier to get oriented and to navigate. The more familiar people are with a location, the more they will use it. This familiarity contributes to shaping particular aspects of people's behaviour. For example, the elements of a shopping centre can influence which one we choose to visit. Research about where people travel to shop reveals that their perception of the shopping district influences their choice. The chosen shopping centre may not necessarily be the closest, but it may be the one with the best parking or pedestrian circulation.

Perception and use of place
Mobility disability

People with a mobility-related disability are those who have very limited use of their legs. They may use walking aids or wheelchairs to move within places. Their perception of place will partly be influenced by how well these places accommodate their particular needs. For example, is there wheelchair-accessible parking? Are there wheelchair access ramps? Does the place have steep or unpaved terrain?

The perceptions held by people with a mobility disability are influenced by three factors. For many, their perceptions are affected by their own internal barriers, such as despair or feelings of been overwhelmed by their disability. This is particularly the case for people who have suddenly become disabled. The second factor relates to other people's attitudes towards the disability and how receptive they are to the presence of the person in a wheelchair. Finally, the physical inaccessibility of the environment affects the perceptions about places held by those with a mobility disability.

9.1.4 The elements of the city

9.1.5 Erik Weihenmayer (in the middle) climbing Mt Everest

People with a mobility disability have a desire to experience wilderness areas and pristine places, just as able-bodied people do. Unfortunately, there are barriers to them experiencing these places. In New Zealand, some groups have suggested constructing cable cars and gondolas to provide access to pristine wilderness places such as Milford Sound. In Australia, some walks that enable wheelchair access have been built in national parks, such as the Bungoona path in the Royal National Park.

Vision impairment

People who have a vision impairment can perceive varying degrees of light. Perception, however, is more than just visual. People with a vision impairment are able to use other senses, such as touch, sound and smell, to get a sense of their surroundings. So confident are many vision-impaired people with the perception of their surroundings that they are able to play sport, skateboard or climb mountains. In 2001, Erik Weihenmayer became the first blind person to reach the summit of Mount Everest (see Figure 9.1.5).

Descriptions from others, sounds and touch allow people with a vision impairment to build a mental picture. Colour is often limited in this mental picture, and experiences do differ from one person to the next. People with a vision impairment tend to have a heightened sense of taste, touch and smell. This may allow them to construct detailed mental images. The aspects of place that relate to touch, sound and smell are more powerful in influencing the use of place.

Place conditions are not always ideal for people with vision impairment to navigate safely (see Figure 9.1.6). Public transport also poses particular difficulties. People with a vision impairment may not know when to get off the bus or whether their bus has arrived at the bus stop. Fears and difficulties in moving about places limit independent travel. This makes people with a vision impairment more likely to be housebound and isolated.

9.1.6 Tree roots have lifted the concrete path in this suburban street. This would pose a difficulty for a person with a vision impairment.

Public transport changes

There are 384 000 people with a vision impairment in Australia. To enable people with a vision impairment to access public transport, governments are upgrading train stations and light-rail stops. This is a very expensive undertaking. The cost of those completed so far has ranged from $500 000 to $1 million. The works involve laying tactile (able to be touched or felt) tracks. For those with disabilities that impede mobility, lifts are being installed and platforms raised.

Did you know?

Vision Australia® predicts that there will be over 564 000 people in Australia with a vision impairment by 2030. This is largely due to the increasing age of the general population.

9.1.7 Tactile and braille street signs for people with a vision impairment have been introduced in Sydney

Activities

Remembering and understanding

1. State what is meant by the term 'place perception'.
2. Outline how perception of place differs between men and women.
3. Outline how we arrive at our perceptions of place.
4. Explain how people with a vision impairment develop their perceptions of places.
5. Outline the factors that shape the perception of place held by people with limited mobility.

Geographical skills

6. Study figures 9.1.1 and 9.1.2. Outline the apparent contradiction in the data shown in the two bar graphs.
7. Study Figure 9.1.4. Explain the concepts of path, edge, district, landmark and node. What roles do they fulfil?

Applying and analysing

8. Study Figure 9.1.3 and compare the differing perceptions of the area of a 10-year-old girl and a 65-year-old woman.

9. Identify a location near your school that could be considered to be a:
   a. path
   b. edge
   c. district
   d. landmark
   e. node.
10. Study figures 9.1.6 and 9.1.7.
    a. Why is it important to consider how people with a vision impairment use public places?
    b. Describe the difficulties faced by people with a vision impairment when using public transport.
    c. How might the use of public transport be affected by the perception of public transport held by people with disabilities?
11. To what extent should wilderness places be modified to cater for people with a mobility disability?
12. With a partner, walk around your school blindfolded for 20 minutes. Take turns and then describe what you felt, observed and thought. How different might it be when moving through a place you have not been to before?

Special places

Aspects of identity are often linked to place. This is referred to as place identity. Place identity includes factors related to landscape that help determine an individual's personal identity and their **sense of place** (the characteristics that make a place special or unique). It comes about through a complex process. This involves conscious and unconscious ideas, feelings, values, goals, preferences, skills and behavioural tendencies that are relevant to a specific environment.

All of us have places that are special and have helped shape the person we are. The following questions will help you to clarify your thinking about your relationship to place and identity.

➤ Where is your favourite place?
➤ What draws you to that place?
➤ Are there particular memories about the place?
➤ How would you spend a perfect day there?

Identifying with place

One way in which identity is connected to a particular place is by a feeling of belonging to that place, or having a sense of place. In this place you feel comfortable, or at home. How you define yourself is influenced by certain qualities of that place. This sense of belonging can occur to various degrees. Sport is one activity that promotes a sense of belonging.

Local

Identifying with place can occur at a local scale. This refers to your local area, or the neighbourhood, town or city in which you live. Many Australian Rules football fans develop an almost tribal loyalty to their local footy team, as can be seen in Figure 9.2.1.

Regional

It is also possible to identify a sense of belonging at a regional scale. In rugby league, for example, the annual State of Origin® series divides supporters into Blues® (New South Wales) and Maroons® (Queensland). Such state-based rivalries have been common throughout Australian history across a range of political, social and economic issues. The Australian Commonwealth, a federation of states, only came about after our political leaders were able to put aside their parochial state-based interests.

National

On a national sporting scale, Australians will unite against a foreign competitor, whether it is in netball, cricket, tennis, swimming or soccer.

National identity

National identity is shaped by the way in which people view themselves and the way others see them. The national identity of a country is largely defined by legends and landscapes.

9.2.1 Sport is one activity that promotes a sense of belonging and place identity

These are stories of the past, heroic deeds and enduring traditions. It might also be defined by homelands, with their sacred sites, landforms and unique scenery more generally.

Australian artists and authors help shape the national identity through the creation of their work. The Miles Franklin Award (see Figure 9.2.2) is Australia's most prestigious literature prize. It is awarded to a novel which is of highest literary merit and presents Australian life in any of its phases.

9.2.2 The Miles Franklin Award recognises novels that present Australian life in any of its phases

Identifying against place

People not only live in places and identify with them, they are sometimes alienated by them. Sometimes people establish an identity by contrasting the place that is 'home' with a place that is 'away'. For example, knowledge of the unique characteristics of Thai landscapes and cultures acts as a point of difference against which the uniqueness of Australia can be judged and appreciated.

Not identifying

Often we first become aware of our own sense of place and identity when we travel to unfamiliar places. It is then that we begin to realise our surroundings are different and that we do not feel 'at home' there. The landscape is different; the weather may be different; houses and towns are different; people are not the same; even things such as sounds and smells are not those that we are familiar with. In some instances, the strength of identity associated with one place, for example 'home', might be so strong that it is difficult for people to feel concerned for another place and its people.

Activities

Remembering and understanding

1 Explain what is meant by the term 'place identity'.
2 Define the term 'national identity'.
3 Explain how other places can contribute to the development of 'place identity'.

Applying and analysing

4 Write a description of the place with which you identify most strongly. Share your description with others in your class.
5 Examine Figure 9.2.1 and answer the following questions.
   a Identify evidence from the photograph that suggests the people in the picture share a sense of belonging or identity.
   b Discuss why so many people like to be loyal to a particular sporting club.
   c What kinds of people are under-represented in the photo? Why might that be?

Evaluating and creating

6 Investigate an example of place identity that has local, regional and national scales. Present your findings as a mind map.
7 Construct a mental map of Australia. Include the features you think give Australia its distinctive identity. You might include landscape features, buildings, particular colours, names or people.

LS 9A
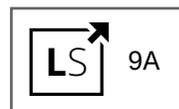
9.3 Impact of people on places

Shaping place

The way cultures contribute to the development of people's sense of place and the processes that produce the differences between places are at the heart of human geography. Other related factors also play a role in shaping place. These include economics and wealth, history, technology, population and population movements.

Geographic features of places

If you think about the features of a place that make it distinctive, you might come up with a list that includes:

➤ its physical landscape
➤ its location in relation to the coast, mountains and rivers
➤ the impacts of industry or agriculture (see Figure 9.3.1a)
➤ the types of buildings and settlements (see Figure 9.3.1b)
➤ the appearance of the houses, streetscapes, transport and services (see Figure 9.3.1c)
➤ invisible features, such as language, religion, culture and wealth.

People influencing places

Aspects of human behaviour that influence places are: culture, economics and wealth, history, technology, population density and population movements.

Culture

Culture is a complex mixture of people's origins and heritage, their language, religion, customs and way of life. It has an important influence on the appearance of a place. This can be seen through styles of housing, ways of using outdoor space, community buildings, and the different values placed on parts of the physical landscape. Places that have been strongly influenced by one culture over a long period often have very distinctive and recognisable landscapes.

It is important to understand that no culture is static. Ideas, technologies, commodities and products, and people move from one place to another. When one culture comes into contact with another through migration, trade or the latest telecommunications devices, they influence each other.

9.3.1 (a) Siem Reap rice fields (b) Dubai city (c) Fourcès, a French village

In some cases a culture can be overwhelmed by another. In most instances, people adopt, adapt or reject the cultural influences they come in contact with.

Cultures have evolved in response to contact over thousands of years. But today the pace of change has accelerated. In the past, the influences of distant cultures came slowly, delayed by long journeys. Today, because of the reach and speed of communications technologies, the expansion of world trade and the affordability of long-distance travel, cultural influences can spread across the planet as fast as the click of a mouse.

Economics and wealth

The level of wealth in a community is an important indicator of the extent to which people can transform places. In affluent societies there is generally more of a materialistic culture. Large homes, sophisticated transport options and large-scale commercial, recreational and entertainment facilities dominate the landscape. Poor communities can afford to build only basic housing, use traditional farming techniques and undertake small-scale manufacturing.

History

The history of any location has an important impact on its sense of place. Some places are still dominated by structures and street patterns built centuries ago. Towns dominated by castles or narrow medieval streets develop part of their character from this history. Some places are well known for particular historic events, such as battles or revolutions. This affects the ways that the place is perceived both by the current inhabitants and by tourists.

The character of other places is dominated by their newness. Many places in Australia experience similar cultural and economic influences as places in Britain, but look very different because European settlement here is more recent.

Technology

Technology as a factor that influences place is closely related to levels of wealth. However, it should be looked at separately because there is not a perfect link between these two factors as influences on place. The use of technology might not even be obvious as a visual characteristic of a place. Nevertheless, it is likely to be present in the structure of buildings, the communications network, the power sources, the use of water and the connections with the rest of the world. For example, Munich in Germany has its sophisticated fibre-optic telecommunications network buried out of sight, below its cobbled streets.

Population density

Population density has a major impact on place. There are clearly visible contrasts between rural and urban landscapes, multistorey and single-storey housing, and areas with parks and those without parks. Population densities range from 100 000 people in 1 square kilometre in parts of some Indian cities, to zero in large areas of the world.

Population movements

Movements by people from place to place can be either long-term or short-term. Long-term movements include migrations to new places. Such migrations have had major influences on the place receiving them, through the addition of different cultures, different languages, different skills and different age groups of people. Short-term population movements include daily commuting to work, and the movements of tourists to visit and see places. Each of these influences a place.

Activities

Remembering and understanding

1 List the features of places that contribute to their distinctiveness.
2 Explain how culture, economics and wealth, history and technology can have quite different influences on place.

Applying and analysing

3 Identify the characteristics of people that influence place.
4 Identify some places that have been changed by specific impacts of people, and describe the particular impacts on each place.
5 Classify the list of factors that influence place in the order of importance you think these factors have.
6 Study Figure 9.3.1 and do the following tasks.
    a Identify as many differences between the places shown as you can.
    b List the human behaviours that have influenced each of these places.

LS↗ 9B
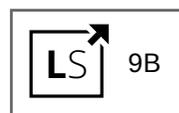
9.4 Travel: Interconnecting personal geographies

Tourism industry

While **tourism** as an industry is a relatively recent development, it is one of the main sources of income for many countries and regions. Mass tourism relies on many people having a combination of leisure time and money to spend on non-basic items. Millions of people in wealthy countries have now travelled widely to other parts of the world. They have visited places that their ancestors could only have dreamed of.

Personal geographies

A personal geography is:

➤ the idea that the environment (biophysical and constructed) shapes the individual
➤ the relationship between a person and their environment
➤ how a person views and sees the world.

Personal geography can be expanded by travel to other countries, cultures and environments. These experiences can change people's views, opinions and interests.

World tourism

Tourism is one of the world's largest service-based industries. In 2012, for the first time in history, more than 1 billion people travelled internationally (see Figure 9.4.1). That is equal to almost one in seven of the world's population.
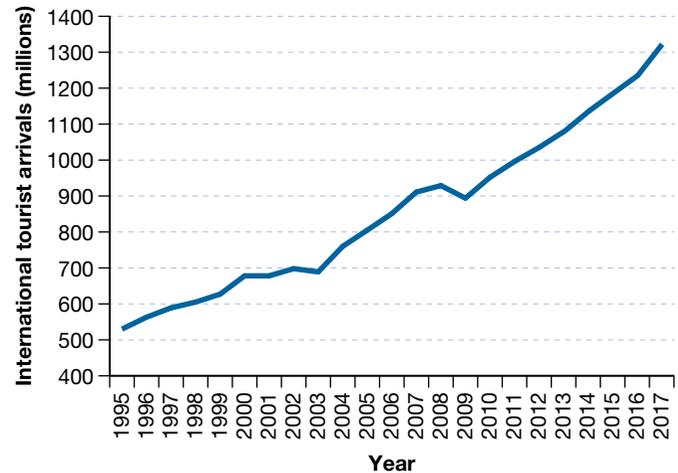
9.4.1 International inbound tourism, 1995–2017

This is a massive increase from the 25 million international tourists in the years immediately after World War II.

Tourism also has a major impact on the character of places. In some popular tourist destinations, tourism is the dominant form of economic activity and is central to their sense of place or character.

Most-visited places

The numbers of tourists visiting different regions in 2017 are shown in Figure 9.4.2. This figure also outlines the international tourism receipts (that is, the amount of money spent by those tourists visiting).
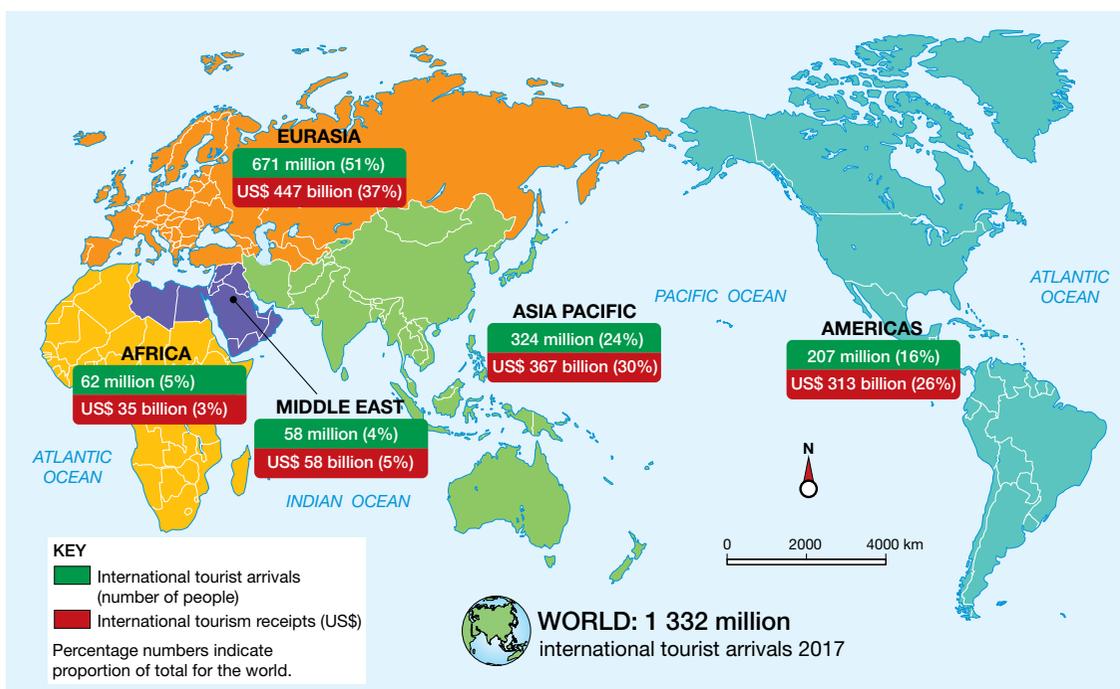
9.4.2 The number of international tourist arrivals and international tourism receipts, by region, 2017

EURASIA
671 million (51%)
US$ 447 billion (37%)

AFRICA
62 million (5%)
US$ 35 billion (3%)

MIDDLE EAST
58 million (4%)
US$ 58 billion (5%)

ASIA PACIFIC
324 million (24%)
US$ 367 billion (30%)

AMERICAS
207 million (16%)
US$ 313 billion (26%)

PACIFIC OCEAN
ATLANTIC OCEAN
ATLANTIC OCEAN
INDIAN OCEAN

0   2000   4000 km

KEY
■ International tourist arrivals (number of people)
■ International tourism receipts (US$)
Percentage numbers indicate proportion of total for the world.

WORLD: 1 332 million international tourist arrivals 2017

9.4.3 Ten biggest spenders on international tourism, 2016

Rank	Country	Amount spent on international tourism (US$ billion)
1	China	261.1
2	United States	123.6
3	Germany	79.8
4	United Kingdom	63.6
5	France	40.5
6	Canada	29.1
7	South Korea	26.6
8	Italy	25.0
9	Australia	24.9
10	Hong Kong (China)	24.2

Source: World Tourism Organization

9.4.4 The world's most visited attractions, 2014

Rank	Attraction	No. of visitors (millions)
1	Grand Bazaar, Istanbul	91.3
2	The Zócalo, Mexico City	85.0
3	Times Square, New York City	50.0
4 (tie)	Central Park, New York City Union Station, Washington, D.C.	40.0
6	Las Vegas Strip	30.5
7 (tie)	Meiji Jingu Shrine, Tokyo Sensoji Temple, Tokyo	30.0
9	Niagara Falls, New York and Ontario	22.0
10	Grand Central Terminal, New York City	21.6
11	Basilica of Our Lady of Guadalupe, Mexico City	20.0
12	Disney World's Magic Kingdom, Orlando, Florida	18.6
13	Faneuil Hall Marketplace, Boston	18.0
14	Tokyo Disneyland	17.2
15	Disneyland Park, Anaheim, California	16.2
16	Forbidden City, Beijing	15.3
17	Golden Gate National Recreation Area, San Francisco	14.3
18	Tokyo DisneySea	14.1
19	Notre Dame Cathedral, Paris	14.0
20	Golden Gate Park, San Francisco	13.0

Travel and Leisure® magazine, 2014

Most-visited attractions

Tourism statistics do not differentiate between local and international visitors so it is difficult to know where tourists go within the countries they visit. Table 9.4.4 shows the world's most visited attractions, according to the magazine *Travel and Leisure*®.

Issues of tourism

The growth of tourism raises environmental, economic and social issues. When a few popular destinations attract the bulk of tourism revenues, other places can miss out. This is called the honeypot effect. While this can create economic issues in some countries, it can also concentrate the negative impacts of tourism in others.

Environmental issues

Tourism can put a great deal of stress on the local environment. When demand is too great, it can lead to high levels of pollution, physical impact on the environment and depletion of natural resources. If tourism remains unsustainable, it can destroy the environmental resources on which it depends.

9.4.5 (a) Times Square, New York City; (b) Disneyland, Anaheim, California; (c) Niagara Falls, New York and Ontario

Places under threat

Around the world popular tourist destinations are being 'loved to death' by the number of tourists visiting these iconic locations.

Venice, Italy

Venice was listed as a UNESCO World Heritage site in 1987. The watery city has a population of only 50 000 people, although it is visited by 30 million tourists each year. This large-scale tourism is having a massive impact on the environment there—in particular the fragile lagoon ecosystems—and on the architecture and culture for which it is renowned.

Mass tourism is having a major impact on Venetian residents, as the cost of food, transport and housing is rising, and there are few jobs that don't involve tourism. As a result, the population of Venice is declining. Enormous cruise liners, known as megaships, are increasing the negative impact tourist numbers are having on the environment.

9.4.6 Venice's status as a World Heritage site is under threat because large-scale tourism is destroying the city's fragile lagoons

UNESCO has threatened to place Venice on its 'In Danger' list if something is not done about the environmental damage and the negative impact on quality of life for the citizens of Venice that is caused by mass tourism.

Ko Phi Phi Leh, Thailand

The Maya Bay beach on Koh Phi Phi is being closed to tourists between June and September. Thai authorities made the decision due to the decades of damage done by tourists, including the destruction of coral reefs. Up to 5000 tourists arrive by boat each day to snorkle and swim at the beach. It is hoped that the closure during the low season will give the coral and the beach environment time to recover.

9.4.7 Overcrowded Maya Bay Beach, Koh Phi Phi Leh

Pollution

Just like any other industry, tourism generates a great deal of pollution. This includes:

➤ water pollution
➤ air and noise pollution—generated by air, road and rail transport (air transport in particular generates great amounts of greenhouse gases), and recreational activities such as jetskiing
➤ sewage—wastewater has polluted waterways around many tourist attractions, damaging plant and animal life, and greatly damaging coral reefs; sewage pollution can also threaten the health of humans
➤ litter and waste—littering and waste disposal are serious problems, and can lead to degrading of the physical environment, as well as causing the death of many marine and land animals.

Physical impact

Physical impacts of tourism can include:

➤ deforestation—construction of resorts and other facilities often requires the clearing of forested land
➤ land degradation and loss of wildlife habitats—caused by construction and development of infrastructure (for example, increased development for accommodation, airports, recreational activities and infrastructure such as roads and car parks)
➤ trampling—increased numbers of people walking the same trail over and over can cause extensive damage to fragile ecosystems
➤ coastal development—building of marinas other structures on shorelines can result in the destruction of marine habitats, such as coral reefs, mangroves, beaches and nesting areas.

Depletion of natural resources

Tourism can increase pressure on natural resources, particularly when demand increases in areas where resources are already scarce. This can negatively impact:

➤ local resources—these includes fertile soils, minerals, fossil fuels, wetlands, forests, beaches and wildlife (for example, deforestation can occur due to land clearing for development and wood collection for building materials and fuel)

➤ water resources—vast amounts of water are used by hotels, golf courses, swimming pools and in personal use by tourists; this can result in water shortages and degradation of fresh supplies.

Economic issues

Tourism brings money into the places tourists visit. Often, however, only a small amount of what is spent goes to local people. Much of it goes to airlines and hotel companies that are based in other countries. Further economic impacts are outlined in Figure 9.4.8.

Social issues

Large numbers of tourists can have negative impacts on the culture and way of life of a people. Longstanding customs can be altered to suit tourists, and locals can become dependent on the tips and spending of tourists. Scarce resources may also be used to finance tourist infrastructure and developments instead of education and health care.

9.4.8 Some positive and negative economic impacts of tourism

Positive impacts	Negative impacts
• Tourism creates jobs • Spending increases • There are more opportunities for local businesses to grow and be established • Extra income is generated through tax	• Jobs created for tourism are usually seasonal and poorly paid • New tourism infrastructure (e.g. roads and visitor centres) can be costly for local governments • Prices (e.g. of property, goods and services) can increase, pushing up the cost of living for locals • Places that depend on tourism can financially collapse after events such as earthquakes and floods

Tourism into the future

As tourism continues to grow, it becomes increasingly important that it is managed sustainably. According to UNESCO, sustainable tourism means that the natural environment and the social and cultural foundations of a place are not threatened by tourists. Rather, the natural environment and local communities should benefit from tourism, economically and culturally. This approach is needed to ensure the long-term protection of the world's special natural and cultural places.

Activities

Remembering and understanding

1 Define the term 'personal geography' in your own words.

2 Outline the scale and impacts of the global tourism industry.

3 Explain in your own words what is meant by the honeypot effect and give examples of tourist destinations that would fit this description.

4 Outline some of the tourism-related issues that might be of interest to geographers.

Applying and analysing

5 Study Table 9.4.4. For each place, propose one or more reasons why it is visited by so many tourists.

6 Study the Spotlight feature 'Places under threat'. Working in pairs, discuss the tourism-related issues addressed. List the issues you discussed.

Geographical skills

7 Study Table 9.4.4. With the aid of an atlas describe the locations of the top ten tourist destinations.

8 Study Table 9.4.3.
  a Discover the population of each country and divide the expenditure by the number of people.
  b Rank the countries from the highest to lowest amount of money spent per person.
  c Has the ranking changed? Explain.

Evaluating and creating

9 Using the information in this section, assess the level of impact modern tourism can have on places. What are the implications for the future of these places?

10 Investigate a town, city or World Heritage site that is being strongly affected by tourism. Present a report that outlines the related environmental, economic and social issues. Include your thoughts about the future impact these issues could have on the place.

History of tourism in Bali

The Dutch built the first hotel in Bali in 1928, and anthropologists, writers, artists and musicians were drawn to the rich cultural heritage of the island. However, it was only in the 1970s that mass tourism started to develop. It has grown rapidly since, especially with the opening of the airport in Denpasar. Initially, young people on a budget were drawn to Bali. They were eager to surf and see the island, attracted by images of white beaches, a warm tropical climate, terraced hillsides, Hindu temples, and local people who were tolerant and friendly.

When foreign airlines were first allowed to fly directly to Bali in the 1980s, tourist numbers soared from 30 000 in 1969 to 700 000 in 1989. The tourism industry in Bali evolved. It began to cater for high-spending package tour groups in large luxury resorts owned by big multinational companies. Today the majority of tourists come from Australia, although visitors from China, Russia, the UK and India have increased in recent years (see Figure 9.5.1).

Bali's tourism development was very rapid and it occurred without proper planning. It has been accompanied by a great wave of change on the island.

Economic impacts

Bali lacks natural resources, so tourism is vital to its economy. Investors have flocked to Bali to build hotels, luxurious resorts, shopping complexes and entertainment venues. The presence of all this accommodation and its associated services has provided many jobs and opportunities for the Balinese people to earn money. As a result, Bali has the lowest rates of poverty and unemployment of all the provinces in Indonesia. The overall contribution of tourism to Bali's economy is estimated to be over 70 per cent.

While the tourism industry has brought wealth to Bali, the majority of this wealth leaves the island and the country. This is because around 85 per cent of hotels and resorts are not owned by the Balinese, but by large multinational companies.

9.5.2 Tourists provide a lucrative market for the local Balinese people

Major foreign markets for Bali visitors 2008–16
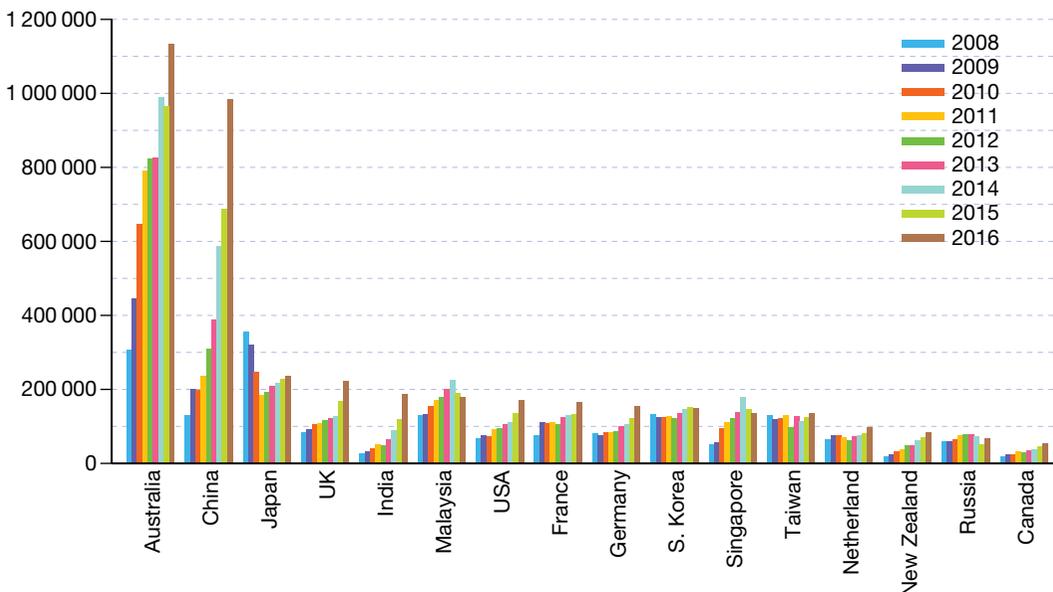
9.5.1 Visitors to Bali by nationality

Social impacts

With tourism has come the commercialisation of the Balinese culture. Dances, rituals and ceremonies have been modified to suit the demands of the tourism industry. The increase in wealth has seen a change in focus. For some people earning money has become a priority at the expense of their social responsibilities and the observance of rituals that once were central to their daily lives. The eruption of the sacred Mount Agung volcano in 2017–18 was seen by the people of East Bali as a sign that the gods were not happy. Some Balinese concluded that the eruptions were the result of violations of the sacred mountain by tourists, as well as other environmental and social issues.

The growing tourism industry has also led to an increase in crime, drug trafficking and prostitution. Bribery and corruption by government and police only compound the problems.

Spotlight

Balinese protest against tourism projects

Bali has emerged as one of the world's premier tourist destinations. In response to increased tourist numbers, a large reclamation project is being considered for Benoa Bay, near Denpasar. It involves luxury tourist facilities, including a Disney-like theme park, apartments, hotels, villas and entertainment centres. Critics of the project argue that the area of mangroves should be protected and a conservation zone created.

Balinese people have been protesting against this development since it was first proposed in 2015. Criticisms of the project include concerns about its environmental and cultural integrity. Balinese people are also concerned about its wider political and economic effects. They want more democratic participation in development trajectories, and to reduce the level of political and economic corruption.

9.5.3 A protest against the proposed Benoa Bay Reclamation project

Environmental impacts

The rapid and unplanned tourism development of Bali has had a substantial impact on the island's natural environment.

➤ Hotels have been built along the coast without consideration for the capacity of local water supplies or waste disposal needs.
➤ Prime agricultural land has been converted to resorts and golf courses, and water redirected away from the rice fields in the region to meet the needs of tourists.
➤ Hundreds of hotels take a large part of the fresh water supply, with each four-star room using, on average, 300 litres every day. The southern part of Bali is facing a water shortage due to excessive groundwater extraction.
➤ Generation of waste has increased and 75 per cent of rubbish is uncollected or left along the sides of roads.
➤ Water quality in creeks, rivers and bays has deteriorated because of heavy pollution.
➤ Coral reefs have been destroyed so that the pulverised coral can be mixed with sand to create a mortar used to join construction blocks.
➤ Mangrove forests have been lost as land is reclaimed for new tourism developments.

Activities

Remembering and understanding
1 Explain why Bali is such a popular tourist destination.
2 Outline the history of tourism in Bali.
3 Describe how tourism has helped the Balinese people.

Applying and analysing
4 Create a PMI (Plus, Minus, Interesting) chart on the impacts of the rapid rate of tourism development in Bali.
5 Assess the costs of the tourism development that has occurred.

9.6 Staying connected via transport

Scientific and technological advances

Technological and scientific advances have produced numerous improvements in transport systems. These improvements have enhanced the connections between people and places, and led to an explosive growth in service-based industries such as international tourism and education. Transport improvements have also enabled the rapid expansion of world trade.

Transport innovations

The most significant transport innovations have been in relation to high-capacity aircraft, railway technology and megaships.
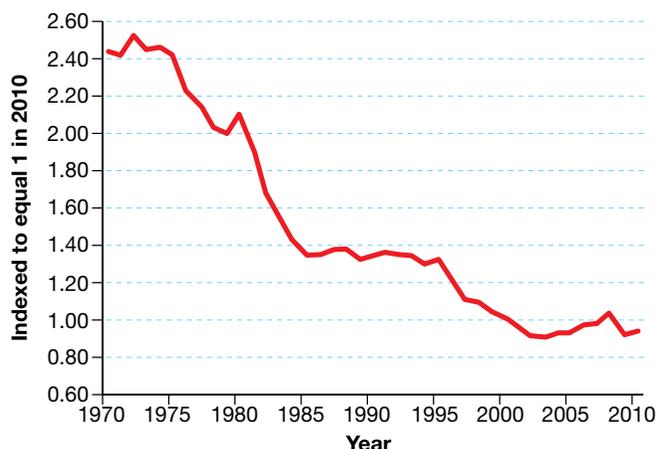
9.6.1 Real price of air travel, 1970–2012

High-capacity aircraft

The development of high-capacity aircraft such as the Boeing® 747 and the Airbus® A380 has had a considerable impact on world transport. Each A380 costs US$390 million. They are capable of carrying up to 853 people a distance of 15 400 kilometres at 900 kilometres per hour without refuelling.

High-capacity aircraft have played an important role in reducing the cost of air travel. Figure 9.6.1 shows how the real price of air travel has decreased over the last forty years. As a result, more people can afford to travel (see Figure 9.6.2).

Railway technology

Advances in railway technology have also been significant, especially the introduction of high-speed trains. These trains use specialised rolling stock and dedicated tracks to reach speeds well in excess of those achieved by traditional trains. Japan, China, France, Germany, Italy, Turkey, South Korea and Spain all have high-speed trains capable of speeds of up to 400 kilometres per hour. The Shanghai maglev train is a high-speed magnetic levitation train that runs 30 kilometres from Shanghai to the Pudong International Airport. It reaches a speed of 431 kilometres per hour.
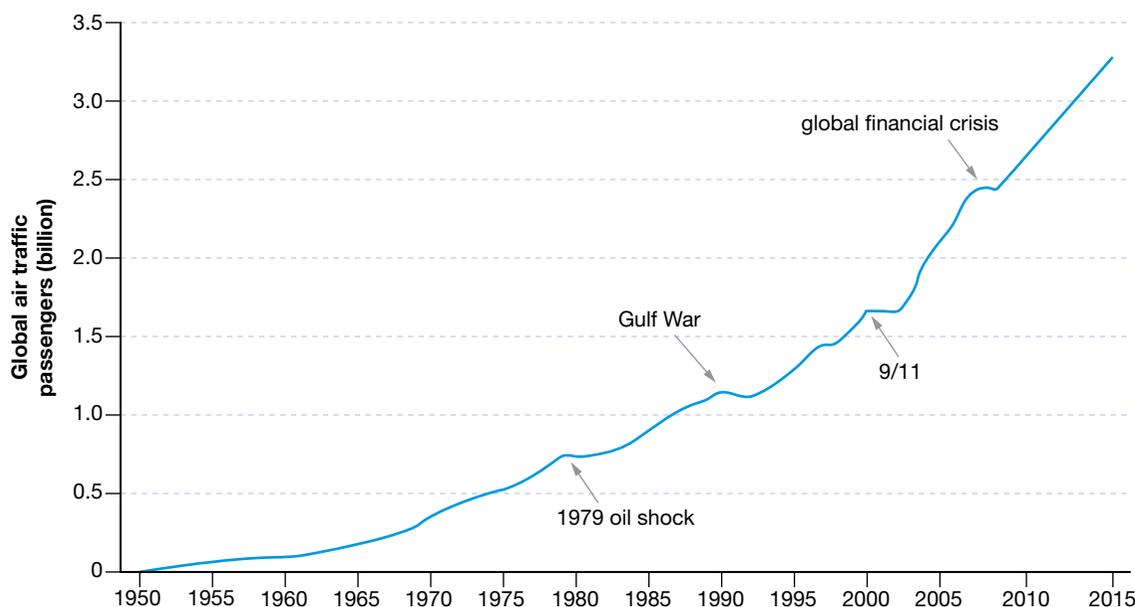
9.6.2 Global air passenger traffic, 1950–2014

Megaships

Another significant transport advancement is the development of megaships. These vast ocean-going vessels are capable of transporting people, raw materials and manufactured goods at relatively high speeds over long distances and for a low per-unit cost. Large bulk carriers, oil tankers and container ships travel the seas, linking sites of production and consumption.

Cruise ships are an important part of the rapidly growing global tourism industry. In 2014, the world's fleet of 296 cruise ships carried over 30 million passengers, generating revenues of US$33.8 billion. In 2015 this increased to US$39.6 billion.

Benefits of transport innovations

As a result of innovations in transport, people have been able to take advantage of:

➤ decreased (real) travel costs
➤ increased capacity (passenger loads)
➤ improvements in safety and reliability
➤ increased travel and transport speeds
➤ greater comfort and convenience
➤ increased fuel efficiency
➤ declining environmental impacts, especially in the form of air pollution and noise emissions
➤ low-cost, same-day, next-day and just-in-time deliveries.

The future

Research and development in materials and processes, and in computers and telecommunications is continuing. This will result in ever greater efficiencies in the movement of people, goods and information. At the same time, technological changes may alter travel patterns, travel behaviour and travel choices in ways that are not completely understood at present. These developments might include:

➤ intelligent transportation systems (ITS) that result in smarter vehicles, highways and traffic monitoring
➤ new alternative fuels and vehicles for ground transportation
➤ new aircraft technologies, high-speed railways and megaships
➤ further developments in mobile phones and the internet, especially in terms of their potential to transform the travel experience.

Spotlight

Harmony of the Seas

The world's largest cruise ship is Royal Caribbean®'s *Harmony of the Seas*. The ship weighs 226 963 gross tonnes and has a displacement of 120 000 tonnes. It has eighteen decks and is 362.12 metres long (more than three and a half football fields). *Harmony of the Seas* is capable of accommodating 6780 people.

9.6.3 *Harmony of the Seas* is bigger than the largest aircraft carriers operated by the US Navy

Activities

Remembering and understanding

1 Outline the results of improvements in transport technologies.
2 Outline the technological developments in aircraft, railway technology and shipping.

Applying and analysing

3 Identify likely future technological advances in transport technology.
4 Study Figure 9.6.1. Describe the trend in the real cost of travel.
5 Study Figure 9.6.2. Describe the impact of world events on the volume of air passengers.

Evaluating and creating

6 Select one of the forms of travel examined in this unit. Using the internet, investigate recent developments and likely future developments, and the impact of these advances on interconnectivity.

9.7 Staying connected via ICTs

Changing communication

Advances in information and communications technologies (ICTs) have transformed the ways in which people interact. These technologies have created new ways of connecting with our family and friends. They have also transformed the ways we work and shop. New online communities have emerged, defying the limitations once imposed by distance.

We once communicated with our family and friends using handwritten letters. In some cases it took weeks, even months, for the letters to reach their destination. From the mid-1850s until recently, urgent correspondence was transmitted electronically and then hand-delivered as a telegram—quite an expensive option. These messages could be sent long-distance, initially using cables. From the late 1880s they were sent by wireless telegraphy. Australia Post® shut down Australia's telegram service in March 2011.

Mobile phones

The first mobile phone call in public was made on 3 April 1973 in New York. The first mobile call in Australia was made less than ten years later, in August 1981. In 2014, there were eighty-four mobile phone subscriptions per 100 people in the developing world. In the developed world there were 120 subscriptions per 100 people, meaning every fifth person had two phones (see Figure 9.7.1). By mid-2015 there were 21 million mobile phone subscribers in Australia. This number has continued to grow, and in 2017, 88 per cent of Australians owned a mobile phone.
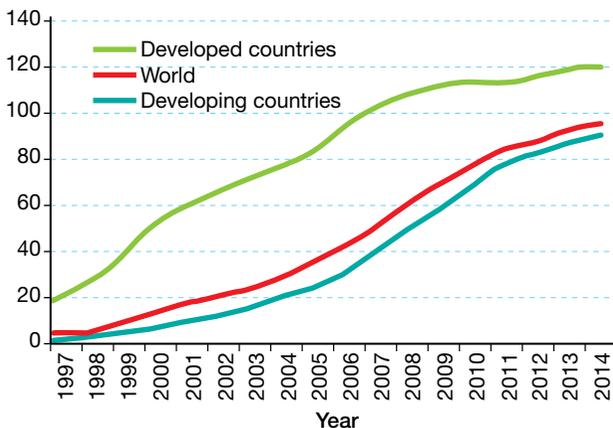
9.7.1 Mobile phone subscribers per 100 inhabitants, 1997–2014

The internet

The internet began life in a US government defence research lab in California in the late 1960s. The first connections were made between universities in 1969. In Australia, Melbourne and Wollongong universities exchanged files using computers via dial-up. The emergence of the internet as we know it today began in the 1990s. Since then, internet use has grown dramatically around the world (see figures 9.7.2 to 9.7.5).

Social media

Today, people keep in touch using a range of fixed and mobile devices. The latter include smartphones, laptops and tablets. These devices, and their associated software, make possible the use of email, text messaging, blogs, wikis, Skype®, YouTube®, Facebook®, Twitter® and photo sharing on sites such as Instagram® and Flickr®. These form what is often referred to as **social media**. Social media is the use of communications technologies to create and exchange information and ideas.

The use of social media has encouraged the emergence of **virtual communities** and networks. A virtual community is any group of individuals who interact through social media. It might, for example, be a group of friends who use technology to keep up to date with what everyone is doing. It might also be a group of individuals with a common professional interest who use email distribution lists to communicate and share information. Alternatively, it might be a network of environmental activists pursuing interests or goals that cross geographical and political boundaries.

People's use of social media is growing rapidly. In Australia, 80–89 per cent of the population has access to the internet. In January 2018 there were 15 000 000 active Facebook users (around 60 per cent of the total population).

Did you know?

The typical smartphone user spends an average of 12 minutes a day on phone calls. They spend more time playing games (14 minutes), listening to music (16 minutes), using social media (17 minutes) and browsing online (25 minutes). The most common use of all mobiles is to check the time.

Global internet usage
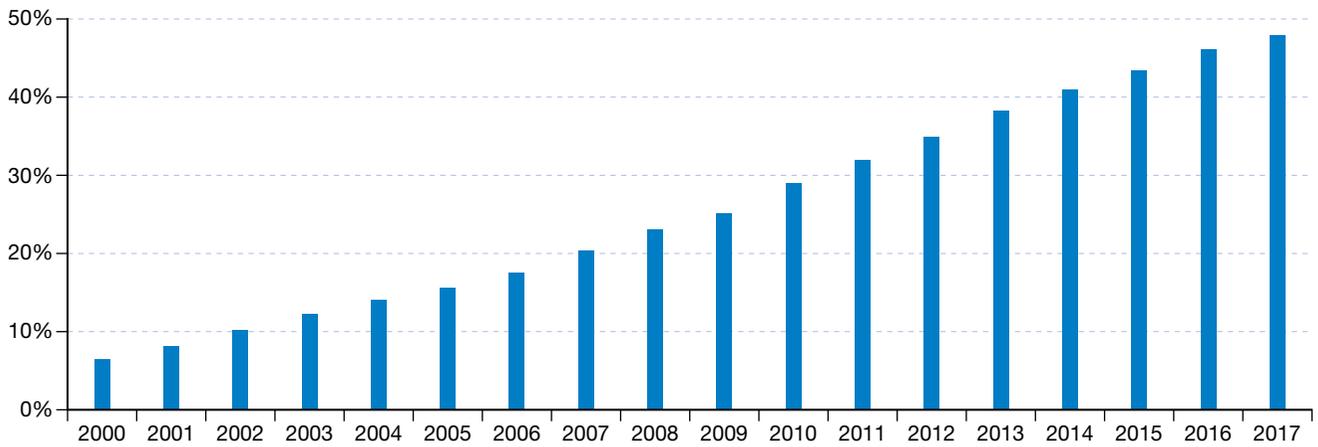
9.7.2 Percentage of internet users in the world, 2000–17

Middle East 3.90%
Oceania / Australia 0.70%
North America 8.30%
Africa 10.90%
Asia 48.70%
Latin America / Caribbean 10.50%
Europe 17.00%
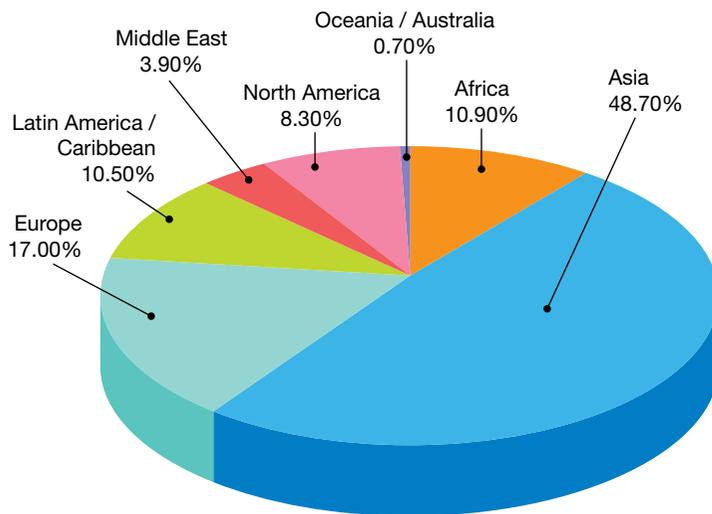
9.7.3 Distribution of the world's internet users by region, 2017

Oceania / Australia 68.90%
Africa 35.20%
Asia 48.10%
North America 95.00%
Europe 85.20%
Middle East 64.50%
Latin America / Caribbean 67.00%
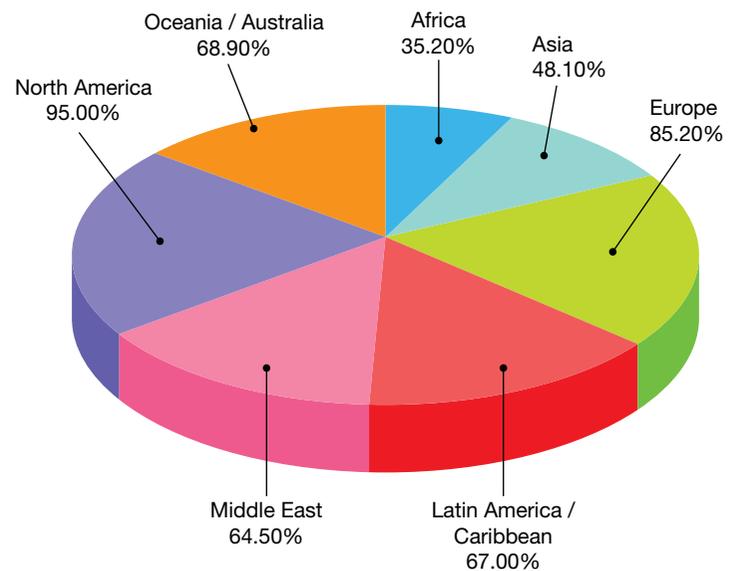
9.7.4 Percentage of population accessing the internet by region, 2017

Facebook facts (2017)

➤ 94 per cent of social networkers in Australia use Facebook.

➤ The average Australian Facebook user has 234 Facebook friends.

➤ On average, Australian Facebook users check their accounts twenty-five times a week.

➤ Over 350 million photos are uploaded to Facebook every day.

Twitter facts (2017)

➤ 32 per cent of social networkers in Australia use Twitter.

➤ The average Australian Twitter user has 260 followers.

➤ 67 per cent of Australians using Twitter post tweets® more than five times a day.

➤ On average, 500 million tweets are posted per day.

Online purchasing growth rate

National average 11.5%

Department & variety stores 7.0%
Fashion 16.7%
Homewares & appliances 6.9%
Media 22.9%
Health & beauty 15.5%
Speciality food & liquor Flat
Hobbies & recreational goods 15.6%

Share of online purchases
30.1% 22.2% 14.8% 12.9% 8.7% 6.1% 5.2%
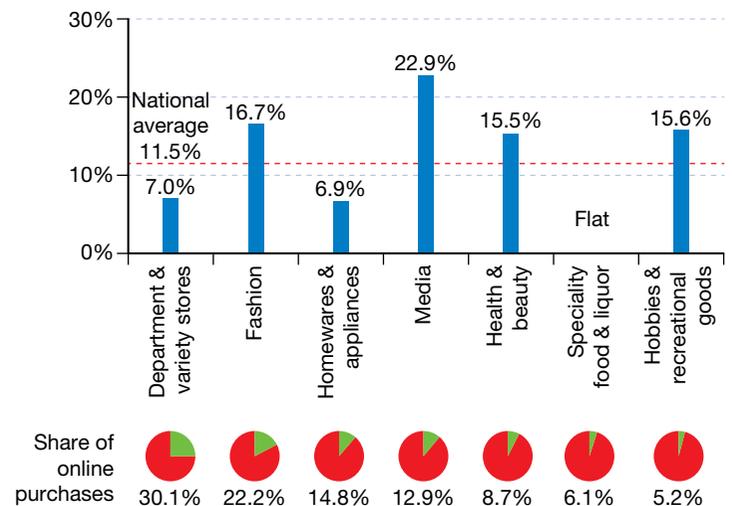
9.7.5 Online shopping expenditure by category, Australia

Instagram facts (2017)

➤ 46 per cent of social networkers in Australia use Instagram.
➤ The average Australian Instagram user has 258 followers.
➤ By September 2017, Instagram had 800 million monthly active users.
➤ More than 60 million photos are uploaded to Instagram every day.

Effects of social media

➤ People spend more time on social networks than on any other category of sites. When people are using a personal computer, they spend roughly 20 per cent of their time on a social network site; when using a mobile device, people spend 30 per cent of the time on social media. Facebook is the most-visited social network site.
➤ Most people regard social media as a positive addition to their lives. Unfortunately, however, there appears to be a link between social media use and cyberbullying. Online sexual predatory behaviours are also a problem, as is the decline in face-to-face social interaction.

New technologies, new industries, new jobs

ICTs are transforming the ways people work and interact in workplaces. At one level they are changing the ways in which existing jobs are done. At another, they are creating whole new industries and new forms of employment. More flexible workplace arrangements are replacing the 9 a.m.-to-5 p.m. office day. Work can now be performed in multiple locations (including the home and on public transport) and is no longer restricted to set hours.

New forms of economic activity have developed to take advantage of the potential of the internet and social media. The information media industry is a rapidly growing area of employment. Web-based publishing and broadcasting are now challenging the 'old' media (newspapers, magazines and television). They are becoming the main means by which people access information. They also provide forums in which people can comment on the events and issues being reported and discussed.

Spotlight

Young people abandoning driving

There has been a significant drop in the number of young people who own and drive cars. In the United States of America, the percentage of 18-year-olds with a driver's licence dropped from 80 per cent in 1983 to 71 per cent in 2016. The distance driven per person is below the historic peak by almost 9 per cent.

In Australia, there has also been a marked decrease in the proportion of people under the age of 35 who have a driver's licence. In 1998, 84 per cent of 25-year-olds held a licence. That figure dropped to 77 per cent in 2000–01 and 66 per cent in 2015.

The decline in car use appears to be part of a structural shift that is largely a result of changing demographics. Millennials—today's twenty-somethings—are not driving cars in anything like the numbers that previous generations did. The reasons for this trend are complex but are thought to include the preference of millennials for inner-city living, which is less car-dependent. Young people are also more likely to use public transport. This preference can be explained, at least in part, by the opportunity that public transport travel provides for using social media (which can't be done while driving). Catch a train or a bus and you will see people browsing the internet on their smartphones and tablets, working on their laptops or reading on their e-readers, all the while listening to music.

Such developments are not limited to the world's developed economies. In Africa, mobile phones are the continent's fastest-growing technology. There are now an estimated 650 million mobile phone subscribers in sub-Saharan Africa alone. Global revenue from smartphone sales totaled more than US$478 billion in 2017.

New ways of buying

Online retailing is a form of **e-commerce**. It allows consumers to directly buy goods or services from sellers using the internet. In Australia, online purchases reached $21.7 billion in 2016. At the end of 2016, online retailing was growing at an annual rate of 10.2 per cent per annum, compared with traditional retail sales growth of just 3.3 per cent. Media products had the greatest growth in online sales, as shown in Figure 9.7.6. In the United States of America, online retailing now accounts for about 8 per cent of all retail sales. In the case of clothing, online sales now account for 13 per cent of all transactions.

The key attraction of online retailing is convenience. Online stores are available 24 hours a day, and many consumers have internet access at home, at work and while mobile. In contrast, visiting a conventional retail outlet takes time, involves travel and must take place during trading hours.

Comparing prices is also easier online. Furthermore, online retailers can often sell goods and services at very competitive prices because they do not have the expenses of traditional 'bricks and mortar' retailers (for example the cost of maintaining multiple outlets in high-rent shopping malls). Consumers are also able to access goods and services internationally. As a result, one-third of the top retail sites accessed by Australians are based outside the country.

The growth of online retailing has led to a rapid expansion in the international logistics industry. Transporting people's purchases to their homes is a massive undertaking and has created thousands of new jobs.

9.7.6 What happens in an internet minute, 2018

Activities

Remembering and understanding

1   Outline how personal communication has changed since the mid-1980s.
2   Define the terms 'social media' and 'virtual community'.
3   Outline the impact of the new ICT technologies on the nature of work.

Applying and analysing

4   Identify the ways in which people access information are changing.
5   Explore why young people in Australia and the United States of America are driving less.

Geographical skills

6   Study Figure 9.7.1. Using data from the graph, describe the growth in mobile phone use since 1997.
7   Study Figure 9.7.2. Using data from the graph, describe the growing number of internet users since 2000.
8   Study Figure 9.7.6. Identify the three largest categories of online expenditure.

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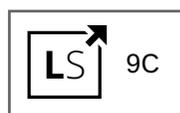
9.8 Real space versus virtual space

Personal and social places

Think about the reasons why you, your family and your friends move around your personal and social space. Possible reasons are going to school or work, shopping, visiting friends, visiting cinemas or sportsgrounds, playing sport, walking the dog or going to the doctor.

Virtual space

Increasingly, a number of our day-to-day activities can be done in **virtual space**. For example, shopping can be done online; friends can be contacted by phone, email or text messaging; and even aspects of work and school can be done at home online. This is a twenty-first-century development. It is changing some of the habits and patterns of people's movements and use of space. Virtual space is now taken for granted by people in countries such as Australia. It means that people have much wider access to others with similar interests, and much greater access to a variety of goods, information and activities. Virtual space is changing the way many people live their lives.

The way people interact in the virtual space through social networks is different throughout the world, as shown in Figure 9.8.1.

Shopping and entertainment online

Before the internet, shopping and most entertainment required travel to shops, cinemas and entertainment centres. Now, much of this is available in different ways through computers, laptops, smartphones and tablets. The percentage of shopping online is increasing, because of the greater range of goods, the ease of ordering at a computer, and the convenience of home delivery.

Working at home online

An increasing number of people are using online connections to work completely or partly from home. Occupations such as writing, editing and design are now possible to do at home while still retaining contact with other people.

Education online

Education at tertiary level is already well developed online. Many tertiary students study courses based at universities in other states, or even other countries. The course notes are available online and students can submit assignments and contact their teachers online. Online learning will expand in the future. You will soon be able to watch, listen to and interact with lectures in real time.

KEY
- Facebook
- Odnokiassniki
- QZone
- V Kontake
- Instagram

9.8.1 World map of social network users, 2018

Medical applications

Medical diagnosis is already being developed online, so that people in remote areas have better access to doctors. As internet speeds incre ase, more people will have access to fast downloading and communications, and more business will be done using the internet.

Virtual space inequality

For people who have low income and few assets, the new technologies are still of limited advantage. It is often difficult to afford phone and broadband bills after paying for rent and food. There is also an increase in isolation experienced by elderly people, who sometimes find the technology difficult to master.

Facebook

Facebook was introduced in 2004. It was originally just a network for students attending Boston's universities. However, it quickly expanded to include other students and then the general public. The growth to over 2 billion users is shown in Figure 9.8.2.

Although Facebook is one of many social media sites, it is the largest and probably the most successful. Figure 9.8.3 compares the use of Facebook in 2018 by age group and gender. The significance of Facebook is that it creates a much wider virtual space.

Facebook is part of a much larger social change, linked to the use of mobile phones and emails to exchange social information instantly and often. People have quickly become used to posting photographs of themselves and their activities in virtual space, where they can be seen by their friends. They can also send invitations, arrange events, send greetings and keep up to date socially.

In some ways Facebook makes the world seem smaller, with its instant access to friends wherever they are. However, people throughout the world are not evenly engaged in Facebook activities.
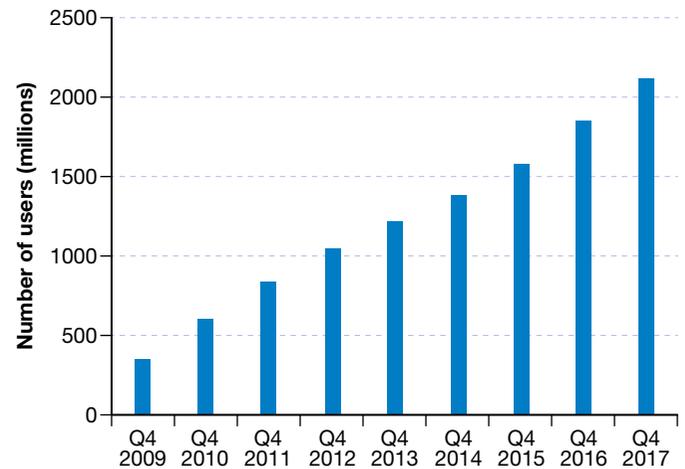
9.8.2 The number of Facebook users, 2017
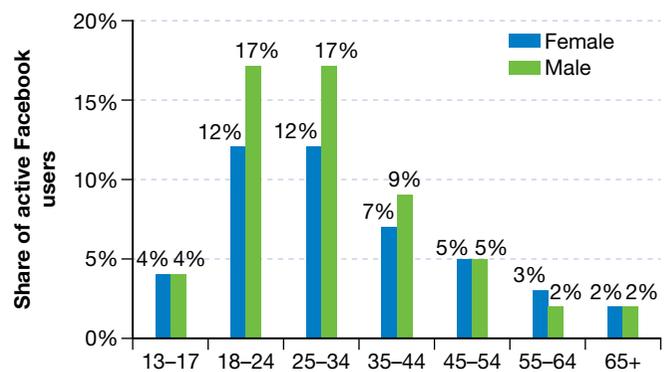
9.8.3 Facebook users by age group and gender, January 2018

Activities

Remembering and understanding

1 Define 'virtual space'.
2 What activities can take place in virtual space?

Applying and analysing

3 Distinguish between real and virtual space. Which are your favourite real places to visit? Which are your favourite virtual spaces?
4 Consider the ways you use technology and complete the following.
   a Make a list of the ways that you use technology to interact with your family and friends.
   b Is there a difference in the way you interact with family and friends using technology? Explain.

5 Create a PMI chart about the advantages and risks of our increasing reliance on virtual space.

Geographical skills

6 Study Figure 9.8.1. Describe the patterns of Facebook connections shown on the map of the world.
7 Study Figure 9.8.2. During which period did Facebook use grow most rapidly?
8 Study Figure 9.8.3.
   a Name the age group most likely to use Facebook in 2018.
   b In 2018, were more females or males most likely to use Facebook? Explain.

9.9 Accessing goods and services

Old patterns of access

When walking was the only means of transport for the majority of the population, the goods and services that people needed had to be available locally. People would walk to where they worked, to shops and to markets for goods. They would also walk to places such as barbers, doctors and repairers. The population relied upon the local markets, workshops and stores (see Figure 9.9.1). Goods and services that were needed less often were supplied by travelling salespeople who travelled from settlement to settlement.

9.9.1 A local village shop

New patterns of access

Trains, buses and privately owned cars made travel more widespread. People could now travel much further than a walking journey. As a result, people could visit distant places to purchase goods and services. Some places developed a more complex range of functions. This created a pattern of a few large towns with large trade areas overlapping the smaller trade areas of small towns and villages.

Patterns of travel and the consumption of goods and services can be mapped by geographers (see Figure 9.9.2). Geographers can distinguish between larger towns, which supply many goods and services, and small towns and villages. They can also distinguish between places that supply high- and low-order goods and services. High-order items are needed only occasionally, are usually fairly expensive, and people are willing to travel long distances to obtain them. Low-order goods and services are needed often, are usually relatively inexpensive, and people do not want to travel far to obtain them. The area throughout which a good or service is consumed is referred to as the **hinterland** of a village, town or city.

Emerging patterns of access

Since the introduction and spread of the internet, the provision (buying and selling) of goods and services has changed greatly. Many people still visit shops and offices for goods and services but the trend towards online purchasing of goods and services has grown very quickly.

This is particularly true of some types of goods. Music and movies that were once purchased on CDs and DVDs are now more often downloaded. This process does not involve any travel by the purchaser. Books, clothes and many specialist goods are also increasingly purchased online. These have to be physically delivered to the purchaser, but the courier, not the consumer, undertakes the travel. The trend towards ordering groceries online for a home delivery is growing, especially among people who are time-poor but relatively wealthy.

Did you know?

You don't own the apps on your smart phone, you own the ability or right to use them. The music or videos you've purchased or the book on your Kindle®—you don't own any of it, just the right to listen to, view or read it.

■ / City and its trade area (high-order goods and services)

● / Town and its trade area (middle-order goods and services)

· / Small town/village and its trade area (low-order goods and services)
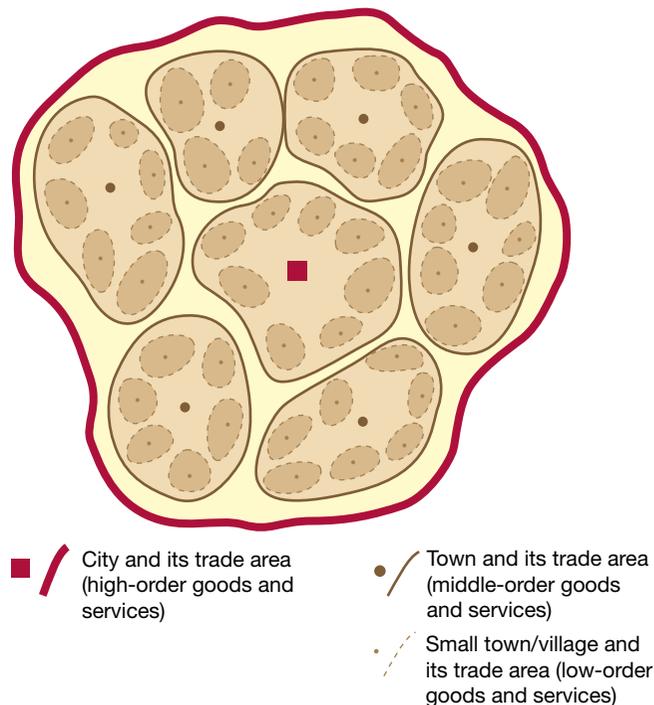
9.9.2 Map of trade areas

9.9.3 Westfield® redevelopment in Sydney's CBD

The next big area of expansion of online use is in services. Medical advice and diagnosis, legal and financial advice, and education courses of all kinds are increasingly accessed online.

All these changes in accessing goods and services have consequences for shops and town centres. Already many shops have closed or changed greatly because of the increase in online purchasing. This trend will continue, but perhaps in ways so far unimagined. Even the giant shopping malls need to adapt. Most are now much more than just a shopping destination. In recent years, companies such as Westfield have spent billions transforming malls (such as the one in Figure 9.9.3) into entertainment destinations that feature cinema complexes and restaurants.

Differences in access to goods and services

Not everybody has access to these new ways of obtaining goods and services brought about by the internet. Within wealthy countries, which typically have high levels of internet use, there are still many people with limited access or no access at all. For them, the consequences of the changes, such as shops closing, still have to be borne without the advantages that others are enjoying.

Activities

Remembering and understanding

1   Explain what is meant by a 'low-order' and 'high-order' good or service.
2   Describe the changes in patterns of travel for goods and services.

Applying and analysing

3   Identify goods and services which fit into the categories of low-order and high-order.
4   Make your own list of goods and services that you know are readily available for purchase on the internet. What goods and services do you think it would be difficult to sell using the internet?
5   Which groups of people do not benefit from the increased availability of online goods and services?

LS↗ 9D
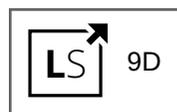
Production, consumption and trade

10

An important aspect of geography is the study of the spatial organisation of the economic, transportation and communications systems that support networks of trade in raw materials, manufactured goods, capital (both human and financial), ideas and services.

Resources are unevenly distributed on Earth. No country has all of the resources it needs, nor can any country produce all the goods and services its people want. People must therefore trade with others in increasingly complex global networks. In turn, this promotes global economic interdependence.

In this chapter we study the ways that places and people are interconnected with other places through trade in goods and services at a range of scales. We also examine the effects of production and consumption on people, places and environments throughout the world.

OVERVIEW QUESTIONS

10A How has the geography of production changed over time?

10B How and why has the global pattern of production and consumption changed?

10C How are places and people interconnected through trade in goods and services?

10D What are the effects of the production and consumption of goods on people, places and environments?

LS Before you begin

GLOSSARY

built-in obsolescence a policy to produce goods that have a limited functional life or become outdated quickly

consumer goods commodities that are produced and subsequently consumed to satisfy people's current wants or needs

digitisation the process of transcribing data into a digital form so that it can be directly processed by a computer

fast fashion low-cost clothing that mimics current luxury trends

goods items that are tangible (actual, or able to be touched) and meet human needs

globalisation the process in which goods and services become similar throughout the world; also the process of businesses operating or influencing on an international scale

services things you pay people to do for you that are intangible (cannot be touched)

trade barriers any government policies or regulations that restrict the international trade of goods and services

trade liberalisation reductions in the direct and indirect forms of industry protection

transnational corporations (TNCs) large companies that operate in a number of countries but generally have their headquarters in one of the countries of the developed world

10.0.1 Container terminals at the port in Shanghai, China

Global production and consumption

Innovations and development

The global geography of product design, marketing and production has been made possible by developments in transportation and communications, and the growth of **transnational corporations (TNCs)**. Developments in transport and communications have enabled businesses to specialise on a global scale. This means that manufacturing can take place in those parts of the world where it is most profitable.

Innovations in transportation

Air transport

Developments in aviation technology have helped to lower transport costs, especially the introduction of the Boeing® 747 and the Airbus® A380. This has also increased the volume of international tourism and trade between countries. Although relatively low volumes of freight are carried by air, the types of goods transported are more valuable. These are mainly electronics products and perishable goods such as flowers. Airports are located close to areas where high-tech products are manufactured, making air freight more attractive than other transport options.

Land transport

Increased investment in rail and road infrastructure has made land transport faster and more competitive over longer distances. For example, high-speed rail systems and new cargo handling equipment have cut delivery times and increased efficiency. Land transport plays an important role in the delivery of cargo to and from ports and airports.

Sea transport

Technological developments in shipping and cargo handling have been central to the expansion of international trade. As ships have increased in size, the cost of transporting goods has declined. The use of specialised bulk carriers, oil tankers and container ships lowers costs. This also reduces the amount of time ships spend in port being loaded and unloaded. Containerisation has revolutionised the way cargo is handled. Containers are capable of being carried by road, rail or ship. This eliminates the need for the multiple handling of goods.

Impact of transport innovations

Developments in transport technology have made it easier for individuals to migrate from one country to another in search of employment. These migrations are of two main types: the movement of highly skilled, highly paid professionals (often employees of TNCs), and the movement of poorly paid, low-skilled workers.

Transport facts

➤ The world's largest container ship is MV CSCL *Globe* (see Figure 10.1.1). It is 400 metres long and 59 metres wide. It weighs 181 741 gross tonnes and carries more than 19 100 containers. The ship's top speed is 41 kilometres per hour.

➤ The largest bulk carrier cargo ship in the world is the iron ore carrier BMS *Ore Brasil*. It weighs a massive 198 980 gross tonnes.

➤ The largest ship ever built was the *Mont* (previously known as the *Knock Nevis*, *Jahre Viking*, *Happy Giant* and *Seawise Giant*). The supertanker was launched in 1979. It weighed in at 564 763 deadweight tonnes and was 458.5 metres long. The vessel was sold to Indian ship breakers in 2009 and intentionally beached at Alang, Gujarat, India, then dismantled for scrap.

Developments in communications technology

Developments in communications technology include telephones, satellite communications and fibre optics. They have made it easier for people to communicate with each other over large distances (see Figure 10.1.2). The following developments have significantly improved communications on a global scale.

Increasing access to the internet

Networked computers make it possible for individuals and businesses to transfer large amounts of information around the world 24 hours a day, at high speed and low cost. The number of internet users worldwide currently exceeds 4.1 billion, or 54 per cent of the world's population. The internet is an important tool in the promotion of the **globalisation** (operating on a global scale) of trade, investment and culture. This technology has, for example, enabled large companies to locate their design and production functions in different cities. The internet has also enabled small businesses to market their products to a global audience 24 hours a day.

The development of advanced communications and transport technologies has brought great benefits, especially to the cities of the developed world. However, many isolated or poor regions of the globe have had little access to this technology in the past. Historically, these countries were effectively shut out of the growing global networks in

10.1.1 The world's largest container ship, MV CSCL *Globe*

trade, transport, finance and communications. There is great social and economic inequity in terms of access to and use of information and communications technologies (ICT). For example, in Africa there is a great divide between countries in regards to access to the internet. In countries such as Morocco, South Africa and Mauritius more than half of the population has access to the internet. In countries such as Uganda, Zimbabwe and Tunisia these figures are much smaller. However, internet access is improving quickly. For example, in Tunisia less than 3 per cent of the population had internet access in 2000. By 2015 this figure had increased to more than 48 per cent.

Increased availability of broadband

In Australia, the development of the National Broadband Network (NBN®) is expected to significantly improve access to the internet for many individuals and businesses. The network will connect 90 per cent of all Australian homes, schools and workplaces to broadband services with speeds of up to 100 megabits per second. This is 100 times faster than speeds experienced by many households and businesses prior to the NBN® being rolled out. The other 10 per cent of premises will be linked by next-generation wireless and satellite technologies that will deliver broadband speeds of 12 megabits per second.

16 hours

'hello'

In the late nineteenth century, it took Queen Victoria 16.5 hours to send a message of greeting across a transatlantic cable to US President James Buchanan.

$60

1960

40c

The cost of a 3-minute phone call from London to New York has declined from $60 in 1960 to 40 cents today.

1960

$1.8 million

$1000 **now**

Over the same period, the average price of a computer has dropped from $1.8 million in 1960 to under $1000 today.

Today, vast amounts of information in multiple formats— text, voice, video—are transmitted at the speed of light.

SPEED OF LIGHT

10.1.2 Communications facts

Growth of satellite and microwave technologies

Satellite and microwave technologies include mobile phones, pagers, geographical positioning systems (GPS) and satellite television broadcasts. These communications systems have the advantage of being wireless. They are therefore more flexible than traditional cable-based technologies.

Use of fibre-optic cable technology

Australians currently have communications access to Asia, North America and Europe via an extensive network of cables and satellites. Fibre-optic technology enables the transmission of greater volumes of information at high speed. This has made global communications faster, more efficient and less costly.

Growth of hybrid technologies

Television and internet technologies are merging as a result of **digitisation** (the process of transcribing data into a digital form). Digital television has revolutionised the way people live by enabling them to use their televisions to undertake many of the functions currently available on the internet. The technology enables consumers to shop, send emails and do their banking in the comfort of their lounge rooms via their digital television sets.

The percentage of households with access to specific communications technologies over time is shown in Figure 10.1.3. The graph shows the speed with which new technologies have been adopted in the United Kingdom (UK).

Each technology experiences a period of rapid growth followed by a slower phase as the market becomes saturated (most people have already purchased the product). In some cases, existing technologies have been completely replaced by new ones (for example, digital television is replacing DVDs).

Growth of TNCs

Another factor shaping the global geography of production is the rise of TNCs. TNCs are large companies that operate across a number of countries but have their headquarters in developed nations. Apple® Inc., Kraft® and Nestlé® are all TNCs.

Within these companies, capital (funds) can be moved from one country to another with ease. These businesses can also locate their operations to take advantage of differences in resource costs and government regulations. The business links of TNCs create a more integrated world economy in which decisions made in one country can affect people in other parts of the world.

TNCs can be classified according to the nature of their operations. Some TNCs operate enterprises in different countries to produce the same or similar products (for example, McDonald's®, KFC® and Starbucks®). Other TNCs operate facilities in various countries to make products that serve as inputs to their production lines in other countries (for example, large automobile manufacturers). The organisation of a TNC is illustrated in Figure 10.1.4.

10.1.3 Take-up of innovations in communications in the UK, 2003–15. New technologies are adopted at a rapid rate initially. Eventually the market becomes saturated (flooded) with products, and sales drop off.

Corporate headquarters
Typically located in large cities within the developed world. High-order functions such as marketing, design and financial control

Politically unstable countries or those engaged in conflict or affected by civil disorder are avoided by TNCs

Factory
Typically located in developing countries where the manufacturing contractor can take advantage of cheap labour and lax environmental laws

Modern port with facilities and cheap power

Subsidiary office
Outsourced manufacturing contractor

Regional headquarters
Geographically dispersed cities with good communications and transport infastructure

10.1.4 Global organisation of a TNC

Activities

Remembering and understanding

1 Explain how the development of transport has changed the way goods are manufactured and sold.

2 Developments in communications technology have revolutionised the geography of production and consumption on a global scale.

    a List the four key developments in communications technology that have done this.

    b What are the advantages of these new technologies?

3 What is a TNC? How do TNCs decide where to locate production?

Applying and analysing

4 Discuss the theme that developments in communications have not benefited all individuals equally.

5 In small groups, use a Think, Pair, Share strategy to brainstorm ways to reduce information inequality.

6 Developments in communications technology are continually developing and changing the geography of production and consumption on a global scale.

    a What do you think international transport and communications will be like in 2050?

    b What impact is this likely to have on your lifestyle (especially the types of products you consume and where you purchase them)?

Geographical skills

7 Study Figure 10.1.3 and do the following tasks.

    a Identify the major innovations in communications in the UK since 2003.

    b Estimate the percentage of households with digital televisions in the UK in 2007.

    c Estimate the percentage of households with digital televisions in the UK in 2013.

    d Which technologies have been adopted most rapidly? Why do you think this is the case?

8 Study Figure 10.1.4 and describe the ways that TNCs operate.

Evaluating and creating

9 Interview some older people to find out what you can about changes in communications technology over time.

    a Prepare a series of questions (minimum of ten).

    b Consider how you will conduct the interview (video, audio recording, writing).

    c Present your findings to the class.

LS 10A

10.2 Patterns of production and consumption

Australia

Australians enjoy one of the highest standards of living on Earth. Our homes are, for the most part, full of **consumer goods**. These include the latest electronic gadgets and high-definition, flat-screen televisions. Our wardrobes are likely to hold clothes that reflect the latest fashion trends, and the chances are that the cars parked in the driveway were imported.

Technology changing behaviour

The internet has enabled Australians to buy a rapidly increasing range of **goods** and **services** online. People can buy the latest fashions from online retailers in North America and Europe, and download movies and music (see Figure 10.2.1). Australians can Skype® their friends on the other side of the planet, and they can network with friends via Facebook® and Twitter®. Developments in transport technologies (especially in the aviation and shipping industries) have greatly reduced the cost of transporting goods over long distances. The global pattern of production and consumption of these consumer goods and services demonstrates the increasingly complex pattern of global interconnections.

Origins of world trade

The distribution of raw materials over the surface of the Earth is very uneven. Some places have large supplies of coal, while others might have supplies of gold, water or good soil. Similarly, the distribution of population and the ability to buy consumer goods is also uneven. Because of the uneven patterns of supply and demand, a system of trade has developed. Trade is now very important and very complex on a world scale.

Trading in the earliest societies involved bartering (exchanging) goods. For example, if one place had salt and another place had crops, they found that exchanging some of each was beneficial to both places. Soon money developed as the medium of trade and a more complex system of trade grew. Some places supplied raw materials, while others processed them and then sold them to consumers. In some cases, this involved the manufacture of more complex goods. These were then sold to consumers in distant places. Figure 10.2.2 shows the worldwide trade of merchandise in period 2006–16.

Flexfit® cap—manufactured in Korea

Billabong® backpack—designed in Australia, manufactured in China

Juice™ shirt—designed and manufactured in Australia

Rusty® jumper—made in China

SOS® jacket—designed in Sweden, manufactured in China

Basketball—American game, ball manufactured in India

Galaxy® phone Korean TNC

Quicksilver™ jeans—designed in Australia, manufactured under licence in China

Jordan® joggers—designed in USA, manufactured in southern China, ordered online from US-based Eastbay

Bluenotes top—manufactured in Canada

Rusty® backpack—manufactured in Mexico

Rip Curl® jacket—Australian brand, manufactured in China, purchased in Paris during European vacation

iPhone®—USA TNC

Facebook® friends

SG DNM jeans—manufactured in China

Skechers® sports shoe—designed in USA, manufactured in southern China

10.2.1 Globalisation of consumer choices

World merchandise trade by major product grouping, 2006–2016 (US$ billion)

Legend:
- Manufactured goods
- Fuels and mining products
- Agricultural products
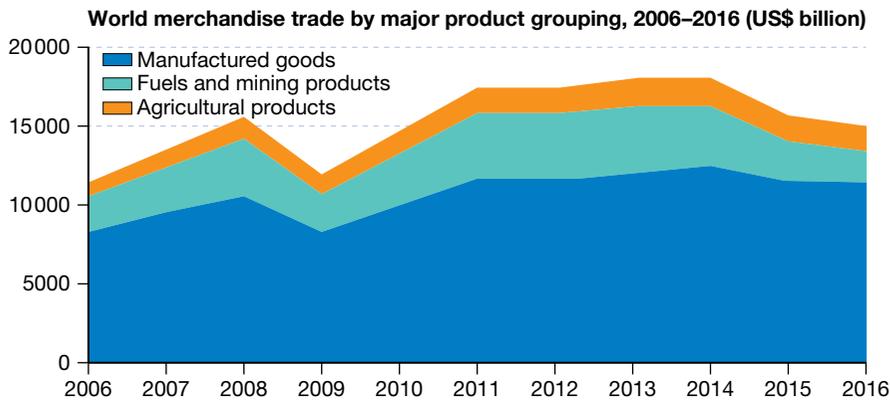
10.2.2 World merchandise trade by major product grouping, 2006–16 (US$ billion)

10.2.3 Exports of goods and services, 2016

US$ billions
- > $797.49
- $797.49 – $511.24
- $511.24 – $280.45
- $280.45 – $96.17
- < $96.17
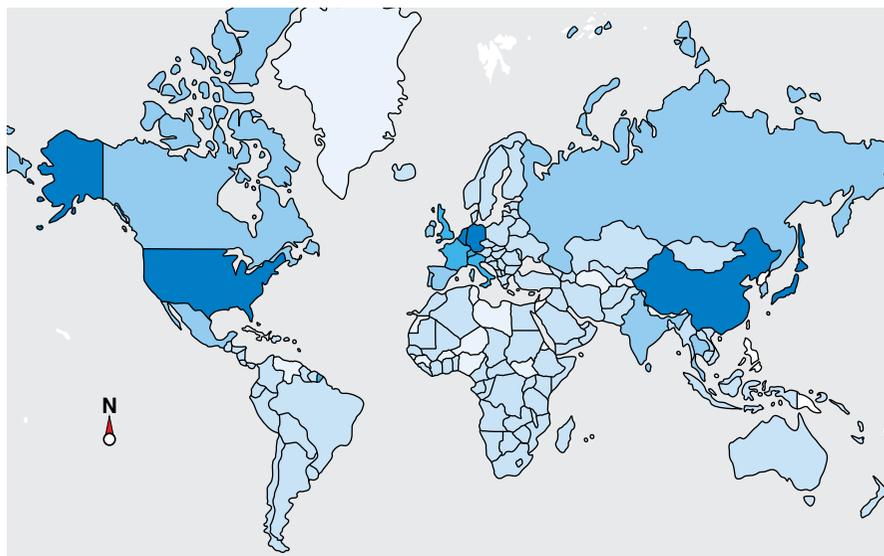
Global patterns of trade

The trading of goods, ideas, services, currencies and shares in companies is now a fully global and complex system.

There are a number of key points about the present pattern of world trade.

➤ World trade is dominated by the United States of America, the European Union and China, but other parts of Asia and Russia are becoming increasingly important (see Figure 10.2.3).

➤ More than 80 per cent of world trade involves the wealthier economies.

➤ There is little trade between countries with less developed economies.

➤ Less developed economies have high levels of specialisation in trading mainly one or two goods.

➤ About half of the world's trade by value is of manufactured goods.

➤ There have been important increases in the trade of high-tech goods.

➤ World trade is increasingly dominated by large global companies.

Activities

Remembering and understanding

1 List the technologies that have increased the complexity of the global pattern of production and consumption.

2 Outline the key features of the current pattern of world trade.

Applying and analysing

3 Study Figure 10.2.1. A typical teenager in Australia, the United States of America or Europe might have clothes made in Asia but designed in the USA or Europe, electronic gadgets made in China but designed in the United States, DVDs of US or European films, and computer games from Japan. Identify a list of other consumer goods and experiences that Australian households purchase.

LS 10A
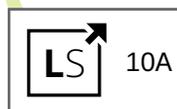
10.3 Trade: Connecting people and places

Places of trade

Think about all the places in the world that you have links with. You might start with family or friends, places that you've visited or would like to visit, and places that particularly interest you. When you have done this, think about some possible connections from the list below:

➤ places where your clothes are made
➤ places where your electronic gadgets are designed and made
➤ places from where you have ordered online goods or services
➤ places that provide services your family uses (banks, airlines, internet provider)
➤ places that make films and television shows you watch.

These connections are all part of globalisation, a process in which goods and services become similar throughout the world.

Origins of clothing

The chances are that your clothes were designed in the United States of America, Europe or Australia, but were made in an Asian country. This is now a very common pattern. Clothing companies might have their head offices and administration in one country, their design offices in another, and the actual manufacturers of the clothing in a number of other countries. This is because they need to have their designers near the latest trends, but they want to use cheap labour and processing to produce the clothing.

Origins of digital devices

Many people own a digital device, such as an iPad®. Look at the list of components and processes involved in the making of an iPad® in Figure 10.3.1. This information is current at the time of publication, but the source of raw materials and the sites of manufacturing keep changing as costs and profitability change. Global companies are constantly assessing their costs and profits, and are prepared to shift their contracts to different suppliers in different countries if that improves their costs.

silicon is an important raw material sourced from Norway

assembled in China

the display is made in Japan

created by Apple® Inc. which is based in California, USA

the microchip is designed in the UK

the aluminium used for the hard drive comes from Canada or Australia

the copper used in the hard drive comes from Chile

the hard drive is made in China or the Philippines

the microchip for video playback is made in Taiwan or Singapore

10.3.1 The design and production of an iPad® is a worldwide collaboration

Global electronics trade

The patterns of trade suggested in the iPad® example are further illustrated in figures 10.3.2 and 10.3.3. These show the regions with the greatest exports and the greatest imports of electronic goods.

Central Africa
South-eastern Africa
Northern Africa
Southern Asia
Asia-Pacific
Middle-East
Eastern Asia
South America
Eastern Europe
North America
Western Europe
Japan
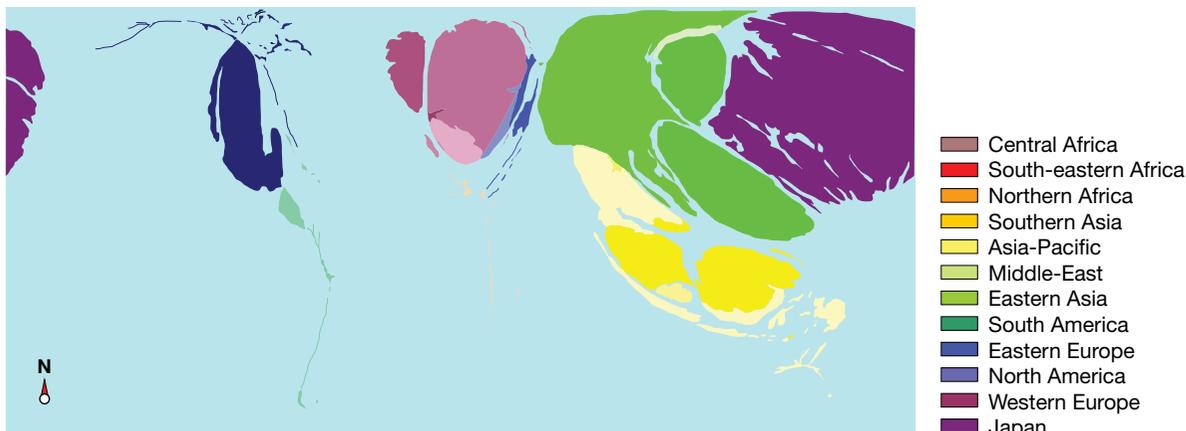
10.3.2 Worldmapper map showing electronic exports

Central Africa
South-eastern Africa
Northern Africa
Southern Asia
Asia-Pacific
Middle-East
Eastern Asia
South America
Eastern Europe
North America
Western Europe
Japan
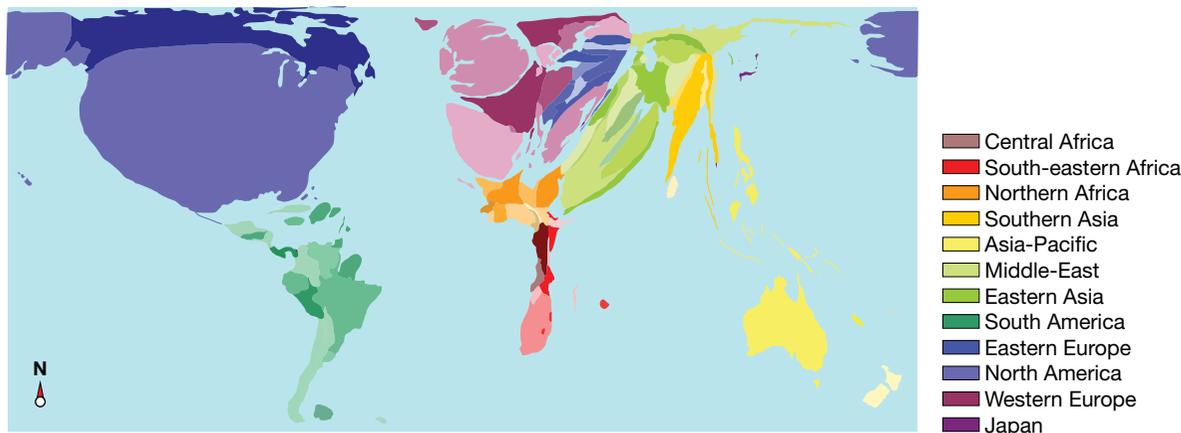
10.3.3 Worldmapper map showing electronic imports

Activities

Remembering and understanding

1 List the metals that are used in the production of an iPad®.
2 Name the countries that are involved in the production of an iPad®.
3 Outline the clothing production process.

Applying and analysing

4 Demonstrate the influences globalisation has on your life.
5 List the places that you are connected with through the origins of your:
   • clothing
   • goods, such as a smart phone or tablet
   • favourite music or shows.

6 Look through the list of the countries and places throughout the world that you have any connection with. Which connections have come about recently through globalisation?
7 Do you think that globalisation is good or bad, and inevitable or changeable? Give reasons for your opinion.

Geographical skills

8 Study figures 10.3.2 and 10.3.3.
   a Name the regions with the largest levels of exports.
   b Name the regions with the largest levels of imports.
   c Describe the pattern that this shows.

LS 10B

10.4 Australia's trading connections

International trade

International trade is the export and import of goods and services. It creates connections between countries. Australia has a complex pattern of trade that has changed over time as our export base has broadened and diversified. Two of Australia's most important exports now are services—education and tourism.

Goods are items that are tangible (able to be touched), such as coal and iron ore, motor vehicles and bottles of wine. **Services** are intangibles. Rather than being items that can be touched, they are things you pay people (such as providers of tourism experiences, education providers, accountants, dentists and doctors) to do for you.

Australia's exports

For many years, minerals (such as iron ore, coal, gold and alumina) have accounted for a significant proportion of Australia's exports. More recently, the demand for these commodities has come from a rapidly developing China. Exports of services such as education and tourism have increased in importance and now make a major contribution to the Australian economy.

Exports of manufactured goods have been slower to develop. As a country we have relied on exporting minerals and primary products such as wheat, wool and beef.

10.4.1 Australia's largest single export by value is iron ore. The collapse in world prices for iron ore in 2015–16 was brought about by a slowing of economic growth in China and an expansion in supply. This caused considerable economic hardship in Australia. Unemployment in the industry increased, government revenues declined and the profits of mining companies collapsed.

These exports finance the purchase of manufactured goods from overseas. However, this trend is starting to change. Manufactured goods, especially elaborately transformed goods such as pharmaceuticals, scientific instruments and wine, now account for a growing share of Australia's exports. Australia's top ten exports are shown in Table 10.4.2. China is Australia's largest single export market, followed by Japan and South Korea.

10.4.2 Australia's top ten goods and services exports, 2016 (A$ million)

Rank	Commodity	Value	% share
	Total	**330 313**	
1	Iron ores & concentrates	66 008	20.0
2	Coal	37 999	11.5
3	Education-related travel services	17 743	5.4
4	Gold	17 037	5.2
5	Natural gas	14 227	4.3
6	Personal travel (excl. education) services	13 460	4.1
7	Beef	10 564	3.2
8	Aluminium ores & concentrates (incl. alumina)	7751	2.3
9	Wheat	6336	1.9
10	Professional services	5920	1.8

Tourism

Tourism makes an important contribution to the Australian economy. In 2016, the tourism industry represented 2.9 per cent of Australia's GDP—a direct contribution valued at $49.7 billion. The total contribution was $183.2 billion. Tourism employs more than half a million people.

In 2015, there were 7.4 million visitor arrivals, and tourism contributed 4.4 per cent of Australia's total export earnings. Visitor numbers and visitors' expenditure per state are outlined in Figure 10.4.3.

Education

International demand for Australian education has grown rapidly since the 1990s. This growth was reflected in the export value of the sector, which totalled $28 billion in 2017. Demand is strong across the higher education, vocational education and training, schools and English-language sectors.

288 870 visitors ▲ 9%
$472 million spend ▲ 18%

2 196 434 visitors ▲ 7%
$4400 million spend ▲ 11%

833 073 visitors ▲ 7%
$2384 million spend ▲ 7%

3 272 578 visitors ▲ 7%
$7461 million spend ▲ 9%

380 830 visitors ▼ 1%
$690 million spend ▼ 7%

177 065 visitors ▼ 2%
$360 million spend ▲ 1%

2 230 933 visitors ▲ 12%
$5450 million spend ▲ 14%

197 561 visitors ▲ 28%
$304 million spend ▲ 42%

10.4.3 Visitor numbers and expenditure (international and domestic), year ending March 2015

▲ increase from 2014
▼ decrease from 2014
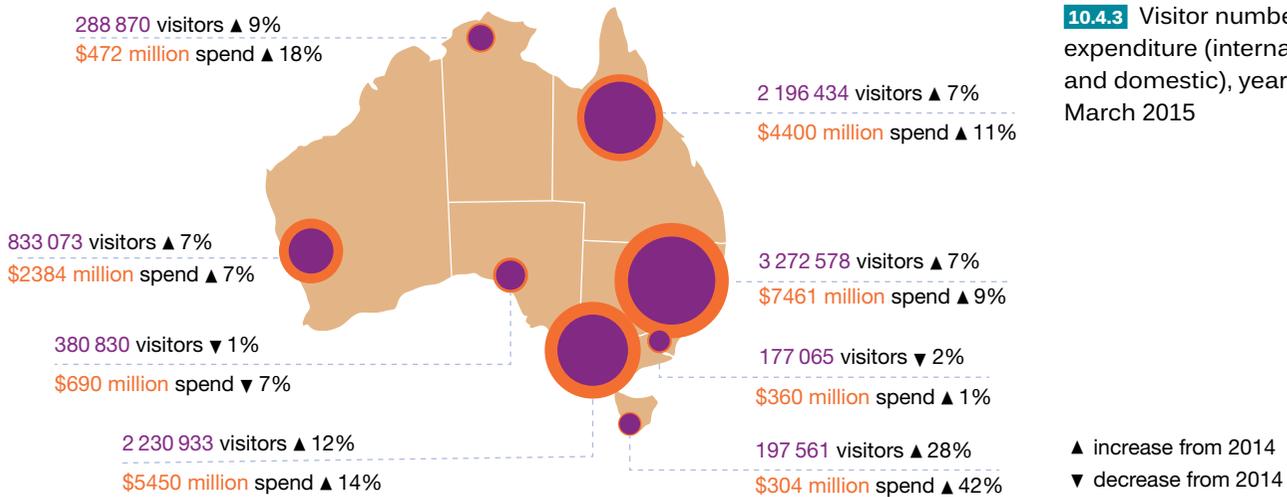
10.4.4 Australia's exports, 2006–07 vs. 2016–17

Australia's imports

The money earned from exporting goods and services offsets the cost of imports. Australia's major imports include petroleum-based products, motor vehicles, transport equipment, telecommunications equipment, medical goods including pharmaceuticals, clothing and footwear, and electronic goods. Many of the imports in the last two categories come from the developing countries of south and east Asia, especially China. Australia's top ten imports are shown in Table 10.4.5. China is Australia's principal source of imports, followed by the United States of America and Japan.

10.4.5 Australia's top 10 goods and services imports, 2016 (A$ million)

Rank	Commodity	Value	% share
	Total	**342 416**	
1	Personal travel (excl. education) services	28 594	8.4
2	Passenger motor vehicles	21 403	6.3
3	Refined petroleum	14 829	4.3
4	Telecommunications equipment & parts	11 970	3.5
5	Freight transport services	8792	2.6
6	Crude petroleum	7953	2.3
7	Medicaments (incl. veterinary)	7617	2.2
8	Goods vehicles	7535	2.2
9	Gold	7468	2.2
10	Computers	7349	2.1

Trade balance
seasonally adjusted & trend, $ million
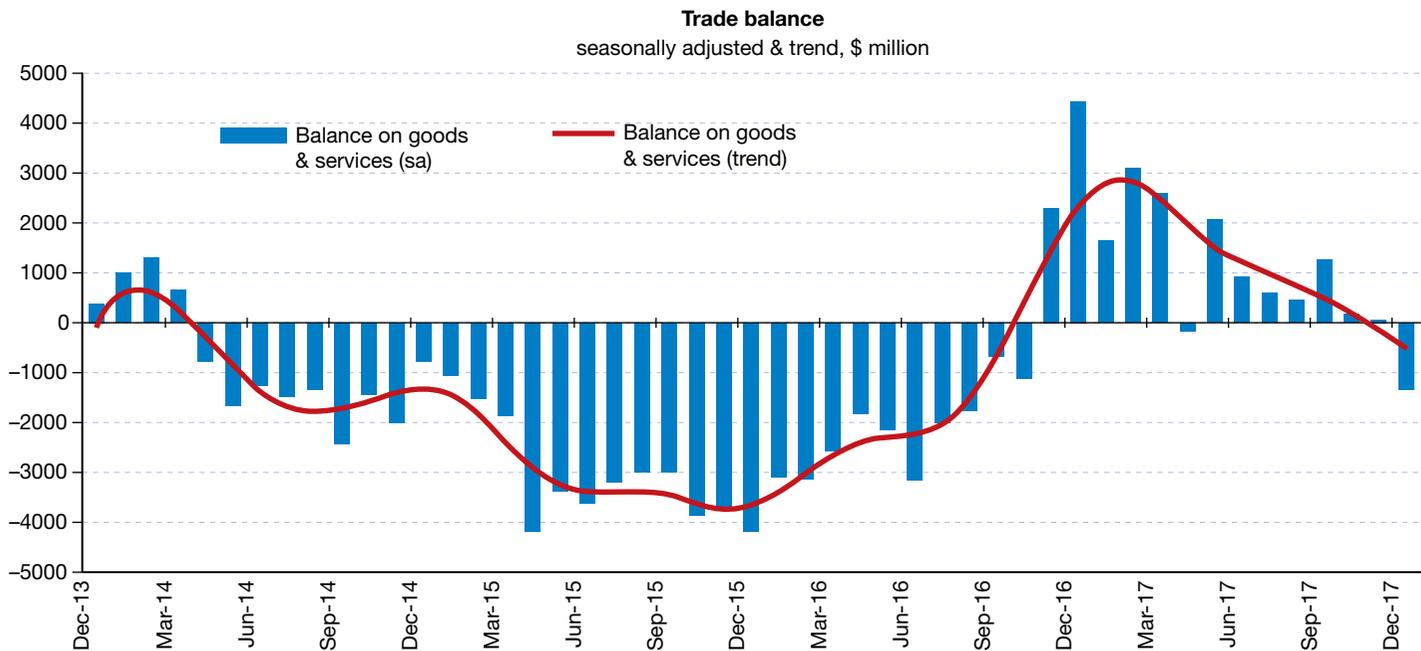
10.4.6 Australia's goods and services trade balance, 2013–17

Balance of trade

Balance of trade is the difference between the value of the nation's imports and the value of its exports. It is an important economic measure. Generally, Australia runs a negative balance of trade (see Figure 10.4.6). This is only important if imports do not contribute to the future generation of wealth. For example, aircraft, while expensive to purchase, generate considerable economic wealth over their lifespan.

Spotlight

Asia-Pacific Economic Cooperation

The Asia-Pacific Economic Cooperation (APEC) group was established in 1989. It was set up in response to the European Union's introduction of aggressive **trade barriers** (government policies or regulations that restrict the international trade of goods and services). There are twenty-one member countries of APEC. They represent a region of over 2 billion people (one-third of the world's population) which accounts for more than half the world's trade. Members of this forum include Japan, the United States of America and the rapidly developing countries of Asia (including China, Hong Kong, Taiwan and South Korea). The Central and South American nations of Mexico, Chile and Peru are also members of this trade forum.

Australia's major trading partners

Australia's trading connections have changed over time. Over the past 100 years, the country's trade focus has shifted away from Europe towards Asia and North America. In the 1960s the UK decided to increase its trading links with other European nations. This forced Australian exporters to develop new trading relationships. These links were found in the rapidly expanding economies of North-East and South-East Asia. By 2000, Australia's focus was firmly on the members of the Asia-Pacific Economic Cooperation (APEC) group. In 2016–17, nearly 72 per cent of Australia's trading was done with members of APEC. Australia's top ten trading partners are shown in Table 10.4.7.

10.4.7 Australia's major two-way trading partners, 2016–17 (A $ million)

Rank	Country	Exports	Imports	Total trade
1	China	93 523	62 121	155 644
2	United States	20 649	43 624	64 273
3	Japan	38 552	22 535	61 087
4	Republic of Korea	20 289	11 912	32 201
5	United Kingdom	14 978	14 127	29 105
6	New Zealand	13 004	11 824	24 828
7	Singapore	10 338	12 366	22 704
8	Thailand	4685	16 564	21 249
9	India	14 897	6115	21 012
10	Germany	3859	16 359	20 218

Barriers to stronger trade connections

A trade barrier is any government policy or regulation that restricts the international trade of goods and services. Trade barriers can take many forms, such as tariffs, subsidies, and various import duties, licences and quotas. Non-trade barriers include import bans, packaging and labelling requirements, product standards and occupational safety and health regulations.

Most trade barriers impose some sort of cost on trade. This raises the price of the traded products. Economists generally agree that such barriers are detrimental and decrease overall economic efficiency. Free trade involves the removal of all such barriers, except perhaps those considered necessary for health or national security. In practice, however, even those countries promoting free trade often subsidise certain industries, such as agriculture and steel.

The commercial interests of agriculture-based corporations and the political demands of sectional interest groups (for example US and European farmers) often result in protectionist policies (such as tariffs on imported goods).

Trade liberalisation

Trade liberalisation involves reductions in the direct and indirect forms of industry protection. Over time, these forms of protection have been reduced as a result of trade liberalisation policies. For example, the average level of tariffs applied to manufactured goods entering Australia is now less than 4 per cent. The Australian Government is working to eliminate these non-tariff forms of protection in an attempt to boost the productivity and international competitiveness of the Australian economy. However, some countries are less willing to agree to reductions in the level of protection provided for their industries.

Free trade agreements

Free trade agreements (FTAs) are international treaties that reduce barriers to trade and investment. Australia has FTAs with both individual countries and groups of countries. They provide:

➤ better Australian access to important markets
➤ an improved competitive position for Australian exports
➤ more prospects for increased two-way investment
➤ reduced import costs for Australian businesses and consumers alike.

Australia's recently concluded FTAs include agreements with China, Japan, Korea and the Trans-Pacific Partnership countries.

Activities

Remembering and understanding

1 Outline the changing nature of Australia's principal exports.
2 Explain what is meant by the term 'balance of payments'.
3 Explain the circumstances under which a negative balance of trade can be seen as acceptable.
4 Outline how Australia's major trading connections have changed over time.
5 Explain how trade liberalisation can be achieved.
6 State what free trade agreements are and outline their benefits to Australia.

Applying and analysing

7 Distinguish between a good and a service.
8 Identify Australia's principal export markets.
9 Identify Australia's principal imports. Where do Australia's principal imports come from?

Geographical skills

10 Examine Table 10.4.2. Construct a proportional pie graph showing Australia's top ten exports. Include an 'others' category.
11 Examine Figure 10.4.3. Identify the three most popular destinations for domestic and international visitors to Australia.
12 Examine Figure 10.4.4. By how much has the economic value of Australia's education exports increased between 2006–07 and 2016–17?
13 Examine Figure 10.4.6. During which periods has Australia experienced a positive balance of trade?
14 Examine Table 10.4.7. Rank Australia's principal trading partners from the largest to the smallest in terms of imports and exports. Describe the differences in the lists and account for these.

Evaluating and creating

15 Investigate Australia's imports and exports using Austrade's website. Locate the most recent export and import data. Identify any changes in the nature and direction of Australia's international trade. Present your findings as an oral report.

10.5 Electronic consumer goods

Electronics at home

It is now normal for many Australian homes to have flat-screen or digital televisions, personal computers, laptops or tablets, sound systems, wi-fi, digital cameras and mobile phones. This is very different from the 1950s, when the typical household had only one radio and a telephone. Since that time there have been waves of new products hitting the market.

Declining costs of electronics

The main factor influencing the astounding growth of electronic products is the steady fall in the relative price of these products. This has been possible because of the development of mass production methods. Mass production is carried out in highly automated factories located in places with low labour costs.

Purchasing electronic goods

The countries with the highest average incomes are generally the ones where consumer electronics goods are purchased in the largest quantities and spread most quickly. However, there are differences between countries with similar levels of wealth. The graphs in Figure 10.5.1 show the differences in ownership and use of seven electronic products and services in nine of the wealthiest countries of the world.

The raw materials for electronics

Metals

A range of metals are used in the production of electronic devices. Copper has always been important because it conducts electricity extremely well. Tin, silver, lead, aluminium, nickel and chromium are also found in many everyday electronic products.

Petrochemicals

Two of the other key raw materials in electronics are plastics, which are derived from silicon and petrochemicals. Silicon is a commonly occurring mineral found in quartz, amethyst, flint and jasper. Petrochemicals are the chemical materials obtained from oil. Most of the electronic devices we use contain microprocessors, integrated circuits and printed circuits. These are all made from petrochemical-based products. The bodies of the electronic devices are also made mostly of plastics derived from petrochemicals.

Environmental effects of electronics

Electronic devices on standby still use power. The power used by electronic devices in the home when they are not turned off accounts for 5–10 per cent of the electricity consumed in the average household.

10.5.1 Ownership and use of electronic devices, 2017
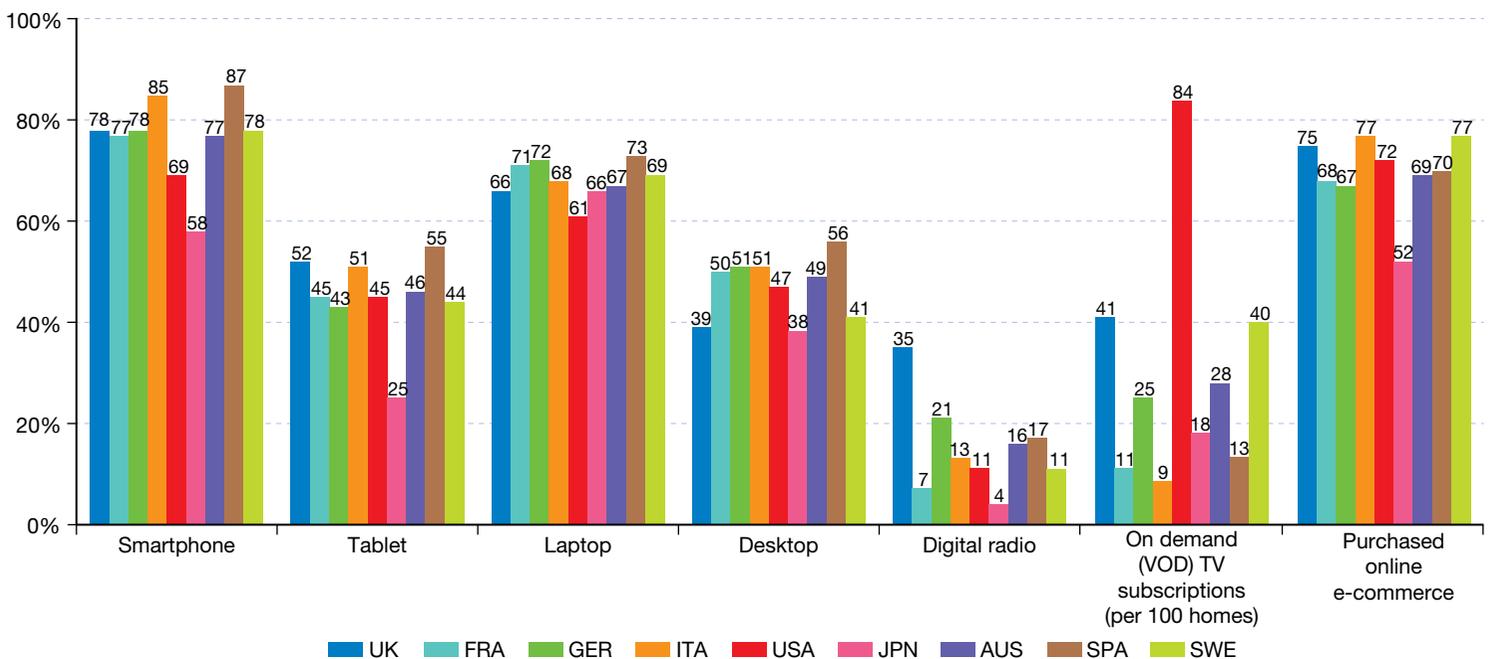
Some electronic devices now carry 'energy stars' in a similar way to household appliances. This is done to indicate how much power they use. Solid-state drives use less power and are being used in an increasing range of devices.

Some electronic gadgets are now being promoted for their 'greenness'. However, if you buy one of these and throw out an older item, you are in fact using more of the Earth's resources. This is because of the amount of energy and raw materials used in making and transporting the new purchase.

10.5.2 Some of the main routes of materials in the electronics industry
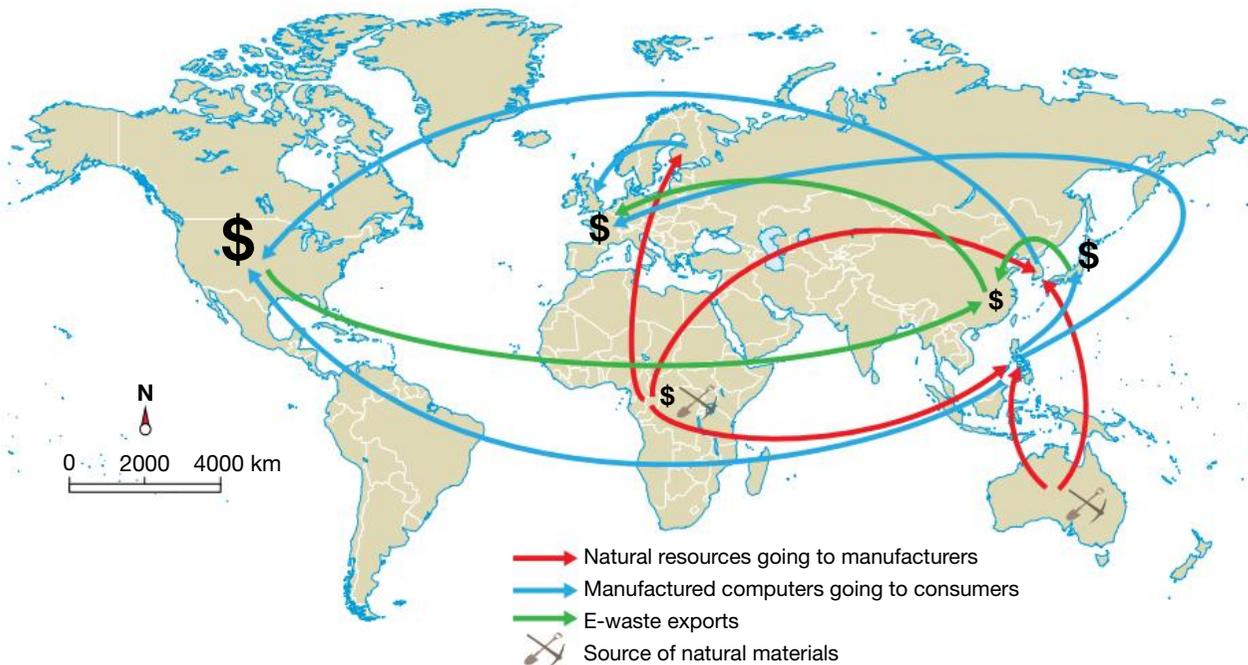
World cycle of the electronics industry

Some of the main routes of materials in the electronics industry are shown in Figure 10.5.2. It is drawn to show generalised patterns, not the particular routes of every material. The raw materials are shown travelling from Australia and Africa, but these locations only account for metals and silicon materials. Petrochemicals come from many other countries that export oil. The manufactured computers are shown being transported from East Asia to Europe, Japan and the United States of America, but there are obviously many other buyers. The waste is then shown being taken back to China, as a representative country used for disposal of outdated electronic equipment. India is another major destination of electronic waste.

- → Natural resources going to manufacturers
- → Manufactured computers going to consumers
- → E-waste exports
- ⚒ Source of natural materials

Activities

Remembering and understanding

1 Explain why the number of electronic goods in households in wealthy countries is growing so fast.
2 Outline the environmental effects of the electronics industry.

Geographical skills

3 Study Figure 10.5.1 and do the following tasks.
   a Identify the four devices with the highest take-up.
   b Name the countries that have the highest overall ownership of these four devices.

   c Digital radio shows the greatest difference in take-up between countries. Can you suggest reasons for this?
   d Name the device with the next greatest difference in take-up.

Applying and analysing

4 Make a list of the electronic devices in your home.
   a Which of them do you have more than one of?
   b Ask your parents how many electronic devices they had in their homes when they were your age.

LS↗ 10C

10.6 Shenzhen: The world's factory

Shenzhen

Shenzhen is one of China's main industrial cities (see Figure 10.6.1). Only Beijing, Hong Kong and Shanghai are more important in terms of industrial output. Many of the world's top 500 enterprises and well-known multinational companies have established a presence in Shenzhen. This includes many of the world's top brands in the high-tech industries. The city is the country's richest urban centre on a per capita basis.

Special Economic Zone

In 1979 Shenzhen was named one of China's first Special Economic Zones (SEZs). Before then, it was a small and fairly insignificant town. At the time, its population was just 300 000. Today, the population is thirty times that figure and the city has grown to accommodate this increase (see Figure 10.6.2). The present population of 10 million includes 6 million immigrants, who are registered as temporary workers, nannies, service workers and cleaners.

Shenzhen's growth

The growth of Shenzhen started when it became an SEZ. This designation gave it advantages in exporting goods, obtaining labour, setting up joint ventures with foreign companies, and obtaining tax advantages. The other factor that gave it huge advantages was its proximity to Hong Kong. Before 1997, Hong Kong was not part of China. It was a British colony with booming industries, a major port and a free economy. The new leaders of China saw Hong Kong as a model and partner for the type of industrial city they wanted.

Shenzhen's industries

Factories in Shenzhen produce a range of consumer goods, with a focus on electronics. These include computer software, telecommunications equipment and medical instruments. Meanwhile, newer industries such as pharmaceuticals, medical equipment, biotechnology and new materials have also grown rapidly. Electronics and telecom equipment manufacturing remains the city's largest industry.

Toys are also a major product of the region. According to one estimate, 1 million workers produce about 50 000 different toy models in Shenzhen. The largest of these factories employs up to 15 000 workers. They work, live and sleep in the factory complex. Many of these workers go back to their homes in other regions of the country only once a year.

10.6.1 Shenzhen's proximity to Hong Kong has been a key factor in the city's emergence as a major industrial centre

10.6.2 In just over 30 years, Shenzhen has emerged as one of the world's great industrial and commercial centres

One Shenzhen-based company is now the second-largest battery maker in the world. Its factory is half a million square metres in size. Another Shenzhen business makes 100 000 laptops each month and is aiming to be the world's largest computer maker by 2020.

New industrial parks

Like many other industrial cities, Shenzhen is now trying to locate factories in special industrial parks, away from residential and retail areas. Industrial parks give the factories advantages in transport, parking, power supplies and waste disposal. Shenzhen has recently established a high-tech industrial park and an adjoining software park.

Population

The rapid growth of Shenzhen's population has been fuelled by young people migrating from other parts of China. The average age of the population is under 30. Only 1 per cent of people are aged 60 years or over. The population can be generalised as fitting into two main groups. One group is highly educated people with specialist skills in electronics, computer software, design and management. The other group is larger, and is made up of poorly educated migrant workers who have been attracted by the abundance of unskilled jobs.

Human wellbeing

There are both advantages and problems for the workers in Shenzhen. The enormous growth of industry and exports has provided millions of jobs to people who need them. China's expanding population would have found it difficult to achieve a reasonable living without this kind of growth.

At the same time, the location of jobs in Shenzhen has meant that people have had to travel and live far from their homes in order to secure employment.

The wages in industry are higher than those in some other occupations and in some other regions of China. However, they are low by world standards. Some factories have been accused of paying workers less than a dollar an hour, and making employees work long hours without adequate benefits.

Connections with the rest of the world

Almost all of the products made by factories in Shenzhen are for export overseas. This was the purpose of the SEZs, and it has been highly successful in Shenzhen. The exported goods go mainly to the United States of America and Japan. Many of them are also sent to Hong Kong, where they may be repackaged before export. Shenzhen imports oil, foodstuffs, computers and electronic equipment from other countries, mainly the United States and Japan. Because it is an industrial city, Shenzhen does not attract many tourists, but this is slowly changing.

Activities

Remembering and understanding

1   Name the three Chinese industrial cities more important than Shenzhen.
2   Describe the demographic character of Shenzhen and the level of wellbeing experienced by its residents.
3   Outline Shenzhen's connections with the world.

Applying and analysing

4   Shenzhen became one of China's first Special Economic Zones (SEZs) in 1979.
    a   Describe the purpose of the SEZs in China.
    b   Why do you think China developed these zones?
    c   What advantages have they created for China?
5   The average age of people in Shenzhen is significantly lower than the average age for China as a whole. Propose some reasons for this.

Fast fashion

Fast fashion is the name given to the process of international clothing retailers stocking the latest fashion trends in their stores within weeks of them appearing on the Fashion Week catwalks of London, Paris, Milan and New York. Fast fashion reflects the extent to which global brands and retailers now dominate the clothing industry.

Fast-fashion retailers

Some of the biggest names in the industry are fast-fashion retailers. These include Cotton On® (Australian-based), Esprit® (USA), Forever 21® (USA), Gap® (USA), H&M® (Sweden), Topshop® (UK), Uniqlo® (Japan) and Zara® (Spain). Fast-fashion retailers have challenged the dominance of established clothing retailers, especially department stores such as David Jones® and Myer®.

Origins of fast fashion

Fast fashion had its origins in the manufacturing model referred to as 'quick response', developed in the United States of America in the 1980s. Zara, owned by the Spanish Inditex® group (the world's largest multinational clothing company), has been at the forefront of applying this approach to fashion retailing. Zara's collections are based on the most recent fashion trends. Its supply chain has been designed to manufacture products quickly and inexpensively. This allows the mainstream consumer to buy current clothing styles at a lower price.

Fast and efficient supply chains are central to the success of fast-fashion retailers. Supply chain systems are designed to add value and reduce cost in the process of moving goods from design to the manufacturer, to the retail outlet and finally to the consumer. For example, Zara is able to manufacture over 30 000 units of its products every year and distribute them to its 2000 stores in eighty-eight countries. New items are delivered to the stores twice a week. The pace of supply enhances consumer choices and product availability. It also significantly increases the number of customer visits to the store.

Did you know?

Every year, an estimated 80 billion garments are created. An average woman in the developed world now has four times as many clothes in her wardrobe as she did in the 1980s.

Structure of the fashion industry

There are four key components of the fashion industry:

➤ the production of raw materials, principally fibres, textiles and leather
➤ the production process (designers and manufacturers)
➤ advertising and promotion
➤ retailing.

The clothing manufacturing process is illustrated in Figure 10.7.1.

raw material (cotton)

cotton processing and fabric supplier

garment manufacturing

distribution and logistics

retail outlet and/or department store

consumer

10.7.1 Key components of the fashion industry

The global fashion industry

The fashion industry originated in Europe and then spread to the United States of America. Today it is a truly global undertaking, with clothing often being designed in one country, manufactured in another and then sold worldwide. For example, an Australian-owned surfwear company might buy its cotton fabric from Chinese mills, have the garments sewn and screen-printed in Vietnam and then ship the product to distribution centres in Australia, the United States and Europe to be sold by retailers internationally. High-end fashion houses might weave Australia's finest merino wool into cloth in Italian fabric mills before shipping the cloth to tailors in China, who transform it into expensive business suits using designs generated in the fashion houses of Milan, Italy (see figures 10.7.2 and 10.7.3).

Marketing fast fashion

Marketing is central to the success of the fast-fashion industry. Advertising creates a demand for the latest designs. Within the industry this is achieved by promoting fashion consumption as something fast, low-priced and disposable. The continual release of new products has the effect of making the garments the marketing tool. It drives consumer visits and increases brand awareness. The outcome is higher sales and profit.
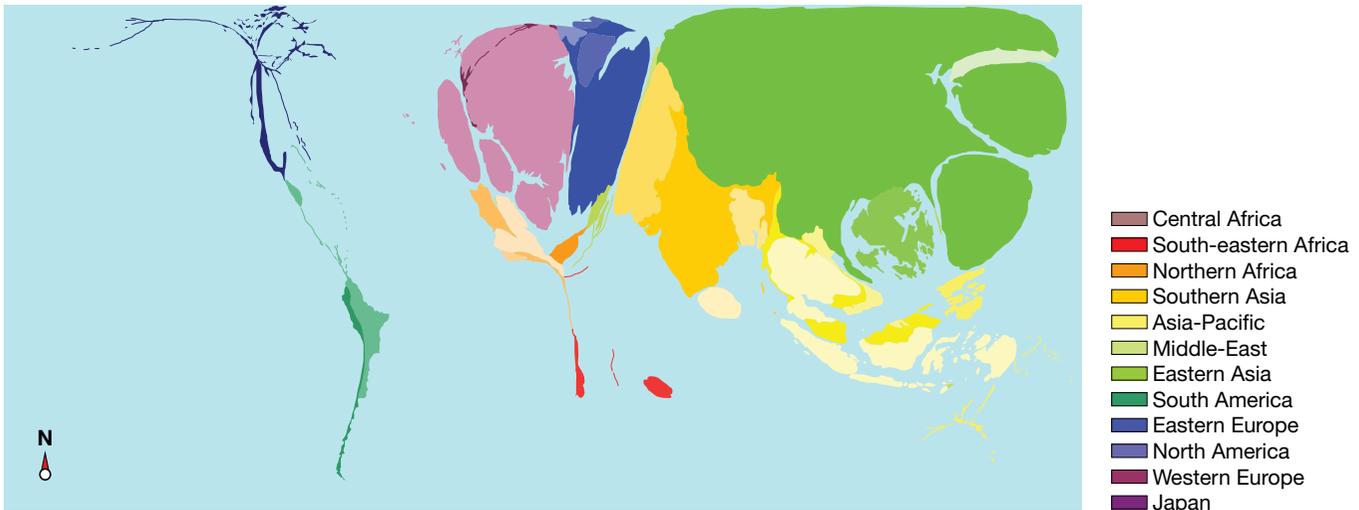
10.7.2 Worldmapper map showing clothing exports

Legend:
- Central Africa
- South-eastern Africa
- Northern Africa
- Southern Asia
- Asia-Pacific
- Middle-East
- Eastern Asia
- South America
- Eastern Europe
- North America
- Western Europe
- Japan

10.7.3 Worldmapper map showing clothing imports

Legend:
- Central Africa
- South-eastern Africa
- Northern Africa
- Southern Asia
- Asia-Pacific
- Middle-East
- Eastern Asia
- South America
- Eastern Europe
- North America
- Western Europe
- Japan

The commercial success of this clothing retail sector is based on the consumers' desire for new clothing. In order to meet consumer demand, fast-fashion brands offer affordable prices and a wide range of clothing that reflects the latest trends. This ends up persuading consumers to buy more and more. Critics of fast fashion argue that this results in overconsumption. They also criticise the **built-in obsolescence** evident within the fast fashion industry. This is when last year's fashions are designed to be replaced by this year's, even though the old clothes are still wearable.

Impacts of fast fashion

The built-in obsolescence of fast fashion is not only about trends. Most of the clothing is poorly made, using cheap fabric. This means that the clothes will not survive multiple launderings. These clothes often end up in landfill. In Australia, an estimated $140 million worth of clothes, or 1.2 million tonnes, ends up in landfill every year. Unworn clothing is also donated to charity shops. According to the

Australian National Association of Charitable Recycling Organisations, 50 million kilograms of textile waste is collected annually through charity bins and donations. Of this, an estimated 12.5 million kilograms is unsuitable for reclamation and is sent to landfill. Additionally, most fast-fashion clothing is made from synthetic fibres. These are not easily recyclable and do not biodegrade as quickly as natural fibres.

Environmental impacts of fast fashion

The two main types of fibres used in the fashion industry are synthetic (nylon and polyester) and natural (cotton). Synthetic fibres are increasingly used in the fast-fashion industry because they are becoming cheaper to produce. Synthetic fibres are now more popular than cotton and make up nearly 60 per cent of all fibres used worldwide. Synthetic fibres are created from oil. It takes about 70 million barrels of oil to produce the virgin polyester used in fabrics each year.

10.7.4 Liquid and cloth waste from the dyeing factories in Dhaka, Bangladesh. The chemicals used are released directly into the Turag River.

Large amounts of pesticides and water are required to grow cotton. For every 1 kilogram of cotton to make a pair of jeans, about 11 000 litres of water are required to grow and pick the cotton, and then produce, pack and ship the final product.

The textiles industry requires large amounts of water to dye and rinse natural and synthetic cloth, as well as steam for printing and pressing fabric. To make 1 kilogram of cloth requires 120–170 litres of water. After implementing water-saving plans and technology, some factories in Dhaka, Bangladesh, have reduced this amount to 60 litres.

It is estimated that for every 1 tonne of textiles produced, 200 tonnes of water are polluted (see Figure 10.7.4). The not-for-profit Institute of Public and Environmental Affairs (IPE) estimates that China's textile industry discharges about 2.5 trillion litres of wastewater into its rivers each year.

Opposing fast fashion

Fast fashion is often associated with disposable fashion. This is because it delivers a designer product to a mass market at relatively low prices. The slow-fashion movement has developed in opposition to fast fashion. It blames fast-fashion retailers for emphasising short-term fashion trends over classic style. It also accuses the fast-fashion sector of contributing to the exploitation of workers in developing countries such as Bangladesh, and of causing pollution associated with production processes and the decay of synthetic fabrics.

Worldwide Responsible Accredited Production

Worldwide Responsible Accredited Production (WRAP) is a not-for-profit organisation established by global fashion and clothing companies. It monitors and certifies the compliance of clothing manufacturing facilities with set standards. In 2016, there were 2153 WRAP-accredited factories worldwide, employing around 1 924 782 people. The companies must comply with set standards in the following areas:

➤ laws and workplace regulations
➤ prohibition of forced labour
➤ prohibition of child labour
➤ prohibition of harassment and abuse
➤ compensation and benefits
➤ hours of work
➤ prohibition of discrimination
➤ health and safety
➤ freedom of association and collective bargaining
➤ environment
➤ customs compliance
➤ security.

Clean Clothes Campaign

The Clean Clothes Campaign is a non-government organisation dedicated to improving working conditions. It also supports the empowerment of workers in the global garment and sportswear industries. It does this by educating and mobilising consumers, and lobbying companies and governments. The organisation also offers direct support to workers as they fight for their rights and demand better working conditions.

One way workers fight for better working conditions and rights is through protests, such as the one shown in Figure 10.7.5. Here the Clean Clothes Campaign is supporting garment workers at an industrial park in Phnom Penh, Cambodia. They are holding stickers and wearing T-shirts that say 'USD177'. These protesters are demanding an increase of their minimum salary to US$177 per month—the

10.7.5 US$177 minimum wage campaign by garment workers, Phnom Penh, Cambodia

minimum wage. The campaigners are also asking international brands that make clothes in Cambodia to support their minimum wage campaign.

Activities

Remembering and understanding

1 Explain what is meant by the term 'fast fashion'.
2 Outline the origins of fast fashion.
3 Explain how the business model of fast-fashion retailers differs from that of other clothing brands.
4 Outline how marketing is used to promote sales in the fast-fashion retail sector.
5 State the concerns of those who question the practices of the fast-fashion industry.

Applying and analysing

6 Identify the fast-fashion retailers that have entered the Australian market since 2015.
7 Think about your own fashion purchases and those of your friends. Discuss how you could reduce your impact on the environment.
8 Study figures 10.7.2 and 10.7.3. Name the regions with the largest clothing exports and imports.
9 Create a PMI (Plus, Minus, Interesting) chart on WRAP and the Clean Clothes Campaign.

Evaluating and creating

10 Design a social media campaign urging consumers to boycott fast-fashion stores until they can demonstrate that they source their clothing from factories where workers are not exploited.
11 Select a fast fashion retailer and investigate how it is responding to criticisms of fast fashion in regard to:
   • environmental impacts
   • exploitation of workers.
   Your response needs to outline the programs that have begun and analyse whether or not they are working.

10.8 The hazards of electronic waste

Electronic waste

Electronic waste, or e-waste, refers to electronic products that are no longer wanted or working. This includes

- CD players
- computers
- mobile phones
- monitors
- printers
- televisions
- VCRs.

Increasing electronic waste

According to the 2017 global electronic waste report by the United Nations University, the International Telecommunication Union and the International Solid Waste Association, an estimated 44.7 million tonnes of electronic waste was generated around the world. This amount is equivalent to almost 4500 Eiffel Towers. The electronic waste generated globally is shown in Figure 10.8.1.

The increase in the amount of electronic waste has been caused by two changes in relation to computers:

- the number of computers purchased for home use has increased at an astounding rate
- the average lifespan of a computer has dropped from about 5 years in 1999 to less than 2 years today.

Most computers and other electronic items are thrown away—only about 10 per cent are recycled. This means that the dangerous heavy metals leach into the subsoil, where they can contaminate groundwater. It is estimated that 50 million tonnes of electronic waste are produced each year.

Europe discards 100 million mobile phones per year, and the United States of America discards 30 million computers annually. Some estimates suggest that electronic waste may rise by 500 per cent over the next decade. Of all electronic waste, approximately 25 per cent of it is related to computer waste (see Figure 10.8.2). Pollutants found in electronic waste include:

- lead in cathode ray tubes and solder
- mercury in switches and housing
- arsenic in cathode ray tubes
- antimony trioxide as a flame retardant
- selenium in circuit boards
- cadmium in semiconductors
- cobalt in steel for magnets.

Global electronic waste generated
E-waste totals

10.8.1 The amount of electronic waste generated globally in total (top) and per person (bottom)
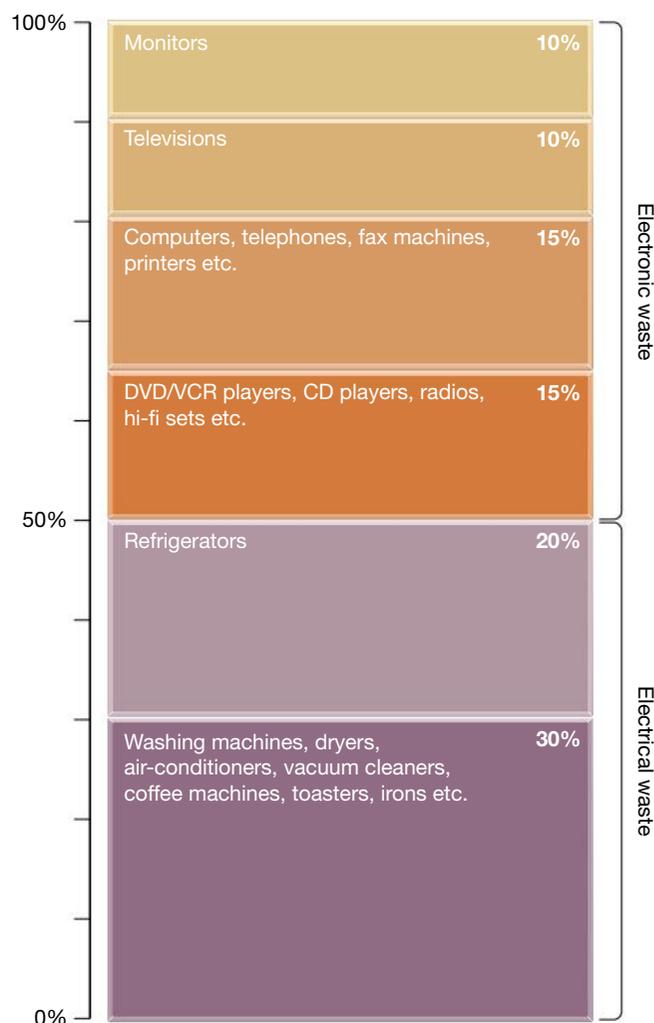
10.8.2 The composition of electronic waste

Hazardous components

Personal computers contain small quantities of toxic heavy metals, such as cadmium, lead and mercury (see Figure 10.8.3). These chemicals are all monitored and regulated by environmental protection agencies in countries such as Australia and the United States of America. The uncontrolled disposal of personal computers creates concentrations of these metals far above recommended levels.

Other (includes lead, copper, zinc, mercury and cadmium) 17%

Silica/glass 26%

Aluminium 14%

Ferrous metal 20%

Plastics 23%
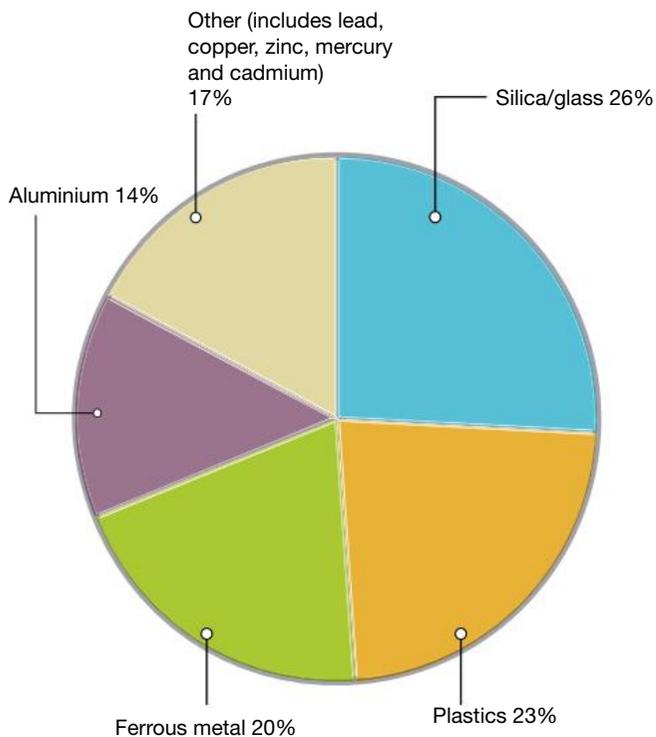
10.8.3 Computer components

Recycling computers and electronics

It is possible to recycle computers and consumer electronics. Recycling involves breaking down electronic items for their component parts and processing the materials from which they are made. However, the recycling process has not been able to effectively recycle computers and electronics due to the large amount of electronic waste.

Spotlight

National Television and Computer Recycling Scheme

Australians produce on average upwards of 20 kilograms of electronic waste per person per year. Electronic waste in Australia is increasing and it is usually discarded rather than recycled. Less than 10 per cent of the 15.7 million computers no longer in use have been recycled. It is estimated that if 75 per cent of the 1.5 million televisions thrown out annually were recycled, the savings would be significant. They would include 23 000 tonnes of carbon dioxide equivalents, 520 megalitres of water, 400 000 gigajoules of energy and 160 000 cubic metres of landfill.

The National Television and Computer Recycling Scheme provides Australian householders and small businesses with access to free recycling services for:

- televisions
- computers
- printers
- peripheral computer devices (such as keyboards, mouses and hard drives).

Drop-off points have been established at recycling depots and retailers around Australia.

10.8.4 An electronic waste drop-off point

Complicating the process is the rapid rate of technological development. Electronic goods can quickly be made redundant by new and upgraded technologies. One example of this is the iPhone. From the time it was first released in mid-2007 until 2017, twelve increasingly sophisticated models were released. In many cases, consumers simply discarded the obsolete model in order to have the latest technology available.

Processing of electronic waste

In 2017, over 66 per cent of countries around the world had introduced legislation about the collection and disposal of electronic waste. The 2016 global electronic waste report estimated that only 20 per cent of electronic waste (8.9 metric tonnes) is reported to have been collected and recycled. The remaining 80 per cent of waste (35.8 metric tonnes) is not documented, and is presumed to have ended up in landfill or been dumped, traded or recycled under inferior conditions.

Both China and India have places that specialise in the disposal of electronic waste. China has a site at Guiyu, and India has sites near Delhi and Bengaluru (Bangalore). At these sites thousands of people are engaged in the dangerous recycling process. They separate toners, plastics and metals from wastes. In the process they come into contact with many sources of dangerous substances. Furthermore, the uncontrolled burning and disposal of products cause chemicals and metals to discharge into the atmosphere, soil and groundwater. The electronic waste traffic in Asia is outlined in Figure 10.8.5. In 2016, the Chinese government introduced new laws to regulate the recycling of electronic waste. Chinese authorities ordered all unregulated electronic waste workshops to move to a new industrial park, with tighter controls and regulation. This was part of the Chinese government's 'war on pollution'.

10.8.5 Electronic waste movements in South and East Asia

Spread of electronic waste

Many illegal shipments of electronic waste find their way to countries such as Ghana (see Figure 10.8.6), bypassing the rules controlling the movement of such materials. Those responsible simply label the electronic waste as television sets for re-use or computers given as donations. When they finally reach the landfills in the country where they are to be dumped, they are scavenged by groups of children looking for microchips and other parts they can sell. The useless parts are smashed, burned and crushed.

Medical workers have found all kinds of health problems in people working on or scavenging from electronic waste dumps. Children break open cathode ray tubes and expose themselves to lead poisoning. People who use acid to strip down circuit boards may splash their skin with it and breathe the fumes.

Did you know?

The potential value of raw materials in electronic waste produced in 2016 is estimated at 55 billion euros.

10.8.6 Warning sign on the electronic scrap yard in Agbogbloshie, Ghana

Activities

Remembering and understanding

1   State what electronic waste is.
2   Explain why electronic waste is now a problem.
3   Outline why electronic waste is such a problem in countries with not as many computers or phones per person.

Geographical skills

4   Study Figure 10.8.5. Outline the movement of electronic waste in South and East Asia.

Evaluating and creating

5   Investigate local recycling schemes for batteries, computers and mobile phones available near where you live. Develop an action plan for yourself and your family about how to effectively recycle your electronic waste.

LS 10D
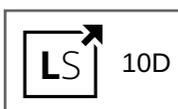
Civics and citizenship toolkit $\quad$ 11

Once you turn 18, you'll have the chance to vote. This means having your say in electing representatives and Members of Parliament. Citizens of Australia can vote in local, state and federal elections. It's important that you understand Australia's democratic processes and how the system works at each of these three levels. By studying civics and citizenship, you will come to understand your role and responsibilities in Australia's democracy. You will also investigate the role played by the political and legal systems in protecting our rights and shaping our society.

Developing the key skills outlined in this chapter will help you critically analyse local, national and international issues, and evaluate Australia's political and legal systems. You will also analyse the way voters are influenced by the media, and political parties and their campaigns.

Studying civics and citizenship gives you the opportunity to evaluate the strengths and weaknesses of our democracy by asking questions such as, 'How equal are we?', 'Are our laws fair for everyone?' and 'Does our government fully represent us?'

11.0.1 Australia's Parliament House is located on Capital Hill in Canberra. It is here that our elected parliamentarians meet to represent the Australian people and make decisions on behalf of our nation.

GLOSSARY

bias the unfair favouring of one opinion or point of view

citizen a person who legally belongs to a country and has the rights and protection of that country

citizenship the position or status of being a citizen of a country

civics the study of the rights, responsibilities and duties of citizens and how the government works

democracy a form of government in which people choose leaders by voting; in a democracy everyone is treated equally and has equal rights

evaluate make a judgement based on your research

evaluative questions questions that deal with matters of judgement, value and choice

government the elected group of people who control and make decisions for a country or state

perspective a particular attitude or way of thinking; a point of view

position to construct a source of information so that it makes the audience feel or act in a particular way

reliability the trustworthiness or accuracy of the sources you are investigating

source someone or something that provides information and evidence

stakeholder a person or group that is involved in an issue

OVERVIEW QUESTIONS

11A What influences affect the operation of Australia's political system?

11B How does Australia's court system work in support of a democratic and just society?

11C How do citizens participate in an interconnected world?

11.1 Posing questions and conducting research

Developing evaluative questions for civics and citizenship

It is important for a student of **civics** (the study of the rights, responsibilities and duties of citizens and how the government works) and **citizenship** (the position or status of being a citizen of a country; a **citizen** is a person who legally belongs to a country and has the rights and protection of that country) to ask questions and search for answers. Active citizens formulate evaluative questions about our society, rather than simply accept things as they are or take them for granted. **Evaluative questions** deal with matters of judgement, value and choice. They help us recognise when information is missing, biased or misrepresented. They also help us consider complex issues in our society, such as if equality and fairness has been achieved for all citizens.

Developing a set of questions provides a comprehensive framework for research of any issue we may encounter. We should ask questions that encourage us to **evaluate** (judge) information and look at an issue more deeply. Often, questions that help us evaluate a certain idea, concern or thought are open-ended questions. Open-ended questions do not necessarily have a simple, definitive answer. They encourage deep thought and investigation.

An example of a good inquiry question is: 'How does the government support citizens' rights and freedoms?' This is a good question because it is open-ended—it leads to other questions such as:

➤ Who is a citizen?
➤ What rights and freedoms do citizens have?
➤ What's the difference between a right and a freedom?
➤ How does a **government** (an elected group of people who control and make decisions for a country or state) support citizens?

Closed-ended questions, which only require a short or single-word answer, limit our inquiries. 'What system of government does Australia have?' is an example of a poor inquiry question. There is only one answer possible (democracy) and it leaves no room for further thought or discussion.

Develop a list of question starters, such as those shown in Figure 11.1.1. As you come up with more question starters, add them to the list. Then you will have a bank of questions to help you begin your inquiry into each civics and citizenship issue.

Conducting research using a range of sources

Once you've formulated a set of open-ended questions, you will need to identify a range of **sources** (someone or something that provides information and evidence) to help you investigate your issue. It is important that you don't base your opinion on a single source. Not all sources are reliable and many contain **bias** (the unfair favouring of one opinion or point of view). Students of civics and citizenship are faced with many opinions and sources. It is important that we do not just accept that they are true or accurate. First, we must examine them and assess the views

RESEARCH QUESTION STARTERS

I wonder why...?

What are the reasons for...?

How can this be explained?

What is the purpose of...?

What if nothing is done about...?

Is there any information missing?

Has anything been misrepresented?
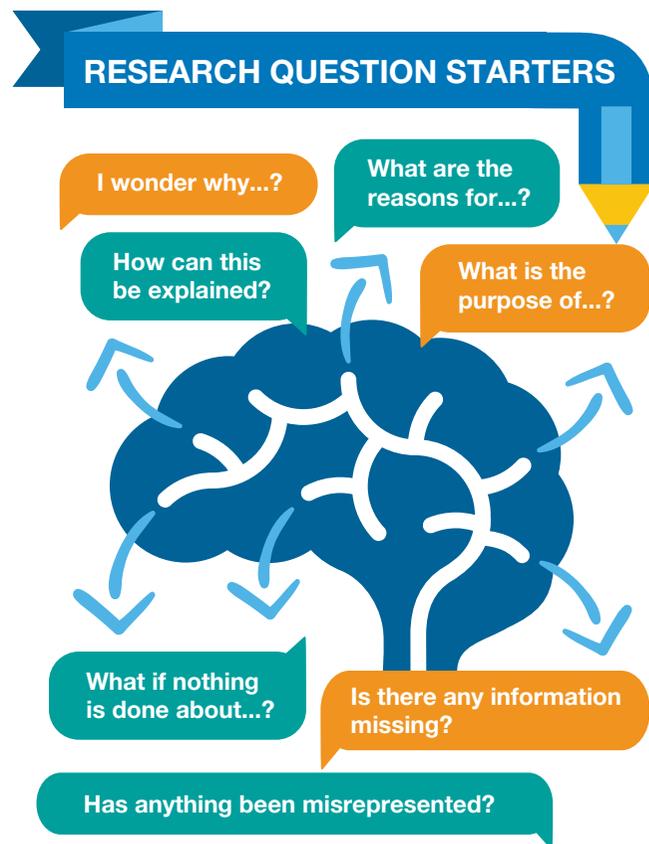
11.1.1 These question starters will help you develop more detailed research

11.1.2 Taking notes under subheadings is an important way to group your research and compare and contrast arguments

that are being expressed. For example, when considering how different cultural groups are represented in the media, you should look out for stereotypes, over-generalisations and misrepresentations. When examining a commentary or opinion piece in the media, you should remember that assumptions or missing information may affect its reliability.

Students of civics and citizenship should also develop the key skill of categorising information under subheadings. Subheadings are a way to group research and compare and contrast arguments. Once you've identified the arguments, you should sort through them to decide which arguments are valid, which are reliable and which are biased. This process helps us develop well-informed opinions.

Activities

Remembering and understanding

1   In your own words, define the term 'evaluative question'.
2   Explain why open-ended questions are better for research than closed-ended questions.

Applying and analysing

3   Discuss why it is important to closely examine a range of sources.
4   Using Figure 11.1.1 as a starting point, create a question starter page that will help you with a civics and citizenship inquiry.
5   Create three open-ended questions to help you investigate the topic 'Equality in Australia'.

11.2 Analysing, synthesising and interpreting sources

It is important to critically engage with your sources. This means asking a range of questions about each source and checking that it is reliable and suitable for your purposes. **Reliability** refers to whether a source is trustworthy and accurate. A reliable source is one that is published by a reputable person or group. A suitable source is reliable and also gives you up-to-date, specific data that is relevant to your investigation.

Sometimes sources are written for a particular purpose or audience. These sources can demonstrate bias. For example, a political poster used during an election campaign might misrepresent or leave out information in an attempt to win the support of voters. In order to evaluate the strength of a source, we need to develop criteria to help us critically analyse it. We need to ask questions like those listed in Figure 11.2.1.

Investigation: Critically analysing published material

Our world is saturated with technology and information. As consumers of this information, we need to consider it carefully. We also need to be aware that not everything we read or see is true. Sources of information are deliberately created to **position** the audience, which means that they make the audience feel or act in a particular way.

Sometimes sources make us feel happy or hungry or adventurous. The product advertisements we see on television or online can make us feel this way. Sometimes sources make us fearful, angry or mistrustful. The media often uses this tactic because fear can create news and increase sales. Political parties also this tactic because it allows them to present themselves as the solution to the problem. Through fear, a political party can make itself seem like a protector of the people.

1. Who created the source?
- Is the authors, group, party or organisation identified?
- Are they respected? Do they have a good reputation?
- Have they cited their sources, allowing you to check their evidence and information? This means, have they used a bibliography?

11.2.1 Following these steps will help you establish whether your sources are reliable and suitable

6. Does the source present any counter arguments?
- Does it present an alternative point of view?
- Do you have the evidence to rebut it?
- Do you need to research further?

2. Does the source present a balanced view?
- Is the information objective (not influenced by personal opinions or feelings)?
- Or does the author have a bias (unfairly favouring one opinion or point of view)?
- Does the source present facts and straightforward information, or does it exaggerate?
- Is the source manipulating you to feel, think or react in a specific way?
- Has someone been paid to produce the source?

5. When was the source written?
- Is the information current? Does it need to be?
- Is it appropriate to the topic and time you are investigating?

3. Can the information in the source be confirmed by comparing it to other sources?
- Does the source present facts or opinion? (A fact is something that can be proven or uses evidence. An opinion is someone's person thoughts and doesn't need evidence.)
- Who has conducted the research in the source? Does it differ to other sources?
- Where else could you look to confirm this information?

4. Does the source give you enough information to meet your needs?
- Does it provide sufficient detail?
- Do you need to consult other sources to get more information?
- Has it allowed you to answer each of your research questions?
- Has it given you other avenues to research further?

11.2.2 This 1886 cartoon, 'The Mongolian Octopus – His Grip on Australia', was designed to make viewers feel, react or think in a particular way

These strategies are not new. Figure 11.2.2, a cartoon called 'The Mongolian Octopus—His Grip on Australia' was published in *The Bulletin*® magazine in Sydney in 1886. It was created during a period when Australian society was dominated by British culture and many people feared the immigration of people who were not of British or European heritage. The cartoon uses stereotypes and assumptions about Chinese culture to create a sense of fear in Australian audiences.

We can critically analyse this source using the criteria in Figure 11.2.1. Another way of breaking down a source is by using the DES (Describe, Explain, Suggest) method.

➤ *Describe—What does it show?* Write down everything you can see in the image. How are the parts of the image positioned? Describe the size, colour, facial expressions, captions and any other features.

➤ *Explain—What is it for?* Explain the purpose of the image. Why might it have been produced? Who produced it? When was it produced? What was happening when this source was created? What attitudes did people have at the time?

➤ *Suggest—What is its aim?* Suggest how the creators might have wanted their audience to respond when they saw the poster. How did it make them feel? What did it make them think? What assumptions, stereotypes or misrepresentations should the audience have considered? Was anything omitted (left out)?

Activities

Remembering and understanding

1   List the qualities that mean a source is reliable.
2   Identify the ways that sources are designed to position their audience.

Analysing and applying

3   Develop a DES (Describe, Explain, Suggest) analysis of Figure 11.2.2.
   a   Find two more print media images. Choose a different type of image, such as a poster made by an non-government organisation or an advertisement for a political party published during an election campaign.
   b   Compare and contrast the way the sources position the viewer to feel or act. Create a Venn diagram to capture the similarities and differences.

Evaluating and creating

4   Evaluate the following statement:
   A source from a newspaper is always reliable.
   To what extent is this statement true?

11.3 Solving problems and making decisions

How can we resolve conflict?

It is important that you are able to recognise, understand and value different points of view. This is an essential skill because many civics and citizenship topics are contentious. This means that they may involve dissent (disagreement) or uncertainty, or may be open to interpretation and debate. You will find there is often a range of **perspectives** and beliefs within your classroom. The classroom is a good starting point to practise listening to others and resolving conflict respectfully, just as you will need to in real-life situations in your community.

In Australia (unlike many other countries), we have the freedom to voice our disagreement with the government. This is because the right to protest and the right of freedom of speech are protected under Australia's democracy. **Democracy** is a form of government in which people choose leaders by voting; in a democracy everyone is treated equally and has equal rights.

With so many different points of view, it is important that we use democratic processes to reach agreements and make plans on an agreed course of action. Negotiating will help you to mediate difference and find respectful and considerate solutions to problems.

Each time you encounter a civics and citizenship issue, you will need to develop a plan for action. One approach to resolve conflict is to follow these three steps.

Step 1: Identify stakeholders and differences of opinion

In a conflict there are always different stakeholders—that's what makes it contentious. **Stakeholders** are the people, groups or countries affected or involved in the issue. Each will have a different opinion and may want a different solution. The solution needs to take into account the wants and needs of each stakeholder.

Step 2: Share views and negotiate

When the parties have differences of opinion, it is important for the stakeholders to work together to reach a consensus about the best way to resolve a conflict and move forward. Whether you are a stakeholder or a mediator, it is important to do the following when negotiating:

➤ state your position clearly
➤ listen actively to others
➤ highlight the strengths of other arguments or proposals
➤ identify common ground between the parties so that everyone feels heard
➤ apply reason and logic to the negotiation process.

Step 3: Decide on a plan of action

The final step is to use democratic processes to reach a solution. Regardless of whether the stakeholders are individuals, groups or whole nations, the solution should consider everyone's point of view. A solution cannot always make everyone happy, but it should aim to satisfy the majority of people. Negotiating and then conducting a vote is an inclusive approach that allows everyone to participate.

11.3.1 Consider an issue that may affect you, like lobbying to change your school uniform. How would you go about deciding on a plan of action? What steps would you take?

11.3.2 In 2017, Victoria's public schools allowed their female students to replace their dresses and skirts with shorts or pants, under changes the state government says will encourage girls to be active and comfortable

Activities

Remembering and understanding

1 Define 'dissent' in your own words.
2 List the aspects you need to consider in order to find a solution to a conflict.
3 State two ways that you can show a stakeholder that you value their opinion during a negotiation.

Analysing and applying

4 Your school is debating whether or not to change its school uniform. It is a highly contentious issue as there are many stakeholders who are invested in the outcome.

  a Identify the stakeholders in this issue and the opinions they might have.
  b Suggest why the stakeholders have different perspectives.
  c Propose a plan to resolve the issue.

Evaluating and creating

5 Considering steps 1 to 3 for resolving issues, identify the limitations of the democratic process.
6 Evaluate the following statement: *Negotiation will always solve problems.*

   Discuss to what extent this statement is true, providing reasons or evidence for your answers.

Presenting your argument confidently

Today, technology allows us to be more connected than ever before. We have instant access to the opinions of people from all over the world and the ability to share our views with a range of audiences. This means we can easily and effectively engage with a global community. For example, many groups of people are able to share ideas and unite to bring about social change. Social media campaigns using hashtags are gaining momentum and recognition. They are increasingly influencing the actions and attitudes of governments and leaders worldwide. While it may be some years before you are old enough to vote, you can still be an active global citizen by staying informed, listening to and reading the opinions of others, and voicing your own views in an articulate and well-informed manner.

Reflecting on your role in an interconnected world

We live in an interconnected world. We are both regional citizens of Australia and global citizens of the world. Although Australia is geographically isolated, it is very closely connected to other countries in many ways. We have strong business, trade and cultural relationships that bind us. This means that as citizens of Australia we are influenced by what happens here and also in other countries.

Active citizens contribute to their community, both locally and globally. They may volunteer their time, money or expertise, or they may pursue a career in work that supports society. Consider ways that you can contribute to your community, now and in the future. Figure 11.4.1 shows some examples of people being active citizens by volunteering with both local and international community support groups.
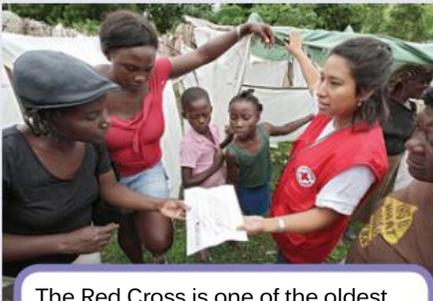
The Red Cross is one of the oldest aid organisations in Australia. It has branches throughout the world. It provides emergency relief in times of natural disaster and war, and general medical aid to those in need.

Rev Tim Costello is the chief advocate of World Vision®, an international aid organisation that works with children, families and communities to overcome poverty and injustice.

The State Emergency Service® is an organisation run by volunteers. It provides help during and after emergencies such as floods and storms.

Rotary Australia is part of an international network of business, professional and community leaders who use their skills to make the world a better place, both locally and internationally. This image shows Rotary members unveiling a toilet for schoolchildren in India.

FareShare® operates Australia's largest charity kitchen. More than 1000 regular volunteers help FareShare rescue or grow food, and cook it into nutritious meals for people in need.

Volunteers at the Innovation Hub attend the help desk and assist the running of empowerment programs. The Innovation Hub is home to many programs including Women's Empowerment, Youth Empowerment, the Employment Partnerships Program, the Entrepreneurs Program, social enterprises, English classes and much more.

11.4.1 Volunteers are active citizens who contribute to their communities

As individuals, we can influence what happens in Australia and around the world. It is our responsibility as active citizens to reflect on contemporary issues and to stay informed. Digital technologies are one way that we can stay informed. Many newspapers from around the world are published online. We can also access the websites and social media accounts of a wide range of people and organisations.

We know it's important to question and analyse other people's views, but we must also reflect on (question and analyse) our own values and consider our opinions. Doing this helps us make meaningful contributions to our local, national and international communities.

Activities

Remembering and understanding

1   State one way that technology has allowed us to engage more easily and effectively with other people around the world.
2   Define the terms 'regional citizen' and 'global citizen' in your own words. Use examples in your definitions.

Applying and analysing

3   Examine Figure 11.4.1 and identify three things you can do to positively contribute to your community. Select one and write a plan of how you might put it into action.
4   Research a volunteer organisation that works either in Australia or internationally. Explain the purpose of the organisation and who benefits from the work it does.

Evaluating and creating

5   Choose one or more key terms from the glossary. Create a poster for your classroom that helps explain your key term, or give some examples of your key term in use.
6   Identify an issue that affects your class or school community.
    a   Formulate your own opinion about the issue and reflect on it.
    b   Interview at least five students. Identify and record their perspectives about the issue.
    c   Create a proposal to resolve the issue that will satisfy the different perspectives.

Our democratic rights

12

Australia's system of government is a federal parliamentary democracy operating under a constitutional monarchy. All Australian citizens over the age of 18 are able to participate actively in Australia's federal parliamentary democracy. Citizens vote for candidates from the political parties to represent us. A constitutional monarchy means that our head of state is Elizabeth II, the Queen of the United Kingdom and the Commonwealth. Her representative in Australia is the governor-general, currently General Sir Peter Cosgrove.

Political parties campaign for our vote at election time. They are increasingly using new forms of technology, such as social media, to present information and to target voters. Social media has transformed the world of politics. It has changed the way people vote and the ways in which we communicate with each other. As active citizens in the twenty-first century, we are encouraged to play a part in political processes by voting, debating, discussing, questioning and sharing our opinions and ideas.

OVERVIEW QUESTIONS

12A How does Australia's democratic system of government work?

12B How is our democracy shaped by the influence of the media?

12C What is the role of individuals in our democracy?

LS↗ Before you begin

12.0.1 Greens Senator Nick McKim participating in a peaceful protest with thousands of other citizens in Federation Square, Melbourne. The protesters are taking an active role in the political process by challenging the federal government's policy of offshore detention of asylum seekers.

GLOSSARY

bicameral the system of government in Australia that refers to the two houses of parliament: the House of Representatives and the Senate

Bill a document that describes a proposed law or change to a law

coalition a temporary alliance of people, factions or parties; in politics, refers to parties that cooperate to form a government

constitution a written set of principles according to which an organisation or a nation is governed

demographic a particular part of the population, for example, people of a particular age group, income bracket, gender or ethnic background

electorate a defined area that is represented by a Member of Parliament, and its residents

Federation the process that occurred in 1901 whereby Australia's independent colonies came together to form a single nation called the Commonwealth of Australia

hung parliament a situation in which no single political party (or coalition) holds an absolute majority of seats in the House of Representatives

independents political candidates who do not belong to any political party

Opposition the main party, or coalition of parties, that has the second-largest number of members elected to the House of Representatives

parliament an assembly of the democratically elected representatives of a people; in Australia, the legislative branch of the government, which consists of three elements: the British monarch, the Senate and the House of Representatives

political spectrum a way of classifying political beliefs and ideologies on a scale between two extreme points

preselection the selection by a political party of a candidate for possible election

public policy the laws, priorities and governmental actions that reflect the attitudes, rules and needs of the public

Speaker the spokesperson for the parliament and chairs (runs) its sessions

trade unions an organised association of workers in a trade, formed to protect and improve workers' rights and interests

12.1 Political parties

Political parties

A political party is an organisation formed by people with similar political views and beliefs. The primary objective of a political party is to gain seats in **Parliament** (the legislative branch of the government, which in Australia consists of three elements: the British monarch, the Senate and the House of Representatives). There, its political views can shape government decision-making. Ultimately, a political party wants to win enough parliamentary seats to gain control of Parliament and form the ruling government. This is done by putting forward candidates to stand for Parliament in an electorate during an election.

Political parties are the foundation of the Australian parliamentary system. They play a crucial role in helping to shape **public policy** (the laws, priorities and governmental actions that reflect the attitudes, rules and needs of the public). Political parties are represented by members at federal, state and territory levels.

AUSTRALIAN FEDERAL ELECTORATES
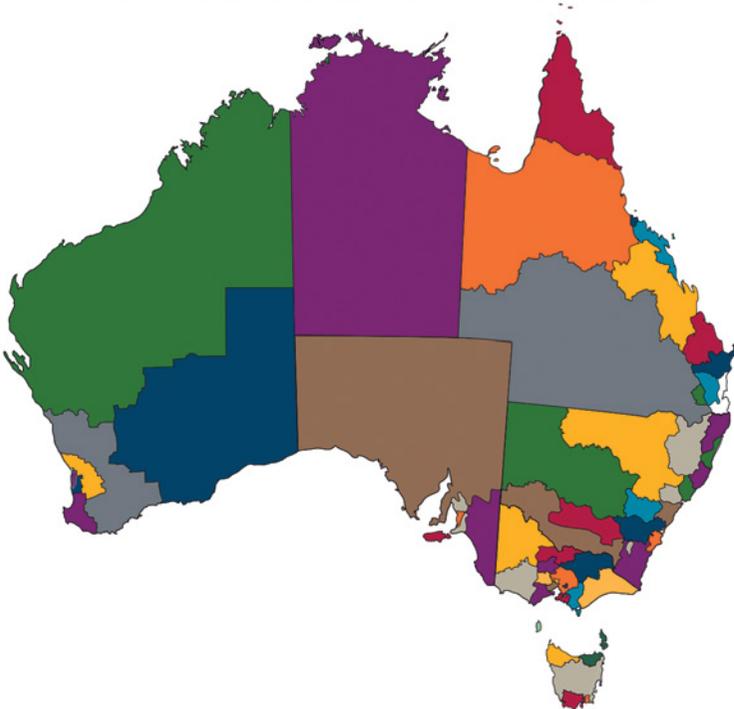
12.1.1 There are currently 150 members of the House of Representatives, each representing one electorate. There are thirty-seven federal electorates in Victoria.

Australia's government and **Opposition** (the main party, or coalition of parties, that has the second-largest number of members elected to the House of Representatives) are made up of members of political parties who have been elected to Parliament. Elected candidates represent the interests of both their party and their **electorate**. An electorate is made up of people who live in a defined area. These people are called constituents. Constituents are represented by one Member of Parliament (MP). The MP may or may not live in that electorate. In order to best represent their constituents' interests and concerns, MPs need to keep up-to-date with the issues that affect society, and their constituents in particular.

In Australia, political parties must be registered with the Australian Electoral Commission (AEC). The AEC is in charge of organising, conducting and supervising elections and referendums. In order to be registered, the party must have a written constitution that outlines its aims. It must also have at least one of the following:

➤ one member in a parliament at any level of government in Australia (federal, state or territory)
➤ 500 eligible voting members in the party.

Role of political parties

Political parties contribute to the debate and discussion that assist in the formation of our laws. Each political party holds views that guide its policy-making. Within parties, politicians develop policies. When Parliament is in session, political parties that hold seats in Parliament convene party meetings. At these meetings they work through community issues to establish their policies. Political parties can have a great deal of influence and be very powerful when their members group together and vote the same way on issues debated in Parliament.

Political parties also recruit members of the public who are not politicians, but:

➤ attend party meetings
➤ assist with fundraising
➤ work on campaigns
➤ hand out how-to-vote cards at voting booths on election day.

Joining a political party gives people a way to be involved in politics and their community. Figures from the Australian Bureau of Statistics show a steady decline in membership of a political party. Statistics from 2006 show that only 1.3 percent of the adult population belonged to a political party.

Elections

In Australia, it is compulsory for every citizen aged 18 or over to vote in federal, state and local government elections. At election time, each party must decide which candidates to put forward for possible election. This process is known as **preselection**. The public then votes for one of these candidates. The public does not have a say in which candidates will stand for election—they must vote for one of the candidates presented to them by the political parties. This can be problematic when voters support a particular party but are not happy with the candidate selected for their electorate.

Some people vote along party lines. They will always vote for the same party, regardless of whether they like the local candidate. This means that seats in some electorates are considered 'safe'. During election time, a safe seat is expected to be held by the same party that currently holds it.

Members of political parties help prepare and present election campaigns that aim to convince the public to vote for their party.

➤ Campaign strategies are developed to decide what sort of publicity to use. For example, political parties target voters through television and radio advertisements, direct mail such as letters and pamphlets, social media, events and visits to electorates.

➤ Each party develops a policy platform. The party platform sets out the key values and issues that the party believes are of most concern to the population and will be most appealing to voters. For example, the current federal government was elected on the platform of 'Jobs and Growth'. This slogan means the Liberal Party promised to create jobs and invest in business to develop Australia's economy. By presenting their platforms, parties hope to gain the votes of people who are concerned about those issues.

➤ Another important task during an election campaign is the organisation of campaign funding. Running campaigns is very expensive and political parties often rely on donations from organisations, businesses and the community.

12.1.2 Members of political parties hand out how-to-vote cards on election day, encouraging people to vote for their party's candidate

Two-party system

Australia has a two-party system of government. While we have many political parties, there are two main parties: the Liberal Party of Australia and the Australian Labor Party. The party that wins the most seats in the House of Representatives (the Lower House) in an election forms the government. The other main party becomes the Opposition. In the case of the Liberal Party, it usually forms a **coalition** (partnership) with the National Party of Australia, a minor party. This happens both when they are in government and in opposition. Other minor parties, such as the Greens, and **independent** MPs (who do not belong to any political party) fill some of the seats in both the House of Representatives and the Senate. However, they have never had enough of their members voted in to form a government or Opposition.

Left and right

Political parties sit on a **political spectrum** (a way of classifying political beliefs and ideologies on a scale between two extreme points). They are sometimes referred to as being left-wing or right-wing. Their ideologies or core beliefs define where they sit on the political spectrum.

Traditionally, left-wing ideologies are defined by a strong belief that people are best served by a government that is actively involved in running society and has a focus on social equality. Right-wing ideologies focus on the right of individuals to increase their own wealth through personal endeavour (efforts). They also advocate the need for businesses to operate without government interference. The Labor Party is often referred to as being centre-left, and tending towards the left. The Liberal Party is known as being centre-right, and tending towards the right. However, over time both parties have developed policies that reflect both left- and right-wing ideologies.

Party building

Larger political parties often develop youth wings, such as the Young Liberal Movement of Australia and Australian Young Labor. These groups help political parties stay connected to the next generation of voters. They also assist in the development of young people who have an interest in establishing political careers in the future.

► actively involved in running society
► social equality or the sharing of resources and social rewards

Labor Party

► businesses should operate with minimal government interference
► individuals should gain personal wealth with minimal government support

Liberal Party

left wing　　**centre (moderate)**　　right wing
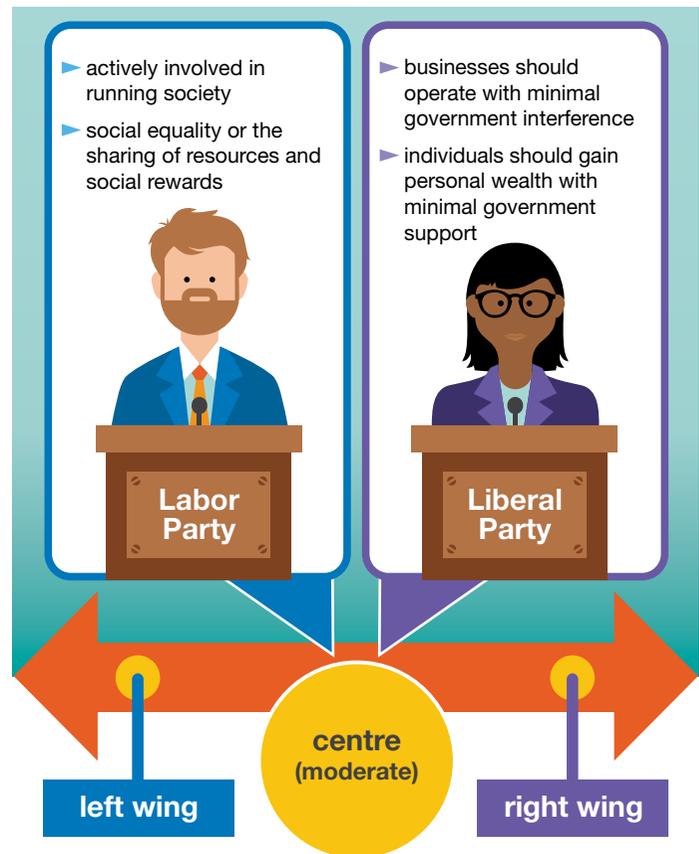
12.1.3 Australia's two main political parties on the political spectrum

Did you know?

In the lead-up to the same-sex marriage postal survey in 2017, the Australian Electoral Commission processed 765 000 enrolment transactions between August and September. Of these transactions, 90 000 were new enrolments and the rest were citizens updating their details. These figures show that hundreds of thousands of Australians, particularly young people, were keen to have their say in the national vote.

Hung parliaments

On rare occasions, an election can result in a **hung parliament**. This means that neither party succeeds in winning a majority (at least seventy-six seats) in the House of Representatives. Consequently, no party is able to form government without gaining support from other parties or independent Members of Parliament. The most recent example of a hung parliament resulted from the 2010 federal election. After neither party won the required number of seats, Labor Party leader Julia Gillard was appointed caretaker prime minister until the official government could be determined. Ultimately, three independents and one Greens MP gave their support to the Labor Party. Their support meant that the party attained the required majority of seats and was able to form a government.

12.1.4 The composition of the House of Representatives after the 2010 election that resulted in a hung parliament

Political party	Number of members
Australian Labor Party	72
Liberal–National Coalition	72
Crossbench	
Independents	5
Australian Greens	1
Total	**150**

Activities

Remembering and understanding

1. Define the term 'political party' in your own words.
2. Use the three terms 'electorate', 'constituents' and 'representative' in a sentence to show your understanding.
3. Explain how political parties allow people to participate in society.

Applying and analysing

4. Identify the advantages and disadvantages of preselecting party candidates.
5. In your own words, discuss the major differences between right-wing and left-wing political parties.

Evaluating and creating

6. Evaluate whether a hung parliament can ever be good for Australia. Use a pros and cons list to help inform your evaluation.

Australian Labor Party

The Australian Labor Party is the oldest registered political party in Australia. It was formed in the 1890s by **trade unions** (organised associations of workers in a trade, formed to protect and improve workers' rights and interests). The unions were seeking political representation for workers who experienced poor working conditions. In recent times, however, the party has not maintained as strong a connection with the trade union movement as it once did.

The core beliefs of the Australian Labor Party include:

➤ fair distribution of wealth and income
➤ fair and safe working conditions
➤ equality for all in society
➤ extensive government-funded community services.

Liberal Party of Australia

The Liberal Party of Australia was established in 1944 by Sir Robert Menzies. It aims to protect the interests of individuals and private businesses. Traditionally, the Liberal Party has been supported by individuals from large corporations and the wealthier members of society. Historically, when the Liberal Party has been successful in forming a government, it has usually been in coalition with another party. This allows the Liberals to form a government if they don't have a majority of seats. Most often it forms a coalition with the National Party of Australia. This reflects the fact that the parties share some core values. The core beliefs of the Liberal Party of Australia include:

➤ that independent profit-making should be encouraged
➤ that economic growth should be promoted
➤ that there should be less government intervention and more individual choice in private business.

12.2.1 The logos of (a) the Liberal Party, (b) the Australian Labor Party, (c) the National Party of Australia and (d) the Australian Greens

Other significant parties

National Party of Australia

The National Party, formerly called the National Country Party, was formed in 1920. It usually develops a coalition with another party in order to form a government or Opposition. The National Party is particularly concerned with protecting and promoting the interests of rural and regional communities. Like the Liberal Party, the National Party endorses private enterprise.

Australian Greens

The Australian Greens were formed in 1992. Twenty years earlier, Australia's first green party formed in Tasmania in 1972 under the name United Tasmania Group. The Greens focus on environmental sustainability and social responsibility. The increase in awareness of environmental issues has resulted in the Greens having a more significant presence in Parliament.

Minor parties

Recently, support for the major political parties has begun to weaken. As a consequence, there has been an increase in the number of smaller parties registered in Australia. They help to promote discussion on electoral issues but often they do not have many members elected to Parliament. Some of the minor parties are known as single-issue parties because they are generally focused on one area of concern. For example, the Arts Party aims to gain more awareness and support for the creative arts in Australia.

Independents

Independent candidates do not belong to any political party. Some independents have left one of the established political parties because they were dissatisfied with how the party was operating. For example, they may have been dissatisfied because they felt the party was not promoting issues that they consider to be very important. Historically, independents have been more successful at being elected to state parliaments rather than federal Parliament.

The few independents who do win seats in federal Parliament can have significant influence. If the government does not have a clear majority of seats in the House of Representatives, it is often forced to rely on the votes of independents or smaller parties to pass **Bills** (documents that describe proposed laws or changes to laws). This means that independent members and smaller parties can often hold the balance of power.

Activities

Remembering and understanding

1. **a** When was the Labor Party established?
   b Who established the Labor Party?
2. **a** When was the Liberal Party established?
   b Who established the Liberal Party?

Applying and analysing

3. Create a Venn diagram to compare and contrast the core beliefs of the Liberal and Labor parties.
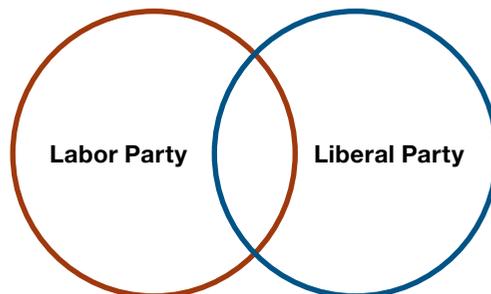
4. Research a minority party in Australia. What are the core beliefs of the party?

Evaluating and creating

5. The Liberal Party and the National Party often form a coalition government. Discuss some of the drawbacks and benefits of this model.
6. Examine Figure 12.2.1.
   a Choose one party and create a new logo that represents the party's core beliefs.
   b Write a short explanation justifying your design choices.

12.3 Forming government

Government in Australia

A government is a group of people with the power to rule a country or state. The structure of government in Australia is based on the democratic parliamentary system used in Great Britain, known as the Westminster system. Australia has a federal parliamentary democracy in which the political party (or a coalition of parties) with the greatest number of elected representatives forms the government of the nation. The leader of the winning party at an election becomes the prime minister.

Before this federal system was adopted in 1901, Australia was composed of six separate British colonies, each with its own government. However, there was a growing belief that the colonies would benefit from becoming one nation and having a centralised government. **Federation** occurred on 1 January 1901, six months after the *Commonwealth of Australia Constitution Act* 1900 was signed by the colonies. Consequently, the first Commonwealth Parliament was formed and the colonies became states. The two territories, the Northern Territory and the Australian Capital Territory, were both established ten years after Federation.

12.3.1 Federal Parliament House, Canberra, ACT

After Federation, Australia maintained its relationship with Great Britain. Because Australia is a **constitutional monarchy**, the monarch, currently Queen Elizabeth II, is Australia's Head of State. She has a ceremonial role but the laws are made by the elected government. The British monarch had once been the head of each colony, but with Federation the monarch became the head of the nation of Australia.

The federal government

The Australian Federal Parliament consists of the British monarch, who is represented by the governor-general, and the two Houses of Parliament: the House of Representatives and the Senate. The **bicameral** system of government in Australia refers to the two houses of parliament.

The primary role of the Australian Government is to make laws to help our society function effectively. The government's duties include:

➤ funding and regulating government services such as schools, hospitals and welfare benefits
➤ developing political and trade relationships with other nations
➤ maintaining our nation's defence forces
➤ collecting taxes and other charges to pay for government services.

The House of Representatives

The House of Representatives is also known as the Lower House of Parliament. It has 150 members, who represent the 150 electorates around Australia. Members are elected for three-year terms. The states with larger populations contain more electorates and therefore have more representatives sitting in Parliament. Each elected representative must represent the views and values of their party as well as representing the interests of the constituents in their electorate. The political party that gains the majority of members in the Lower House at an election forms the government.

Role of the majority political party

The party that controls a majority of seats in the House of Representatives forms the government. The government is led by the prime minister of Australia. Some of the more senior and experienced members are allocated areas of responsibility by the prime minister. The role of ministers is to introduce Bills and to answer questions about their portfolio (area of responsibility).

12.3.2 Debate in the House of Representatives in February 2016. Members of the government sit on the right.

Members who are not given a portfolio are called backbenchers. Backbenchers participate in debates and vote on Bills, taking the party position. In rare cases members may be granted a conscience vote. They are then free to vote as they choose and do not necessarily vote according to party policy. Backbenchers represent their constituents, raising issues that affect their electorates.

Role of the minority political parties

The party that gains the second-largest number of members in the House of Representatives forms the Opposition. The party in opposition organises its members in a similar way to the party in government. The party's leader takes the role of the Leader of the Opposition. Senior and experienced members are selected by the leader to be responsible for portfolios that closely match those of government ministers. These Members of Parliament are called shadow ministers. They carefully examine what the minister for that portfolio is doing and present the Opposition's policies in that area of responsibility. Other elected party members are backbenchers. Their role is the same as that of government backbenchers.

Role of other members

Candidates from minor political parties and independents can also be elected to the House of Representatives. These members are collectively referred to as the crossbench. The crossbench plays the same role as backbenchers from the main political parties. These members participate in debates on Bills and can introduce their own Bills suggesting new laws they think are important. Crossbenchers also represent the interests of their constituents.

Crossbenchers take on more a prominent role when there is a minority government or a hung parliament. In both cases, neither of the major parties holds a majority of seats in the House of Representatives. In a minority government, the numbers of seats held by the government and the Opposition are so close that the government has difficulty getting Bills passed. The way that independent and minor-party members vote on Bills can determine whether the Bills pass or are rejected.

The Senate

The Senate is composed of twelve senators from each state and two senators from each territory, giving a total of seventy-six members of the Senate. This results in equal representation among the states. The Senate is known as the Upper House because any Bill introduced into Parliament must be approved by the Senate before it can become law. Unlike members of the House of Representatives, senators are elected for two terms, usually a total of 6 years.

Political parties

Most of those candidates who gain seats in the Senate are representatives of a political party. Minor parties and independents form the crossbench. The Senate is arranged in a similar way to the House of Representatives. There is a Leader of the Government and a Leader of the Opposition in the Senate, ministers with portfolios and shadow ministers, government and Opposition backbenchers and crossbenchers. Debates and votes on Bills from the House of Representatives typically follow political party policy. Crossbench senators often hold the balance of power. A majority can be achieved with fewer than thirty-nine senators, as independents and minor parties can gain a significant numbers of seats.

Coalition:
30 seats
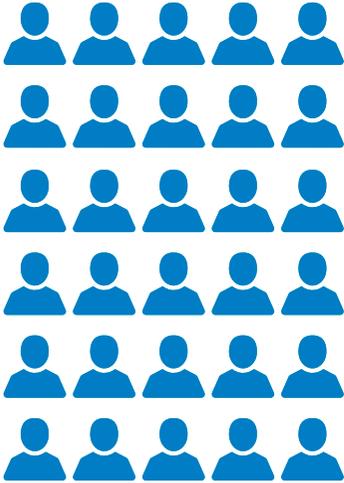
Australian Labor Party:
26 seats
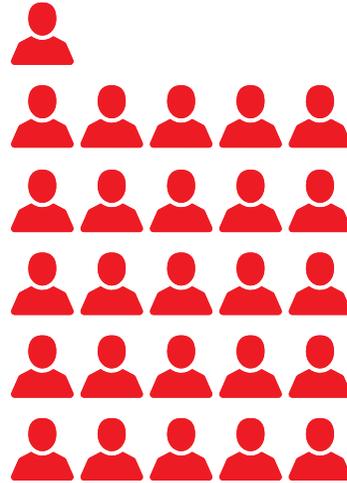
Australian Greens:
9 seats

Others:
11 seats
4 Pauline Hanson's One Nation
3 Nick Xenophon Team
Jacqui Lambie (JLN)
David Leyonhjelm (LDP)
Derryn Hinch
Bob Day (Family First Party)
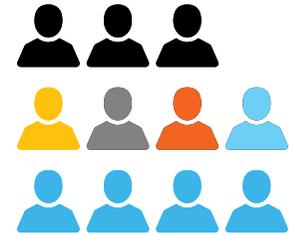
12.3.3 This chart shows the senators who gained office after the 2016 election

a

b
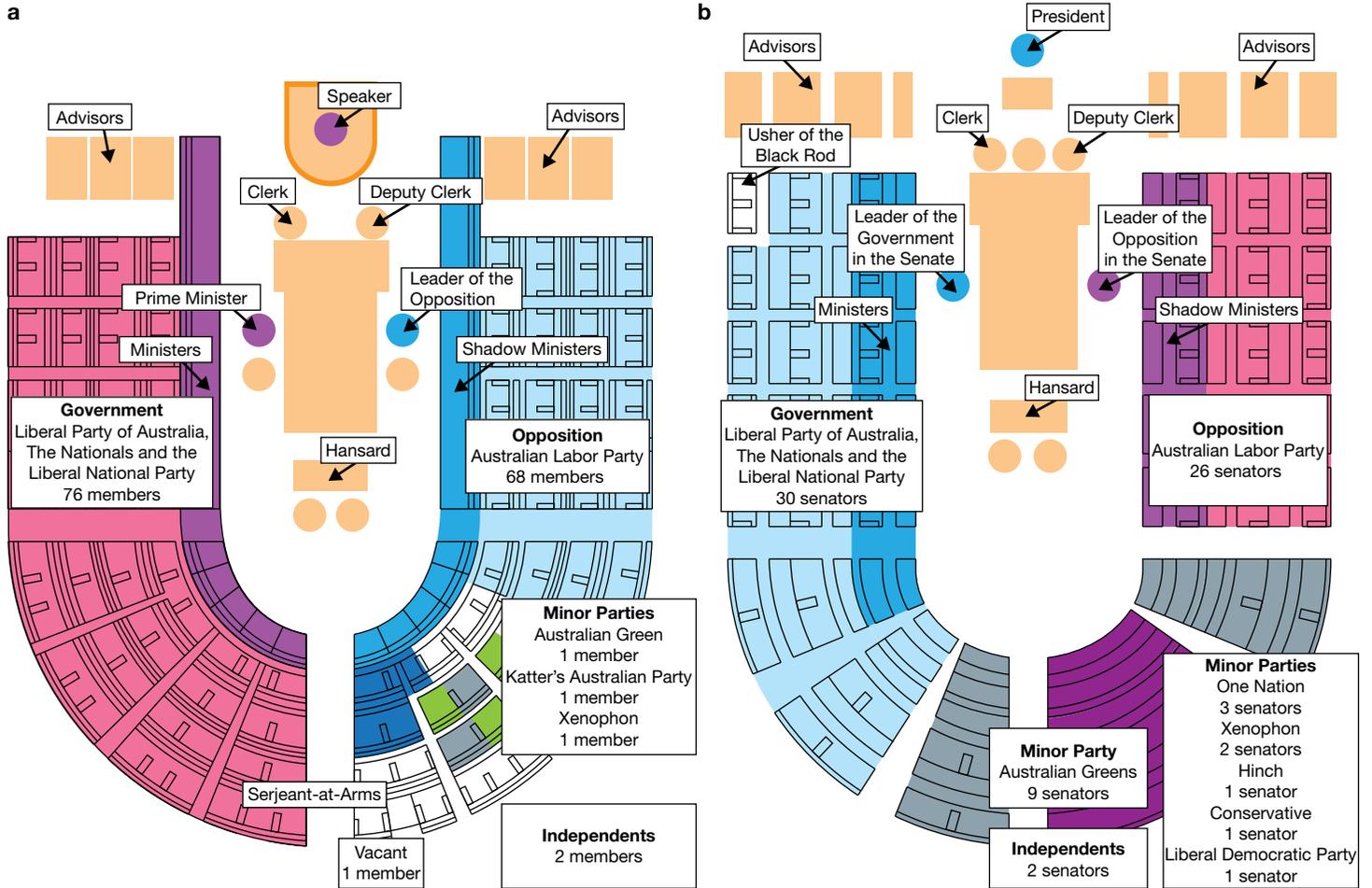
12.3.4 (a) The 45th Parliament in the House of Representatives after the 2016 election.
(b) The composition of the Australian Senate.

Activities

Remembering and understanding

1   On what system is Australia's parliamentary democracy based?
2   How did Australia's relationship with the monarch change after Federation?
3   Name the three components of Australia's federal Parliament.

Applying and analysing

4   Compare the Senate and the House of Representatives. List the similarities and differences in their composition and size.

5   Create a diagram illustrating the hierarchy of the House of Representatives. Include the roles in order of importance. Make sure you include the government, the Opposition and the minority parties.

Evaluating and creating

6   Evaluate whether the Senate or the House of Representatives is more important. Present an analysis based on the roles played by each chamber.

12.4 Role of the Opposition

The purpose of the Opposition

The success of a democratic nation relies on an effective Opposition to monitor the government and hold it accountable. This is the role of the Opposition. It is the party that did not obtain a majority of seats in an election in the House of Representatives. The Opposition is sometimes called the alternative government. It is called this because it could form government if it won the support of the majority of MPs. The Opposition has many responsibilities, which include:

➤ scrutinising (closely examining) the work of the government
➤ seeking explanations of the government's actions
➤ working on committees to examine Bills
➤ debating Bills
➤ critiquing and offering different suggestions
➤ providing alternatives to government policy.

Opposition inside the Parliament

In the chamber, the Opposition sits to the left of the Speaker's chair, while the government sits to the right. The **Speaker** is spokesperson for the parliament and chairs (runs) its sessions. According to Australia's **Constitution** (a written set of principles according to which the nation is governed), the Speaker is the most important role in the House. Section 35 of the Constitution states that the House cannot operate without a Speaker.

It is the practice of the Speaker to call Members of Parliament to address the chamber. Speaking time alternates between government and non-government members. By taking it in turns, the two sides of the House have equal time to speak on any matter and are given fair hearing. This process is reflective of the foundations of a fair democracy. It promotes robust debate, which sees politicians express, defend and challenge proposals and arguments.

When the government makes a formal announcement in the House, the Opposition is traditionally given equal time to respond. The Opposition's response can include questions, criticisms and alternative proposals. When a Bill is proposed, there is no limit to the number of written questions that the Opposition can submit. However, because of the schedule of question time, verbal debates of the Bill are limited by the Speaker.

Another job of the Opposition is to raise matters of public importance. It does this daily, except Mondays. The matters the Opposition raises usually criticise some aspect of government policy.

In exceptional cases the Opposition can raise censure motions, which criticise the actions of the government or a minister. While it often has no legal repercussions, a censure motion is a public expression of disapproval and may have a significant political impact.
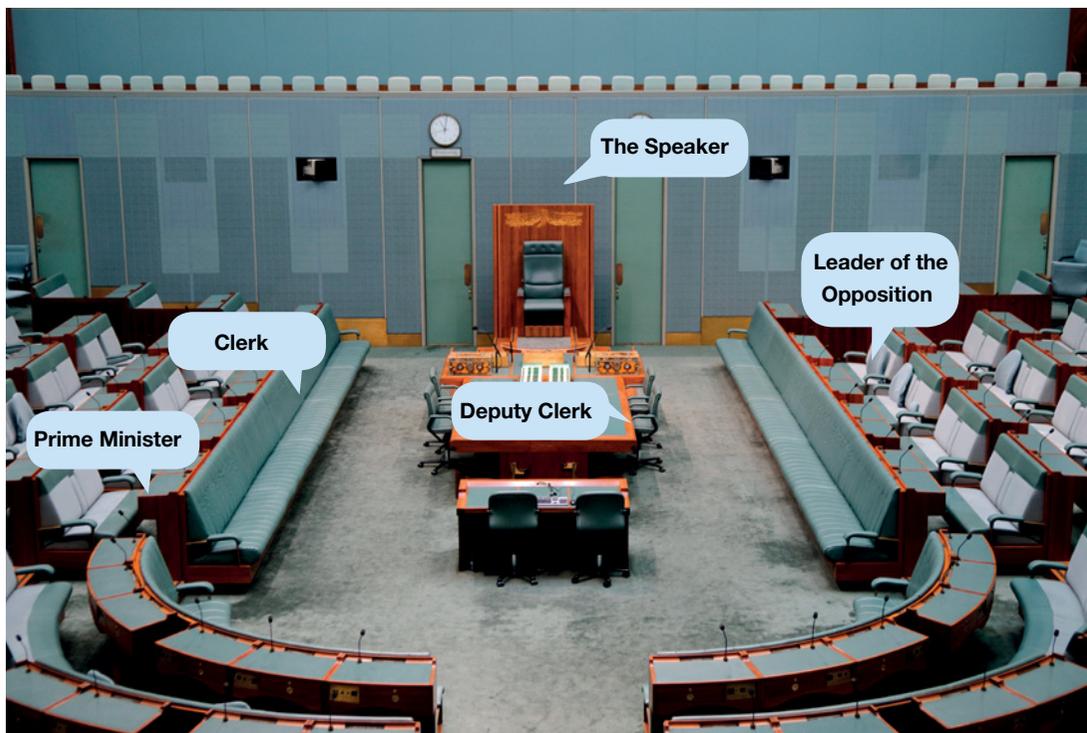
12.4.1 The Speaker of the house presides over the running of Parliament. It is the most important role in the chamber because without it Parliament cannot sit.

The Speaker

Leader of the Opposition

Clerk

Deputy Clerk

Prime Minister

Australia's parliamentary crisis

On 11 November 1975, the then governor-general, Sir John Kerr, made history by using his reserve powers to sack Gough Whitlam's Labor government. Kerr did this when the Parliament had reached a stalemate after the Liberal Opposition blocked the supply of money the government needed to run the country. Kerr appointed the Opposition leader, Malcolm Fraser, as temporary prime minister on the understanding that Fraser would approve the supply of money and call an election.

On the same day, a motion of no confidence in newly commissioned Prime Minister Fraser was passed. This is the only occasion that a motion of censure or no confidence in an Australian prime minister has been successful.

The governor-general dissolved both the House of Representatives and the Senate, which is known as a double dissolution. A federal election was held on 13 December 1975. The Liberal Party, headed by Malcolm Fraser, was voted into government.

12.4.2 Prime Minister Gough Whitlam was dismissed by Australia's governor-general, Sir John Kerr, on 11 November 1975

Did you know?

Although the Opposition does not have the majority in the House of Representatives, it may have a majority in the Senate. When the Opposition has a majority in the Senate, it can become very difficult for the government to pass Bills, because a Bill must be approved by both Houses.

Activities

Remembering and understanding

1   List four responsibilities of the Opposition.
2   In your own words, define the term 'censure motion'.

Applying and analysing

3   Explain in your own words why Parliament cannot sit without a Speaker.

Evaluating and creating

4   In your opinion, why does the success of democratic nations rely on an effective opposition?

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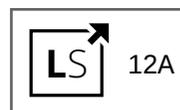
12.5 Roles and obligations of MPs and senators

Members of Parliament in the Australian Lower House and senators in the Upper House have many roles and responsibilities. There are currently 150 members of the House of Representatives, each representing one electorate. Members of Parliament are elected for a three-year term. When in Parliament they take part in debate on proposed laws and public policy, representing the views of the people in their electorate.

There are seventy-six senators in the Senate, each representing a state or territory. Each state has twelve senators and each territory has two. Senators are elected to sit for a period of 6 years. A rotation system ensures that half the Senate retires every 3 years.

Becoming a Member of Parliament

For both the Senate and the House of Representatives, a person nominated must be:

➤ 18 years of age or older
➤ an Australian citizen
➤ an elector entitled to vote at a House of Representatives election or qualified to become such an elector.

According to Section 44 of the Australian Constitution you cannot nominate for the Senate or the House of Representatives if you are:

➤ a member of a state or territory parliament
➤ a citizen or subject of a foreign power
➤ serving a prison sentence of 12 months or more
➤ legally bankrupt
➤ a public servant
➤ a permanent member of the Australian Defence Force.

Roles of an MP or senator

Members of Parliament and senators have many roles. They include:

➤ researching
➤ writing speeches
➤ meeting with constituents
➤ receiving and listening to interest groups who lobby for change
➤ raising matters of concern with ministers
➤ participating in party meetings and party committee work.

These responsibilities are broadly divided into parliamentary work and electorate work.

Did you know?

The longest-serving Australian Member of Parliament was Billy Hughes. He served from the first Parliament in 1901 until his death in 1952. Hughes is the only Member of Parliament to have served for more than 50 years. He was also the seventh prime minister of Australia, in office from 1915 to 1923. In recognition of his career, Hughes was put on a stamp in 1972.

Parliamentary work

The core work of Members of Parliament and senators is to be present in Parliament to discuss and vote on Bills. However, they cannot be present at all times. When not in the chamber, they keep in touch with parliamentary proceedings by watching them on a TV monitor in their office or elsewhere in Parliament House. Each member or senator also has staff to assist them with their duties.

Participating in parliamentary and senate committee work is another important role. Committees investigate the government and hold it accountable. They look at aspects of policy or government administration or performance. Committees vary in size, ranging from seven to thirty-two members. Most members of the House of Representatives and the Senate, except for ministers and parliamentary secretaries, serve on committees. Even the Speaker is a member of certain committees.

Electorate work

Another role of a Member of Parliament is to provide a direct link between Parliament and the constituents in their electorate. On average, electorates have 110 328 eligible voters. Members with large electorates spend much of their time travelling to listen to and connect with their community. Members must support constituents' interests and, where necessary and appropriate, raise their issues in Parliament. Examples of such issues include major road constructions or the proposed closure of a school, hospital or local industry, which could cause unemployment.

The role of a senator is to represent the views of Australians. Senators make and change federal laws by discussing proposals for new laws and voting on them. They also examine the work of the government. Traditionally, senators have represented the constituents in their state or territory and have therefore communicated with them regularly to find out their issues and concerns. Today, as political parties have grown, senators generally vote on matters according to the party they belong to, rather than the state they represent.

12.5.1 Two sample days in the life of a Member of Parliament. MPs typically work around 7.5 to 10.5 hours per day.

Tuesday 13 September	
7 a.m.	7.30–8.45 Alzheimer's Association
8 a.m.	8.30–9.30 Standing Committee on Health, Aged Care and Sport meeting
9 a.m.	9.30 Party Caucus meeting
10 a.m.	
11 a.m.	11.45 Meeting with Leader of the Opposition
12 p.m.	12.30 Farmers' rally, protest area of Parliament House
1 p.m.	
2 p.m.	2.00 Attend question time in the House
3 p.m.	3.10 Discussion of matter of public importance, support colleagues in chamber
4 p.m.	4.30 Meet local representatives attending National Youth Committee meeting
5 p.m.	5.15 Social policy party committee meeting
6 p.m.	6.30–7.30 Launch of exhibition on the 100th anniversary of Surf Life Saving in Australia
7 p.m.	7.30 Speak in adjournment debate

Monday 23 January	
7 a.m.	
8 a.m.	8.00 Discuss constituent inquiries and plan activities with personal assistant (electorate office)
9 a.m.	9.00 Issue media release re today's launch of student diary
	9.30 Meet with state MPs and senior adviser to discuss local issues
10 a.m.	
11 a.m.	11.00 Electorate office
	11.30 Interview with TV re sewage waste disposal facility
12 p.m.	12.00 Meet with local small business people
1 p.m.	1.00 Address meeting of local branch of National Seniors Australia
2 p.m.	2.30 Launch of student diary for Year 12s and meet with members of the university's consultative committee
3 p.m.	3.30 Present 60th wedding anniversary certificate
4 p.m.	4.00 Meeting with constituent re immigration matter
5 p.m.	5.00–5.45 Meet with electorate office manager to discuss electorate office diary
6 p.m.	6.00 Finalise and sign mail for dispatch
7 p.m.	7.30–9.00 Party branch meeting
8 p.m.	
9 p.m.	9.00–10.00 Local District Progress Association meeting

Activities

Remembering and understanding

1 According to Section 44 of the Australian Constitution, what would prevent someone from nominating for Parliament?

2 Between which two areas of work do Members of Parliament divide their time?

3 Examine Figure 12.5.1. Choose one item on the MP's agenda that demonstrates parliamentary work and one item that demonstrates electorate work.

Applying and analysing

4 In your own words, explain why it is important for politicians to actively engage with their electorates.

5 Why is parliamentary and senate committee work important to the running of Parliament?

12.6 The changing face of Australian Parliament

In 1901, when Australia federated and the first Australian parliament sat, our nation was not as progressive as it is today. Most women around the world, including in parts of Australia, did not yet have the vote. All Australian government members were men of Anglo-Celtic origin. In most states, voters had to be male and over 21 years of age to participate in elections. The rules for voting, however, were different in each state. For instance, in Tasmania, citizens needed to own property to be eligible to vote. Aboriginal and Torres Strait Islander people were not considered in the Constitution. Some of the first laws made by the new parliament excluded Pacific Islander people and those of Asian heritage. These laws laid the foundation for the White Australia policy, which was not fully abolished until 1973.

Australia's first government was homogeneous and did not represent the whole Australian population. (It did, however, represent those who could vote: predominantly men over the age of 21.) More than a century later, Australia has become renowned for its multiculturalism. As our population has become more diverse, our Parliament has made more of an effort to hear the different voices of our whole community. This is a difficult task because Australia's population is made up of more than 24 million people who come from hundreds of different backgrounds and speak more than 200 different languages.

Our Parliament is also slowly beginning to reflect our diverse population and cater for different **demographics**, or particular parts of the population. Compared to the first parliament, Australia now has greater representation of women, Aboriginal and Torres Strait Islander people, a range of ethnicities and other minority groups, and LGBTIQ+ (lesbian, gay, bisexual, transgender, gender diverse, intersex and queer) people. Without this representation, the concerns of each of these very different demographics might go unheard or unaddressed.

12.6.1 Members of Australia's first federal ministry, photographed in 1902. The ministry was made up only of wealthy, educated men of Anglo-Celtic background.

Cultural backgrounds of Australia's senior leaders
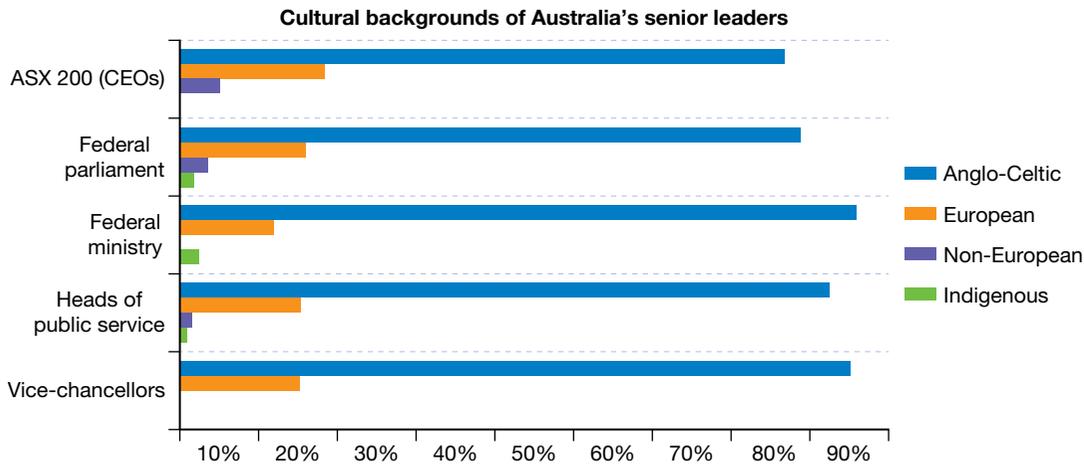
12.6.2 This 2016 graph compares the cultural backgrounds of senior leaders throughout Australia. It suggests people of Anglo-Celtic and European backgrounds still dominate positions of leadership, while very few Indigenous people or people from non-Europeans backgrounds hold senior leadership positions.

Milestones for diversity

Australia's Parliament is gradually changing over time to become more inclusive. These significant dates show the slow progress of diversity in Australian politics. In 2016 Anne Aly, the Labor Member for Cowan, became the first Muslim woman to be elected to the House of Representatives. In 2018 Greens senator Dr Mehreen Faruqi became the first Muslim woman in the Australian Senate.

Does our Parliament truly represent our population?

Progress has been made in Australian Parliament in terms of providing greater representation for people of different gender, races, cultures and sexual orientations. It is important to consider, however, if our parliament has diversified enough to represent the many Australian demographics. Look at figures 12.6.2 and 12.6.4 to consider the make-up of the federal ministry and the current Parliament.

1902 Parliament passes the *Commonwealth Franchise Act* 1902, which enables white Australian women to vote at federal elections and to stand for federal parliament

1911 All Australian states allow women to vote in state elections. Indigenous women were excluded as they were not recognised as citizens.

1943 Dorothy Tangney and Enid Lyons become the first women elected to federal government. Tangney represents Western Australia as a Labor senator. Lyons is a United Australia Party member who represents the electorate of Darwin in north-west Tasmania.

1949 Enid Lyons becomes the first woman in federal Cabinet, appointed Vice-President of the Executive Council in the Menzies government.

1962 All Aboriginal and Torres Strait Islander people are granted voting rights.

1971 Neville Bonner, the first Aboriginal Member of Parliament, is made a Liberal Senator for Queensland.

1996 Bob Brown is elected to the Senate. Brown is the first openly gay Member of Parliament.

1998 Tsebin Tchen is elected to the Senate and becomes the first Chinese Australian and the first Asian migrant to sit in the federal Parliament.

2010 Julia Gillard becomes the first female prime minister of Australia.

2010 Ken Wyatt wins the seat of Hasluck in Western Australia, making him the first Aboriginal Member of the House of Representatives, and the third to serve in the federal Parliament.

12.6.3 A timeline of some of the milestone moments for diversity in Australian Parliament

Slightly more than **71%** of the House of Representatives and **61%** of senators are male, compared to around half of the Australian population.

95% of parliamentarians come from an Anglo-Celtic/European background.

Approximately **40%** of politicians have at least one parent born overseas, compared to **53%** of Australians.

Only **26%** of politicians in Prime Minister Scott Morrison's Cabinet are women.

Penny Wong and Ian Goodenough are the only **two** MPs with Asian heritage.

Two of the 226 Members of Parliament, Anne Aly and Peter Khalil, represent the country's 321 728 Arabic speakers. That amounts to **0.8%** of Parliament compared to **1.4%** of the country.

The average age of Prime Minister Scott Morrison's Cabinet is **49.21** years.

Aboriginal and Torres Strait Islander people make up **2.8%** of the total population, but are only represented by **2%** of the Parliament.

12.6.4 Members of the 45th Parliament debate a Bill in the Senate. Data reflects Prime Minister Scott Morrison's Cabinet in 2018.

Posing questions to investigate an issue

A key skill that is important to build when studying civics and citizenship is posing questions. Creating a set of complex and thoughtful questions will provide you with a comprehensive framework to investigate an issue or evaluate an argument.

A good approach to posing questions is to start with an overall focus, then create a series of stem or sub-questions.

Copy and complete the question chart below by adding four more stem questions.

How representative of Australia's population is our government?

If our population is 50 per cent male and 50 per cent female, why aren't half of the Members of Parliament women?

What is being done to ensure better representation of Aboriginal and Torres Strait Islander people in Parliament?
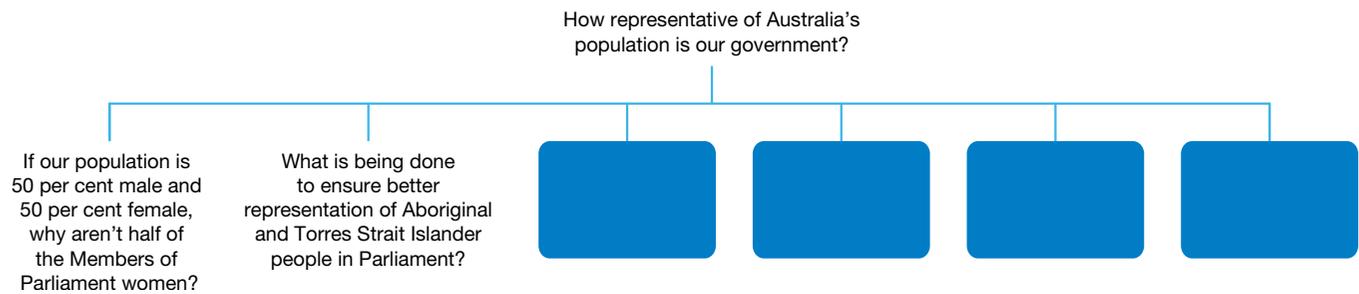
Activities

Remembering and understanding

1 List four facts about the first Australian parliament.
2 Write down the year that the following milestones occurred in Australian Parliament:
   a The first Indigenous Australian sat in Parliament
   b The first women were elected to Parliament
   c Australia elected a female prime minister.
3 Define the term 'demographic' in your own words and give an example of an Australian demographic.

Applying and analysing

4 Compare Australia's first and current parliaments. List the similarities and differences.
5 In your own words, explain why it is important to have a government that represents different demographics.

Evaluating and creating

6 Using the information and statistics in the sources provided in this unit, answer the following question:
   Does our current Parliament represent our whole population?

12.7 Political persuasion

Influencing voters

Once an election has been called, politicians and political parties launch their election campaigns. They must try to convince the voting public to support them at election time. Persuading people to either maintain their loyalty to a particular party or change their preference to a new party is not an easy task. It's particularly difficult when campaigns generally only run for approximately 6 weeks. Parties will also seek to influence newly registered voters, including new citizens and those who have recently turned 18. Political parties undertake an intense period of campaigning in order to attract voters. They rely on a number of different methods to influence the way people vote.

In this technology-driven era, politicians have access to a wide range of tools and methods to assist in influencing voters. They use the media in all forms: television, newspapers, radio and the internet. Increasingly, social media platforms such as Facebook and Twitter are being used to connect and engage with voters, particularly younger ones. However, traditional methods of persuasion continue to be used. These include opinion polls, public debate, doorknocking and interest groups (also known as lobby groups).

The importance of persuading the public

Many factors can influence voter behaviour. Family views, traditions, religion, social status, education and cultural background may all influence an individual's voting preferences. However, political parties cannot simply rely on voters to continue to vote for the same party.

Voters can change their preferences at any time in the lead-up to an election. They may be swayed by a number of factors. These could include: specific party policies that they do not agree with; the candidates who are put forth in their electorate; or whether political parties have been addressing the issues they feel strongly about. Sometimes, a party will win an election because of the number of people who were dissatisfied with the other party, and not because a majority of voters actively supported the winning party.

12.7.1 Opposition Leader Bill Shorten visits a TAFE campus while on the campaign trail in Adelaide. Politicians often visit places such as schools, hospitals and workplaces in an attempt to connect with the general public.

12.7.2 Former Prime Minister Malcolm Turnbull and Leader of the Opposition Bill Shorten participate in a debate at the National Press Club in Canberra during the federal election campaign in 2016

Swing voters

Swing voters also play an important role in the outcome of an election. Swing voters are those who do not feel particular loyalty to any political party. Because their preferences are unknown and unpredictable, they can have a significant impact on the outcome of an election. Persuading these voters to vote in a certain way is therefore of critical importance for political parties.

Methods of persuasion

Political parties use a combination of the following methods of persuasion, taking into account the audience they are appealing to and the messages they are trying to get across.

Print, television and radio advertising

Political parties use the media to present an overview of their policies and to explain to audiences why a vote for them is the right choice at election time. Paid advertisements use music, slogans and imagery to help convince voters. Slogans are phrases designed to represent what the party stands for. Often, party advertising criticises the policies of opposing parties in an attempt to highlight their weaknesses. Advertising can be a very expensive form of persuasion; however, it usually attracts a large audience and can therefore be very worthwhile.

Political parties and politicians also benefit from news coverage in the media. During an election campaign, politicians will often go out on the campaign trail. They visit places such as schools, hospitals and workplaces in an attempt to connect with the general public and demonstrate their interest in issues that affect voters (see Figure 12.7.1).

The media will often report on these visits. In this way, political parties gain publicity for their campaign and their policies.

Public debates

A public debate allows politicians to question each other on their policies and political platforms. It also allows the public to examine where their potential political representatives stand on the issues that concern them. It is an important principle of democracy that people be allowed to openly express their ideas and opinions, without fear of punishment, and a public debate allows important discussions to take place.

Debates often discuss aspects of society such as health care, education and the Budget. These debates are often televised so that they can reach a larger audience, and there is usually an adjudicator—someone who runs the debate and puts questions to the candidates. Voter opinion can be significantly influenced by public debates, especially if a participant is unable to effectively answer a question about their policies or makes their opponent look underprepared or uninformed. How the media covers the debate in news stories, analyses, editorials, images, cartoons and opinion pieces can also influence voters' choices.

Did you know?

Political debates on Australian television now include what is known as 'the Worm®', a computerised graphic that reflects, in real time, how viewers feel about the candidates in the debate and which candidate they prefer, as each one answers questions and explains their party's policies.

Opinion polls

Opinion polls use responses from a sample of the public to try to predict how all voters will vote at election time. They usually demonstrate what percentage of the vote each party receives. This is done based on the sample group of people who have participated in the poll. They also show which party is likely to win the election. Opinion polls can influence how candidates are viewed and, in turn, can then influence policy decisions that politicians make. Opinions polls that appear in the media are often conducted by independent organisations such as Roy Morgan Research and Newspoll®. Major political parties also conduct their own opinion polls. They are likely to commission additional polling when published opinion polls show that they are likely to lose an election or the result will be very close.

Opinion polls can strongly influence voters' opinions. Some political leaders have had to step down because of negative opinion poll results. Examples include former Labor Party leaders Kim Beazley and Simon Crean, and former Liberal prime minister Tony Abbott.
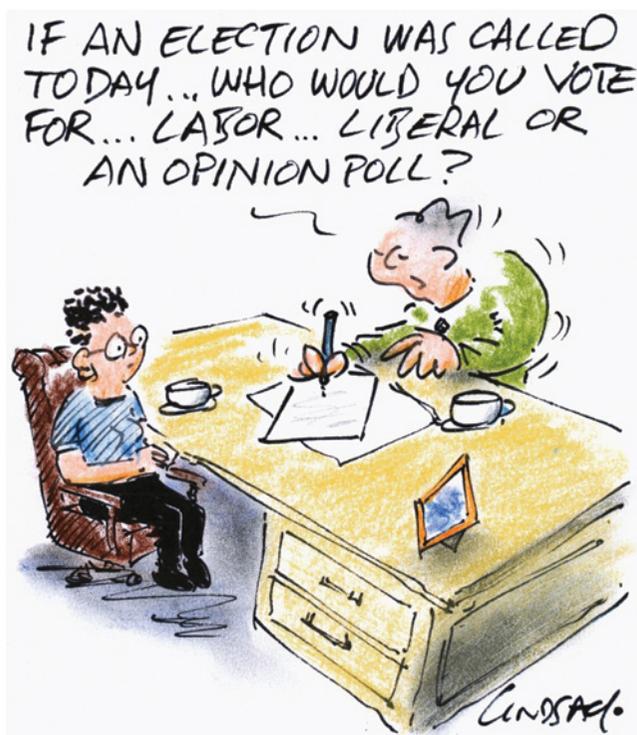
12.7.3 A political cartoon about the importance of opinion polls at election time

Interest groups

Interest groups, or lobby groups, work to represent the interests of organisations or businesses. They lobby (petition) the government or individual politicians to gain support for particular issues or to promote their own agenda. Examples of interest groups include environmental groups such as the Australian Conservation Foundation, and business groups such as the Australian Chamber of Commerce and Industry. They can influence voters at election time by raising awareness about particular issues and then demonstrating how the political parties are responding to these issues. For example, environmental interest group Greenpeace® has campaigned during elections for a reduction in greenhouse gas emissions. Voters who are concerned about climate change might decide to vote for the candidate who promises to take action on emissions.

The power of the media

The media plays a very important role during the election process. Television and radio programs, newspapers and websites present information that influences the choices voters will make on election day. Some of the ways the media presents this information include:

➤ news stories on government and Opposition policies
➤ opinion pieces about candidates
➤ analysis of the parties' policies and platforms, including commentary and criticism
➤ interviews with political candidates, which give them the opportunity to present their policies to voters
➤ different perspectives on political candidates, such as political cartoons
➤ exposure of unethical or illegal behaviour by politicians.

Political parties also place advertisements in the media.

Media bias

Many forms of media, such as newspapers, claim to be politically neutral and to present information that is impartial—that is, not favouring either side and independent of any influence. However, this may not always be the case. Media bias, or favouritism towards one political party or another, can be detrimental (damaging). Media bias can be seen in the choice of a newspaper headline and its accompanying photograph, in the types of questions posed to a political candidate, and in the amount of air time the political candidates are given on a news broadcast.

12.7.4 Historically, Australian newspapers have remained impartial in the lead-up to elections. News Corp newspapers, such as *The Sunday Telegraph* and *The Daily Telegraph*, caused controversy when they openly supported Tony Abbott and the Liberal Party during the 2013 election campaign.

Activities

Remembering and understanding

1 Give examples of the types of media that politicians use to influence different demographics of voters.

2 Identify some factors that can influence how a person will vote.

3 Define the term 'swing voter' in your own words.

Applying and analysing

4 Develop five questions that you would ask a politician if you could interview them in the lead-up to an election.

5 Research the latest federal opinion polls.
   a Which party is ahead in the polls?
   b Who is the preferred leader of Australia?
   c Identify some limitations in the use of opinion polls.

Evaluating and creating

6 Examine Figure 12.7.4. Why were the News Corp newspapers controversial? Consider the dangers of biased media in your response.

12.8 Politics and social media

A changing political landscape

Today, technology is everywhere. It is a part of every aspect of our lives, from how we do our shopping to how we communicate with one another. One of the most popular and fastest-growing areas of technology is social media.

Social media describes the variety of digital platforms that allow people to create and share information online with a global network. Social media is interactive, allowing participants to ask and answer questions, share videos and photos, and communicate with people all over the world in real time.

12.8.1 Social media platforms include Facebook, Twitter, Instagram and YouTube

Social media is taking up more of people's time and attention. People get a lot of information about what is going on around the world through social media. It can influence people's understanding of issues and events. Politicians and political parties increasingly use social media to influence and engage with the community.

Uses of social media in politics

Political parties, individual candidates and citizens are able to use social media to communicate with each other about important issues. There are many different ways in which social media can be used to influence people's understanding of issues and to engage people in debate and discussion.

Political debates

Typically, there are only two candidates involved in a televised political debate. Social media allows other politicians, including independents, to communicate their views and to rebut (respond to) the policies presented in the debate.

Platforms such as Twitter allow all of the candidates to comment, reply to other people's comments and post images. This widens the scope of the debate, providing voters with a variety of different perspectives. People watching the debate on television are also able to read commentaries on social media and blogs. Through social media they can also participate in the debate themselves.

Personal social media accounts

Politicians can use personal social media accounts to create a closer connection with voters. Social media makes communication between a politician and a voter quicker and more direct. Citizens can actively participate in debate and direct discussion with candidates by tagging their user accounts and using hashtags. In this way, the media and the candidates' electoral offices are no longer the only the providers of information. Social media accounts also help to shape voters' perceptions of politicians. They can make candidates seem more down-to-earth and more like everyone else.

Social media tools

Politicians can use the different features of social media platforms to give more exposure to particular issues and policies and to reach new audiences. Social media posts are much quicker to create than television or radio advertisements, and politicians are able to use them to target voters more efficiently. When people read a post on a social media platform such as Facebook, they are able to 'like' the post and share it on their own Facebook account
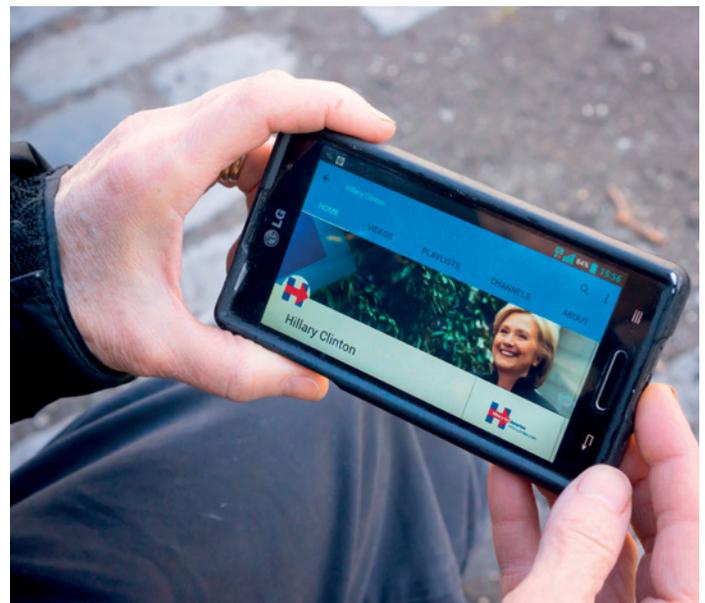
12.8.2 Hillary Clinton used YouTube to announce her run for the US presidency in 2016

12.8.3 Thousands of people marched in Melbourne on 26 January 2018, calling for the date of Australia Day to be changed. Social media posts about this issue use the hashtag #changethedate.

or with other friends. Social media users can also add their own thoughts and opinions to the information politicians provide. This commentary can influence the beliefs and perspectives of the family members, friends and peers who read it, and it could possibly change their vote.

A hashtag is a tag or label relating to a key term or idea, which links a social media post to others with the same hashtag. For example, the hashtag #changethedate has united thousands of people around Australia who are calling for the date on which we celebrate Australia Day to be changed. Hashtags allow social media users to find all the posts about the same issue. Politicians can use hashtags to draw attention to important announcements, policies or attacks on other politicians.

Advantages and disadvantages

Social media use can have negative consequences for politicians, too. In 2014, a Victorian Liberal Party candidate was forced to resign after it was revealed that he had made inappropriate comments on Twitter. Social media can provide voters with more personal insights into candidates and their lives, but this may not always have a positive influence on their vote.

12.8.4 Advantages and disadvantages of social media use in election campaigns

Advantages	Disadvantages
Increased engagement and understanding of issues by younger voters	Voters may get information overload and feel overwhelmed
Greater personal interaction between politicians and voters	Bullying and discrimination often occur because social media can be used anonymously
Candidates have many different channels to get their message across	Politicians might express personal views that are not supported by their party
Voters have access to up-to-the-minute information on political issues	Anyone is able to have an influence on voters' beliefs, perspectives and voting behaviour
Competition with traditional media outlets, challenging media bias reporting and avoiding a monopoly on political reporting	Social media sources are not necessarily reputable or accurate
Politicians can easily determine how voters are feeling about a particular issue or policy	Comments on social media do not always reflect how people will vote
Voters are encouraged to to be more actively involved in politics	

Activities

LS 12B
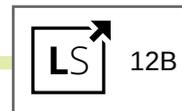
Remembering and understanding

1 Explain the term 'digital platform' in your own words.
2 What digital platforms are used by politicians?
3 Explain why politicians are using social media more frequently.
4 List three advantages for a politician in having a personal social media account.

Applying and analysing

5 Research real-life examples of positive and negative social media use by politicians.
6 Apply your knowledge of social media to compile a list of ten dos and don'ts for politicians' use of digital platforms.

Evaluating and creating

7 Hashtags are an effective social media tool. Develop a list of hashtags that you think could be used to generate interest in and discussion of important social issues.

A benefit of our democratic society is that everyone has the right to express their views on how our nation should be governed. In Australia, there are many ways that people can be active members of society, share their opinions and express their concerns.

Be informed

One of the most important things we can do as active citizens is to stay informed about current affairs and social issues. Keeping up-to-date allows you to have informed opinions and make decisions about issues that concern you. Some ways that you can educate yourself about social issues are watching the news, reading newspapers, checking out social media and having conversations within your local community.

Contact your MP

Our Members of Parliament are charged with representing their constituents and the issues that concern their electorates. As an Australian citizen, you have a right to contact your Member of Parliament at any time. You can contact MPs and senators about any issues that affect you or your community by writing them a letter, emailing them or telephoning their electorate office. The postal addresses, phone numbers and email addresses of MPs and senators are available on the Parliament House website. You can also contact a minister in charge of a specific portfolio. For example, if you want to express your opinion about an environmental issue, you can write to the federal Minister for the Environment and Energy.

12.9.1 British celebrity chef Jamie Oliver launched a global change.org petition to demand compulsory food education for all children. The petition aimed to persuade governments of the G20 countries to provide children with the basic human right of food education in schools. He is pictured here with Bondi Public School in 2015.

Sign a petition

The right to create or sign a petition to federal Parliament has been in place since Federation. It is one of the only ways an individual can directly place a grievance before the Parliament. A petition is a formal written request appealing to an authority, often the government, to take note of or solve a particular issue. Typically it is initiated by a concerned citizen or group, and signed by as many people who support that request as possible. It is then formally presented to the Parliament, where it is entered into the parliamentary records. Many petitions are conducted online. This method allows petitions to rapidly collect many signatures and raise awareness of a cause.

Protest

One of Australia's basic freedoms is the right to assemble. Citizens can organise a public meeting or protest to express their concern about an issue. At protests or rallies, citizens typically gather to peacefully demonstrate their opposition to a policy or issue. They invite speakers and sometimes politicians to address the rally. The media may cover the proceedings, which can help publicise the protestors'

Did you know?

A small group of dedicated women took to the streets of Melbourne in 1891 to collect signatures for a petition asking for the vote for women in Victoria. The women presented 30 000 signatures from women from all walks of life to the Parliament of Victoria. The petition was known as the 'monster petition' because it was so large, at over 260 metres long. The petition led to the Women's Franchise Bill being presented to Parliament. It wasn't until 19 bills and 17 years later that women gained the vote in Victoria. This 20-metre-long statue depicting the petition was unveiled in Burston Reserve in 2008. It celebrates the 100-year anniversary of the women's efforts.

12.9.2 People gathered in Melbourne on 4 February 2016 to protest Australia's treatment of asylum seekers and refugees

concerns and therefore put pressure on the Parliament to act on the issue. Other types of protests include sit-ins, marches, boycotts and legal action.

Observe Parliament

Australians can observe politicians in action by attending sessions in Parliament. The viewing galleries in the House of Representatives and the Senate are always open to the public. People can also watch the work of some parliamentary committees. Parliament is filmed and can be watched on television or online. Each House also has a press gallery that gives the print and broadcast media access to report on the work of the Parliament.

Vote

The most direct way for Australians to have their say in Parliament is to vote in elections, which are held at least every three years. In Australia, voting is compulsory for citizens aged 18 and over. If Australians do not like the actions or policies of a government, they can vote to elect new representatives in both the Upper and Lower Houses. Once Australians turn 16, they can enrol to vote. The right to vote is a great privilege and comes with the responsibility to make an informed decision. Citizens should educate themselves about political parties, candidates and their policies before making a decision about who to vote for.

12.9.3 Observers sit in the viewing gallery above the House of Representatives

Activities

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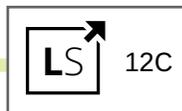
Remembering and understanding

1 List the different ways that citizens can have their say in government and about the issues that concern them.
2 Explain why it is important for citizens to be informed.

Applying and analysing

3 Find the names and contact details of the Members of Parliament in your state and federal electorates.

4 Investigate recent protests in Melbourne. List three protests that have been held in the last two years and explain why each protest was held.

Evaluating and creating

5 It is compulsory for Australian citizens aged 18 and over to vote. What are the benefits and limitations of compulsory voting?
6 Choose an issue that interests or concerns you. Write a formal letter or email to your Member of Parliament respectfully expressing your view.

Making and breaking laws in Australia

13

The Australian Constitution calls for a 'separation of powers'. It grants Australia's judiciary and court system the power to interpret and apply the laws created by Parliament. When necessary, the judiciary is able to create new laws and establish precedents.

Australia's court system strives to provide a structure that is fair, accessible, efficient and non-discriminatory for all users. Different features aim to achieve justice for all. These features include the court hierarchy at both state and federal levels, the appeals system and the use of a jury. At times, however, there are factors that make true justice difficult to achieve.

OVERVIEW QUESTIONS

13A What are the key features of Australia's court system?

13B What principles of justice support a democratic and just society?

13C What are the challenges of and to Australia's court system?

13D Is the court system fair for everyone?

LS Before you begin
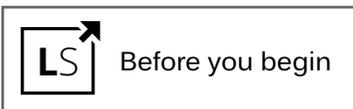
13.0.1 The Supreme Court of Victoria in William Street, Melbourne

GLOSSARY

adversarial legal system a legal system in which two parties present their opposing cases to a jury or judge

asylum seekers people who have fled their home countries due to persecution on the grounds of race, religion or political status and seek to live safely elsewhere

civil law law that applies to ordinary private matters, where the maximum punishment does not include time in prison

Commonwealth the Commonwealth of Australia, which is Australia's official title

criminal law law imposing punishment for illegal actions

defendant the person or organisation in a court case whose behaviour is at issue and who will be proven guilty or not guilty

hierarchy a system that reflects order of importance

jurisdiction the territory controlled by a government

legally binding a common legal phrase indicating that an agreement has been consciously made, and certain actions are now either required or prohibited

mediation a discussion and negotiation process that seeks to resolve disputes without involving the courts

plaintiff a person who makes a legal complaint against someone else in court

precedent a principle established in a previous legal case that a court or other tribunal must take into account when deciding subsequent cases with similar issues or facts

ratio decidendi the reason or rule of law on which a judicial decision is based

statute law law made by state and federal parliaments, also known as legislation

verdict a decision as to whether the accused person is guilty or innocent

13.1 Rules and laws in Australian society

Whoever you are, almost every aspect of your daily life is governed by rules and laws. They are designed to regulate society, keep you safe and guide your behaviour. Rules and laws are important to the operation of society. At school, in our community groups and at home, rules provide us with a code of acceptable behaviour. In broader society, laws are the rules that people must follow. Laws apply equally to everyone in society. They are put in place to make society a fair and safe place for all. As a member of Australian society, you need to know how laws affect you, and the rights and responsibilities you have within Australia's legal system.

Rules and laws

Rules

Rules are non-legally binding expectations that apply only to certain groups, rather than to all of society. Your family, school, and any sporting clubs or community groups you belong to all have rules to follow. Usually these rules are created by members of the group to establish a code of conduct (expectations of behaviour), as well as a set of consequences if the rules are broken. Group members are required to follow the rules, but they are not enforceable by law. That means anyone who breaks one of the group's rules will face consequences within the group. They will not be formally punished by the court or the legal system. Examples of groups that may have rules are:

➤ sporting groups may have rules of fair play
➤ schools may have a rule that requires students to wear a school uniform
➤ families may have a rule that each family member must complete certain chores.

13.1.1 Rules are established by most local sporting clubs to keep members safe and to promote good conduct

13.1.2 Many schools require students to wear a uniform. This rule is designed to promote equality and cohesion within the school community.

13.1.3 Many families establish rules to make sure everyone contributes to the running of the household

Laws

Whereas rules only apply to certain groups of people, laws apply to everyone in society. A law is a rule or regulation that is **legally binding**. This means that if someone breaks a law they will be formally punished by the court or the legal system.

Laws are important to help protect our society and allow it to run cohesively. They show people what is acceptable behaviour according to the values of our society. Australia has particular moral, economic, social and political values and beliefs, and our laws reflect them. There are laws to protect property, people, and their rights and freedoms. Laws also explain our rights and responsibilities.

Laws are made by Parliament and are enforceable by the police and the court system. Some laws apply to all of Australia and others are specific to individual states or territories.

There are two ways in which laws can be made in Australia.

➤ *By Parliament*—This is known as **statute law**. Statute law is signed by the governor or governor-general and prevails over common law. This means that if common law conflicts with statute law, the statute law will be followed.

➤ *In the courts*—This is known as common law.

Did you know?

Some of Australia's laws have not been changed since they were introduced. Some of the more outdated ones include the following.

- It is an offence to harness or attach your goat or your dog to a vehicle and drive it in or through a public area. The penalty is currently $777.30.

- You cannot drive your cart or wagon through public streets unless you have your name and address painted clearly on the right-hand side of the vehicle. Each letter must be at least 25 mm in length.

13.1.4 Signs such as these can be seen all over Australia. They notify us of the laws we must conform to by telling us what we should or should not do.

Activities

Remembering and understanding

1 Explain the difference between a rule and a law in your own words.
2 List one rule and one law that apply to your life.

Applying and analysing

3 Discuss why it's important that we have rules and laws in Australia.
4 In your opinion, are there any drawbacks to having so many rules and laws? Give examples to support your argument.

Evaluating and creating

5 Consider the groups that you belong to—for example, your family, your school, sports teams, music or dance groups and community groups.
   a Draw a mind map illustrating the different groups.
   b Add to your mind map the rules that apply to each of these groups.
   c Identify any similarities or patterns you notice across the groups. What can you infer about the values of your community based on these similarities?

13.2 Making laws in Australia

In Australia, laws are created in two ways. They can be debated and passed in Parliament: these are known as statute laws. Or they can be created by judges in the court system: these are known as common laws.

Statute law

To introduce a new law, a Bill (a draft of a proposed law) must be introduced to Parliament. The Bill must be passed in identical forms by a majority vote in both the House of Representatives and the Senate.

Stages of the Bill

Most Bills are introduced to the House of Representatives. In some cases—except for money and taxation Bills—they can be introduced to the Senate. Typically, Bills are introduced to Parliament by government ministers. Other members can introduce their own Bills. These are known as private members' or private senators' Bills.

To introduce a Bill, members must notify Parliament of their intention. They must prepare identical copies of the Bill for the House of Representatives and the Senate. Once this process is complete, the member may introduce the Bill.

In each chamber, the Bill is read aloud three times. This practice dates back hundreds of years, before the invention of the printing press, when many members of the British Parliament could not read.

On the first reading in each chamber, the member will simply read the Bill. This allows other members to hear the Bill, and later read it again in their own time. On the second reading, the member explains to Parliament why it is necessary. Then members debate and vote on the main idea of the Bill. These debates often become heated because they concern important changes to Australian law. If the debate continues, there are two optional stages in the process to help consider the Bill. The Bill can be sent to a House or Senate committee for public inquiry, or it can be considered in further detail, with members discussing any changes to the Bill.

If the Bill passes the second reading, it can go to the third reading. Members of the House of Representatives have had some time to consider the Bill further, and they vote on the Bill in its final form during the third reading. If the majority vote to pass it, the Bill is sent to the Senate, where it follows the same process. The Bill may be passed back and forth between both Houses until it is agreed on, or until the Senate rejects the Bill.

HOUSE OF REPRESENTATIVES

1ST READING
The bill is introduced to the House of Representatives.

2ND READING
Members debate and vote on the main idea of the bill.

3RD READING
Members vote on the bill in its final form.

The bill is passed in the House of Representatives and sent to the Senate.

SENATE

1ST READING
The bill is introduced to the Senate.

2ND READING
Senators debate and vote on the main idea of the bill.

3RD READING
Senators vote on the bill in its final form.

The bill is passed in the Senate.

GOVERNOR-GENERAL

ROYAL ASSENT
The Governor-General signs the bill.

Bill becomes an Act of Parliament— a law for Australia.

13.2.1 The typical path of a Bill through Parliament

Voluntary Assisted Dying Bill 2017

On 29 November 2017, Victoria became the first state to legalise assisted dying for the terminally ill when it passed the Voluntary Assisted Dying Bill through state Parliament. Victorians with a terminal illness will be able to request an assisted death from mid-2019.

Patients will be granted access to lethal medication to end their life. To prevent abuse of the practice, access to this medication will be heavily restricted by sixty-eight safeguards. Criminal protections are included to prevent vulnerable people from being coerced (forced) or abused. The patient must self-administer the lethal injection, except on rare occasions when a patient is physically unable to do so. In this case a doctor can administer the lethal dose.

In order to be eligible for assisted dying, a patient must:

- be a Victorian resident aged 18 or over
- have sound decision-making capacity (be capable of making decisions)
- be diagnosed with a disease, illness or medical condition that is incurable, advanced, progressive and will cause death
- have a condition that is expected to cause death within less than 6 months (12 months in some circumstances)
- be experiencing intolerable suffering.

13.2.2 Premier Daniel Andrews addresses the Victorian Parliament during a debate on the Voluntary Assisted Dying Bill 2017. Minister for Health Jill Hennessy, who introduced the Bill, sits to his left.

13.2.3 Member of Parliament Martin Pakula, Minister for Health Jill Hennessy and Premier Daniel Andrews address the media outside Parliament House in Melbourne after the Voluntary Assisted Dying Bill passed Parliament in November 2017

The Bill passed after 100 hours of debate over six weeks, including three marathon all-night sessions. It passed the Lower House on 20 October 2017 by 47 votes to 37, in a conscience vote. In a conscience vote, parliamentarians are allowed to vote according to their own conscience or beliefs, rather than along party lines.

The Bill was then sent to the Upper House. It was passed by a majority of 22 votes to 18, after extended and heated debate. Many amendments were made. One of the key amendments was changing the required time an eligible patient has left to live, from 12 months to 6 months, except in certain cases. The eligibility is extended to 12 months for patients with neurodegenerative conditions such as motor neurone disease, multiple sclerosis and Alzheimer's disease.

Did you know?

Voluntary assisted dying is also known as euthanasia. It has been debated across the country for many decades. While Victoria is the first state to legalise it, euthanasia was introduced in the Northern Territory by the *Rights of the Terminally Ill Act 1995*. But the law was voided (rendered invalid) by the *Euthanasia Laws Act 1997*, a statute law made by the federal government. This occurred because the powers of the territories, unlike those of the state parliaments, are not guaranteed by the Australian constitution and may be amended or overruled by the **Commonwealth** (the Commonwealth of Australia, which is Australia's official title).

Finally, when the Bill has been passed by both Houses, it is sent to the governor-general for approval or royal assent. This process is a formality. No laws have ever been refused assent. Once the governor-general has signed the Bill, it becomes an Act of Parliament—a law for Australia.

Duration

Passing a Bill can be a long and time-consuming process. Typically, it takes weeks or even months to pass a Bill through Parliament because of the heated debates and the sheer number of Bills. On average, more than 200 Bills are introduced to the Parliament every year. Approximately 90 per cent of these Bills are passed into law.

If a Bill is urgent, it can be passed in a matter of days.

Common law

Statute law is informed by our Constitution and passed by Parliament. Common law is created by judges, courts and tribunals. It is an important protection of individual human rights for two main reasons. First, the Australian Constitution does not provide significant protection of human rights, and we do not have a Bill of Rights. Second, our Constitution was created more a century ago and based on British law, and the needs of our nation have changed rapidly since then. For these reasons, statute law cannot be applied to every case, and common law acts as a safeguard (protection).

When a judge hears an unusual case, they can implement a new ruling, called common law. It allows judges to account for the differences and discrepancies (inconsistencies) of each situation by making a new ruling. When a decision by a judge is the first of its kind, it is called a **precedent**. In later trials, when similar cases come before the courts, other judges can refer to these decisions for guidance. Common law can eventually become statute law. Based on a common law **verdict** (a decision as to whether the accused person is guilty or innocent), a Bill will be passed through Parliament. This process is known as codification.

Role of Parliament in law-making

Australia is governed by two levels of parliament: the Commonwealth (federal) government, and the state and territory governments. The federal Parliament is based in Canberra and deals with national issues. In addition to our national government, the states and territories each have their own parliament, based in their respective capital cities. Victoria's Parliament, for example, is in Melbourne. It is located on Spring Street in the city.

13.2.4 Judges such as Supreme Court Judge Jane Dixon can sometimes create new laws if the statute law does not fit the circumstances of a case. This is known as common law.

13.2.5 State parliaments have the power to make laws related to driving

Statutory authorities

As Australia has grown, our state and federal governments have had to delegate to local councils some of the responsibility of creating and enforcing laws. For example, councils are responsible for creating laws that will help their local community. Some of the responsibilities of local councils include managing parks and reserves, and collecting rubbish and recycling. One law that many local councils enforce is that each residence is responsible for maintaining the nature strip that separates their dwelling from the road, even though this is public land. Another law is that all dog owners must pick up their dog's waste in public areas.

13.2.6 Local councils have the power to make laws in areas such as dog owners picking up dog waste in public places

Activities

Remembering and understanding

1 State the two ways a law can be created in Australia.
2 Define the term 'statute law' in your own words.
3 Explain why there is a need for a system of common law.

Applying and analysing

4 To be enshrined in law, a Bill must be read and debated three times in both Houses of Parliament. In your opinion, why is the process so long? Why does it have so many steps?
5 In your opinion, are there any disadvantages to the requirement that a Bill must be read and debated three times in both Houses of Parliament?

Creating and evaluating

6 Evaluate the following statement, considering arguments for and against it. *Conscience votes should not be used in Parliament because parliamentarians are representatives of their electorate.*

13.3 The court system

Laws and the courts

All societies must have laws to help them function effectively. Without them, we would live in chaos. Laws are rules which everyone must follow every day in order to keep people safe and maintain social order. Our laws in Australia are made by our federal and state parliaments, but it is the courts that apply these laws, putting them into practice.

There are two different types of laws: **criminal laws** and **civil laws**. Criminal laws protect our society from crimes such as murder, theft and assault. Civil laws involve arguments between people—for example, disputes over property or unpaid fines.

Australia's legal system

Our legal system was formed when Federation occurred in 1901. The six self-governing colonies were joined together under one government by the document called the Constitution. The Constitution also formed the foundation of our legal system by establishing our courts.

The legal system used in Australia is called an **adversarial legal system**. This means that two opposing sides (adversaries) in a dispute or case have control of their case. Both sides present their own arguments and evidence and examine witnesses when necessary. The final decision is then left up to a judge or magistrate, or a jury. The judge or jury must remain neutral throughout the trial process. This means that they cannot have any biases or prejudices towards the people involved in the case. They must make a decision based only on the evidence presented. Another feature of the adversarial system is that each party should be fairly represented and supported. They both should have legal representation of equal ability and expertise.

13.3.1 The first ever sitting of the High Court in October 1903

Australia's court system

Courts are places that have the power to deliver judgement on criminal and civil cases, according to the rule of law. There are many different types of courts, each one dealing with specific types of cases. Some courts are able to hear both civil and criminal cases, while others focus on only one type.

There are two main types of courts in Australia. One type is the state and territory courts, which have been established by each state or territory. The other is the federal courts, which have been established under Commonwealth laws. The structures of all the state and territory courts in Australia differ slightly from one state or territory to another. Each different **jurisdiction** (the territory controlled by a government) has its own laws and therefore its own unique court system.

13.3.2 The seven current Justices of the High Court

The hierarchy of federal courts

The courts in Australia are structured according to a **hierarchy** (in levels of importance). This means that some courts have more authority than others. Generally, a court higher up in the hierarchy will hear more serious cases. The hierarchy also means that if an individual or group is not satisfied with the outcome of a case, they are able to appeal to a higher court to reconsider the matter. If the appeal is approved, the case can be retried and an alternative judgement may be reached. This means that most courts have appellate jurisdiction, which allows them to take cases on appeal from lower courts. All courts also have original jurisdiction, which means that they are able to hear a case for the first time.

High Court of Australia

This court is the highest court in Australia and is the last court of appeal. It can hear appeals from all other courts in Australia. Its most important role is to interpret the Constitution and decide whether laws passed by Parliament act in agreement with the Constitution. It also interprets and applies the law of Australia. It hears cases where there is a dispute about the meaning of a particular part of the Constitution. Seven judges sit on the High Court and they are selected by the federal government.

Federal Court of Australia

The main function of the Federal Court is to hear criminal and civil cases related to Commonwealth law. Examples include cases relating to immigration or taxation. This court is also able to hear cases relating to constitutional questions.

Family Court of Australia

This is a specialist court that hears cases relating to families, such as child custody arrangements or divorce proceedings. The Family Court tends to deal with more difficult cases relating to family disputes; simpler cases go to the Federal Circuit Court of Australia.

Federal Circuit Court of Australia

This court was formed in 1999 and is a relatively new court in the system. It deals with some of the simpler family law cases as well as other civil cases such as disputes over copyright (an exclusive legal right to publish and distribute a work) and cases of bankruptcy (being unable to repay one's debts).

The hierarchy of state and federal court

The states and territories do not have identical courts in each of their systems. There is a general hierarchy that mostly applies to the states and territories.

Supreme Court

This court deals with the most serious criminal cases, such as murder. It also deals with the more difficult civil cases, especially those involving significant amounts of money. The Supreme Court has another division, called the Court of Appeal. It hears appeals from both the Supreme Court and all the courts below it in the hierarchy.

County Court or District Court

The County Court (in Victoria) or District Court (in New South Wales, Queensland, South Australia and Western Australia) is able to deal with serious and complex criminal cases, such as armed robbery. However, it cannot hear cases involving murder or manslaughter (an unlawful killing that is not judged to be murder, often because it was unintentional). It deals with medium-level civil cases and is able to hear appeals from the Magistrates Court.

Did you know?

Australia's first female Chief Justice, Susan Kiefel, dropped out of school at the age of 15. She became a legal secretary, completing her secondary schooling part-time at night. In January 2017, she was sworn in as the Chief Justice of the High Court of Australia.
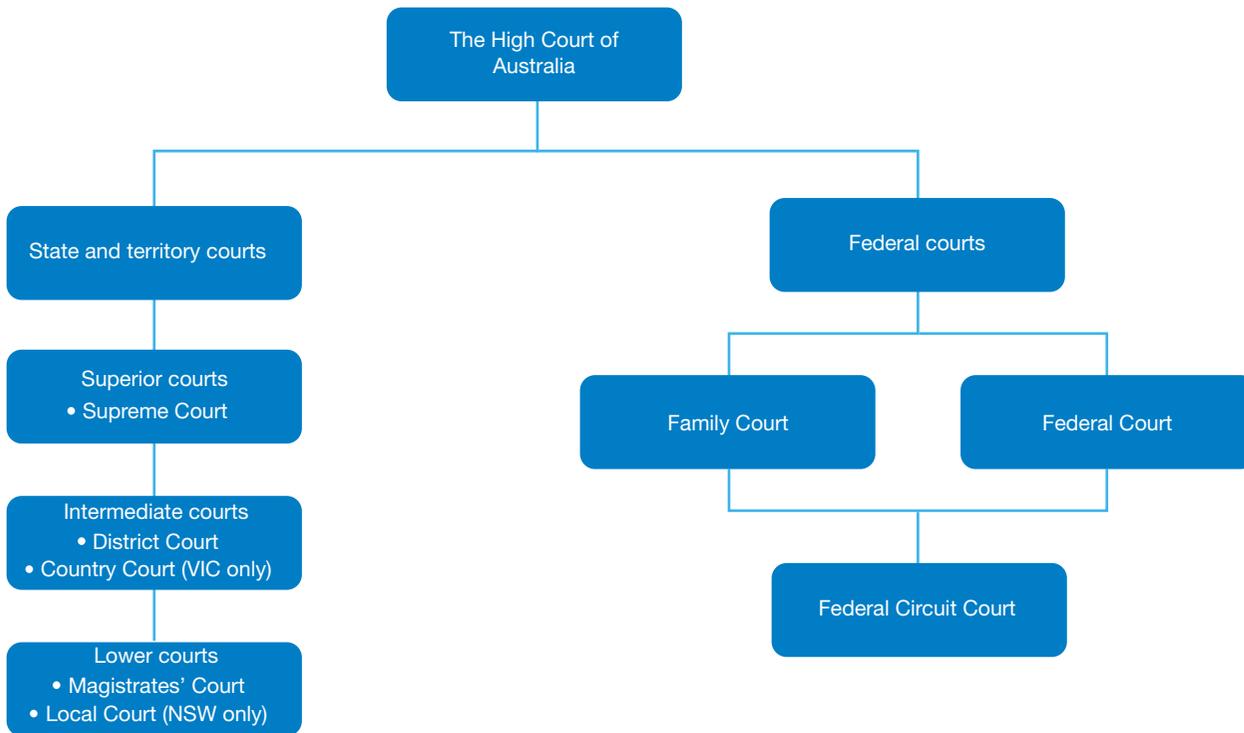
13.3.3 The federal and state court hierarchy

Magistrates Court

This is the lowest court in the hierarchy. It makes rulings on minor criminal cases, especially those that can be judged without the need for a jury. An example is theft from someone's property. It also hears civil cases involving amounts of money up to $100 000.

Coroner's Court

The Coroner's Court exists separately from the rest of the court structure. Its role is to investigate unexplained deaths and incidents such as fire.

Other features of Australia's court system

Separation of powers

One of the most important features of our court system is based on the separation of powers outlined in the Constitution. This means that our judiciary acts independently from the Parliament and the executive government (those members of the government who control policy and government departments; also known as the Cabinet) in interpreting and applying the law. Although the government in power appoints federal judicial officers, it does not interfere with court processes and decisions.

Judge and jury

Both civil and criminal court cases are presided over by a judge or magistrate—and sometimes a jury, too—depending on the case.

The role of a judge is to make rulings in court based on the evidence that is presented. The judge must also make sure that the trial follows the proper legal processes and explain any difficult points of law that arise.

In criminal cases, it is the jury that decides on a person's guilt or innocence. It is the judge who decides on the punishment.

A jury is a group of citizens who are chosen randomly from the electoral roll. Juries are used in serious criminal trials and some civil trials. Jury members must be aged over 18 and registered on the electoral roll. Their role is to agree on a verdict based on the evidence presented to them during the trial. Juries also decide how much money, known as damages, is awarded in civil trials. Jury duty is compulsory if you are selected, unless you qualify to be excused for a specific reason, such as being pregnant or because you work as a legal professional.

The prosecutor

A prosecutor is a legal practitioner whose role is to prepare and present the case against the accused individual in a criminal trial. Their aim is to convince the jury of the
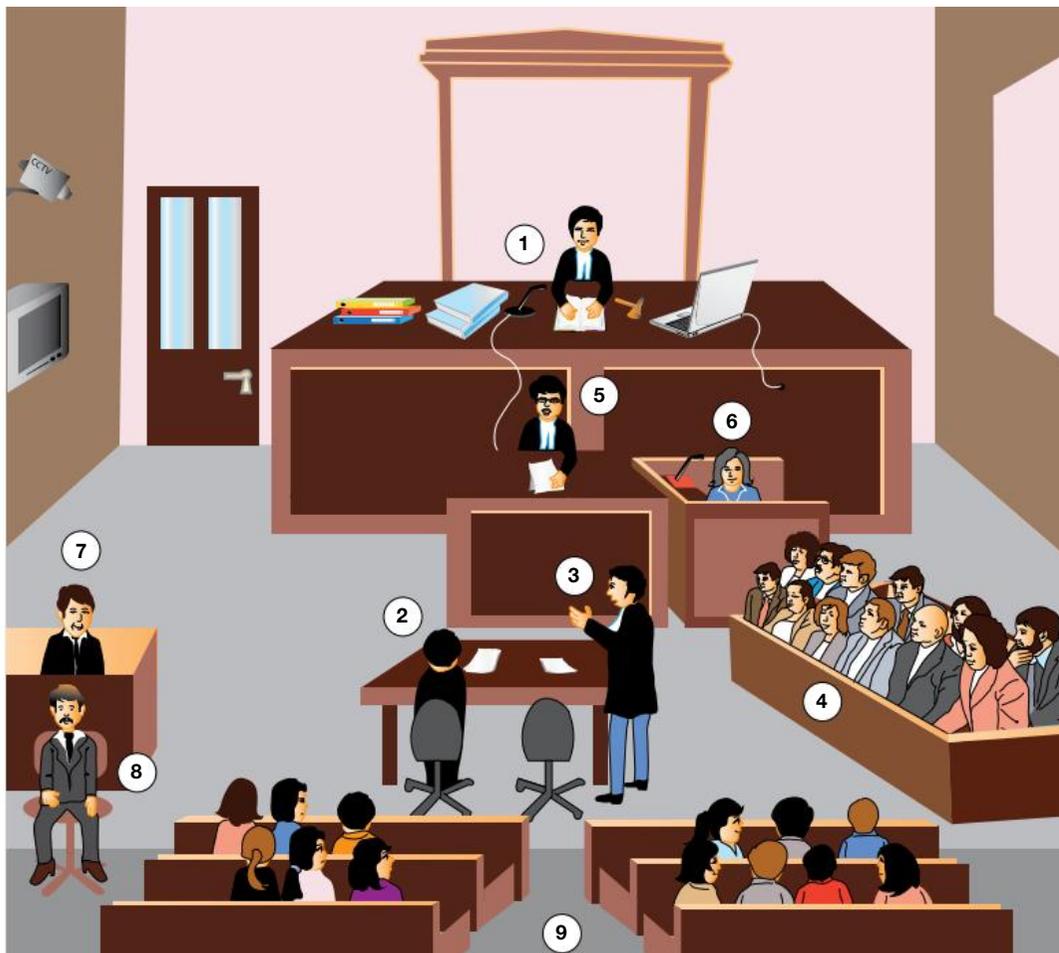
1. Judge
2. Defence counsel
3. Prosecutor
4. Members of the jury
5. Judge's associate
6. Witness
7. The accused person
8. Police/security officer
9. Members of the public, family/ support members of the accused

13.3.4 The typical set-up of a courtroom for a criminal case

person's guilt. In a civil trial, the **plaintiff** (the individual or group who has brought the lawsuit against the accused) is represented by a solicitor or a barrister. They present a case for their client and seek compensation, usually in the form of money.

The defence

In both criminal and civil trials, the accused individual or group is represented by a defence counsel. The defence counsel prepares and presents its client's case against the charges or claims against them. In a criminal case, if the accused pleads guilty, the defence counsel aims to get the minimum punishment possible.

Other courtroom roles

Other members of the courtroom may include:

➤ *witnesses*, who provide evidence in a trial
➤ *a judge's associate,* who acts as the judge's personal assistant
➤ *police officers*, who may give evidence, and provide security when a prisoner is in the courtroom
➤ *a registrar*, who ensures court processes run smoothly.

Activities

Remembering and understanding

1 State why laws are a necessary part of life.
2 Explain the difference between criminal law and civil law.
3 Define the term 'adversarial legal system' in your own words.
4 Identify two reasons why there is a hierarchy of courts.

Applying and analysing

5 Research the names of the current Justices of Australia's High Court.
6 Explain why judges and juries are an important part of the legal system.

Evaluating and creating

7 Justices of the High Court are appointed by the Parliament. What are the limitations of this process?

13.4 The role of the High Court

The High Court

The High Court of Australia is Australia's highest court. The Australian constitution came into effect at Federation in 1901. The drafters of the Constitution were proud of it and wanted to safeguard (protect) it. A hierarchy was created within the judicial system to ensure that all laws passed, whether at local, state or federal level, must be in accordance with (agree with) the Constitution. Under Section 71 of the Constitution, the High Court was given this responsibility.

The principal (main) function of the High Court is to interpret the Constitution and to settle any disputes about its meaning. It can also be called upon to:

➤ interpret and apply the law
➤ hear appeals from the Supreme Courts of the states and territories, the Federal Court and the Family Court
➤ hear disputes between states or disputes involving the federal government
➤ decide on cases of special federal significance; the High Court can be asked to determine if a law is constitutional.

The High Court in operation

The High Court deals with an extremely varied range of cases. Some of the key areas of law include tax, property, family and criminal law. Dealing with appellant cases takes up most of the court's time. In an appellant case, a party appeals to the High Court to overturn a decision of a lesser court. Having an appeal heard by the High Court is not a right. Appellants must persuade the Court in a preliminary hearing that there are special reasons to hear their case. It is very expensive to do this.

The composition of the High Court

The High Court is made up of seven High Court Justices: one Chief Justice and six Justices. The Justices are usually barristers (lawyers who can represent clients in court), and they have served as judges in other courts. Justices are appointed by the governor-general on the advice of the prime minister.

Did you know?

The library in the High Court is reserved for the seven Justices. It is spread over three levels and contains more than 140 000 books.

13.4.1 The High Court of Australia in session

Decision-making

If the case is presided over by a single Justice, the decision rests with them alone. In cases where more than one Justice is presiding and the decision is not unanimous, the majority decides the verdict. For this reason, three, five or seven Justices sit, so that a majority can be reached. The Court does not deliver its verdict immediately but instead reserves (withholds) its decision to be handed down at a later time. The Justice prepares written notes, which will be distributed and recorded in law reports after a decision has been announced. All decisions are final and binding within all courts of law in Australia.

Interpreting the Constitution

If the High Court finds that legislation or a part of the legislation is unconstitutional, the High Court has the power to overturn it. For example, in 1950 during the Cold War, the federal government passed a law declaring the Communist Party of Australia was illegal. The High Court decided that the law was unconstitutional. The government had to accept this decision and the law was overturned.

The High Court overturned state legislation in 2013. The state government of the ACT had passed a law legalising same-sex marriage. Five days later, the law was successfully challenged in the High Court. All of the twenty-seven same-sex marriages that had taken place in that time period were declared invalid.

Tiers of government

The Constitution sets out the powers that the federal government has to make laws. For example, the federal government has exclusive areas of responsibility such as trade, defence and immigration. State and territory governments have been allocated (assigned) areas of responsibility such as roads, public transport and housing. This is because when Federation occurred, the states did not want the Commonwealth to have more lawmaking power than they did.

13.4.2 Six of the twenty-seven same-sex couples who were married in the ACT in 2013. After the High Court ruling their marriages were also ruled invalid. Since December 2017, gender no longer affects the right to marry under Australian law, and same-sex marriage became legal in Australia when the *Marriage Amendment (Definition and Religious Freedoms) Act 2017* was passed.

After the High Court ruled in 1951 that the federal government's attempt to ban the Communist Party was unconstitutional, Prime Minister Robert Menzies held a referendum. The referendum asked Australian citizens: *Do you approve of the proposed law for the alteration of the Constitution entitled 'Constitution Alteration (Powers to deal with Communists and Communism) 1951'?* The referendum failed narrowly, with 50.56% of Australians voting 'no'.
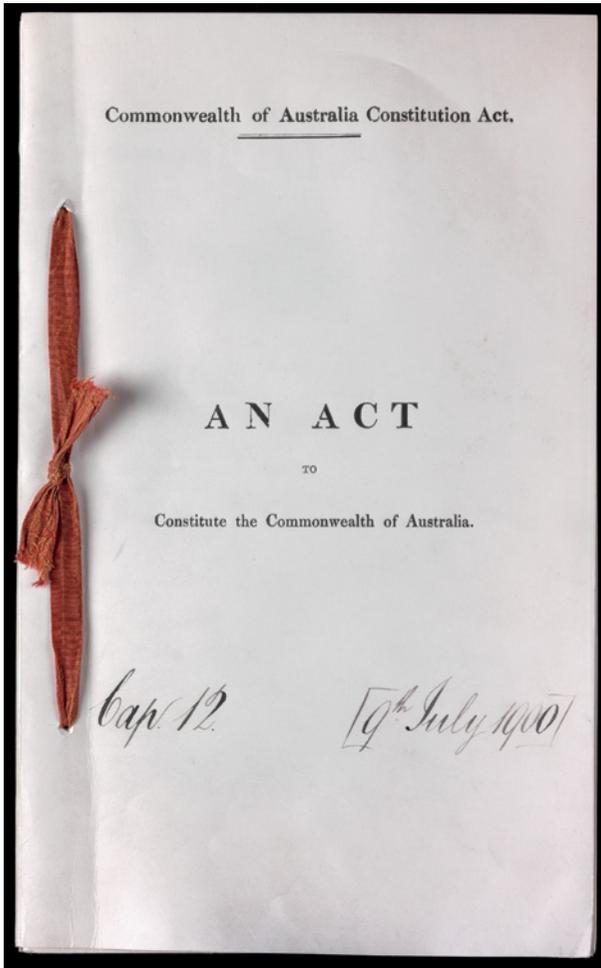
13.4.3 *The Australian Constitution Act 1900.* The Constitution is the legal framework for how Australia is governed, and can only be changed by referendum.

At times, the High Court may be asked to decide whether a law passed by the Commonwealth is within its constitutional power. If the High Court finds that the federal government has not acted within the bounds of the Constitution, the law is invalid. If the federal government felt strongly that a law was needed, the Constitution would have to be amended (changed). This can only happen via a referendum. A referendum is a compulsory nationwide vote in which eligible voters are asked to vote 'yes' or 'no' on a question that seeks to change the Constitution.

Guidelines used for interpreting the Constitution

Australia has changed significantly—culturally, economically and socially—since the Constitution was originally drafted in the 1890s. This can make it difficult for Justices to interpret the meaning of the Constitution as it relates to modern legislation.

Serving on the High Court carries a large responsibility, because Justices try to protect and preserve the integrity of the Constitution. Australian laws need to remain consistent and certain so that the rule of law can be maintained and respected. They must also retain a level of flexibility to adjust to changing circumstances or expectations. Guidelines have been established to assist Justices with their interpretation of the Constitution. They may choose to apply one or more of the following:

➤ to interpret the Constitution exactly as written
➤ to follow what the founders of the Constitution originally intended
➤ to apply the document to contemporary society
➤ to consider the needs of the nation and the people.

Over the years, decisions made by High Court Justices have increasingly extended the influence of the Commonwealth (federal government) at the expense of the states and their powers.

Famous High Court case: Mabo 1992

One of the most important cases that has come before the High Court of Australia is the Mabo case. Eddie Mabo was a member of the Indigenous Meriam people of Mer Island (also known as Murray Island) in the Torres Strait. In 1982 he presented a case in the High Court to claim traditional land rights over Mer Island and the other surrounding islands and reefs. Before this, the land had been claimed by British settlers and subsequent Australian governments as *terra nullius* (land belonging to no one). After a 10-year battle, the High Court ruled in favour of the Meriam people, with a majority of six judges to one. Sadly, Mabo was not present to celebrate the victory. He had died of cancer five months earlier, aged 56. The High Court found that native title could be said to exist in certain circumstances, and overturned the precedent of *terra nullius*. It recognised that the Aboriginal and Torres Strait Islander peoples had been dispossessed of their land since European settlement began and as the colonies grew. The government then passed the *Native Title Act 1993* to support the High Court's decision.
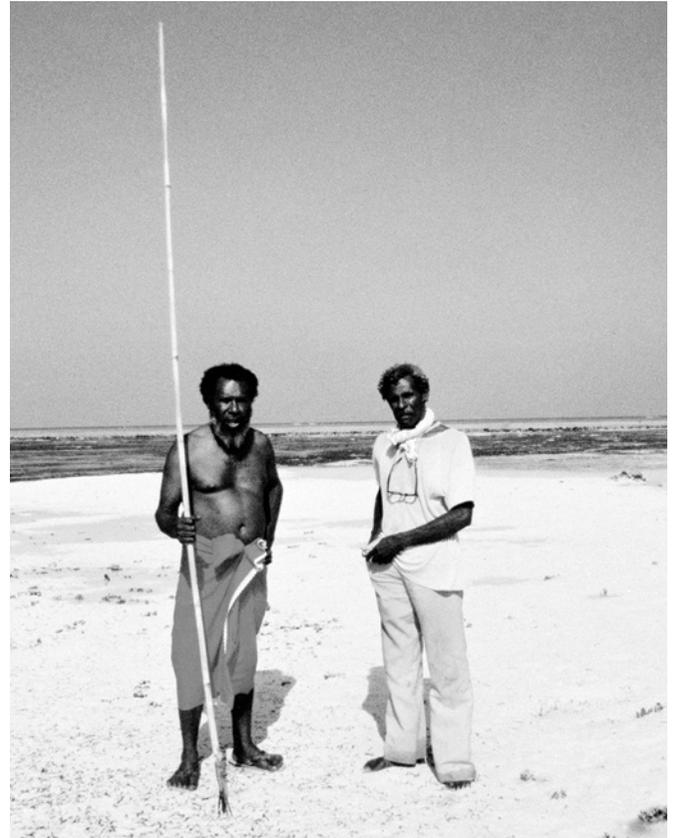
13.4.4 Eddie Mabo (left) and his neighbour Jack Wailu on Mer Island in 1990

Activities

Remembering and understanding

1 What is the principle function of the High Court?
2 Define the term 'unconstitutional' in your own words.

Applying and analysing

3 Explain why you think areas such as trade, defence and immigration are the federal government's responsibility rather than being allocated to the state governments.
4 List the advantages and disadvantages of using a referendum to change the Constitution. Research previous constitutional referendums in Australia to assist you.

Evaluating and creating

5 Draw a mind map to record as many examples of modern legislation that you can think of that would not have been referenced in the original Constitution.
6 Research further into the Mabo case and write a newspaper article about the historical event. Describe the role of the High Court in the case.

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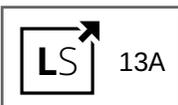
13.5 Australia in an interconnected world

Australia has an important role to play in the global community. Political stability and economic prosperity ensure that Australia is in the fortunate position of being able to help those in need. Australia has ratified (agreed to) important international treaties that support the ongoing protection of human rights. However, there is increasing pressure on the Australian Government to apply the terms of those treaties more accurately in Australia, particularly in the case of asylum seekers.

In recent years, Australia's treatment of asylum seekers has been criticised and our government's policies have been challenged in the High Court of Australia. These challenges argued that Australia's policies were unconstitutional and should be changed. While the High Court has ruled that the government's policies are constitutionally sound, many national and international communities continue to criticise Australia's treatment of asylum seekers.

Australia as a global citizen

As a politically and economically stable country, Australia can helps less fortunate people and countries, and work towards a greater good. Helping others is considered to be a moral obligation, and in some circumstances it is a legal obligation.

As part of this obligation, Australia has promised to promote the safe, lawful and orderly movement and treatment of refugees and asylum seekers.

Asylum seekers are people who have fled their home countries due to persecution on the grounds of race, religion or political status. They seek to live safely elsewhere. A person is given refugee status when an assessment finds that it would be genuinely unsafe for them to return to their home country.

Responses by children and parents to the question: How has your emotional and mental health been impacted by detention?
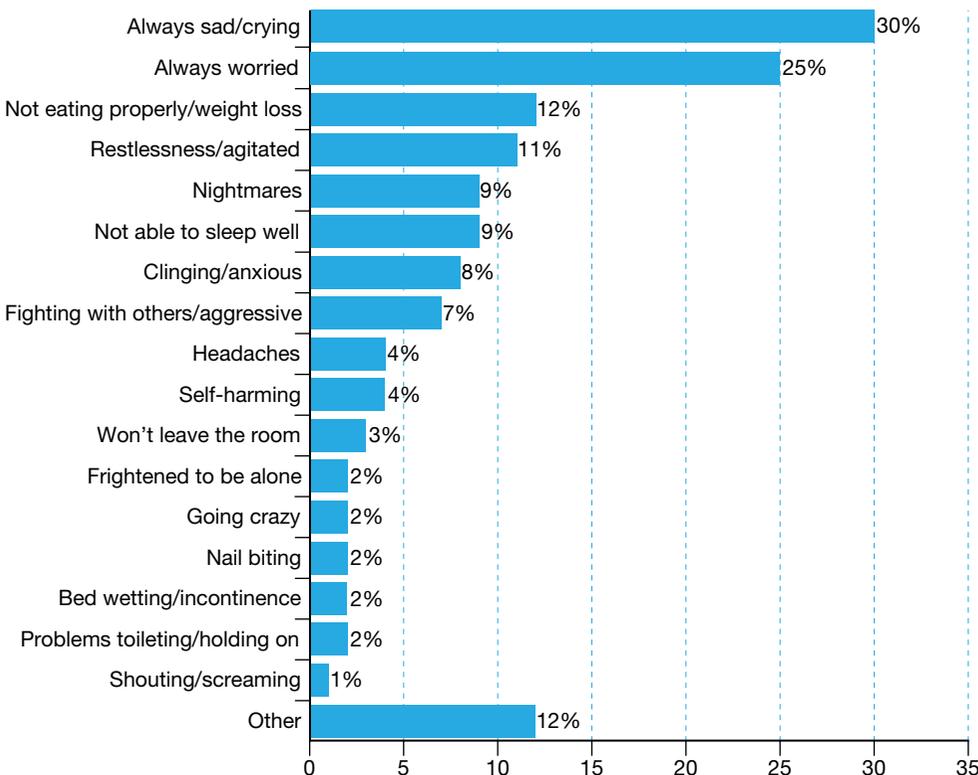
13.5.1 Some effects of detention on children, from the Australian Human Rights Commission's 2014 report *The Forgotten Children*

Australia's obligations to asylum seekers and refugees

Australia is signatory to (has signed) seven separate human rights treaties, all of which include provisions for the treatment of refugees and asylum seekers. The most notable of these are the International Covenant on Civil and Political Rights (ICCPR) (1966) and the Convention on the Rights of the Child (CRC) (1990).

While asylum seekers are in Australian territory, the government must protect their human rights. According to the 1951 United Nations Convention on the Rights of Refugees, countries are not allowed to return individuals to countries where their life or freedom is threatened.

The treaties, however, are only a guideline; Australia does not have to abide by them by law.

Criticism of Australia's asylum seeker policies

Australia has strict policies regarding asylum seekers, which have often been criticised. Under the *Migration Act 1958*, anyone who arrives in Australia without a valid visa must be held in detention. They can be detained indefinitely, until a visa is arranged or the person is deported.

In 2001, Australia instituted a policy of offshore detention. This means that asylum seekers who arrive by sea are taken to remote international detention centres like the ones on the island of Nauru, and Manus Island in Papua New Guinea. (This process has not been continuous, but offshore detention was resumed in 2013 and is still in use today.)

In these Australian-operated facilities, asylum seekers are processed according to the laws of Nauru and Papua New Guinea, not Australian law. While this process is not prohibited by international law, the same human rights regulations should still apply.

The United Nations Human Rights Committee has repeatedly found Australia to be in breach of its international obligations under Article 9.1 of the ICCPR. The major concerns are as follows.

➤ Detention is unlimited. In early 2016 immigration detention hit a record high. On average, detainees were being held for almost 450 days, but 23.3 per cent of detainees spent more than 750 days in detention.
➤ Cases are not dealt with on an individual basis.
➤ No legal assistance is provided for asylum seekers who believe that their human rights are being abused.
➤ The detention facilities are not appropriate for long stays.
➤ Asylum seekers live in tents, with little privacy, under harsh conditions.
➤ Children are detained and have limited access to education and recreational space.

➤ Both adults and children detained for long periods have an increased risk of self-harm and mental illness.
➤ Reports of rape and ill-treatment have been made by detainees on Manus Island.

Australia has been encouraged to seek community-based alternatives instead of mandatory detention. The Human Rights Commission of Australia regularly inspects Australia's offshore immigration detention facilities and writes reports about the conditions there. These reports are intended to raise awareness of the ways that Australia does not meet international standards for the treatment of asylum seekers. In April 2015, the federal government introduced fast-tracking to speed up the visa-issuing process.

The international response to Australia's policy of third country processing suggests that our reputation as a welcoming and rights-respecting nation is being eroded while we maintain this approach.

13.5.2 Quote from Gillian Triggs, president of the Australian Human Rights Commission 2012–17. Triggs continues to speak out against the government's offshore detention policies.

In February 2016, the High Court of Australia ruled that offshore detention in Australia is lawful. In April 2016, the Papuan High Court ruled that detention on Manus Island is illegal. In August 2016, it was announced that the Manus Island detention centre would close.

For more than 10 days, hundreds of refugees have been refusing to leave the prison camp and, as a result, the situation has morphed into a large-scale humanitarian crisis. If things deteriorate further, we will witness a disaster beyond imagination.

We did not come to Australia to live in a prison. The peaceful protest by refugees is not because we want to remain in this prison. We are resisting because we want freedom in a safe environment.

13.5.3 A diary entry from 13 November 2017 by Iranian-Kurdish asylum seeker and journalist Behrouz Boochani, documenting the final days of the Manus Island detention centre. Boochani has been held in detention on Manus Island since mid-2013.

In October 2017, the Manus Island detention centre was permanently closed. Even though 600 detainees were still living at the detention centre, power and water were switched off and all services, food and medical treatment were cancelled. The detainees peacefully protested over the following weeks because they feared for their safety if they left the centre, but they were gradually removed by force to another facility on the island.

13.5.4 Manus Island is part of Manus Province in northern Papua New Guinea. Nauru is an island in the south-west Pacific Ocean, about 3000 km north-east of Australia.

Did you know?

Thousands of people attended rallies and protests around Australia in late 2017 to criticise the Australian government's asylum seeker policies and its inhumane treatment of the men who remained on Manus Island. Protesters in Federation Square, Melbourne, silently lifted their arms in a peaceful gesture of solidarity with the 600 men left in the defunct (not in use) detention centre.

13.5.5 Detainees peacefully protest the closing of the Manus Island detention centre. Six hundred detainees refused to leave the site because they feared for their safety if they moved elsewhere on the island.

Activities

Remembering and understanding

1   List two of the human rights treaties to which Australia is a signatory.
2   According to the 1951 United Nations Convention on the Rights of Refugees, what must countries not do to refugees and asylum seekers?
3   State two organisations that have criticised Australia's asylum seekers policies.

Applying and analysing

4   Explain how Australia's use of offshore detention centres conflicts with its role as signatory to seven different human rights treaties.
5   In 2016 the Australian High Court ruled that Australia's use of offshore detention is lawful. Research the case and identify five interesting facts.

Evaluating and creating

6   Propose an alternative asylum seeker policy to offshore detention. In your answer, you might consider:
    • Could asylum seekers be processed onshore?
    • Could asylum seekers be processed in communities?
    • What groups of people or organisations would need to support your proposal?
    • What would be the benefits and drawbacks of your proposal?

Courts' procedures

A court's role is to resolve disputes and make judgements. Courts need to listen to all the evidence presented in the case, decide on the relevant law and apply it to the case, and then come to a decision.

Statute law

When deciding on the appropriate law to apply in a case, a court first looks at the statute law. Statute law is the law made by state and federal parliaments. The courts must work on interpreting the appropriate statute law, and define the sometimes difficult language in order to make it understandable. When courts interpret the law, they must think about what the parliament was aiming to achieve when the law was created. Courts are able to use a variety of different tools to assist them when interpreting the law, including dictionaries and Hansard (the official records of parliamentary debates).

Common law

Courts also have a very important role in the law-making process. Sometimes courts are faced with cases where there is no existing law that is appropriate to apply. In these cases, judges must create new laws, known as common laws (case law).

In creating these new laws, **precedents** are set. A precedent is a law or rule that other courts must use when deciding on cases with similar circumstances or facts. Usually the courts higher up in the court hierarchy create these precedents, because they tend to deal with more complicated and serious cases. However, all courts are able to set precedents.

According to the court hierarchy, all courts must follow the precedent set by the higher courts. This is known as a binding precedent. For example, if the High Court sets a precedent, every other court in Australia must follow it because the High Court is the highest court in the hierarchy. In contrast, if a court lower in the hierarchy sets a precedent, courts higher up in the hierarchy are able to overrule the precedent and make their own decisions. Precedents help to make trials run more fairly and efficiently because the same legal principles are applied in cases that are the same or similar.

When following a precedent, it is important for courts to look at exactly how and why the particular precedent was established. This is known as the **ratio decidendi**. It helps courts to understand the reasoning behind the judgement, which in turn helps them apply it to their own cases.

Another way in which the courts create law is by applying their own interpretation to existing statute laws. These court interpretations also create precedents and become part of common law.

1. Case information
Sarah, a 28-year-old mother of two, from Melbourne, was found by a police officer to be driving without a seatbelt on. This was the third time she had been caught. The matter was therefore sent to court.

2. Appropriate law
Victorian state road rule 264 states that all motor vehicle drivers and passengers must be wearing a seatbelt that is fastened correctly.

3. The law in use
Sarah was seen by the police officer driving without her seatbelt on, so she had therefore broken the law.

4. Court's verdict (decision)
Sarah is found guilty of breaking Victorian road rule 264 and the judge fines her $550 and suspends her licence for three months, as she is a repeat offender.

13.6.1 The way that a court resolves a case

13.6.2 Judges of the Supreme Court of Victoria

Statute law versus common law

In Australia, parliamentary or statute law is considered superior. If there is a conflict between a law made by Parliament and a common law, then the existing parliamentary law prevails over the common law. This is also the case if the courts create a precedent that does not satisfy Parliament. Parliament is also able to create a new law that would effectively cancel out the precedent set by the court.

13.6.3 The differences between statute law and common law

Statute law	Common law (case law)
Made by Parliament	Decided by courts
Bound by the Constitution	Bound by precedent and legislation
Applies to the whole community	Applies only to the parties involved
Covers broad areas	Covers issues and facts specifically connected to the individual case
Parliament is the highest authority	Court decisions can be overridden by Parliament or higher courts
Parliament can delegate legislation to state and local governments	Courts cannot delegate their powers
Parliament passes laws that affect the future	Courts make decisions to address cases that have already occurred. These decisions can sometimes affect future decisions.

How courts resolve cases
Criminal trials

In criminal trials, a jury is selected and then the alleged crime or offence is presented to the court. The accused must enter a plea of guilty or not guilty.

The prosecution gives an opening address. This address presents an overview of the case and the main evidence that will be used to demonstrate the guilt of the accused. The defence, who represents the accused, then provides a response to the opening address.

Witnesses are called by the prosecution and the defence to provide evidence. This is information presented to the court to help support the alleged (supposed) facts of the case. Witnesses can be questioned and cross-examined (questioned by the opposing legal team) in order to explore the evidence presented and possibly find any weaknesses or mistakes in the witnesses' statements.

Apart from witness statements, other evidence may be submitted. Examples of evidence are a gun alleged to have been involved in the crime, and forensic evidence such as fingerprints.

Next, both the prosecution and the defence provide a summary of their cases. If the accused has pleaded guilty, a judge will decide on the appropriate punishment. If the accused has pleaded not guilty, the jury retires to discuss the case and decide on a verdict.

If the accused is found guilty by the jury, the judge decides on the appropriate punishment. If the jury delivers a not-guilty verdict, the accused is released and is free to leave.

Civil trials

Civil trials (disputes between two parties) run in a very similar manner to criminal trials. However, a jury is not usually used in a civil trial. The party taking the action to court is known as the plaintiff and the party being accused of a wrongdoing is known as the **defendant**. Both parties and their legal representatives give opening addresses, present evidence and can call witnesses. Even after a trial has begun, the parties are able to reach an out-of-court settlement. This means that they come to an agreement about the outcome. The outcome may involve correcting faulty work, replacing faulty goods, compensation or damages (money) requested. At the end of a civil trial, if an out-of-court settlement has not been reached, the judge presents a verdict. If the plaintiff wins, the judge decides what remedy will be awarded to the plaintiff. This usually takes the form of monetary (financial) compensation.

Rules of evidence

In both criminal and civil trials, all parties must ensure that they follow the strict rules of evidence and court procedures. It is the judge's job to make sure these rules and procedures are followed. According to the rules of evidence, the information provided must be factual and not just somebody's opinion, and all the evidence presented by police needs to have been gained legally. A judge may order someone to be removed from the court if they are disrupting proceedings or acting in a way that might put others at risk. The judge can also have someone charged with perjury (lying to the court) if it is proved that they have given false evidence.

13.6.4 Police gather evidence that could later be used in a trial

13.6.5 View of a Victorian courtroom during a civil case against a power supplier whose faulty equipment was claimed to have started one of the Black Saturday bushfires in 2009

Activities

Remembering and understanding

1   In your own words, explain the rules of evidence.
2   In your own words, describe what is meant by ratio decidendi.
3   Explain why precedents are important in the system of common law.

Applying and analysing

4   Examine Table 13.6.3 and identify four differences between statute law and common law.

5   Use a Venn diagram to illustrate the similarities and differences between the processes used in criminal and civil trials.

Evaluating and creating

6   Go back to Figure 13.3.3 in Unit 13.3. Draw the diagram and create annotations explaining the hierarchy of precedents.
7   Evaluate the rules of evidence that are applied in Australian legal system. Do these rules promote justice or obstruct it? Give reasons to support your answer.

13.7 Principles of justice

The key principles of Australia's justice system include equality before the law, an independent judiciary and the right of appeal.

Access to justice

Australia's courts have established many principles in order to maintain a court system that ensures fairness and protection for all participants. Our legal system exists to help our society to function effectively and harmoniously. It is important that all members of society have trust in the system and understand that they can rely on it.

Equal access to justice

Access to our legal system is one of the most important factors to allow everyone in our society to achieve justice. It is the government's responsibility to ensure that the courts are properly funded so that they can operate effectively. The court hierarchy that exists in both state and federal courts means that each court has certain expertise and can focus only on cases that are relevant and appropriate to it.

13.7.1 The scales held by this statue of Lady Justice symbolise the importance of equality and balance in the justice system. She has closed eyes to represent fairness and impartiality. Her sword symbolises sentencing or punishment.

It is the job of the police to inform people of their rights when the need arises, such as when they have been arrested for a crime. There are many organisations that can provide legal information to any citizen who requires it. These organisations can explain legal processes and procedures and what people can do if they need assistance.

As part of our adversarial legal system, the parties in court are able to choose legal representation to assist them in presenting their case. However, not all people who come before the court are able to afford independent lawyers. Organisations such as Legal Aid provide free legal advice and information. They also provide low-cost or pro bono (free) legal representation. This means that everyone is able to have representation in court. For people with mental health issues, there is a Mental Health Legal Service, which offers the same services.

Equality before the law

Another basic human right in our justice system is the right to be equal before the law. This means that every individual, regardless of gender, religion, race, sexuality or age, is looked upon equally before the law. The same laws of justice are applied to all. Additionally, the law exists to protect people from discrimination and to keep them safe. Everyone appearing in court charged with an offence is therefore presumed innocent until proven otherwise.

All people who work in our judicial system must take an oath to 'administer the law without fear, favour, affection or ill will'. They need to have an understanding of different cultures, values and backgrounds. When necessary, they must adapt or modify legal processes (such as the giving of evidence) to allow for these differences.

13.7.2 Lawyer Patrick Warner with a mother and one of her children seeking help from Justice Connect®, a legal clinic for women who are at risk of becoming homeless due to family violence, Melbourne

This right to equality before the law extends beyond our own legal system. The Universal Declaration of Human Rights, a global document, states that: 'All are equal before the law and are entitled without any discrimination to equal protection of the law'.

Independent judiciary

Our judiciary is made up of courts, judges, magistrates and adjudicators. It has the ultimate responsibility of helping to maintain law and order and to protect our rights and freedoms. In order to receive fair, impartial (neutral) and consistent delivery of justice, the judiciary must be independent.

This independence is maintained through the separation of powers set out by the Constitution. The judiciary is given the power to interpret and manage the law, and this is separate from the Parliament's power to create the laws. The Constitution states that the federal Parliament does not have judicial power, meaning that it is not allowed to decide or have influence on the results of cases.

Other factors maintain the independence of the judiciary. Judges are appointed by the government based on their skill and expertise, and not on their political preferences. Once appointed to a judicial position, judges must not participate in any aspect of political life. They hold that position until they resign or when they reach 70 years of age, when they must retire.

13.7.3 Judge Susan Kiefel became Australia's first female High Court Chief Justice in January 2017, after Chief Justice Robert French retired just before his seventieth birthday

13.7.4 An open courtroom during a civil trial

Role of the judiciary in maintaining justice

Members of our judiciary need to act without any favouritism or bias towards any of the parties in the courtroom. It is critical that they perform their role in a balanced and neutral manner. A member of the judiciary may not be a part of a case if they personally know any of the parties involved. If a party feels that they have been discriminated against in court by the judiciary, they have the right to appeal. If a judge thinks they might have a bias in a case, the judge can recuse (excuse) themselves from presiding over the case—in other words, the judge can step down.

Most court cases in Australia feature open courts. Members of the public are able to come and watch the legal proceedings. This is another way to ensure that the judiciary is conducting fair trials, free from influence or prejudice. It makes the judiciary answerable to the public for their actions.

Right of appeal

Another aspect of our legal system that helps to maintain our principles of justice is a person's right to appeal against the court's decision in a case. This can occur in both criminal and civil cases. If an individual is not satisfied with the result of their case, in certain circumstances they are able to appeal to a higher court in the hierarchy. They may then have their case heard again and the original judgement may be overturned or changed.

In criminal cases, appeals may be made against the conviction or against the sentence (punishment) given. Both the accused and the prosecution can appeal. There have been cases where the prosecution has appealed against what they consider to be an unfairly light sentence. In civil cases, the plaintiff and the defendant have the right to appeal. They may appeal either against the amount of damages given, or about the way the law was interpreted and applied during the trial.

This ability to appeal means that individuals are assured that the court system will treat them fairly, address their concerns and provide the appropriate outcome.

Principles of justice in criminal trials

There are certain principles of justice that aim to protect human rights when individuals are faced with criminal proceedings. Criminal cases can often be very complex and of a very serious nature. These principles aim to ensure that the accused in a criminal justice case is safeguarded (protected) against any possible abuse of their rights.

Presumption of innocence

When an individual is charged with a crime, no matter how severe the crime is, they are considered innocent until proven guilty and should be treated that way. Although they present their case in court, the accused does not need to prove their innocence. It is the role of the prosecution to prove they are guilty. This is called the burden of proof. The prosecution must provide enough evidence at trial to demonstrate that the accused is guilty of the crime beyond a reasonable doubt. This means that the judge or jury must be convinced, as far as logically possible, that the accused committed the crime. If they have any uncertainty about it, they cannot come to the conclusion that the accused is guilty and their verdict must be not guilty.

Other rights in criminal trials

Some of the other rights possessed by individuals in criminal cases that help to maintain the principles of justice are:

➤ to have a lawyer present before facing any questioning
➤ to remain silent, both during questioning by police and during the trial, if they believe that answering any questions might incriminate them in some way
➤ to have their case come before a court without unreasonable delay
➤ for their legal representatives to be able to cross-examine the witnesses provided by the prosecution
➤ not to be tried again for the same or a similar crime if they have already been convicted or found not guilty
➤ not to be charged for the same crime again if they have already been convicted or found not guilty.

Activities

Remembering and understanding

1. List three principles of justice that are applied in Australia.
2. Explain one way in which equal access to justice is achieved in Australia.
3. Why is it important for Australian citizens to have equality before the law?
4. Describe the methods used to ensure that the judiciary remains independent.

Applying and analysing

5. Discuss why the right of appeal is important in the Australian legal system.
6. Explain why judges can't preside over cases in which they know one of the parties.

Evaluating and creating

7. In your opinion, are there any circumstances under which an open courtroom is not appropriate or acceptable? Propose examples to support your view.

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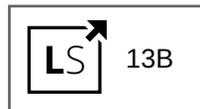
13.8 Challenges to justice

Justice for all

Although our courts strive to provide a system that is just (fair) and accessible for everyone, sometimes they are unable to do this. There are factors both within and outside the court system that can make justice difficult or impossible to achieve.

The jury system

There are disadvantages to the jury system that can have an effect on the fairness of a trial. Juries are supposed to represent a cross-section of the community. They should contain individuals of different ages, occupations, religions, races, genders, sexualities and backgrounds. However, this may not always be the case. People can be excused from jury duty if, for example, they live far away from the court, or are pregnant, or are over a certain age. Some people are not allowed on a jury—for example, anyone in the legal profession or with a recent criminal conviction. Both parties in a case are allowed to challenge and reject a certain number of jury members. All of these factors can result in a jury that is not a true representation of the community. Additionally, jurors may hold personal prejudices that are never revealed.

The adversarial system

The adversarial approach places two parties in opposition, each trying to win the case. Some critics of this system argue that it is not a truth-seeking system and it is unjust, because each side is simply trying to beat the other. Retired Justice Russell Fox spent 11 years researching the law in Australia. He stated that lawyers can pollute the truth through actions such as blaming the victim, misrepresentation and false arguments. Justice Fox also said that some rules act to conceal significant evidence from jurors. He concluded that, because of this, more than 50 per cent of offenders escape punishment. Additionally, the role of the judge in the adversarial system is mostly to clarify information and points of law. Therefore the significant courtroom experience and knowledge that judges have is not fully drawn upon.

13.8.1 A jury box at the Supreme Court

Skills builder

Our jury system

A key skill required in the study of civics and citizenship is the ability to develop an evidence-based argument which recognises different interpretations.

Some people argue that Australia's jury system is outdated and unfair and should be phased out.

1 Prepare a PMI (Plus, Minus, Interesting) chart that identifies the advantages, disadvantages and interesting points of the jury system.

Plus	Minus	Interesting

2 After you have completed the PMI chart, write a 300- to 400-word essay on the following topic:
The jury system should be abolished from Australia's court system. Discuss.

Structure your essay to include an introduction, a body and a conclusion.

- *Introduction*—Briefly define the topic. In this case, that means briefly explaining the jury system and its place in Australia's court system. Then introduce your contention or point of view on the discussion topic (whether or not the jury system should be abolished). Then briefly introduce the three arguments that will support your case.
- *Body*—Include three body paragraphs. Each paragraph should contain one argument, supported by evidence or reasoning that supports your point of view.
- *Conclusion*—Summarise your arguments and restate your contention.

13.8.2 Is Australia's jury system outdated and unfair?

Actual access to justice

The cost of pursuing justice can be very high. Because of this, many people choose not to do so. Only the very rich can afford the best legal representation and only the very poor can access free Legal Aid. This means that the majority of Australians struggle to afford legal representation. Highly paid lawyers are often skilled at manipulating arguments, and this gives the defendant a better chance of obtaining a verdict of not guilty. Legal Aid, on the other hand, has to apply very strict means tests and restrictions on the services it provides. Therefore many people confront the legal system without any legal representation. People paying for the best legal services can have as much time as they need to discuss their case and the approach to the trial. Those represented by Legal Aid, by contrast, are likely to meet their representative for the first time at the trial. The representative may have had only a few hours to familiarise themselves with the case. Because of this, the prospect of a fair trial and a just outcome may be at risk.

Court system complexity and limitations

People are often not aware that their problems could be solved using other methods, such as **mediation** (a discussion and negotiation process that seeks to resolve disputes without involving the courts), rather than by going through the court system. Many find the legal system so confusing and complex that they do not seek or find the assistance they need and that they legally are entitled to.

Sometimes, corrupt practices can inhibit the path of justice. In the Australian legal system these practices are rare, but they can occur.

Bribery

Bribery is the practice of dishonestly persuading someone to act in your favour by offering a gift of money or other goods. Bribes have been offered, for example:

➤ to police, in exchange for information or to get them to remove evidence from a case

➤ to members of the legal profession, to gain representation

➤ to judges, in order to influence the outcome of a case or the severity of a sentence

➤ to witnesses, to persuade them not to provide information or to change the information that they do provide.

Coercion of witnesses

Witnesses play a very important role in legal proceedings, providing information in a case to help clarify what has happened. Coercion of a witness occurs when another party tries to force the witness to lie in court, to withhold information or to refuse to testify. Coercion usually involves physical force or threats towards someone or their family. It is often very successful because witnesses can become very scared about what might happen to them or their loved ones.

Tampering with evidence

Sometimes, people (including police) change, hide or destroy evidence. They may also make up evidence. This is called tampering with evidence.

Bribery, coercion of witnesses and evidence tampering can all be hard to detect. Clearly, however, such actions can have an impact on any investigation, interfere with the course of justice and influence the outcome of a case.

Trial by media

In the lead-up to a trial, many cases receive extensive coverage in print, broadcast and digital media, and increasingly through social media. Sections of the media will sometimes portray someone as guilty or innocent before the trial has even started. This acts against the principle of presumption of innocence and conflicts with the idea of a fair trial for all. It is difficult for jury members to remain impartial towards someone when the media is providing negative—or overly positive—information about them. They may develop a negative view of the defendant, or sympathy for them, which could influence their thoughts during the trial. One measure that is taken to counter this problem is to restrict jury members from accessing media during the trial.

Court delays

Having a court system that is fair, efficient and effective relies on cases being brought before the courts and resolved as quickly as possible. This reduces both the cost and the stress of appearing in court. However, delays can occur for a number of reasons.

In both criminal and civil cases, pre-trial procedures can delay the start of a case. Police investigations in criminal cases can be very lengthy. In a civil case, it can take months or even years to complete the discovery process. This process is when the opposing parties look over each other's information and documents.

The courts are receiving increasing numbers of cases without additional resources. Cases often remain on a waiting list while the courts try to process the workload.

13.8.3 In 2014, former television star Robert Hughes believed he was unable to get a fair trial in Australia on charges of indecent assault because the media portrayed him as guilty before the trial had even started.

Activities

Remembering and understanding

1 List some of the factors that can prevent a jury from representing a cross-section of the community.

2 Identify some of the reasons why Australians might not receive equal access to justice.

3 According to Justice Russell Fox, what are some of the limitations of the adversarial legal system?

Applying and analysing

4 Propose what is meant by the term 'personal prejudices'.

5 Research Victorian Legal Aid and state three of the services it provides.

Evaluating and creating

6 In your opinion, what are the advantages of mediation over a courtroom trial?

7 Rank each of the challenges to justice from 1 to 9, where 1 is of most concern in Australia's court system today, and 9 is of least concern. For each of the challenges, suggest one possible solution our court system could adopt to ease that challenge and improve justice.

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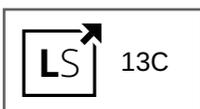
13.9 Is Australia's legal system fair for all?

One of the principles of justice that Australia's legal system is founded on is equal access and fair treatment for all under the law. However, many members of our community find it difficult to access our legal system for a variety of reasons.

Accessing justice

Accessing justice doesn't just mean having a lawyer to represent you in court. It can also include:

➤ finding out the right information about the law and how it applies to your circumstances
➤ understanding if and when you have a legal problem
➤ knowing who to contact for help with your legal problem
➤ understanding the possible outcomes or ways to resolve your legal problem
➤ making sure you understand the laws of society and have the opportunity to have your say about how and when they are created.

Who is disadvantaged under our legal system?

Every year in Australia, around 50 per cent of people aged 15 and over—more than 8 513 000 people—face a legal problem. Many of these people will not have access to legal representation. Australians who experience disadvantage can find it more difficult to access the justice system for a range of reasons, such as:

➤ low education and literacy levels
➤ language and cultural barriers
➤ financial constraints
➤ lack of accessibility due to remote location
➤ inability to access information and digital technology
➤ past traumas and hesitation to engage in legal processes
➤ physical, intellectual and psychological disabilities
➤ age, particularly children and the elderly
➤ lack of knowledge about rights and where to go for advice or assistance.

13.9.1 Every year in Australia, 50% of people aged 15 and over face a legal problem

PEOPLE WITH MODERATE OR SEVERE LEGAL PROBLEMS

51.2% Sought legal advice or didn't need to take action

41.3% Tried to fix legal problem, but didn't get advice

7.4% Took no action because of stress, time, cost or uncertainty

5.9% Satisfied with the outcome
35.4% Legal matter not resolved or not satisfied with outcome

0.8% Satisfied with the outcome
6.6% Legal matter not resolved or not satisfied with the outcome

13.9.2 A graphic illustrating the unmet legal needs in Australia

13.9.3 Acting CEO Meena Singh (centre left), Peter Rotumah (Manager Community Justice, centre right) and lawyers of the Victorian Aboriginal Legal Service

Did you know?

Australia has approximately 200 Community Legal Aid Centres (CLCs) that come together under the guidance of the National Association of Community Legal Centres (NACLC). These centres operate in metropolitan, regional, rural and remote locations across Australia. For over 40 years they have advocated for disadvantaged Australians. They provide legal advice and representation, and refer clients to relevant support services.

Activities

Remembering and understanding

1 What percentage of the population over the age of 15 will need to access legal advice this year?

2 List some of the reasons that people experiencing disadvantage struggle to access the legal system.

Applying and analysing

3 In what ways could representing yourself in court negatively affect your ability to fully access a fair trial?

Evaluating and creating

4 In your opinion, why it might be more difficult for children and the elderly to access legal support?

5 Australia's legal system is overworked and unable to cope with the number of people who need to access it. Create a proposal outlining how you would improve it to support those in need. Consider funding, materials and staffing in your response.
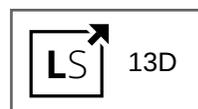
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Australian citizens and society

14

Differences are not intended to separate, to alienate. We are different precisely in order to realise our need of one another.

—Desmond Tutu, South African cleric, human rights activist and Nobel Peace Prize recipient

All Australians have the right to certain basic freedoms, such as freedom of speech and religion. But we also have responsibilities, and as active citizens we all need to contribute to our society to make sure it is cohesive (united) and resilient (adaptable). There are many threats to our cohesive society. It is up to all Australians to challenge these threats, and to work as one community to overcome them and to build a stronger nation.

OVERVIEW QUESTIONS

14A How does Australia sustain a resilient and cohesive society?

14B How do citizens and groups participate in and contribute to civic life in Australia?

14C How does the media influence our Australian identity and attitudes?

L⅃S Before you begin

14.0.1 Thousands of citizens march down the streets of Melbourne to protest the Australian Government's treatment of refugees and asylum seekers

GLOSSARY

acceptance to be seen as valued or adequate; to be received with support

belonging to feel or be a part of something; to be part of a community

common good for the benefit society as a whole, rather than individual members or groups

dissent a variation of or challenge to the dominant belief system of society

influence the ability to have an effect on something

interfaith understanding cooperation between people and groups of different religions and faiths to understand and tolerate the views of others

justice treatment or behaviour that is considered to be fair and reasonable

non-governmental organisation (NGO) a group independent of government that aims to improve the wellbeing of society

philanthropy the giving of resources such as time, expertise, goods and money to improve the wellbeing of society

protest action taken to show the disapproval of something, such a public demonstrations and marches

reconciliation the process of repairing and strengthening relationships between groups; in Australia, this process includes the relationship of Aboriginal and Torres Strait Islander peoples and non-Indigenous Australians

regulation a rule or order given by an authority, such as the government, that guides behaviour and actions

safeguard a measure or action taken to protect or to prevent harm from occurring

social cohesion how well a society ensures its citizens live without discrimination, have access to basic rights, and work together to improve society

social media digital tools such as websites and apps that allow users to create, share and comment on content in a network of other users

14.1 Australia as a cohesive society

What is social cohesion?

There is no single definition of **social cohesion**. However, most definitions used by Australian and global organisations feature similar concepts. For the purposes of this chapter, we will define a cohesive society as one that ensures its citizens are free of discrimination, have access to their basic rights, and cooperate with each other to improve their society.

Cohesive societies will often share key characteristics, including:

➤ a sense of **belonging**
➤ **justice** and equality for citizens
➤ acceptance of diversity
➤ active participation of citizens.

Australia as a cohesive society

Australia is generally viewed as a cohesive society with strong shared values such as freedom of speech, equality of opportunity and mutual respect. When compared with other nations and regions, Australians enjoy a stable life, both economically and socially.

Values statements are one way in which Australia's shared values are reinforced. Australia's values statement outlines key values and actions that all Australians are expected to abide by. This statement is included in application forms for Australian visas, and all applicants aged 18 years and over are required to acknowledge that they understand the statement and sign it.

14.1.1 Social cohesion requires citizens to have a clear understanding of the values that are shared by everyone in the society

The Victorian Values Statement shows that the Victorian Government has a strong commitment to building a cohesive society through embracing social diversity. The statement outlines five core rights and responsibilities all Victorians are expected to live by:

➤ one law for all
➤ freedom to be yourself
➤ discrimination is never acceptable
➤ a fair go for all
➤ it is up to all of us to contribute to a Victoria we can be proud of.

Reconciliation in Australia

There are many processes that a society can use to resolve differences and to build more cohesive communities. These include negotiation, mediation and **reconciliation**.

One of the ways in which Australian society is becoming more cohesive is through the process of reconciliation. Reconciliation brings together Aboriginal and Torres Strait Islander peoples and non-Indigenous Australians.

14.1.2 National Reconciliation Week runs from 27 May to 3 June each year

Aboriginal and Torres Strait Islander peoples have experienced discrimination and mistreatment since European settlement. They have been denied fundamental rights and freedoms such as the right to vote, and government policies have caused the forcible removal of children from families (these children are known as the Stolen Generations).

One of the aims of the reconciliation process is to 'close the gap' between Aboriginal and Torres Strait Islander peoples and non-Indigenous Australians, both socially and economically. Specifically, the federal government seeks to close the gap in education, employment, health and life expectancy between Indigenous and non-Indigenous

Australians. Reconciliation also works to build awareness of the unique histories and cultures of Aboriginal and Torres Strait Islander peoples.

Timeline of Australia's ongoing reconciliation process

1967 A national referendum is passed, giving Aboriginal and Torres Strait Islander peoples the right to be counted in the Census.

1976 The *Aboriginal Land Rights (Northern Territory) Act 1976* is passed. This legislation provides the basis for the land rights of Aboriginal and Torres Strait Islander peoples.

1992 The historic Mabo v Queensland High Court cases end with a ruling that Australia was not *terra nullius* (land belonging to no one) at the time of European settlement.

1996 The first National Reconciliation Week is celebrated in Australia.

2006 The Close the Gap campaign is launched. Close the Gap aims to improve the health and life expectancy of Aboriginal and Torres Strait Islander peoples.

2008 Prime Minister Kevin Rudd delivers the Apology to the Stolen Generations in Australian Parliament. The Apology acknowledges the mistreatment of Aboriginal and Torres Strait Islander peoples since European settlement, particularly the removal of Aboriginal and Torres Strait Islander children from their families.

Although the reconciliation process is important for bringing Indigenous and non-Indigenous Australians together, reconciliation may never truly be achieved. Instead, the process continues to build better relationships, and to make positive steps towards **acceptance**, justice and fairness for Aboriginal and Torres Strait Islander peoples.

Threats to Australia's cohesive society

Although Australia works to build a cohesive society, social cohesion has not been fully achieved. Ongoing changes and developments to Australian society, including immigration patterns, changing government policies, trends in society and the effects of crime all contribute to forming ongoing threats to Australia's shared values.

The Scanlon Foundation is an Australian organisation that aims to build the level of social cohesion in Australia. It has developed the Scanlon-Monash Index (SMI) to measure whether Australians think our society is cohesive. The three key measurements of the SMI are belonging, social justice and equity, and acceptance.

➤ *Belonging*—pride in the Australian way of life and culture; a sense of belonging; the importance of maintaining the Australian way of life and culture.
➤ *Social justice and equity*—adequate (enough) financial support for people on low incomes; the gap between high and low incomes; Australia as a land of economic opportunity; trust in the Australian government.
➤ *Acceptance (rejection)*—experience of discrimination; attitudes towards minorities and newcomers.

14.1.3 Australians watching the National Apology to the Stolen Generations

The Scanlon-Monash Index (SMI) of social cohesion, 2007–2017

Legend:
- Sense of belonging
- Social justice and equity
- Acceptance (rejection)
- SMI average
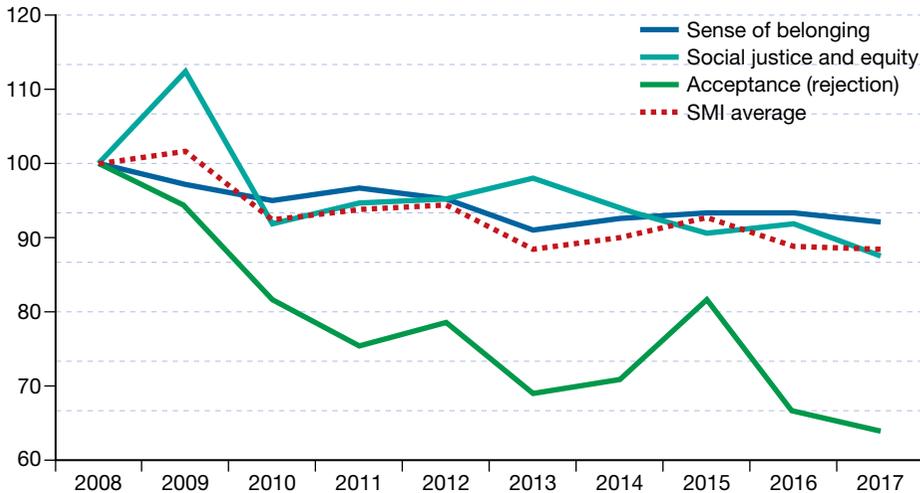
14.1.4 The Scanlon Foundation measures perceptions of Australia's social cohesion using the Scanlon-Monash Index (SMI)

According to the results from 2007 to 2017 (shown in Figure 14.1.4), Australians' perception of social cohesion is decreasing, which means that Australians tend to view the nation as being less cohesive.

Research suggests that there isn't one single cause for this perception. However, some of the commonly considered threats include corruption, lawlessness and organised crime.

Outlaw motorcycle gangs in Australia

The criminal, political and social organisations that threaten Australia's cohesiveness have become more prominent in recent years. According to the Australian Crime Commission, the estimated cost of organised crime in Australia is at least $36 billion each year.

14.1.5 Outlaw motorcycle gangs such as the Rebels Motorcycle Club are known to have been involved in extensive criminal activity. Police powers have been increased to prevent large groups of members meeting in public places.

Organised crime can take many different forms. One of the most prominent in Australia is outlaw motorcycle gangs (OMCGs). These gangs differ from social motorcycle clubs, which meet and ride purely for social purposes. OMCGs (commonly referred to as bikie gangs) also engage in criminal activities. In Australia, there are over 4000 members of OMCGs. More than forty of them are being closely monitored by Australian authorities.

The Rebels Motorcycle Club has the largest membership of all the gangs in Australia. It was founded in Brisbane and is estimated to have 2000 members or more. The club and its members have been linked to various criminal activities, including drug manufacturing, drug trafficking, tax evasion, and the murder of rival gang members.

To combat the threat from OMCGs, Australian authorities have established tougher laws. These include naming gangs such as the Rebels as criminal groups, and tightening anti-association laws. These laws stop gang members from

Did you know?

- OMCGs are not the only organised crime groups in Australia. Gangs in Melbourne are involved in intimidation, fraud, drug trafficking and murder, among other crimes. These groups have been linked to organised crime groups in other countries, such as the Ndràngheta from Calabria, in Italy. Melbourne's crime gangs are best known for the gangland killings that occurred in Victoria between the late 1990s and the early 2010s. More than thirty infamous crime figures, such as Alphonse Gangitano and Carl Williams, were murdered or killed. This period was depicted in the television series *Underbelly*, which was based on a book of the same name.

wearing their club colours (patches or emblems that identify particular clubs) in public areas and prevent the meeting of large groups of gang members, in order to avoid outbreaks of violence. These measures have had limited success, with governments continuing to actively monitor and alter laws to improve their effectiveness.

Social unrest

Criminal groups are not the only threat to social cohesion. The decreased perception that Australia is socially cohesive is also due to clashes in the ideas and values of different members of our society.

One example of this is the rise of right-wing nationalist parties, which are involved in politics and also in the broader community. Right-wing nationalist groups include Rise Up Australia, the United Patriots Front and Reclaim Australia. These groups believe that Australia needs to be protected from multiculturalism, that Australians' freedom of speech is at risk, and that different ethnic and religious groups are a threat to Australian society.

In 2015, a group of approximately 1000 people exercised their right to freedom of speech and their right to **dissent** by protesting the proposal to build a mosque in the Victorian town of Bendigo. The strong anti-Islam stance of the protestors caused much public debate, with many members of the local Bendigo community and Australia's Muslim community expressing concern and fear for their safety and security.

14.1.6 A protest against the proposal to build a mosque in Bendigo

Disputes like the Bendigo mosque **protest** can create tension between members of our society, and they are complex to resolve. In many cases, both groups feel that their core values as citizens are being challenged and threatened. This includes their sense of belonging to the Australian culture and their feeling of acceptance in our society. While there is no easy solution, governments and organisations such as the Victorian Multicultural Commission have developed policies that aim to reduce this tension and to create a stronger, more united community. One example is the *Multicultural Victoria Act 2011*, which 'recognises and values the cultural, religious, racial and linguistic diversity of the people of Victoria'.

Activities

Remembering and understanding

1 Define the term 'social cohesion' in your own words. Highlight the key words in your definition.
2 Explain one reason it is important for our society to have a set of shared values, such as the values statements for Victoria and Australia.

Applying and analysing

3 Examine the four key characteristics of cohesive societies.
   a Rank the four characteristics from most to least important.
   b Explain why you believe one characteristic is more or less important than another, to justify your rankings.
4 Analyse the ways in which organised crime and clashes of values and beliefs can reduce the level of social cohesion in Australia. Give examples to support your analysis.

5 Research the different perspectives on reconciliation. Discuss the following statement in pairs, then with a small group, before engaging with your whole class.
   Reconciliation is a painful but necessary action for building social cohesion.
   Explore the reasons why you agree or disagree. Refer to examples of actions taken as part of the reconciliation process in your discussion.

Evaluating and creating

6 The development and implementation of new laws is one of the key ways to strengthen social cohesion.
   a Select two areas of Australian society where you feel new laws would help to build social cohesion.
   b Propose two new laws that could be implemented.
   c Explain the impact these laws would have on members of society.

Safeguards for Australian democracy and society

The democratic system in Australia has a long and successful history. People have recognised the value of the freedoms that democracy provides. It is a key function of a democracy to ensure that its systems and structures help create a strong and cohesive society.

A **safeguard** is a measure or action taken to protect or to prevent harm from occurring. The following elements help to safeguard Australian democracy from being eroded:

➤ responsible government—the government is answerable to the Parliament
➤ the separation of powers—responsibilities are split between groups to ensure no one individual or group has complete power or control
➤ the government must seek the approval of the Parliament to enact or amend laws
➤ freedoms, including the freedom to vote and to stand for election, the freedom of information, the freedom of speech and the freedom of belief.

14.2.1 Australia's democracy is designed to promote integrity, transparency and accountability. Within this system there are a series of measures that ensure Australia's democracy remains strong.

Shared values in a democracy

A democracy rests upon four principles.

➤ *Inherent belief in the individual*—Individuals are capable of being rational and possess a degree of morality.
➤ *Progress*—The world continues to change and develop, whether we want it to or not. Democracies must adapt their framework to accept and work with change. Politics is about being able to compromise.
➤ *Consensual society*—People desire to live in a society that has order, stability and cooperation. Corruption, disorder and conflict are undesirable.
➤ *Shared power*—Rulers must have the mandate (authorisation) of the people to rule. There must be checks and balances to ensure that rulers do not use power for their own ends. There is an understanding that leaders serve their public.

It takes considerable time for these values to become part of the culture of a society. They need to be deeply embedded for democracy to take hold. These values prevent corruption at the government level, and allow authorities, such as the police force, to implement laws that protect the public as a whole.

Vulnerability of democracy

The nature of democracy makes it vulnerable to attack. This is because democratic systems invite debate from the public and allow themselves to be criticised. Democracy will only work if it has the confidence and support of the people it represents; the government only rules because the people recognise its authority and support it.

Some non-democratic countries find the transition to democracy difficult because they do not have a culture that encourages debate or tolerates diverse points of view. This can result in wide-reaching chaos and violence—there are many examples of countries around the world struggling with democracy many years after it was established. One prominent example is the nation of Pakistan, where governments and leaders are elected democratically. Clashes of political and social values, the strong presence of military power, and intense periods of violence and conflict in disputed territories have often led to democratically elected governments being overthrown by military forces, which is known as a military coup.

14.2.2 Members of the public protesting the government's offshore detention of asylum seekers, outside the State Library of Victoria in Melbourne

Right to dissent

The right to free expression and opinion is a vital component of a democracy and a cohesive society. It upholds the right to peaceful protest. It allows all voices to be heard, both those of the majority and those of the minority.

What is dissent?

Dissent means a disagreement of opinion or belief, and it can involve a challenge or opposition to an authority. Examples of political dissent include protests, rallies, boycotts and strikes. Dissent often challenges long-held views or questions the powers of those in charge. Dissenters can have different motivations for their actions—not all dissent is intended to bring about positive change. For dissent to be legal, it must be non-violent.

Dissent as a safeguard

Australians have used protest successfully over the years to bring about significant changes. These include better working conditions, and the introduction of voting and citizenship rights for Indigenous Australians. In recent years, there have been many protests—such as the #LetThemStay campaign—about the Australian government's treatment of refugees and asylum seekers.

Although dissent is not always viewed in a positive light, it has proven to be a key safeguard of democracy because it keeps governments accountable. It serves as a form of feedback for the government and prompts those in power to reassess their policies. If the government does not compromise, it can be voted out at the next election.

Activities

Remembering and understanding

1   Identify the most effective safeguard of Australia's democracy. Outline one reason why you believe this is so.
2   Define 'the right to dissent' in your own words, and outline its key characteristics.

Applying and analysing

3   Explain one reason why Australia's democracy could be considered vulnerable. Provide an example to demonstrate your understanding.
4   Discuss the following statement.
    To be successful, democracies must be adaptable so that they can accept and work with change.
    Consider the reasons why you agree or disagree.

Evaluating and creating

5   Examine the four key principles of a democracy. How well does Australia's democracy successfully demonstrate all four principles? Propose some examples of how strongly these are evident in Australian society.

L S 14A
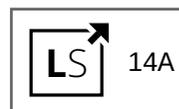
14.3 The role of groups in building social cohesion

What is the common good?

The concept of 'the **common good**' describes actions that benefit society as a whole, and not just individual members or groups. It asserts that all people should have access to the necessary resources in order to live fulfilling lives. This includes disadvantaged members of the community. The common good relies on communities acting as a single powerful group to improve the health and wellbeing of everyone in our society.

14.3.1 By acting as a cohesive group, our society can improve the health and wellbeing of all of its people

The idea of the common good is considered to have strong religious origins but its meaning has developed over time. It is now used more frequently in social and political contexts. This means that both governments and members of the public take responsibility for supporting disadvantaged groups in our society, to ensure that everyone has a better quality of life. This can take the form of government policy or community actions. When we work as a community rather than as individuals in isolation, we build the level of cohesion in our society. It helps all members to feel a sense of belonging, acceptance and equity. By working towards the common good, we ensure that all people have the rights, freedoms and ability to participate alongside everyone else.

Groups working towards the common good

There are many organisations working towards equality for all members of society, reinforcing the concept of the common good.

Non-governmental organisations

Non-governmental organisations (NGOs) share some common characteristics. They:

➤ aim to improve the wellbeing of society as a whole by supporting those who are disadvantaged
➤ are formed voluntarily, usually by citizens of a society
➤ operate independently of government
➤ do not operate for profit.

Many NGOs exist to provide services that governments are unable or unwilling to provide. NGOs operate in a variety of fields, including health, education and social justice.

14.3.2 NGOs accredited by the Department of Foreign Affairs and Trade

Non-governmental organisations
Burnet Institute®
CARE Australia
Habitat for Humanity® Australia
Save the Children
WaterAid® Australia
WWF® Australia

NGOs are important in Australian society because they are not controlled by the government. This means they can respond to more specific social needs and issues than the government can. The federal government is responsible for the whole population of Australia, so its policies focus on the needs of the majority of people. NGOs are independent, so unlike governments they are not bound by government policies or political party platforms. Instead, NGOs choose to support people, groups or causes they decide are most in need.

There are also limitations on the work of NGOs. Many NGOs do not receive enough funding or support to effectively meet their goals. NGOs cannot spend all of their resources on the improvement of social wellbeing because they also need to pay for advertising and administration.

Philanthropic individuals and groups

Philanthropy is the giving of resources such as time, expertise, goods and money to improve the wellbeing of society. A range of organisations, foundations, trusts and individuals in Australia engage with philanthropy. Many philanthropists do this to support social causes they are passionate about, and use their financial resources to positively contribute to Australian society and the community.

Philanthropy Australia is the peak body (representative organisation) for philanthropists in Australia. This organisation:

➤ supports its members to be able to engage with philanthropy

➤ provides opportunities for members to connect with each other to provide more meaningful support to society

➤ works with government to build a stronger, more cohesive plan for giving.

Philanthropy Australia works to develop an understanding of the key priorities of both government and philanthropists, and of how these can be aligned to best meet the needs of the public.

While philanthropy is a very important positive force in our society, it can have some negative effects. For example, some causes receive more support than others, which means that resources are distributed inequitably (unfairly). Some philanthropic programs respond to the 'symptoms' of social problems but do not work to address the causes of the problems, which means the problems continue to occur in the future. Governments may rely on philanthropy to support certain causes rather than providing government funding.

The Fred Hollows Foundation

14.3.3 Professor Fred Hollows AC (1929–1993)

The Fred Hollows Foundation® was founded in 1992 by eye surgeon Fred Hollows (1929–1993) and works in more than twenty-five countries. Its mission is to end blindness caused by preventable illnesses and diseases such as cataracts and glaucoma. The foundation's programs include education, prevention, medication and surgery.

The Fred Hollows Foundation has an active presence in Australia, with a particular focus on the eye health of Aboriginal and Torres Strait Islander people. Indigenous Australians are three times more like than non-Indigenous Australians to experience blindness, and in over 90 per cent of cases this blindness is preventable or treatable. The Fred Hollows Foundation improves access to medical education and services across Australia, particularly in remote communities with little or no access to proper eye health services.

The Fred Hollows Foundation actively seeks the support of individuals, businesses and governments. It campaigns for one-off and regular monthly donations from the public, as well as corporate sponsorship arrangements with businesses. Through negotiations with government organisations, the foundation receives funding to continue its operations as part of AusAID foreign aid projects.

Individual philanthropy

Many individuals support causes they care about by providing resources such as time, expertise and money. Many people also choose to bequest money to social causes. A bequest involves giving a certain amount or percentage of money to an organisation in a will—the funds are distributed after the person's death. People often choose to give to causes that they have a strong personal connection with, but philanthropists may be influenced by a range of reasons (see Figure 14.3.5).

14.3.4 Many famous or wealthy people engage with philanthropy as a way of using their power and influence to help others. Actor Angelina Jolie is is well known for her philanthropic work with the United Nations.

Key findings from the *Giving Australia 2016* report on philanthropy and philanthropists indicate that philanthropists in Australia are most likely to show the following characteristics:

➤ female (62.7 per cent)
➤ aged between 40 and 59 years old (46.6 per cent)
➤ born in Australia (84.5 per cent).

Corporate philanthropy

Many businesses and organisations choose to engage with corporate philanthropy. These businesses will often choose to give resources to causes that align with their organisational values or with the values and beliefs of their founders or employees. In this way, businesses can use corporate time, resources and profits to give back to the society that contributed to their own success.

A number of Australian organisations have worked together to encourage other companies to make philanthropy part of their regular operations. The Pledge 1% movement encourages companies to give 1 per cent of their equity, profit, product or employee time back to communities. This movement was launched by large Australian companies such as Atlassian® and SalesForce®, and many other companies have made significant commitments to improve the collective wellbeing of society. For Atlassian, this includes donating 1 per cent of its products to individuals or groups, and giving each employee five days of leave for them to use to volunteer for community organisations.

14.3.5 The most common reasons why philanthropists choose to support social causes

Motivating factor	Percentage
Belief that giving can make a difference	92.9%
Desire to give back to the community	77.7%
Sense of personal satisfaction from giving	77.7%
Philosophical beliefs	74.1%
Desire to set an example	74.1%
Personal involvement with an organisation (e.g. board membership)	55.6%
Desire to continue supporting the same cause or organisation	51.9%

Religious groups

Religious groups also contribute towards the common good in Australia. Many NGOs in Australia have religious affiliations (connections), including World Vision® Australia and Act for Peace, which work to eradicate social injustices such as poverty and religious persecution.

As well as giving time, expertise and resources towards social causes, religious groups promote **interfaith understanding** and tolerance. This means the cooperation and positive interaction between different religious groups. One example in Australia is the Jewish Muslim Christian Association of Australia, which works to prevent emotional and physical abuse because of religious intolerance, both between faiths and from broader society. Interfaith understanding and

14.3.6 Interfaith cooperation and understanding is important to social cohesion

tolerance mean that all members of Australian society are safe to freely practice their religion and feel proud of their cultural and religious heritage.

The cooperation of religious organisations is important for social change because many of these organisations have access to a wide range of resources. By combining resources and using them strategically, religious organisations can achieve a greater positive outcome for society.

Activities

LS 14B

Remembering and understanding

1 Define the following concepts in your own words, highlighting key words:
    a the common good
    b philanthropy
    c interfaith understanding.
2 Examine Figure 14.3.5. Choose why you would be most likely to engage with philanthropy from the reasons listed. Explain why you chose this reason.

Applying and analysing

3 Analyse the importance of philanthropy in Australia by considering the various positive and negative impacts it can have on Australian society and internationally.

4 Discuss the following statement, considering the strengths and limitations of NGOs. *Without NGOs, Australian society would not be as strong or cohesive.*

    Note: To support your analysis, you may wish to research specific NGOs and their work online. Refer to the Department of Foreign Affairs and Trade's website and search for 'non-governmental organisations'.

Evaluating and creating

5 Imagine you have been approached by the directors of the Fred Hollows Foundation to design a campaign to encourage people to donate to the organisation. Create a slogan that could be used in advertising and social media campaigns. Your slogan should be original, link to the NGO and its work, and inspire a response from the public.

14.4 The role of the media in Australian society

Media in Australia

The media is a source of both information and entertainment. It is often our society's main means of mass communication, and it is a highly constructed means of communication. This means that messages communicated to society are carefully constructed by teams of producers, editors and authors, and the messages can be be manipulated (altered) to emphasise key pieces of information. The rise of **social media** and mobile technologies mean that members of the public can now access and share footage and information that hasn't been altered by the media.

Whether we are conscious of it or not, the ways in which different groups are represented in the media can **influence** how we view them, either positively or negatively. It has a large impact on levels of cohesion in a society.

14.4.1 Australia's media strongly influences the beliefs and perceptions of people in our society

Regulation of the media

The media is a highly regulated industry in Australia. One of the key responsibilities of the media is to report information to the public in a way that is factual and fair. It also serves as an important mechanism to promote public debate on important social issues.

There are government **regulations** to ensure that what is communicated in the media does not vilify (defame) or discriminate against various members of society. This is overseen by the Australian Media and Communications Authority (ACMA) and is largely governed by the *Broadcasting*

Services Act 1992. Industry groups also develop codes of practice, which allow participants in the media industry to self-regulate what information is communicated to the public (see Figure 14.4.2). These codes of practice outline the rules and regulations of what is allowed to be broadcast on commercial radio and television stations in Australia. Under these regulations, members of the public have the right to complain if the material broadcast is racially offensive or discriminates against members of society.

2. Material not suitable for broadcast	2.6 Material not suitable for broadcast
2.1. A Licensee must not broadcast a Program which in all of the circumstances: 2.1.4. is likely to incite in a reasonable listener, hatred against, or serious contempt for, or severe ridicule of, any person or group of persons because of age, ethnicity, nationality, race, gender, sexual preferences, religion, transgender status or disability.	2.6.2 A Licensee must not broadcast any Program, Program Promotion, Community Service Announcement or Station ID which is likely, in all the circumstances, to provoke or perpetuate in, or by a reasonable person, intense dislike, serious contempt or severe ridicule against a person or group of people because of age, colour, gender, national or ethnic origin, disability, race, religion or sexual preference.

14.4.2 Extracts from the codes of practice that regulate commercial radio and commercial television. Both codes of practice have clauses that prevent the broadcast of discriminatory material likely to incite hatred.

Representation of Australians in the media

Australia is a multicultural nation, and our society's portrayal in the media should reflect this. However, there are many groups in Australia that are often not portrayed, or are represented by stereotypes in mainstream media. This can negatively affect social cohesion, because it can reinforce negative stereotypes of minority groups and their ability to contribute value to Australian society. It also means there is a lack of positive role models for minority groups in the mainstream media.

14.4.3 Members of the ABC television news team. The representation of different ages, cultures and ethnicities in the Australian media is improving, as many organisations embrace more diverse and inclusive recruitment and representation practices.

Underrepresentation in the media

The media in Australia is considered to give disproportionate representation to people with Anglo-European backgrounds. This means that there is an underrepresentation of the diverse cultural and ethnic backgrounds in Australian society, including Aboriginal and Torres Strait Islander peoples. This lack of proportion does not just extend to actors and characters on television, but to other people in the media, such as journalists and newsreaders. Broadcasters, particularly the national broadcasters ABC and SBS, have actively responded to this lack of diversity in programming, with more inclusive hiring practices and programming that features people of varied backgrounds.

Other groups that are often underrepresented in Australian media include:

➤ women
➤ older Australians
➤ members of the LGBTQI community
➤ people with physical or intellectual disabilities.

Misrepresentation in media

Many groups in Australian society are misrepresented or stereotyped in the media. This can occur in both informative and entertainment programming. Examples include:

➤ people with mental illness, who are often portrayed as violent and aggressive
➤ Aboriginal and Torres Strait Islander peoples, who are frequently represented with an emphasis on violent and undesirable behaviours, including criminal behaviour
➤ immigrants, refugees and asylum seekers, who are often portrayed as people to be feared because of violence and criminality, and are sometimes shown as threat to Australian culture and society.

Both underrepresentation and misrepresentation can negatively effect our society, because they create and reinforce negative views of particular groups. To combat this, organisations such as the not-for-profit Media Diversity Australia have been established with the aim of creating a more balanced representation of Australians in the nation's media.

Activities

Remembering and understanding

1 Describe the role of the media in shaping Australia's values and attitudes.
2 Explain why it is important that governments and other organisations regulate the media industry.

Applying and analysing

3 Select a group that is often underrepresented or misrepresented in the media. Analyse the possible effects this can have on the group and Australian society.

Evaluating and creating

4 Select a popular television show made in Australia. Watch one episode and evaluate the different representations of Australians. Consider the following characteristics:
- age
- racial background
- sexuality
- positive and negative representation
- other characteristics

Does the program accurately represent Australia's diverse culture and society? Why or why not?

14.5 Social media and active citizenship

Role of social media in society

On social media websites and apps, it is the user who creates the content. Because posts can be shared and reshared in various ways, news and information spread quickly on social media. It can provide a real-time snapshot of the views, beliefs and opinions in our society as people comment and respond to news and events. Almost anyone can create news and information, so we need to question how reliable the information is and carefully consider how we respond to and act on information we find on social media.

14.5.1 Social media plays a big role in shaping our values and beliefs because it allows almost anyone to create, share and comment on information

Organisations and individuals can use the power of social media to spread messages that either support or contradict Australia's shared values. They can also use social media to encourage people to become active participants in our society.

Use by organisations

Many organisations use social media for marketing and publicity. Because social media can spread information as fast and far as a virus, organisations can quickly and cheaply communicate their messages. For example, Victoria Police uses social media to post information about missing persons. This increases the support and resources for the search by engaging members of the public to help.

Organisations such as NGOs can use social media to target audiences and inspire them to take action. Examples include online advertising campaigns, video posts that users can share or retweet, and links to websites where people can donate.

Use by individuals

Social media gives individuals the power to communicate their own beliefs. They can choose what people, organisations and pages to follow, what posts they will comment on, and what information they will share with others to further engage friends and followers.
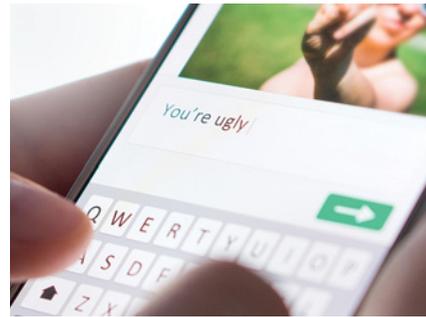
14.5.2 Internet trolls and their comments can disrupt social cohesion

With this power comes responsibility. Individuals have the choice of what to comment on, like and share, and these choices can sometimes go against the dominant values and beliefs of broader society. Examples include liking the pages of controversial figures or groups, and posting inappropriate or discriminatory comments online. Individuals known as internet trolls take this to the extreme. Trolls post intentionally inflammatory (upsetting) comments online with the hope of upsetting other users and pushing them to make emotional responses. The public nature of social media means that everyone must understand the consequences (both positive and negative) of interacting online.

Impact on social cohesion

The use of social media by organisations and individuals can have positive and negative consequences for social cohesion.

14.5.3 Positive and negative impacts of social media on social cohesion

Positive impacts on social cohesion	Negative impacts on social cohesion
Can make communication faster and society more connected	Can make it hard to control messages
Can reach a broader audience as posts are shared and reshared	Can affect the reliability and accuracy of information because posts can be created by anyone
Can reinforce Australia's shared values and beliefs through increased communication	Can allow individuals to post, comment on or share inappropriate information
Can be used to actively engage people to act on important issues	Can give internet trolls the opportunity to intentionally sabotage and destabilise social cohesion
Can be used to further causes, by raising money and improving access to resources	

Spotlight

#illridewithyou

In December 2014, a gunman held a group of employees and customers hostage at the Lindt Chocolate Café in Martin Place, in central Sydney. The gunman, Man Haron Monis, initially claimed the attack in the name of Islamic State. The 16-hour siege resulted in the deaths of two hostages, Lindt employee Tori Johnson and customer Katrina Dawson, as well as Monis, who was killed by police.

Prominent leaders in the Muslim community condemned the attack and urged members of the public to stay calm. They also warned people in the Muslim community to be cautious in case of a backlash against them.

In the hours after the siege, Sydney resident Rachael Jacobs posted a tweet about offering support to a woman who was afraid of anti-Islamic sentiment. Within hours, her tweet sparked a movement known by the hashtag #illridewithyou, in which people offered to walk, ride or drive with Muslim Australians to help them feel safe.

The hashtag quickly spread across Australia, with offers of #illridewithyou appearing in major cities and towns. Opposition Leader Bill Shorten and many other well-known Australians used social media to encourage the movement. The #illridewithyou movement showed Australians coming together in a crisis, embodying key values such as mateship and acceptance.

@rachaeljacobs

...I ran after her at the train station. I said 'put it back on. I'll walk with u'. She started to cry and hugged me for about a minute - then walked off alone. ... and the (presumably) Muslim woman sitting next to me on the train silently removes her hijab

@sirtessa

If you reg take the #373 bus b/w Coogee/MartinPl, wear religious attire, & don't feel safe alone: I'll ride with you. @ me for schedule.

@sharnatweets

If you wear religious attire, & need to get from #Adelaide's west suburbs to the city on Tues but don't want to travel alone #illridewithyou

14.5.4 The tweets that inspired the #illridewithyou movement

@billshortenmp

Australians tonight doing what we do best - uniting to overcome intolerance and hate #illridewithyou

14.5.5 Bill Shorten's tweet in response to #illridewithyou highlights the importance of Australians actively engaging as citizens to support each other

Activities

LS 14C
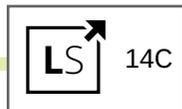
Remembering and understanding

1 Outline the ways that organisations and groups use social media.
2 Describe the role of social media in communicating the values and beliefs of Australian society.

Applying and analysing

3 Explain two reasons why it is important that outlets such as social media exist in a cohesive society. Consider the connection to key Australian values in your response.
4 Examine Table 14.5.3. Analyse the positive and negative effects social media can have on Australia's social cohesion.

Evaluating and creating

5 Evaluate the following statement in the context of the #illridewithyou campaign:

Social media is one of the most powerful tools in building up Australia as a resilient and cohesive society.

Consider the strengths of social media as a communication tool, as well as other ways in which Australian society can be strengthened.

6 Choose a hashtag that has been used to make citizens to take action and research it online. Examples include:
   • #letthemstay
   • #wearenotafraid
   • #blacklivesmatter
   • #lovewins
   • #umbrellarevolution
   • #marchforourlives

Consider the reasons why the hashtag started, the ways in which it was spread, how much it was used, and the impact it had on society.

Economics and business toolkit

15

Australia participates in a global economic and business environment. It is rich in natural and intellectual resources. These resources allow Australia to trade in local and global markets. This trade provides employment, leads to the improvement of living standards, increases Australia's international competitiveness and encourages businesses to be efficient and effective in production. Studying economics and business allows us to examine business practices and predict outcomes in order to make informed financial decisions.

OVERVIEW QUESTIONS

15A What are the key economics and business skills?

15B What strategies can be used to resolve economics and business issues?

GLOSSARY

cause-and-effect relationship the relationship between events, actions or processes

cost-benefit analysis a process of comparing the financial costs and financial benefits of a business decision; this can also assess the social costs and social benefits

consequences the natural result of an action taken; consequences can be intended or unintended

economic growth an increase in capacity to produce good and services

exports the goods or services a country creates and sends to another country

hypothesis a research statement that is investigated in order to reach a conclusion

income the money a worker or business makes through the production and sale of goods or services

living standards the amount of wealth households have access to

profit the amount of money remaining from revenue after paying costs

workforce the total number of people currently undertaking work or seeking work within a country

15.0.1 Cargo being transported by ship for export and trade in global markets

Resources in Australia

Australia is rich in naturally occurring resources, such as coal, and intellectual services, such as medical research. Figure 15.1.1 is a chart developed by the Department of Foreign Affairs and Trade. It clearly identifies the sectors in which Australia experienced the greatest demand for exports in 2017.

We can evaluate these markets further to examine the Australian products and services that are in high demand, and how the demand for these products and services changes over time. Table 15.1.2 shows Australia's top **exports** (the goods or services a country creates and sends to another country) from 2014 to 2016.
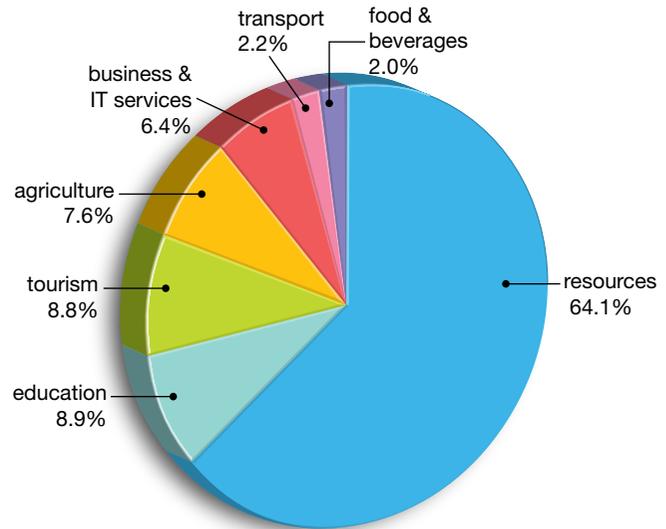
15.1.1 Australia's top exports of 2017, by sector

15.1.2 Australia's top exports, 2014–16

Rank	Commodity	2014	2015	2016	% share of 2016	% growth 2015 to 2016	% growth 5-year trend
1	Iron ores & concentrates	66008	49100	53757	16.3	9.5	–3.5
2	Coal	37999	37034	42270	12.8	14.1	–2.5
3	Education-related travel services	17046	18659	21966	6.6	17.7	8.0
4	Gold	13460	14504	18857	5.7	30.0	2.6
5	Natural gas	17743	16446	17912	5.4	8.9	9.6
6	Personal travel (excl. education) services	13611	15304	17412	5.3	13.8	8.6
7	Beef	7751	9296	7401	2.2	–20.4	14.1
8	Aluminium ores & concentrates (incl. alumina)	6336	7493	6460	2.0	–13.8	5.8
9	Wheat	5920	5812	4853	1.5	–16.5	–4.2
10	Professional services	4807	5078	4779	1.4	–5.9	6.5

Did you know?

- Australia values its agricultural industry for the contribution it makes to both domestic and global markets. In 2015 and 2016, 74 per cent of the beef and veal produced in Australia was exported. These exports contributed $8.5 billion to the Australian economy. In 2015 Australia was the world's seventh biggest beef producer and the top beef exporter.
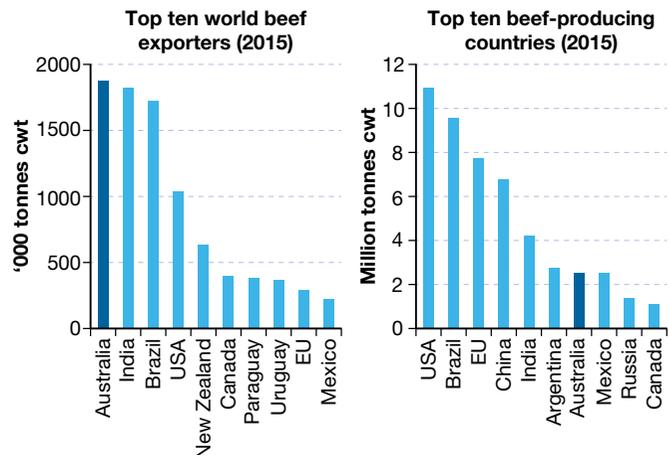
15.1.3 Global beef industry, 2015

Developing a hypothesis

One of the most fundamental aspects of studying economics is the development of questions and hypotheses. A **hypothesis** is based on an economic question or issue that we want to investigate. We create a hypothesis and test it using data and evidence to accept or reject that hypothesis. In the process, we are able to evaluate economic scenarios.

Once we develop a solid economic question, we look to develop a hypothesis for it so we can set the criteria for making a decision, collect and organise relevant data, and test the hypothesis. Doing this will answer this economic question and help us make determinations about economic behaviour.

A good hypothesis is:

- short and concise
- specific (not too broad)
- able to be tested using data collection or evidence
- useful for informed decision-making even when proven false.

Example hypothesis

Hypothesis A: *Foreign ownership leads to lower production levels.*

This hypothesis assumes that when an Australian company is purchased by a foreign owner, the company's total manufacturing levels will fall.

This is an example of a hypothesis that is easily disproved. The main aim of any company owner is to increase the worth of a business by selling a larger volume of products at the highest possible price to make a maximum amount of profit. Therefore, foreign or domestic ownership does not lead to lower production levels.

Hypothesis B: *Foreign ownership can lead to lower domestic employment levels.*

This hypothesis assumes that there is a link between foreign ownership and a change to the operation of a business, including where production occurs.

This is an example of a hypothesis that can be investigated and supported with evidence. Historically, foreign ownership has often resulted in production being moved from domestic locations to more competitive international ones. For example, Holden moved the production of cars from Australia to more competitive bases in Asia and America.

Activities

Remembering and understanding

1 Examine Table 15.1.2. Identify the trend in coal exports from 2014 to 2016.

Investigating

2 Choose an Australian export industry and examine it in depth. How has it grown or contracted over the last 5 years? What does this industry contribute to the Australian economy and the global economy? Provide data to support your answer.

3 Research Australia's meat export industry. Identify the strengths and weaknesses of meat exports to the Australian economy. Conduct a cost-benefit analysis and provide evidence from various sources in your response.

4 Evaluate the following statement:
Education services are a key component of Australia's success and continued growth within export markets.
Include statistical and theoretical evidence in your response.

5 Construct a hypothesis that focuses on a prediction for economic growth and living standards in Australia in 2025. Use what you know and have assumed about the current health of the economy.
   a Plan how you would investigate and develop this hypothesis.
   b Identify sources of data that could assist in proving or disproving your hypothesis.
   c Conduct an investigation of your hypothesis.
   d Prove or disprove your hypothesis with evidence and data.

Examining banking in Australia

Banking is a fundamental part of the Australian economy. It contributes to **economic growth** in both domestic and international markets. Traditionally, banks are where Australians keep their savings, hold mortgages and credit cards. Some people invest money in banks so that they can earn dividends and accrue wealth.

The Australian market has been dominated by a group of banks known as the Big Four. The group consists of the National Australia Bank (NAB®), Westpac®, the Australia and New Zealand Bank (ANZ®) and the Commonwealth Bank®. These banks occupied over 80 per cent of the market until the mid-1980s. New banks and building societies have entered the market more recently. This has changed the way that Australians choose to invest and borrow funds. Figure 15.2.1 demonstrates how the market concentration of banks has changed in Australia since 1950.

Major banks in Australia
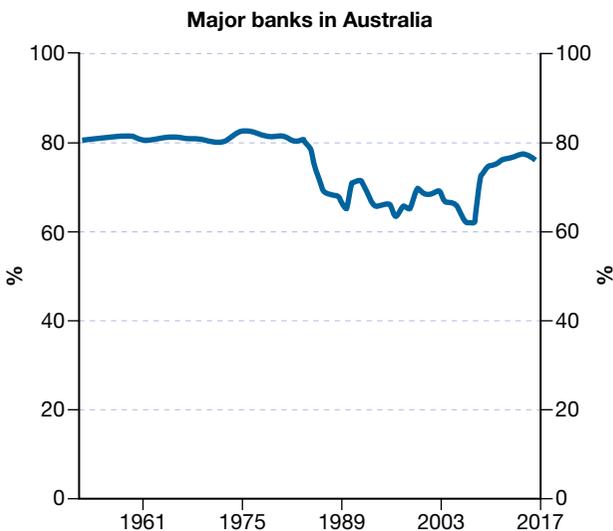
15.2.1 Concentration of banks in Australia, 1950–2017

Banks in Australia

Australian banks seek to make a **profit** (the amount of money remaining from revenue after paying costs) and to return that profit to investors. Larger banks (also known as major banks) achieve larger profits because they generally have greater volumes of investment. Because of their size, major banks can afford to take greater risks by investing larger sums of money on the stock market. They do this in the hope of increasing profits, which in turn increases the value and returns for bank stock and investment on the stock market.

Figure 15.2.2 demonstrates the difference in profitability between major banks and regional banks. This clearly highlights the difference between the return on investment in the various banking sectors.

Bank profitability in Australia
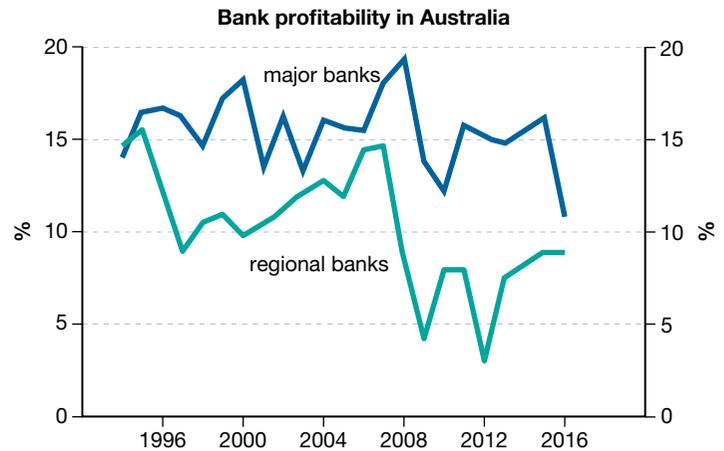
15.2.2 Profitability of major banks and regional banks in Australia

In 2017, the top ten banks (with the greatest volume of income and assets) in Australia were:

1 Commonwealth Bank
2 ANZ
3 NAB
4 Westpac
5 Bank of Queensland®
6 Macquarie Bank®
7 Bendigo Bank®
8 AMP® Bank Ltd
9 Suncorp® Bank
10 Bankwest®.

Debt levels and spending in Australia

Household debt in Australia is dominated by mortgage debt (home loans). The main reason for this is the increase in house prices over the past 25 years. As house prices increase, it becomes harder and more expensive for first-time home buyers to enter the property market. This means that a greater percentage of incomes (the money a worker or business makes through the production and sales of goods or services) is spent on mortgage repayments. Mortgage debt and personal debt, such as credit cards, interest-free loans (loans offered over a set period of time to encourage consumers to buy certain products) and personal loans, contribute to the high level of household debt.

When household debt is high, this means that less money is available for savings and disposable income (income that households are able to spend after all bills and regular expenses have been paid).
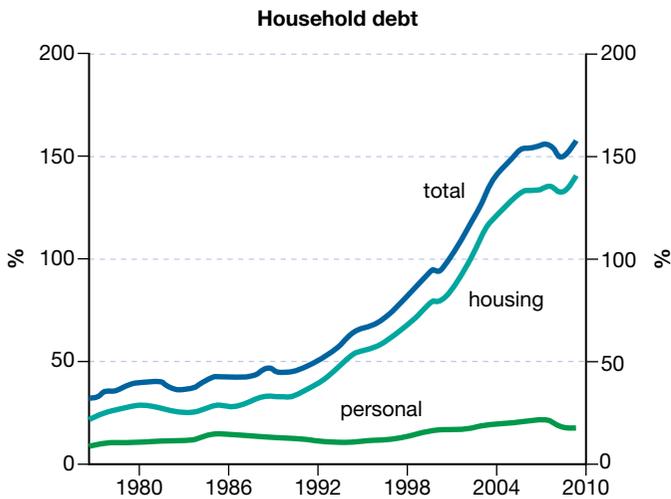
15.2.3 Household debt in Australia, 1980–2010

Australia has some of the highest levels of household debt in world. In 1980, Australia's household debt accounted for 38 per cent of GDP. By 2017 it had grown to 123 per cent (see Figure 15.2.4).

Activities

Applying and analysing

1 Examine data presented in Figure 15.2.4.
   a Choose a country other than Australia.
   b How has this country's household debt changed over time?
   c Suggest reasons for these changes.
2 Examine data in figures 5.2.1 and 5.2.2. What are the links between bank concentration and profitability? Suggest reasons why the links may be relevant.

Investigating

3 Compile a list of banks and building societies in your local area.
   a Choose one major bank and one smaller bank or building society from your list.
   b Compare the services that each one offers.
   c Which one receives greater patronage? Identify the reasons for this.
   d Suggest how the other bank or building society could attract more customers.
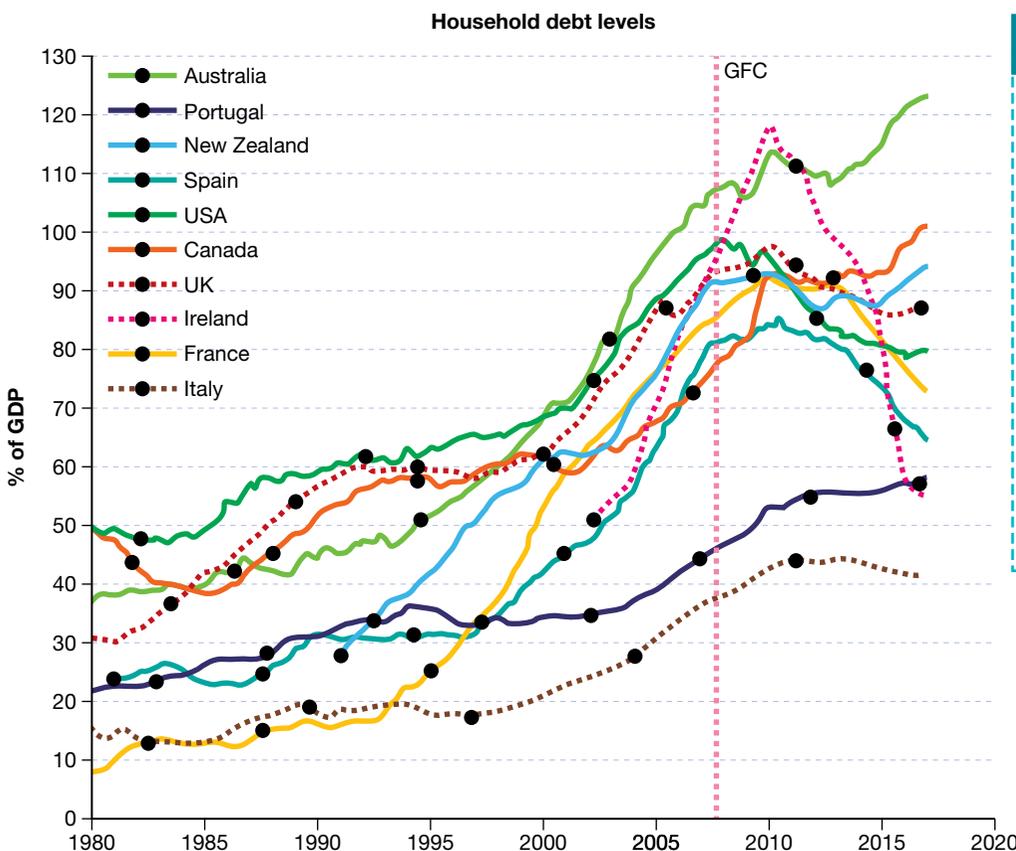
15.2.4 Household debt levels, 1980–2017

Spotlight

Data analysis

In economics and business, data is presented in a variety of formats, including graphs, statistics, tables, interviews and case studies. Using data from a range of sources can help predict outcomes, illustrate alternative perspectives, or explain **cause-and-effect relationships**.

15.3 Economic reasoning and decision-making

Purchasing choices

Every day, consumers are faced with many choices. These choices are influenced by many factors, such as:

➤ our needs (the things we consider essential for living, such as food, water and clothing) and wants (the things we desire, such as a holiday or a new car)

➤ the financial benefits of purchasing an item (such as increased **living standards**) and the limitations of making the purchase (such as opportunity cost and the loss of savings)

➤ the long-term implications (such as the cost of borrowing money) and the short-term implications (such as loss of savings)

➤ intended (expected) and unintended (unexpected) **consequences**.

When we make a large purchase, our choice is affected by the cost of borrowing or saving money. Some of the largest purchases we make include buying a car, buying a house and running a business.

Each purchasing decision has costs and benefits. Figure 15.3.1 compares some of the costs and benefits of owning a home compared with renting one.

15.3.1 Costs and benefits of buying versus renting a home

	Owning a home	Renting a home
Costs	• Mortgage principal (amount borrowed) and interest • Property taxes • Costs associated with buying and selling • Annual maintenance • Renovation • Homeowners' insurance	• Monthly rent • Rental insurance • Rent inflation • Rent deposit
Benefits	• Home value appreciation • Mortgage interest deduction	• Potential for higher yields, if the renter is able to save money after paying rent

Consumers need to research their decisions so that they can understand which choices are right for them in the short term and the long term.

Business decisions

Like consumers, businesses face many choices. Business owners need to make important decisions to ensure their long-term success.

An example of a company that has changed over time is Bloom Cosmetics®. Since it was founded by Natalie Bloom in 1993, the company has grown significantly. Department stores such as Myer and David Jones began to stock its products, and then Bloom Cosmetics opened its own stores throughout Australia. Over time, the costs (including wages, rent and insurance) and demands of maintaining physical stores became too great, so Natalie migrated her business to an online platform. Since this change, the company's customer base has continued to grow steadily. Bloom Cosmetics has experienced growth, expansion and contraction, evolving over time to allow the brand to survive changes in the market.

15.3.2 The Bloom Cosmetics logo

Natalie's love of natural ingredients and obsession with packaging soon turned a hobby into a business and consequently a brand. Following the success of her gift collection, Bloom's product range grew to include Essential Oil Blends, Massage Oils and an Aromatherapy Lip Balms [sic]. Lip products then led to Eye products and soon a full cosmetics line was on the horizon.

Bloom's covetable range has swelled to feature over 350 products including colour cosmetics, an 80 shade nail polish range a nd the Bloom Organics range.

From Bangkok to London and Beverly Hills, Bloom is now an internationally recognised brand that is stocked across the globe.

15.3.3 Extract from the Bloom Cosmetics website

Applying strategies for resolving economic and business issues—cost-benefit analysis

For a business owner considering whether or not to migrate a physical store to an online business, a manager deciding whether to hire a new team member, or an individual unsure of whether to buy a house or rent, the benefits of the decision need to significantly outweigh the associated costs. These are the type of scenarios where a cost-benefit analysis can be useful.

Steps for performing a cost-benefit analysis

1 *Brainstorm all costs and benefits*—Brainstorm all of the costs associated with the project or purchase, and make a list of them. Do the same for all of the benefits. Costs should take into account the initial outlay as well as any interest paid over time. Can you think of any unexpected costs? Are there any benefits that you may not have anticipated?

2 *Assign a value to each cost or benefit*—For a project, include the costs of the resources needed (other things you may need to purchase), as well as the cost of any human effort involved. For a major purchase, include any ongoing costs. Consider factors such as inflation and interest rates. Along with the financial benefits that you anticipate, there may be other costs or benefits as an outcome of the project. For instance, consider the impact on the environment, employee satisfaction, or health and safety issues.

3 *Evaluate costs and benefits*—Calculate your total costs and your total benefits, and compare the two values. Do the benefits outweigh the costs? How long will it take to reach the break-even point (when the benefits have repaid the costs)? Taking all this information into account, make a decision on whether the project or purchase is worth the investment.

For more about cost-benefit analysis, read Unit 17.4.

Did you know?

Degani® Bakery and Café began in Clifton Hill in the late 1990s. This business entered the market at a time when Melbourne's cafe culture was expanding. Two decades later, Degani now has more than eighty cafes and restaurants across Australia. Selling franchises and changes to the company's product range have allowed this expansion and growth. Degani's owners have developed the business using careful planning, examining market needs and gaps, and **cost-benefit analysis**. (A cost-benefit analysis is a process of comparing the financial costs and financial benefits of a business decision.)

15.3.4 The Degani Café franchise started in the Melbourne suburb of Clifton Hill

Activities

Remembering and understanding

1 How does the expansion or contraction of a business affect its market operations?

2 Assess the decision by Bloom Cosmetics to shift its business from physical stores to an online store. How did this change affect the competitiveness and success of the business? Consider the effect of the decision on Bloom's sales and profit.

Applying and analysing

3 Analyse the impact Degani has had upon Melbourne's bakery and cafe industry over the last 20 years. Examine the expansion of the business and its business model.

Investigating

4 Investigate a purchasing decision that you hope to make in the next 5 years. Consider the costs and benefits of that decision, as well as its intended and unintended consequences.

15.4 Communication and reflection

Entrepreneurship

Successful businesses often begin with an individual called an entrepreneur. An entrepreneur comes up with a business idea, which they pursue with passion and commitment. The entrepreneur makes sacrifices, such as money and time, to ensure that the business becomes a reality.

Entrepreneurial skills include:

➤ vision
➤ discipline
➤ risk management
➤ problem solving
➤ interpersonal skills
➤ critical thinking
➤ creative thinking.

Boost Juice

Janine Allis is an example of an entrepreneur. Janine wanted to offer a product that would be part of a healthy lifestyle and was also fast and accessible. In 2000 she founded Boost Juice. Since then, she has continued to update the Boost Juice menu in order to maintain the company's relevance to its consumers.

Operating from her kitchen table in Melbourne, Janine consulted nutritionists and naturopaths to create a menu free from preservatives and artificial colours and flavourings.

Just one problem: the banks wouldn't touch a business that just sold liquid. But as they say, when life hands you lemons, make lemonade. Or juices and smoothies, as the case may be.

15.4.1 Extract from the Boost Juice website

15.4.2 Boost Juice founder Janine Allis

Spotlight

Communicate your findings and reflect

As you work through these chapters, you will learn how to present arguments and evidence-based conclusions using a range of formats. Remember to use economics and business conventions, language and concepts when communicating your findings. Also try to reflect on both the intended and unintended consequences of economics and business decisions.

Trends in jobs

The nature of work is constantly changing. Jobs, job titles and career paths grow and change. Businesses, markets and economies change to meet new demands and needs. For example, developments in technology and communications allow many people to work from home. Most people will change career during their lifetimes.

The Department of Employment has projected employment growth in nineteen industries between 2017 and 2022. Because Australia has an ageing population, the healthcare industry in particular will experience growth and change.

Health Care and Social Assistance is projected to make the largest contribution to employment growth (increasing by 250 500), followed by Professional, Scientific and Technical Services (126 400), Construction (120 700) and Education and Training (116 200). Together, these four industries are projected to provide more than half of total employment growth over the five years to May 2022.

15.4.3 The Department of Employment's employment growth projections for 2017–22

As employment growth occurs in these industries, so the age of the people in the **workforce** (the total number of people currently undertaking work or seeking work within a country) will change (see Figure 15.4.5). In Australia people are choosing to work longer, in full-time, part-time or casual positions. Because life expectancy is increasing, people need to have a longer working life in order to maintain their standard of living in retirement.

Distribution of the labour force, by age group
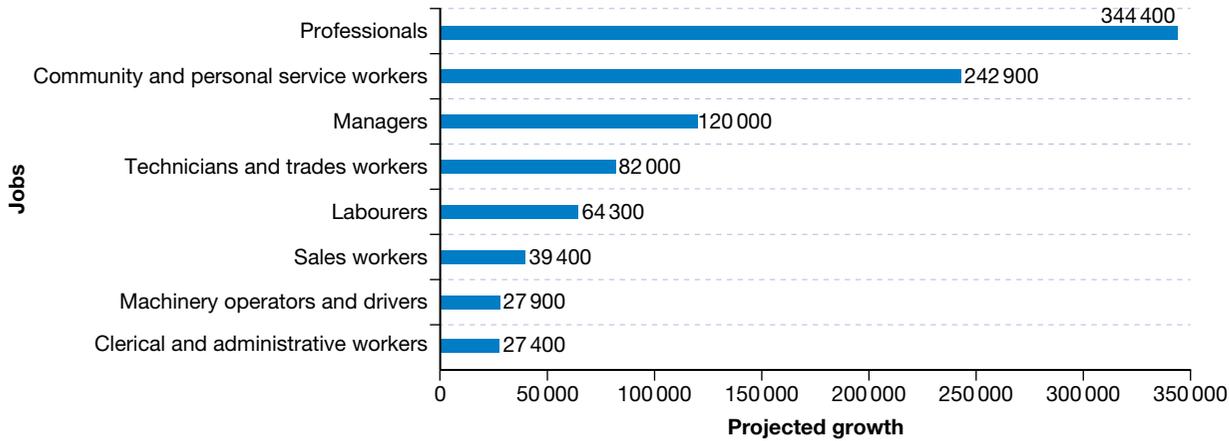
15.4.5 Composition of the Australian workforce, by age group

Legend:
- 55 and older
- 45 to 54
- 35 to 44
- 25 to 34
- 16 to 24
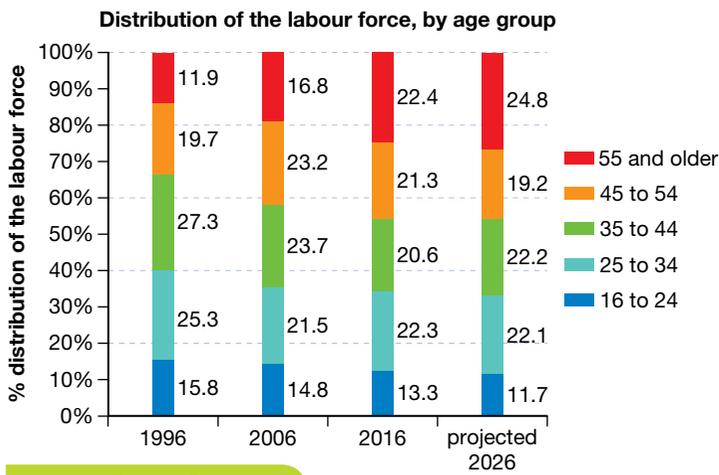
Activities

Remembering and understanding

1   Examine Figure 15.4.5. What do you think the most significant changes in the age composition of the Australian workforce will be?

2   Why do you think the government has predicted the evolution of three new areas of industry growth? Use Figure 15.4.4 to support your answer.

Applying and analysing

3   Consider the direction and choices Boost® Juice owner Janine Allis has made throughout the stages of business development—start-up, expansion and maturation. Construct a list of the decisions and tasks that Janine would have undertaken during these phases of the business cycle. Identify the intended and unintended consequences of these economic and business decisions.

Evaluating and creating

4   Think about a business you have visited recently. Why did you visit that business? What factors do you think make this business successful or unsuccessful?

5   Brothers Richard and Morris McDonald opened a restaurant called McDonald's® in San Bernadino, California, in 1940. Ray Kroc, who bought into the company in 1954, drove the chain to expand into the McDonald's® we know today. Identify the skills and actions that allowed this business to develop and grow in different markets, in different countries and in different phases of time.

Investigating

6   Investigate an industry where the government has charted both industry growth and workforce demographic changes. Identify the reasons for this growth and change. What are the costs and benefits to the economy from such changes? What opportunities does this provide to businesses within these areas? Refer to units 15.1 and 15.4 to assist you in this activity.

Risky business

16

Whether for an individual, a family, or a business, managing finances carries the potential for considerable rewards but also significant risks. Consumers need to be aware of the risks of spending and borrowing money. Businesses must be ready to deal with risks arising from local, national or international competitors and events. It is important to find a way to balance the pros and cons, in order to build personal or business wealth and to minimise risk.

OVERVIEW QUESTIONS

16A What kinds of business risk are there in trading globally?

16B What kinds of personal risk are associated with money management?

16C How can you protect yourself from personal financial risk?

GLOSSARY

diversification spreading investment across several areas to reduce risk

dividends a small part profit paid to shareholders when a company makes a profit

factor market a market in which resources (factors of production) are sold to businesses in exchange for income

financial literacy understanding how money works, and the factors that affect how a person makes, manages, invests and spends it

household sector the part of the economy made up of all the consumers

identity theft the practice of using another person's personal data to steal money or obtain other benefits

injection monetary value added to the economic circular flow, causing economic activity to rise

leakage monetary value no longer circulating in the economy, causing economic activity to fall

liabilities debts that allow the consumer to borrow money now and repay it later, such as credit cards and bank loans

malware software that allows a scammer to access the target's files or monitor what the computer is used for, including tracing passwords

phishing attempts to trick the target into disclosing information such as passwords or account details

private sector the part of the economy containing all for-profit businesses that are not owned or operated by the government

product market a market in which goods and services are sold

public sector the part of the economy that provides government services and includes government-owned organisations such as schools, hospitals and the police force

scam an attempt to mislead a person to dishonestly obtain personal details, money or other valuables

16.0.1 Prepare for high-risk decisions by saving money and working towards financial targets

LS̅ Before you begin
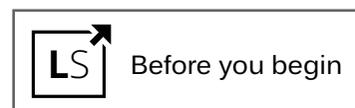
16.1 Business risk

Businesses need resources to produce products and services. This means there is a risk that their money, time, effort and energy may not make a profit or even be repaid. For example, a business may not sell all of the goods it has produced, or a company's production processes may be wasteful. Changes to the way the business operates, such as expansion overseas, could turn out to be unsuccessful. Businesses need to continually weigh up the pros and cons of their decisions to determine whether the risks are worth the potential rewards.

The globalisation of trade has affected living standards. Many people have more money to spend on goods and services. Although there are positives to international trade, it has also exposed businesses to greater risk.

16.1.1 Well-informed business decisions help avoid worry and ensure success

Internal and external business risks

Internal risks are risks to the organisation that arise from inside the business. External risks arise from outside of the organisation and cannot be controlled; only the effects can be managed. Businesses have more control over internal risks. They can conduct risk assessments and put plans in place to minimise the negative effects. Internal business risks include:

➤ cash flow, such as customers not paying bills on time
➤ outdated technology, such as software or networks in need of upgrade
➤ health and safety issues, such as workplace accidents
➤ theft, by staff or customers
➤ security of customer information or intellectual property (original ideas others may want to copy)

➤ flexibility of workforce—having the right staff with the right skills at the right time
➤ suppliers, including their reliability and capability
➤ utilities and services, such as interrupted electricity supply or unreliable internet.

Organisations cannot control external risks but they can use crisis management plans to prepare for them. External business risks include:

➤ changes to market or consumer preferences
➤ changes to laws or government policies
➤ political events, such as war or acts of terrorism
➤ global events, such as the 2008 global financial crisis
➤ environmental issues, such as climate change
➤ pandemics, such as the Zika virus or Ebola
➤ natural disasters, such as earthquakes, floods or droughts
➤ competitor behaviours, such as price-cutting or collusion (businesses working together to set prices so consumers have no choice).

16.1.2 All businesses assess levels of risk and reward whenever changes are planned

16.1.3 Agricultural and fresh produce businesses manage risks relating to the weather

16.1.4 Importing and exporting businesses manage risks relating to international and economic issues

16.1.5 Technology and consumer product businesses manage risks relating to changes in technology and customer tastes

16.1.6 All business are vulnerable to risks associated with human resources, such as strikes, low morale or widespread illness

Activities

Remembering and understanding

1 Identify three kinds of risks that businesses face. Give an example of each.

2 Distinguish between internal risks and external risks. Give examples of each.

3 How much control do businesses have over internal and external risks?

Applying and analysing

4 Without repeating an answer, consider each specific type of business and suggest an associated risk:

   a a supermarket

   b an oriental rug seller

   c an organic fruit orchard

   d a clothing retailer

   e a computer accessories shop.

Evaluating and creating

5 Imagine you are a business consultant asked to research and compile a report on three recent and varied external events that have made business more risky in some way. For each of the three risks you've identified, use the following questions to structure your report.

   a What happened, where and when?

   b What risks do these external events pose for Australian businesses and why?

   c What might happen in the future in regard to this issue and why?

   d Provide a list of the references you consulted in your research.

16.2 Trading nations

Australia and the global economy

Australia depends on the global economy in many ways. We sell or export a wide range of items and services to other countries, including minerals, live animals, cereals, tourism and education. We also purchase products that are not manufactured in Australia, such as computers and mobile phones. This involvement in the global economy brings us benefits. We are able to purchase a greater variety of items than are available locally. It also brings the risk that we will be affected by changes in the global environment.

Exports and imports

Australia is often described as having an open economy because it participates in trade with other countries. Trade is very important for Australia's prosperity: in 2016–17, the value of all of the nation's trade was $735 billion.

This trade involves both exports and imports. From Australia's perspective, an export is a good or service made in Australia and sold to residents of another country. This results in money flowing into the Australian economy. For example, if a person in the United States buys a pair of Australian-made sheepskin boots, the boots are described as an export from Australia to the United States. To pay for them, money flows from the United States into the Australian economy.

An import is a good or service made in another country that is sold to Australian residents. This results in money flowing out of the Australian economy. If someone in Australia buys clothing online from a Chinese business, the clothes are imported to Australia from China. The payment for those clothes flows from Australia into the Chinese economy.

Direction of trade

The term 'direction of trade' refers to the countries Australia trades with. Asia is very important in Australia's trade relationships because it includes four of our top five export markets and import sources. China is now Australia's top trading partner by a significant margin.

16.2.2 Asian countries are very important in Australia's trade relationships, as shown in this data from 2016–17

Export rank	Country	% of exports
1	China	28.3
2	Japan	14.6
3	USA	6.5
4	Republic of Korea	6.4
5	India	4.0
Import rank	Country	% of imports
1	China	17.7
2	USA	12.6
3	Japan	6.6
4	Thailand	4.6
5	Germany	4.2

16.2.1 The average Australian home has many goods imported from various countries

Changes in the direction of trade

During the twentieth century, Australia's direction of trade changed considerably. Until the 1960s, the vast majority of Australia's trade was with the United Kingdom, mainland Europe and the United States. This reflected patterns of economic development at the time, but also Australia's cultural and historical links with these countries.

From 1958, many European nations joined the European Economic Community with the aim of fostering trade and other links between countries in Europe. As the European nations, eventually including the United Kingdom, drew closer together, it became more difficult for Australian businesses to export to their traditional markets. At the same time, Japan was starting to emerge as a significant market for Australian products. This began a transition from a European focus to an Asian focus in Australia's direction of trade. This change has been driven by the complementarity between Australia and the Asian region, meaning we sell many of the items Asian consumers and businesses demand, and they sell us many of the items wanted by Australian consumers and businesses.

Composition of trade

The composition of trade is the combination of goods and services that we export and import. In recent years natural resources, including iron ore and coal, have been among Australia's key exports, supported by a vibrant services industry, including education and tourism. On the imports side, Australia tends to purchase overseas travel, oil products and high-tech items, because these are not readily available or produced here.

16.2.4 Tourism is an export because the money overseas visitors spend in Australia contributes to the Australian economy

Changes in the composition of trade

Australia's composition of trade has changed considerably over the nation's history. From the 1870s until the 1960s, wool was our main export as farmers expanded operations in the large areas of land suited to raising sheep, and international prices remained strong. It was often said that Australia was 'riding on the sheep's back', because Australia's prosperity was based on sheep farming.

In the 1960s, wool prices fell as new synthetic fabrics such as nylon became more widely used. While agricultural products including wool, wheat and beef are still important exports for Australia today, they have been overtaken by minerals and services. There is great demand for minerals—most notably iron ore, coal and natural gas—from the growing nations of the Asian region. Australia has some of the largest and highest-quality deposits of these items in the world and is able to mine them relatively cheaply. As a result, these items feature heavily in Australia's list of top exports.

On the imports side, Australia needs to purchase those items that are not available locally. These include many manufactured goods, such as cars, technology, homewares and textiles. While Australia is capable of making many of these items, it is often cheaper to buy them from other countries where they can be mass-produced at a lower cost.

16.2.3 Natural resources rank highly in Australia's exports, while personal travel (tourism) and manufactured goods are significant imports (2016 statistics)

Rank	Export	% of exports
1	Iron ore & concentrates	16.3
2	Coal	12.8
3	Education-related travel services	6.7
4	Gold	5.7
5	Natural gas	5.4
Rank	**Import**	**% of imports**
1	Personal travel (excl. education)	8.4
2	Passenger motor vehicles	6.3
3	Refined petroleum	4.3
4	Telecommunications equipment	3.5
5	Freight transport services	2.6

Trade in services

Services have also risen in importance in Australia's trade profile. As travel costs fell throughout the twentieth century, it became cheaper and easier to fly to and from Australia. As a result, tourism has grown in importance. Education is another important trade item—students from overseas come to Australia to study, creating a valuable export for Australia. Similarly, large numbers of Australians choose to study overseas, resulting in an import for Australia.

Importance of China and India as trading partners

China's rapid growth and development, beginning in the 1980s, meant increased demand for Australia's exports. China's output of relatively cheap consumer goods led Australian businesses and consumers to import increasing amounts. In late 2007, China overtook Japan to become Australia's largest trading partner.

The next significant shift in Australia's direction of trade is likely to be related to the growth of India's economy. The United Nations has predicted that India will overtake China as the world's most populous nation in 2022. Incomes in India are also rising, leading to increasing demand for many of Australia's exports. As a result, India's importance in Australia's trade relationships is likely to increase over the next few years. In recent years India has risen from seventh to fifth as an increasingly important destination for Australian exports.

Australia's interdependence with Asia

Two regions are said to be interdependent if they rely on each other. Australia's trade relationships highlight our interdependence with Asia and are based on the complementarity of the two regions. However, the links between Australia and Asia extend beyond the transfer of goods and services.

Migration

Migration refers to the movement of people to a new country as they seek employment, better living conditions or other benefits. Migration provides an important connection between Australia and Asia. In 2016, the Australian Bureau of Statistics reported that over 28 per cent of people living in Australia were born overseas. While the United Kingdom and New Zealand were the most common countries of birth for migrants, around 3 per cent of the Australian population were born in either China or India. That meant that for the first time, most overseas-born Australian residents were originally from Asia rather than Europe.

Did you know?

According to the Australian Bureau of Statistics, in 2016 over 40 per cent of the overseas-born population in Australia spoke only English at home, with Mandarin the second most commonly spoken language, at 8.3 per cent. Most overseas-born Australians (61 per cent) lived in New South Wales and Victoria, although since 1966 there has been a notable increase in the proportion in Queensland (from 9.5 per cent to 16.5 per cent in 2016) and Western Australia (from 9.3 per cent to 12.9 per cent).

Activities

Remembering and understanding

1 With reference to Australia's top three trade partners, explain the meaning of the term 'open economy'.
2 Giving examples of each, distinguish (show the difference) between exports and imports.
3 Describe the changes in Australia's direction of trade since the 1960s.
4 Outline the importance of China to Australia's economy and how it has changed over time.

Applying and analysing

5 Compare two examples of Australia's international export of services by writing a paragraph about each export and stating any differences.

6 Explore the idea of economic interdependence by creating a one-page report about the economy of the United States. Which countries does the United States rely on as important trading partners and what products are exchanged between them?

Evaluating and creating

7 What is an area in which Australia could strengthen its economic performance through trade? Create a paragraph to state your opinion and give reasons for your argument.

16.3 Australian economics

Economic activity and the circular flow of income

The term 'economic activity' refers to the process of producing and consuming goods and services. This involves the participation of a number of groups, including:

➤ households
➤ businesses
➤ the financial sector
➤ the government
➤ the rest of the world.

The circular flow of income can be seen in a diagram that represents the relationships between these groups. It demonstrates that each group specialises in particular types of economic activity and then trades with the other sectors to satisfy as many needs and wants as possible.

Household sector

The **household sector** includes all the consumers in the economy. Consumers are the people who buy and use goods and services in order to satisfy their needs and wants; every single person is a consumer some of the time. The circular flow diagram assumes that households also own all the resources that businesses use to produce goods and services.

In the real world, however, businesses can own resources such as land and machinery. By making a simplifying assumption such as this, economists are able to design models that focus on the key relationships in the economy.

These resources, also known as factors of production, are often placed in the four following categories.

➤ *Land*—all the gifts of nature, including water, trees and minerals.
➤ *Labour*—the human effort used in the production process, such as the effort and skill of a bricklayer or a brain surgeon.
➤ *Capital*—the human-made items used in the production process, such as tools and machinery.
➤ *Enterprise*—the ability to combine the other three categories of resources in a meaningful way, such as through the strategic decisions made by a business manager.

In the circular flow model, households sell their resources to businesses, and in exchange they are paid income. Households then spend this income to purchase the goods and services that businesses provide.

Many consumers are also workers: they provide labour to businesses, are paid an income and then spend that income on various goods and services.

Circular flow of income
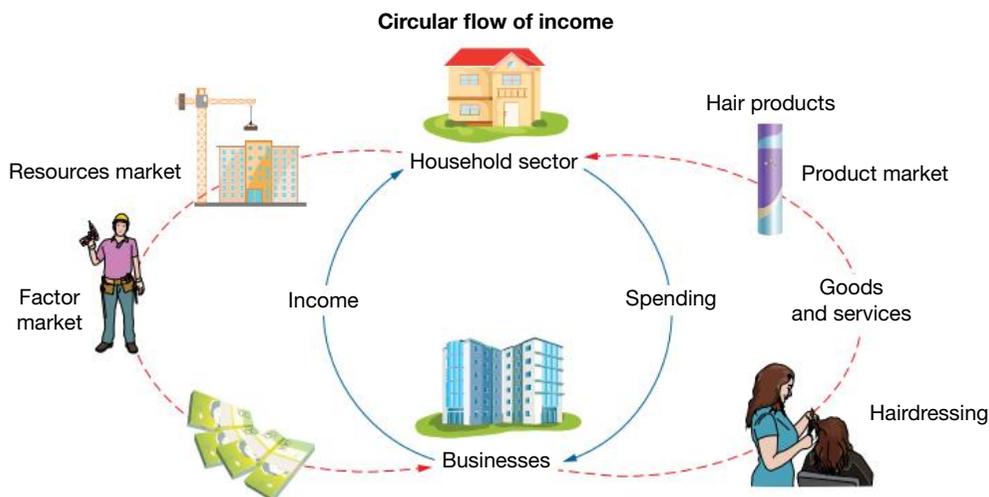
16.3.1 The circular flow diagram demonstrates the relationships between some key participants in an economy. The arrows show how items of monetary value move from one participant to the next. For example, businesses pay wages to workers, who buy houses and goods, which gives money back to businesses, and around the money goes.

Business sector

The business sector includes all business organisations. They purchase resources from households and then use those resources to produce goods and services to sell to households. To keep the model simple, it is assumed that businesses want to make as much profit as possible; they will, therefore, only produce those items that households want to purchase.

Economists often use the term '**private sector**' to indicate all those businesses that are not part of the government but are privately owned and aim to make a profit. The term '**public sector**' refers to organisations that are owned by the government and generally provide a service to the community, such as schools, hospitals and the police force.

Interdependence of households and businesses

Households and businesses are interdependent because each relies on the other to achieve their goals. Their relationship is based on two key markets known as the factor market and the product market. In the **factor market**, resources (factors of production) are sold to business in exchange for income. In the **product market**, goods and services produced by businesses are sold to households in exchange for consumer spending.

Financial sector

The financial sector includes all the organisations that accept deposits of money from households, then repackage those funds and make them available for loans to businesses. Examples of financial organisations include banks and insurance companies. The financial sector receives savings from households and then provides this money to businesses for investment, so that businesses can borrow money to finance their purchases of capital goods such as machinery.

Savings are often referred to as a **leakage** because they reduce households' ability to purchase goods and services, and therefore cause the level of economic activity to fall.

Investment is called an **injection** because it adds to the amount of money circulating in the economy and causes economic activity to rise.

Government sector

The government sector includes the economic activities of all three levels of government in Australia (local, state and federal). They receive taxation payments from households and businesses, and then use these funds to pay for a range of government spending, including social security, defence and the public health system. Taxation is considered to be a leakage because it reduces the amount of money households can spend on goods and services and therefore lowers the level of economic activity. Government spending is an injection into the circular flow as it raises the demand for goods and services, causing economic activity to rise.

The level of government spending in any particular year does not entirely depend on the amount of money governments receive from taxation. All levels of government are able to save some of their revenue, which means that government spending is less than taxation. A government may choose to do this when the economy is running very well and private businesses are keeping economic activity at a high level. Alternatively, a government can borrow money to allow the level of government spending to be higher than taxation. It may do this if it wants to boost the level of economic activity.

Governments are involved in providing a range of goods and services. These include public services such as the defence force and national parks; the private sector does not produce these items as they offer little or no potential for profit.

The government is responsible for managing aspects of the economy beyond simply setting levels of taxation and government spending. By making laws and setting up authorities called industry regulators, the government is involved in monitoring the activities of businesses. This includes making sure that any particular business does not gain an unfair advantage by using deceptive advertising or trying to manipulate prices.

16.3.3 The largest area of spending in Victoria's state Budget for 2017/2018 was $30 billion over 10 years on public transport infrastructure, with the Metro rail tunnel costing $10.9 billion

Overseas sector

The final sector in the circular flow of income represents the rest of the world. Many items produced in Australia are sold to people overseas (exports), while people in Australia often purchase things made in other countries (imports).

The Australian economy as a whole

Economists use the concept of **gross domestic product** (GDP) to measure the size of a country's economy. This is the value of all final goods and services produced in the economy in a year. In 2016–17, Australia's GDP was around $1.7 trillion. According to the 2016 Global Wealth Report by Credit Suisse®, Australia is the second wealthiest nation in terms of wealth per adult, just behind Switzerland. The Department of Foreign Affairs reports that the Australian dollar is the fifth most traded currency and Australia's GDP is ranked thirteenth globally. There are many published ranking systems that compare Australian economic conditions to those of other countries. For example, Australia is ranked twelfth on the Economist Intelligence Unit's business environment ranking for 2018 to 2022 and fifth on the 2017 Index of Economic Freedom.

State contributions

New South Wales is the largest contributor to Australia's GDP at around 30 per cent. Queensland contributes about 20 per cent and Western Australia approximately 15 per cent. In the last decade, the Victorian economy has experienced strong growth of around 2 per cent each year. Victoria now has a mid-sized economy, larger than those of New Zealand and Singapore. While only covering 3 per cent of Australia's landmass, Victoria contributes around 23 per cent to the nation's overall GDP, totalling $374 billion in 2015–16.

16.3.4 The sale of goods and services in Victoria contributes around 23 per cent to Australia's GDP

Did you know?

The Australian Bureau of Statistics predicts that by 2060 the population of Victoria will be between 10 and 12 million people. Regional centres, including Ballarat, greater Bendigo and greater Geelong, are expected to grow significantly, accounting for around half of Victoria's regional growth up to 2031. Metropolitan Melbourne will see the most growth, with an estimated population of 6.1 million by 2030—this will make it Australia's biggest city.

Activities

Remembering and understanding

1 Define the term 'economic activity' and name the groups that participate in the economy.
2 Describe what is shown by the circular flow of income diagram in Figure 16.3.1.
3 Outline the assumptions that the circular flow model makes about households and businesses and justify these assumptions.

Applying and analysing

4 Describe how households and businesses are economically interdependent.
5 Differentiate between the financial sector and the government sector, and give examples.

Evaluating and creating

6 Describe the size of the Australian economy by researching the latest gross domestic product (GPD) figures. Providing opposing points of view, discuss the importance of Victoria's contribution to this total.

16.4 Global supply chains

Australia's relationship to the global economy

The total value of items produced in the entire world each year is about US$80 trillion. Australia is only responsible for around 1 per cent of this, so is often said to have a relatively small economy. It is also described as an open economy because Australian households and businesses engage in trade with the rest of the world. Because Australia's economy is such a small proportion of the world economy, any change in the rest of the world can have a significant impact on the level of economic activity in Australia.

Australia relies on the global economy in many ways. We need to sell our exports to households and businesses in other countries, but we also need to be able to purchase those goods and services that are not produced domestically. Transnational corporations (TNCs) greatly facilitate the movement of goods and services between countries, and they can have significant influences on the pattern of economic development.

Living standards

Economic performance can be a key indicator of the living standards enjoyed by citizens of a nation. With the second highest wealth per person in the world, Australians enjoy very high living standards, meaning they have access to safe housing, medical care, education, the necessities of life and disposable income, allowing for material comfort. Economic growth allows governments to spend more on providing community services such as hospitals and schools, and building infrastructure (the structures or facilities needed for a society to function, such as roads and bridges).

Of course this is a generalisation and many citizens of wealthy countries do not enjoy the same benefits as others. In our country, Aboriginal and Torres Strait Islander people living in rural areas have a lower standard of living than non-Indigenous people dwelling in cities and suburbs. Aboriginal and Torres Strait Islander peoples as a group are likely to die around 10 years earlier than non-Indigenous people. Heart-related diseases are the most common cause of death and can be caused or worsened by lifestyle factors and lack of access to health care. Good housing is also important for maintaining health, but the Australian Bureau of Statistics (ABS) reports that around 30 per cent of Aboriginal and Torres Strait Islander people live in houses with major structural problems. Many Indigenous people living in rural areas do not have access to basic household services such as washing, laundry, kitchen or waste disposal facilities.

16.4.1 The standard of living in Sorrento, Victoria, is very high—some houses even have private jetties and boat moorings

16.4.2 In 2016, Australia's largest company was Wesfarmers (which owned Coles, Bunnings, Kmart, Target and Officeworks), with revenue of over $6.6 billion

Economic growth does not always bring higher living standards, even to those who earn a high income or live in well-serviced or wealthy areas. In some places, economic progress can lead to an increase in crime rates. People can become unhappy as they become more materialistic (concerned with possessions or focused on money). The environmental pollution associated with economic growth can also lower the quality of life.

Transnational corporations

Transnational corporations (TNCs), also known as multinational corporations, are businesses with operations in more than one country. Ford®, Ikea® and Aldi® are all examples of TNCs. Transnational businesses are a very important part of the global economy because they help customers gain access to cheaper products than might otherwise be possible, and also increase employment opportunities and promote economic development.
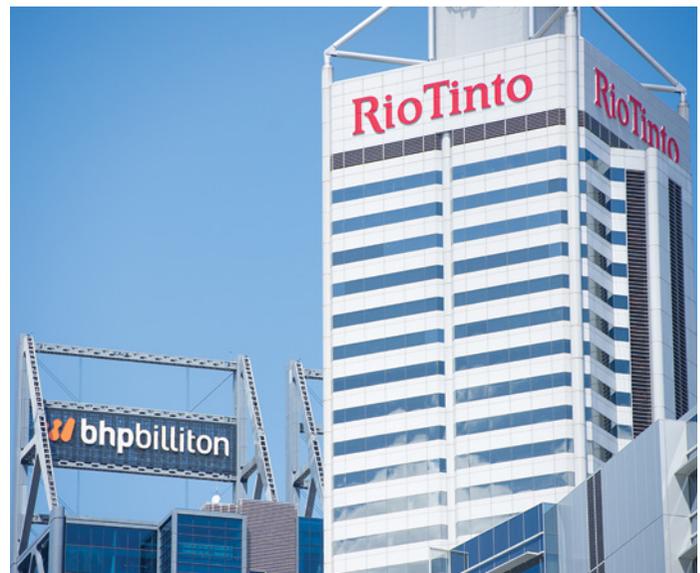
16.4.3 Mining companies Rio Tinto® and BHP Billiton® are transnational corporations. They operate across many countries and contribute to their economies, including Australia, South Africa, the United States, Brazil, Chile, Peru, Trinidad and Tobago, Colombia and Madagascar.

Role of TNCs in economic development

TNCs also have a role to play in promoting the development of many economies. TNCs have the financial resources and expertise to set up operations in whichever country best fits the company's needs. In many cases, this involves setting up factories in less developed countries, such as Vietnam and Thailand, where labour costs are lower than in places such as Australia, Europe and the United States. These factories provide new employment opportunities for the local residents, and may also lead to substantial benefits for the wider local economy, such as the development of better roads and electricity networks. Other smaller businesses also develop around the factory, such as cleaning contractors and shops to sell food and other items to employees.

Global supply chains of TNCs

TNCs will often produce individual product components in different countries before bringing them together for final assembly. For example, the technology company Intel® produces parts of its products in Israel, Ireland and the United States before assembling the final product in China, Vietnam and elsewhere. This means that individual facilities can focus on producing just a part of the final product, allowing the company to produce each component wherever it is cheapest to do so.

Governments and transnational corporations

Governments will sometimes introduce policies designed to attract TNCs. Examples include incentives such as lower tax rates, or guarantees that required infrastructure such as harbour facilities will be constructed in a way that suits the TNC's requirements. Governments want to benefit from the employment and economic development that TNCs bring.

Impact of transnational corporations on Australia

The operations of TNCs affect the Australian economy in many ways. They provide goods and services that Australian households and businesses demand, offer employment opportunities and pay tax on their Australian earnings to the Australian Government. Australia is also home to several TNCs, including Woolworths, which has operations in Australia and New Zealand, and the National Australia Bank, which has operations in Australia, New Zealand, Asia, the United Kingdom and the United States.

The car manufacturers Ford and Holden® closed their Australian production facilities in 2017. Operating costs were higher at their Australian plants than in many other parts of the world. This led to major job losses, imposing a significant cost on workers. There can be serious effects on local communities when TNCs move on, while the TNCs benefit from shifting their operations to lower-cost environments.

Impact of transnational corporations in developing countries

Globalisation and TNCs have both positive and negative effects on developing nations. Foreign investment by TNCs can help countries by providing jobs and skills for local people, boosting the local economy.

Negative impacts include:

➤ *labour exploitation*—some TNCs have been criticised for exploiting cheaper, non-unionised labour forces in developing countries. As there are no enforced international laws about staff wages and conditions, TNCs may operate in host countries in a way that would not be allowed in their home country. However, most larger TNCs have now established a basic standard for minimum wage and age limits, as well as appropriate training and promotion opportunities.

➤ *environmental impact*—TNCs can cause environmental damage to the atmosphere, water and land. Many developing countries have less strict pollution laws than those in the developed world. Factory emissions and waste may threaten the environment or wildlife habitats in host countries.

➤ *competition*—richer, developed countries tend to dominate world trade at the expense of developing countries. If it becomes cheaper to operate in another country, the TNC may decide to relocate its factories, making the local factory workers redundant and leaving them without a job or other work skills.
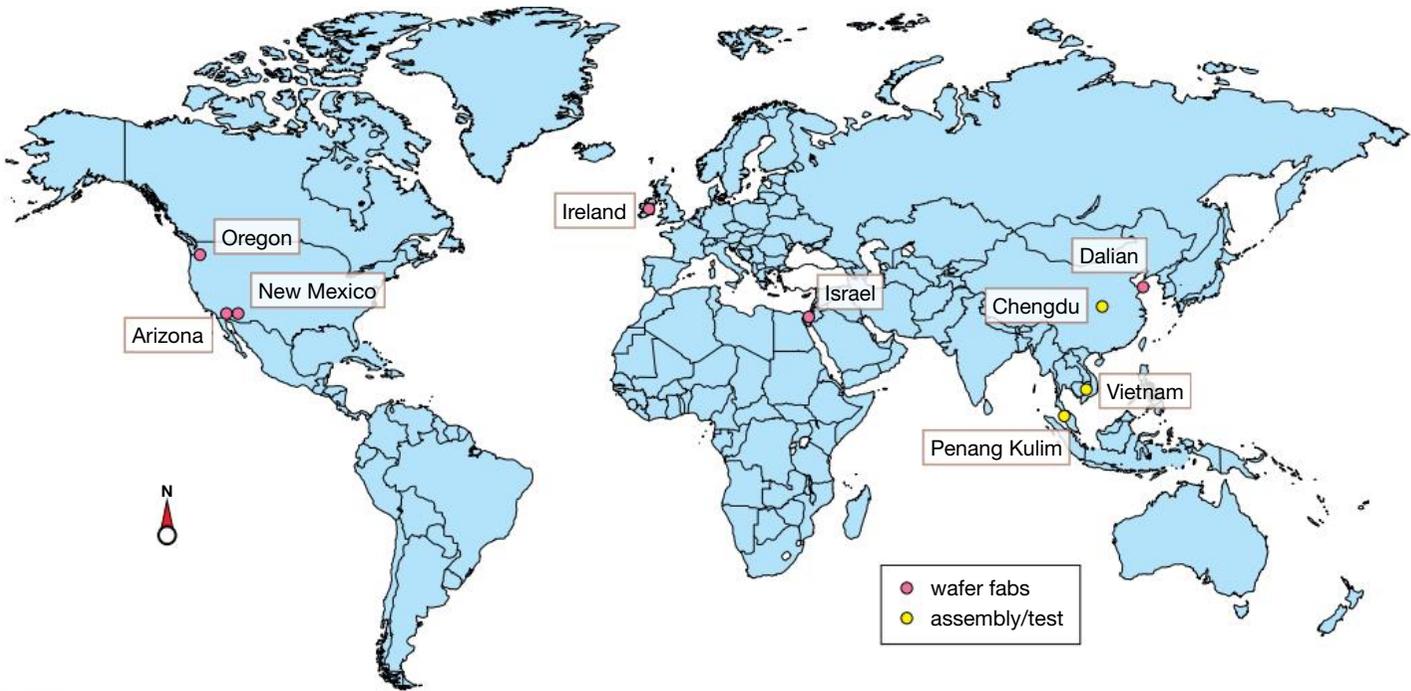
16.4.4 Intel's electrical component production facilities, referred to in this map as 'wafer fabs', are spread all over the world; the final products are assembled in China, Vietnam and Malaysia

Did you know?

According to the Department of Foreign Affairs and Trade, Australia's economy is considered one of the strongest, most stable and diverse in the world. In 2017 Australia experienced its twenty-seventh year of uninterrupted annual economic growth, averaging at around 3 per cent a year. Approximately 60 per cent of gross domestic product is provided by the service sector, which is the largest contributor to the Australian economy and the source of four out of five jobs.

Activities

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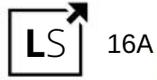
Remembering and understanding

1   Define the term 'transnational corporation' and give an example.
2   List the countries involved in producing Intel's products.
3   Name the two companies that by 2017 had closed their production facilities in Australia and suggest why they might have made that business decision.

Applying and analysing

4   What are some of the positive and negative effects that TNCs have on Australia?

Evaluating and creating

5   Evaluate Australia's relationship to the global economy. List the strengths and weaknesses of this economic interconnectedness, and write a conclusion based on the points you have made.
6   Identify a product that was made outside Australia. Map its supply chain to identify the participants in the chain. Suggest reasons why it was not produced in Australia. You may need to do some internet research on the product, so it's best to choose a well-known brand.

16.5 Personal risk

Money management has the potential for considerable personal risk. With ever-changing and increasingly sophisticated global scams, consumer and **financial literacy** is more important than ever before. Making your money work for you by dealing productively with debt is an essential financial management skill. It is also very important to take well-considered steps to maintain an income to protect yourself from financial crisis.

16.5.1 Personal financial management can help you maintain your standard of living and guard against financial crisis

16.5.2 With the rise of e-commerce and the use of digital payments systems, it is important to check credit card statements for unexpected withdrawals or charges

16.5.3 Investments can make your money work for you but careful research and planning are needed

16.5.4 Getting into debt can happen quickly, but getting out of debt can be challenging

16.5.5 Prepare for life changes and unexpected events by having savings and insurance

Did you know?

In 2017 the International Monetary Fund warned that Australian household debt had risen to 100 per cent of GDP. By comparison, household debt in other developed countries is around 63 per cent. This means that Australians are vulnerable to global financial downturns, banking crises and property slumps, because their houses could end up being worth less to sell than what they owe.

Activities

Remembering and understanding

1 Identify three kinds of personal risk involved in financial management.
2 Financial planning and management take a lot of time and effort. Suggest why it is important for everyone to find the time to focus on managing their money.

Applying and analysing

3 Define the term 'e-commerce' and explain the close link with credit cards and associated risks.

Evaluating and creating

4 Reflect on the financial literacy education you have had thus far. This could be from home, school, work, peers or elsewhere. Write responses to the following questions.
   a Rate your general money management skills as poor, fair, satisfactory, good or excellent. Justify your rating with evidence of your experience in managing money (e.g. I get … allowance per week which I spend on … and save …)
   b How did you learn about financial literacy? Note when, where and from who you gained knowledge and skills.
   c Copy and complete the following table to reflect on which areas of financial literacy you know about and which you feel you need to learn more about.

   d Consider the money management areas you would like to know more about. Suggest how you might increase your knowledge or develop your financial literacy skills.
5 Evaluate your own areas of personal financial risk using a similar structure to the diagram below.
   a Identify three of your financial strengths, such as monetary support, a steady income or sound financial literacy knowledge.
   b Describe three of your weaknesses, such as lack of a regular income or a need to learn more about managing personal finances.
   c Suggest where and how you could improve on your areas of weakness.
   d State your conclusions about your financial prospects for the future.

Personal financial risk assessment

Strengths:

Weaknesses:

Opportunities for improvement:

Financial literacy area	I know a lot about this	I know a little bit about this	I know nothing about this
Personal budgets			
Managing debt			
Investing			
Taxation			
Banking and financial services			
Strategies for earning an income			
Basic bookkeeping and accounting			
Setting financial goals			

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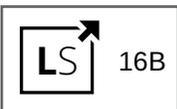
16.6 Consumers and scams

16.6.1 When you enter into a transaction as a consumer, you are at risk of being scammed

Scams

A **scam** is an attempt to deliberately mislead a person and dishonestly obtain personal details, money, property or other valuables. Professional scammers now operate globally and are becoming more successful. There are different kinds of scams and consumers are particularly at risk when using digital platforms such as online shopping and when doing transactions by phone.

According to Scamwatch.gov.au, some of the most common types of scams are:

➤ dishonestly obtaining personal information
➤ buying and selling frauds
➤ get-rich-quick schemes
➤ unexpected winnings
➤ fake charities
➤ fake jobs
➤ misleading online dating profiles.

A recent scam is called pharming. This means your computer is infected with malware that redirects you to a fake website that looks like a real one you use, such as a banking or payment website. If you log in via the fake website, the scammers gain access to any personal details you enter, such as your username and password.

Unexpected money

A common scam is a message saying that the recipient can claim a large inheritance from a distant relative. This money is said to be difficult to access, often because it is in another country. The target is asked to pay an amount to the scammers to cover the costs of recovering their 'inheritance'.

There are many variants of this, including scams that ask the target to help an apparently worthy individual access their money in another country. These are sometimes called 'advance-fee scams', and are often known in Australia as 'Nigerian' scams because the first wave of these schemes came from Nigeria. Today, these schemes can originate in any part of the world.

Unexpected winnings

Unexpected winnings scams ask the target to pay a fee to claim their prize from a competition that they never entered. A related scam takes the form of fake scratchie cards that require the so-called winner to pay a fee in order to collect their prize. These scams may offer prizes such as money, holidays, free flights or luxury items. Other fake winnings could refer to the 'highest YouTube viewer', the 'one millionth customer', or could claim to be promoting a good or service of some kind.

Attempts to gain personal information

Some scams try to obtain the target's personal information in order to engage in **identity theft**. Identity theft is the practice of using another person's identity to steal money or obtain other benefits. **Phishing** scams are attempts to trick the target into disclosing information such as passwords or credit card or bank account details. For example, the target may receive a message pretending to be from a bank and asking them to confirm their account details.

Scammers can also use hacking techniques to gain access to information by exploiting security weaknesses on computers, networks or mobile phones. This does not involve installing new software; instead, hackers work through weaknesses in existing programs. This is different to **malware**, which is software that the scammer installs on the target's computer in order to access files or monitor what the computer is used for. Malware is often distributed via email attachments or by encouraging consumers to click on online banner advertisements that offer prizes or other rewards.

The cost of scams

According to Scamwatch.gov.au, in 2017 Australians reported losses of nearly $90 million to scams. Of the reported scams, nearly 70 per cent operated over the phone or by email, but scams can also be delivered through the mail, by text messaging, social networking or any other form of communication.

Scams and online shopping

Scammers will try to exploit your trust, good intentions and generosity. Think critically about every transaction when you are shopping online. Always check the complaints process and returns policy of an online shopping site to make sure you can take action if something goes wrong. Check ratings and previous customer comments so you know who you are doing business with. Only pay when you are sure you will be getting what you have ordered and only use a secure payments service. Never give your personal details, passwords or credit card numbers to anyone you don't trust or whose identity can't be verified.

16.6.2 Regularly check your statements and query any unexpected charges or withdrawals

Don't get scammed

To recognise a scam, look out for the following warning signs:

➤ offers that are 'too good to be true'
➤ fake sale ads for goods that do not exist—often an image search can help identify fake ads
➤ slight alterations in the look of websites
➤ poor spelling or grammar
➤ unusual payment methods such as money orders
➤ making private deals outside the standard practices of online auction sites
➤ refunding overpayments before the original payment cheque has cleared
➤ unexpected communications.

The Australian Competition and Consumer Commission recommends a number of strategies to reduce your risk of becoming a target of scams or identity theft. For example, avoid sending money to strangers, always read the terms and conditions of any contract, and make sure that your antivirus software is up-to-date.

Activities

Remembering and understanding

1 Define the term 'scam'.
2 How much money do scams cost Australian consumers every year?
3 Give examples of the common types of scams.
4 Describe the way that one common scam usually operates.

Applying and analysing

5 Develop a one-page fact sheet that explains how consumers can protect themselves against becoming a target of scams or identity theft.

Evaluating and creating

6 Evaluate the work of the Australian Competition and Consumer Commission by investigating the role it plays in regulating aspects of the Australian economy.
7 Research online what action you should take and where you can get help from if you are the victim of a scam. Design a digital or hand-drawn informative poster to display in your classroom.

16.7 Money management

How can you manage your money to grow your personal wealth?

Australia's financial landscape

Australia's financial sector is highly sophisticated and it has become a major player in financial decisions throughout the Asian region.

Australian consumers have access to a range of financial institutions, including banks, credit unions and insurance companies. Australia has a very large funds-management sector, allowing individuals and businesses to deposit money in managed funds with the hope of earning a future income. Australian financial institutions assist businesses with processing payments, managing their investments, and leasing equipment—this could be anything from portable cement mixers to aircraft.

One of the most intricate areas of the financial sector is hedge funds. These businesses develop, sell and manage a range of sophisticated financial products.

Regulation of Australia's financial sector

Safe, reliable financial institutions are essential for a country's economic stability. The deposits of thousands of households and businesses could be lost if banks and other financial institutions managed their affairs badly. This would lead to chaos, as people desperately attempted to get their money back. Events of this kind are rare in Australia because the federal government regulates the activities of financial sector institutions through the Reserve Bank of Australia (RBA) and the Australian Prudential Regulation Authority (APRA). In December 2017 the federal government established the banking royal commission. In March 2018 it began investigating misconduct in the financial services industry.

There are rules governing every aspect of a financial institution's operations, from the way financial products are advertised to the amount of money the institution can invest in particularly risky projects. These rules are designed to manage the risks associated with financial decisions while still allowing financial institutions to facilitate (assist with) the operations of other businesses.

The role of banks

Banks are a key component of the financial sector and are essential to modern economic activity. They are often described as intermediaries, meaning that they are go-betweens, facilitating transactions between two parties—households and businesses.

Banks have three major functions.

➤ Individuals can deposit their savings in banks and then earn interest on their money. Interest is a payment that the bank makes to the depositor to encourage them to place their money with the bank; the more money that is placed in an account, the higher the interest payments. Without banks, people would have to bear the risks of storing money, often at home, and would not be able to earn interest.

➤ Banks allow electronic transfers and payments to occur, making it far easier and safer to make purchases and receive payments.

➤ Banks make loans to individuals and businesses, allowing them to purchase items now and pay for them later.

Investments

Investment is the process of purchasing goods or services in the hope of making a profit. There are many different types of investment, including:

➤ managed funds
➤ shares
➤ property
➤ international investments
➤ other complex investments.

Most investments involve the work of financial institutions, either through borrowing money to pay for the investment or in the ongoing management of the project. Investors need to find a balance between the risks involved in a particular project and the returns that can be earned.

Managed funds

When an individual places money in a managed fund, their money is combined with the contributions of all the other investors in the fund. An investment manager is then responsible for buying and selling different types of investments such as shares and assets on the members' behalf. This is known as diversifying. Diversifying is a safe option because not all of the money invested is lost if one investment fails. Most managed funds pay income on a regular basis. The amount received by each investor is based on the proportion of the total fund they contributed and the value of the underlying assets.

For some people, a disadvantage of managed funds is that the investment decisions are made by the fund manager, so individual contributors do not have control over the assets that are purchased.

16.7.2 Usually, the higher the risk associated with an investment, the higher its potential rewards. Many investors aim to find investment projects that offer relatively low risks and high rewards, such as diversified (varied) portfolios of shares and property.

Shares

When an investor purchases shares, they become one of the owners of the business that issued the shares. The company may pay part of its profits to shareholders as **dividends**, providing share owners with an income. However, if the company goes out of business, all of the money invested in the company is lost.

The prices of shares can increase or decrease very rapidly and therefore shares should generally be viewed as a long-term investment. It can be very difficult to predict how the value of a share, or the value of its dividends, will change over time. To manage the risks involved in buying shares, many investors try to diversify their share purchases by holding shares in several different businesses and industries. If one business or industry is experiencing difficulties and its share price is declining, it is hoped that this will be offset by a rising share price in another business or industry.

Property

Property investment ordinarily means buying a house or unit and then renting it out. Property prices are usually less volatile (quick to change) than share prices, making this a very attractive form of investment. However, it is certainly not risk-free: property prices can decline, particularly when the general level of economic activity declines. Because of this, property should be viewed as a long-term investment. Ideally, it should be one part of a diversified investment portfolio.

Renting out an investment property also carries risks. If there is no tenant, the owner is not earning rent and therefore has to pay all the costs associated with the property out of their own money. Also, tenants may damage the property, leaving the owner to pay substantial repair costs.

International investments

Australians can purchase many different international investments. We can buy shares in overseas companies, property in other countries or other countries' currencies with the aim of making a profit. There are many issues that Australians must be aware of when making investments of this type, including the risks of doing business in other countries and the taxation of profits. Because these are highly complex decisions, most investors will need specialist advice and should do extensive research before making investment choices.

Other complex investments

There are many other, highly complex investment products available. These include futures and options, which allow the investor to buy or sell assets at a set price on a specific date. These products are considered highly risky and can be difficult for even very experienced investors to understand. As with any financial decision, potential investors in these products should ensure they are willing to bear the significant losses that can occur, rather than simply focusing on the potential for profit.

16.7.3 It is possible to invest in foreign currencies with the aim of making a profit, but it is very difficult to predict currency movements. Therefore, many people view these investments as extremely risky.

Activities

Remembering and understanding

1 Identify the types of financial institutions that Australian consumers have access to.
2 Briefly outline why it is important for a country to have safe and reliable financial institutions.
3 Name two of the financial regulators in the Australian economy.

Applying and analysing

4 Discuss the following statement, using the information in Unit 16.7:
    Banks are more than just places to keep your money.
5 Outline the level of risk and reward that is associated with two different types of investment.

Evaluating and creating

6 Futures and options are both types of investments. Research futures and options to find out what they involve. Would you would recommend them to a first-time investor? Why or why not?
7 Interview older family and friends about their investment choices. Ask them about their investment successes and failures. Do they have any investment advice for you? Without revealing any personal details, share some investment success stories with the class to inspire future investors.

16.8 Making financial decisions—debt

Borrowing and investing

Financial products fall into two broad categories: investments and **liabilities**. Investments potentially provide an income to the consumer, such as shares and term deposits, while liabilities, such as credit cards and bank loans, allow the consumer to borrow money now and repay it later. Borrowing money gives the consumer the opportunity to enjoy the benefits of a good or service today, but pay for it in the future. The factors that influence consumers' financial decisions can be very complex, particularly when choices made today can have implications extending many years into the future.

Interest rate

The interest rate is the amount charged or paid for the use of money, expressed as a percentage of the loan amount. When a consumer is investing, including depositing money in savings accounts, they are effectively lending their money to a financial institution and so will receive interest payments. When a consumer borrows money, they need to pay interest to the financial institution.

Credit history

The interest rate charged on a loan depends partly on the general state of the economy, and partly on the specific circumstances and credit history of the borrower. A person's credit history is a record of their debt repayment history. Someone with a poor credit history, perhaps as a result of late or missed repayments, will often be viewed by a financial institution as a greater risk than someone with a strong credit history. Because of this, a person with a poor credit history will generally be required to pay a higher interest rate when they borrow money in the future.

Cash rate

When person takes out a loan, the interest rate is usually based on changes to the **cash rate**, which set by the Reserve Bank of Australia in response to general conditions in the economy. If economic growth is slow, the Reserve Bank may reduce interest rates. This means that it is cheaper to borrow money, which encourages business and households to borrow more. This stimulates economic growth because more money is being spent. If economic growth is considered to be occurring too fast, the Reserve Bank may increase interest rates so loans become more expensive and households and businesses spend less money.

The Reserve Bank of Australia cash rate
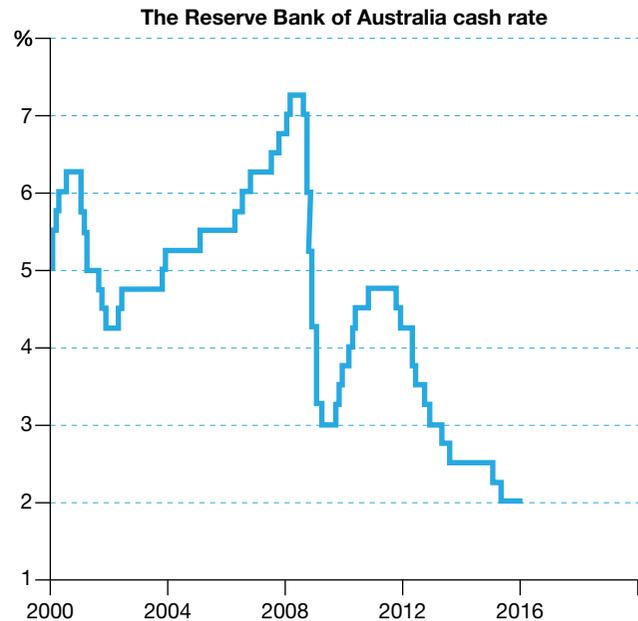
RBA, Statement on Monetary Policy, February 2016.

16.8.1 In 2008 and 2009 the cash rate fell rapidly in Australia when the global financial crisis led to fears of falling economic growth and rising unemployment

Variable or fixed rates

Interest rates on a loan can either be variable or fixed. A **variable rate** changes whenever the bank's interest rate changes. A **fixed rate** means that for a set period of time, often 1, 3 or 5 years, the interest rate will remain the same. For example, a consumer may choose to fix their mortgage rate for 5 years so they know exactly what their repayments will be over that period, protecting them against any interest rate increases. However, this certainty must be balanced against the possibility that interest rates could fall during the fixed period, leaving the borrower worse off with their interest fixed at a higher rate.

Fees and charges

Aside from interest payments, there are many other fees and charges that are associated with financial transactions. If you are applying for a loan, you may have to pay an application fee, with no guarantee that your application will be successful. Products such as credit cards and mortgages often have annual fees. Early withdrawal of funds from fixed-term investments or paying off a loan early may lead to additional charges. Overdue payments can attract penalty interest rates, as well as affecting the borrower's credit history. When evaluating financial products, consumers need to make sure they are aware of all the fees and charges related to the product, because these contribute to the true cost of the arrangement.

16.8.2 One cause of the global financial crisis was that low-income households in the USA had to start paying higher interest on their mortgages

The degree of risk

Taking out a loan involves some degree of risk. If the consumer can't repay the loan, they are likely to lose the assets associated with that loan, as well as receiving a bad credit history and experiencing significant stress. For example, if a consumer can't repay their mortgage, they may be forced to sell their house, make difficult changes to their spending patterns, and even be declared bankrupt. Bankruptcy means being legally declared unable to pay debts. The person may lose their assets as banks try to regain some of the money owed to them.

Many financial advisors consider that a household is experiencing mortgage stress if the borrowers are spending more than 30 per cent of their salary on repayments, especially if they are earning a lower income (less than $50 000 per year). This means that they are very vulnerable to any negative change in their circumstances—for example, if interest rates rise or household income falls.

16.8.3 According to the Australian Bureau of Statistics, housing costs as a proportion of household income before tax have been roughly constant over the last 20 years

	1994–95	2013–14	2015–16
Owner without a mortgage	3%	3%	3%
Owner with a mortgage	18%	18%	16%
Renter	19%	20%	20%

Investment risks

Investment products also have an element of risk. Investing, whether in shares, real estate, managed funds or other areas, does not guarantee an income. An investment may lose value, particularly if the general economic conditions are poor. If the consumer has borrowed money in order to purchase this investment, the risk is doubled because there is the risk associated with repaying the loan, as well as the risk of uncertain returns from the investment.

Diversification

One of the key principles for managing risk when investing is called **diversification**. This means spreading investments across several different areas to reduce the extent to which the investor's income depends on any single source. If one source experiences difficulties, for example if mining shares are not performing well, the diversified investor has other sources of income beyond the mining industry, which will be unaffected.

16.8.4 Diversification across various investments has less risk than having all of your money in just one type of investment

16.8.5 A stock exchange, such as the Australian Securities Exchange (ASX), is where shares in companies can be bought and sold. The share market can be very volatile, meaning trading shares carries a high level of risk, but it can also have a high level of return.

Mortgages and credit cards

Mortgages and credit cards both allow households to borrow money, but these two forms of debt are structured differently. A mortgage usually has a duration of 25 years or more and relates to a specific property. If the household is experiencing severe mortgage stress, the property can be sold to raise money to pay off the loan.

A credit card is designed to finance short-term purchases. The financial institution will check an applicant's credit history before issuing a credit card, but the card is not attached to any specific asset owned by the customer. This means that a credit card is usually a riskier undertaking for the financial institution than a mortgage, and therefore it will have a higher interest rate.

It is a good idea to regularly review all aspects of a household's finances, as the investments and loans selected some time ago may no longer be the best way to meet the household's needs.

16.8.6 A credit card is a common way for customers to borrow money so they can spend more than they have at a particular time. When making a purchasing decision, the high interest rates charged for credit card purchases must be considered as part of the product price.

Attitudes to risk

Attitudes to risk tend to vary as we age. Typically, the closer a person is to retirement, the more risk averse (wanting to avoid risk) they become because they have less time to make up for any losses before they retire. This means they are less willing to engage in risky behaviour than when they were younger, which affects both the type of investments they purchase and the loans they take out.

It is important to note that different people have different attitudes to risk, even within the same age bracket. Some people may be highly risk averse even at a young age, reluctant to borrow even small sums of money, while others may be willing to engage in very risky projects at advanced ages.

16.8.7 Getting into debt can be a productive way to make your money work for you. Financial literacy skills need to be taught from a young age so that people are comfortable managing debt.

Did you know?

Global financial crisis

Widespread use of initial interest-free periods on mortgages in the United States of America was one cause of the global financial crisis of 2007–08. Many very low-income households that would normally be considered a very high credit risk were offered mortgages with significant interest-free periods, which means that no interest was charged on the loan for an extended time. When they had to start making interest repayments, the borrowers could not afford them and many defaulted on (failed to pay) their repayments. This caused both significant human suffering as families lost their homes, and financial difficulties for banks that were losing large amounts of money.

Activities

Remembering and understanding

1 Define 'investment' and 'liability' and explain the difference between them.
2 Who sets the Australian cash rate?
3 Describe three consequences if a consumer cannot repay their loan.
4 What is a credit card designed to do and why do credit cards have a high interest rates?

Applying and analysing

5 Explain why someone with a poor credit history may have to pay a higher interest rate when they borrow money.
6 Suggest why attitudes to borrowing money change over a person's lifetime, and give examples. What effect might these attitudes have on financial planning?

Evaluating and creating

7 Create an A4 brochure explaining how credit cards work and their usefulness for young adults, such as university students and those entering the workforce.
8 Research the global financial crisis and evaluate the actions of the banks involved. List the strengths and weaknesses of the banks' actions and develop a conclusion based on the points you have made.
9 Business ethics refers to whether the actions of the business reflected the moral principles of society at the time.
    a Research a controversial issue involving a big Australian bank.
    b Use newspaper articles to identify at least four quotes that make important points. Remember to use quotation marks and cite your references.
    c Include the perspectives of at least two key players, including someone representing the bank and someone representing consumers.
    d Evaluate the bank's behaviour. Based on what you have found, was the bank ethical or unethical? Justify your conclusion.

Money management—financial advice reports

Financial advisers offer professional advice on how people can invest their money to maximise their return (personal profit).

Imagine you are a financial adviser. Complete the following activities to compile a report that recommends investment portfolios to various clients.

Investment options

1 Complete a table summarising the benefits and risks of each of the following types of investment.

Investment type	Definition	Benefits	Risks
bank accounts			
managed funds			
shares			
property			
international investments			

Client profiles

1 Select two of the following client types and complete the table to give their profiles more detail.

Client	Age	Employment	Living arrangements	Preferred level of risk (high, medium, low)	Name/s	Additional details of your choice
married couple without children	early 30s	full-time	renting an apartment			
single schoolteacher	25	full-time	lives at home with parents			
retired couple	late 60s	retired	own their house			
business person	middle-aged	earns $120 000 per year	lives alone and owns an apartment			
family	parents 40 and 36 children 17, 13, 10 and 2	one parent full-time, one parent part-time	paying a mortgage on the family home			

Financial advice

1 Consider the characteristics and needs of each of the clients. It may help to discuss this with a partner. In particular, think about the level of risk each client may be willing to take to get a return on their investment. Write a paragraph discussing who can afford to risk some of their money and who can't, and explain why.

2 Link a suitable investment option to each client. Base your recommendations on the associated benefits and risks as well as the other client characteristics listed in your table. You may use any of the available options, more than once if appropriate, but you must justify why you have chosen that investment for that particular client.
Use the following sentence format:

A suitable investment for the (client) is (investment option) because …

3 Predict the likely outcome for each of the clients if they take your advice. Suggest appropriate future courses of action for each client to further grow their investment returns.

16.9 Managing debt

Sources of debt

An individual is said to be in debt if they owe money to another person or business. Common sources of debt include mortgages, car loans, student loans and credit cards. The Australian Bureau of Statistics reports that the average Australian household has debt of nearly $200 000. Given that the average household income is about $1000 per week, this debt represents a substantial burden that would take many years to repay. In fact, in 2018 the ratio of household debt to disposable income grew to 200 per cent, making it one of the highest in the world.

Types of household debt

other debt (5%)
car loans (2%)
credit cards (2%)
study loans (2%)
loans for investment properties (33%)
mortgages for the family home (56%)
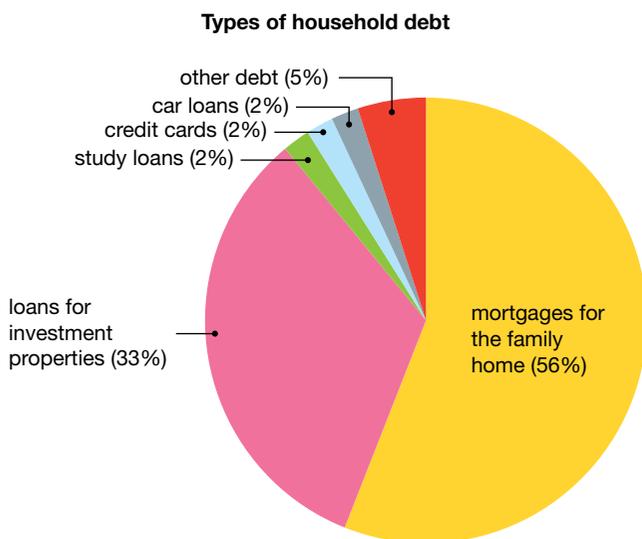
16.9.1 Mortgages and loans to purchase investment properties are the largest sources of household debt in Australia

Risks associated with debt

When householders take out a loan, they sign legal documents agreeing to repay the loan within a particular time. They also agree to pay interest on the money they owe. If the borrower's income falls, it may be more difficult for them to repay their debts and so they may need to make difficult decisions about cutting back on other spending. Even if the borrower's income does not change, the interest rate on the loan could rise and make it more difficult for them to repay the loan. Potential borrowers need to carefully consider whether they have a sufficient safety buffer in their finances to be able to manage their debts if their circumstances change.

In the worst-case scenario, if a borrower is unable to pay at least the interest on their loans, the financial institution may take legal action to seize some of the borrower's assets.

Aside from the stress and anxiety this can cause for the borrower, it can also have a lasting effect on their credit rating, making it more difficult for them to take out new loans in the future.

Can debt be good?

Good debt

Under some circumstances, borrowing money can be a sensible decision. Essentially, whether a loan represents 'good' or 'bad' debt depends on how the borrowed money is used. If the money is used in ways that will help the household make its repayments in the future, debt can be positive. For example, many households assume when they take on a mortgage that the value of their home will increase over the period of the mortgage, raising the household's wealth and making it easier to afford repayments.

Using the federal government's Higher Education Loan Program (HELP) to pay for post-secondary education can be another good debt. Completing higher education is likely to increase the student's ability to earn income in the future, making it easier to pay back the loan.

Bad debt

Loans that are used to pay for current spending that will not help generate additional income in the future are considered bad debt. For example, borrowing money to go on an overseas holiday allows the household to enjoy the holiday but it does not leave any lasting benefit that will help repay the loan. Financial institutions often charge higher interest rates for these loans because they are not linked to long-term assets that could be sold to help the borrower repay the money.

Did you know?

Household debt is rising, especially mortgages. According to the Australian Bureau of Statistics, the number of households in debt has not changed much in the last decade (around 74 per cent) but the amount they owe has nearly doubled—increasing from $94 100 in 2003–04 to $168 600 in 2015–16. Nearly a third of Australian households are managing a debt more than three times the value of their annual disposable income. This means that after the bills have been paid they may have no extra money to spend at all.

Managing debt

One of the key principles of managing debt is that the borrower should understand exactly how much money the household owes and how much the repayments are. Because of the way interest is calculated, making small repayments frequently will usually reduce the total amount owed more effectively than making larger repayments less often. In many cases, making even small additional repayments above the minimum required amount can make a significant difference to the total amount of interest paid over the life of the loan.

When a household has multiple debts, it may be appropriate to prioritise the repayment of one loan, while paying just the minimum amount required on other debts. For example, the borrower might choose to focus on first repaying the debt with the highest interest rate. Alternatively, it may be possible to roll several different debts into one loan. While there are fees associated with doing this, it can help simplify the borrower's finances and reduce the possibility of missing a repayment.

Activities

Remembering and understanding

1 Define the term 'debt'.
2 What is the average debt level in Australia?
3 Define the term 'interest' as it applies to debt.
4 Illustrate the worst-case scenario for a home owner who is in debt and cannot meet their repayments.

Applying and analysing

5 Examine the difference between good debt and bad debt.

Evaluating and creating

6 Assess some of the advice that is available online to help consumers manage debt. Report on what you found and where. Could some of this advice end up costing consumers more in the longer term? Justify your conclusion.

16.9.2 Buying a home can be a very good investment but it can also result in considerable household debt

Protecting yourself

Getting out of debt

Before you can get out of debt, you first need to examine exactly how much debt you are in. Careful financial record keeping over time will make this process much easier. Consider all of your current debts and work out your current liabilities (expenses you must pay, regular and once-off payments). If it is possible to make payments on your debt, the best course of action is to pay it off as soon as possible to avoid extra interest. When covering multiple debts, payment should be made on the debts with highest interest rates first.

Paying a mortgage fortnightly instead of monthly allows you to make one extra payment per year, helping to more quickly reduce your debt. Some people elect to have their wage paid directly into their mortgage account and then redraw (take out) only what they need for living expenses. This means that all extra income stays in the loan account and that the mortgage, which is often the highest regular bill, is paid first. It also contributes to paying off the overall debt sooner.

Sometimes having multiple debts gets confusing, trying to remember how much is due to whom and when. Because of multiple fees and charges for different loan products, the debts might be more expensive than necessary. A solution is to consolidate your debt into one product that has terms and conditions you can meet. This is known as refinancing. For example, a credit card debt and a car loan could be covered by a new personal loan that has a lower interest rate and more favourable terms. Check first whether there are any early payment penalties or other fees and charges and add those to the overall amount to be paid.

Another solution is to approach the organisation you have borrowed money from and negotiate new terms for the loan. It could be at a lower interest rate, have less fees, have manageable instalments, or be spread over a longer term so that regular payments are less. With a long-term loan, be sure to check that the overall final amount will not be more than what the debt would have been with a higher interest rate for the shorter period of time.

Large banks understand that consumers will shop around for the best deal, so they are sometimes willing to vary loan conditions to keep a customer. Banks also want their loans to be repaid, and so they might be willing to renegotiate if it is the best way to ensure the borrower does not get into financial difficulty.

Once you have paid off a credit card, cut it up and close the account, otherwise you may still be charged fees, and you might be tempted to use it again. If your debt is getting out of control, the important thing is to communicate with the lender as quickly as possible, because unpaid bills simply increase a debt that you are already struggling to pay.

Insurance

Every year, over 1 million Australian workers find themselves unable to work to earn an income. To ensure that your lifestyle is maintained, you can purchase insurance services such as income protection insurance. If you are unable to work because of illness or redundancy, income protection insurance will pay you a percentage of your income for an agreed period. You can also get credit payment insurance, which ensures any credit debt is covered during periods of ill health, financial difficulty or death. These types of insurance are especially suitable for people who are self-employed or strongly reliant on their income to support the living standards of themselves or their dependants. Of course, insurance products can be expensive and you may never need to make a claim, which means you will not benefit from the payments you have made over time.

16.10.1 Pet insurance can help you avoid unexpected major expenses

Protecting older Australians

To protect against financial hardship experienced by elderly people, the Australian Government established the superannuation system. Superannuation means that people will have enough money to continue to earn an income after they have finished their working life. Employers must contribute 9 per cent of an employee's salary to their superannuation. Workers have the option of making their own superannuation contributions. Workers can usually choose where and how their superannuation is invested and can even manage their own funds.

There are various restrictions about when you can access your superannuation. Generally, if a person is not retired, they have to be over 65 to access their superannuation. This is predicted to be lifted to 70 years old by 2035. To further ensure financial support for older Australians, the government provides welfare in the form of the aged pension.

Savings

Saving money helps to protect us against an unpredictable future. Personal savings provide a buffer to help us pay for unexpected financial expenses and help us to reach our financial objectives. Being able to access your own money means you won't need to rely on government welfare or community services to cover your living expenses. Having a savings plan is an important first step in setting short-term and long-term financial goals. Becoming financially independent means having the freedom to spend your

16.10.2 Superannuation works as enforced savings, so that when we finish our work life we can still have an income to buy the things we want and need

money as your choose. This is a key milestone in becoming a contributing and independent adult in society—this is something that many people work towards and that makes them proud. Being financially stable also guards against the stress of living from pay cheque to pay cheque and never knowing when bills might come that you cannot pay. Making a financial plan and sticking to it contributes to a good quality of life.

Types of savings accounts

Two common types of bank savings accounts are standard savings accounts and term deposits.

Standard savings accounts could be more accurately called transaction accounts, because they are meant for everyday transactions such as receiving wages and paying for shopping. You can access the money you have deposited in these accounts at any time. Standard savings accounts do not offer much incentive to save money because their interest rates are very low—sometimes lower than 1 per cent. This means that savings deposited in standard savings accounts cannot earn much interest. Some student accounts have special deals to encourage regular savings, so shop around for the product that suits your situation and will earn you the most money in the shortest time.

Term deposit accounts earn more interest, currently around 2 to 4 per cent. You can only access the deposited money at the end of a set period of time (often 3, 6, 12 or 24 months). If you know that you will not need to access your money for a while, a term deposit account could be a good choice because it guarantees a set return at the end of the time period. This will also protect your money against any unexpected negative financial events.

Getting help

Money management terminology can be confusing, and there are so many products in the marketplace that you may need to ask an expert for assistance. You may be looking for help setting some appropriate savings goals, or you may need advice about legal requirements such as superannuation contribution limits. One time to definitely get independent legal advice or see a financial counsellor is before you make any refinancing decisions. You want to ensure that you financial situation improves and does not get worse.

Community centres offer free financial counselling, and there are many free web-based resources such as the MoneySmart website. There also debt negotiator services that have expertise in negotiating debt reductions with banks. Be sure to check their conditions carefully—although some operate on a 'no win, no fee' basis, others may charge expensive fees.

If you have difficulty with a financial institution you can contact the Financial Ombudsman Service. This a free service that helps resolve disputes between consumers and financial institutions. The staff will answer queries and investigate financial organisations to ensure they are complying with the law and respecting your rights.

16.10.3 Good money management needs to be practised from early on

16.10.4 Money management does not have to be complex— you can use simple categories such as one jar for saving, one for spending and one for giving

Did you know?

In 20016, Finder.com.au® surveyed more than 2000 people about credit cards. The research found that by the age of 25, over 55 per cent of people have a credit card. Females were twice as likely as males to have a credit card by the age of 18. Credit card use, especially for major purchases such as travel, can have long-lasting repercussions if the debt is not repaid. Debt can damage the cardholder's credit history and affect the success of future loan applications.

Activities

Remembering and understanding

1 What is the first step when trying to manage debt?

2 Describe three approaches to get out of debt.

Applying and analysing

3 How does the Australian community benefit from our system of superannuation?

4 Suggest a scenario where it would be more suitable to choose:
   a a standard savings account
   b a term deposit account

5 Make a savings plan that suits your current circumstances. How much can you actually save and when? For example, weekly allowance time, around Christmastime or birthdays. Estimate how much money you could potentially save in a year if you only spent on the bare necessities.

Evaluating and creating

6 Create an informative poster or digital infographic aimed at young people. Choose from one of the following topics:
   a how to get out of debt
   b insurance
   c superannuation
   d savings
   e financial issues affecting young Australians
   f how to get help with personal finances. Display your work in the classroom to educate others.

7 Introduce a family savings plan at home by setting up a system of three jars: one each for saving, spending and giving. Family members contribute by agreeing to forgo items such as luxury foods, entertainment or technology upgrades. The money saved from the reduced family expenditure is distributed equally among the jars. Agree to a time frame and set a goal to see how much you can save together when you work as a team.

LS↗ 16C
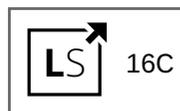
Enterprise and expense

17

The workplace gives people the opportunity to develop and display their skills. People who have good ideas and show initiative in the workplace may go on to open their own business. To build a business requires a person to understand and apply business skills. If business skills are applied in clever ways, the person may become an entrepreneur. Many people can run businesses, but only a few people are truly entrepreneurial.

When setting up and running a business, a business owner needs to make choices. Spending money and making decisions involve consequences. This means that having financial discipline, understanding cash flow and managing major purchasing decisions are all important business skills.

OVERVIEW QUESTIONS

17A What is entrepreneurship and how does it relate to business?

17B How can people develop the skills required to successfully run a business enterprise?

17C What factors need to be considered when making a major purchasing decision?

17D How can the financial consequences of choices or decisions be managed?

LS↗ Before you begin

17.0.1 Walt Disney (1901–1966) is an entrepreneurial icon. His animation studio was wildly successful, but he was determined to make the biggest and greatest theme park ever seen. He founded the theme parks Disneyland® and Walt Disney® World. Disney was one of the biggest entertainment moguls of all time, with an unrelenting spirit and commitment to his vision.

GLOSSARY

consequences the natural result of an action taken

cost-benefit analysis a process of comparing the financial costs and financial benefits of a business decision; this can also assess the social costs and social benefits

enterprise a complex activity; another word for a business or company

enterprising applying enterprise behaviours such as the ability to sense and seize opportunities

entrepreneur a person who applies entrepreneurial skills including vision, discipline, risk-management, problem-solving, interpersonal skills, critical and creative thinking

entrepreneurship the ability to apply entrepreneurial skills

expenses costs associated with running a business

financial management managing a business's finances by keeping track of its income and costs

networking forming relationships with other businesses, suppliers and customers for the benefit of the business

process improvements redesigning how work is done within a business for better efficiency and productivity

promotion the process of attracting customers and persuading them to buy products and become loyal to the business

risk the possibility of incurring a loss or experiencing business failure

17.1 Entrepreneurship

Many people run a business successfully. The general purpose of running a business is to generate a profit. The majority of business owners try and grow their businesses with a view to increasing profit over time. However, competition, changing markets and other factors can make it difficult to continually make a business more profitable.

Entrepreneurial skills

Entrepreneurs are people who can generate very significant profit through their approach to business and problem-solving. An **entrepreneur** is a business owner who has entrepreneurial skills and qualities. These include vision, discipline, risk-management, problem-solving, interpersonal skills, and critical and creative thinking. Entrepreneurs use inputs and organise resources to generate a profit while managing risks. **Entrepreneurship** involves the use of entrepreneurial skills and qualities in business.

Vision

An entrepreneur can always see possibilities and ideas for products and processes that can be applied to make a highly successful business. This ability is called vision. The entrepreneur needs to be able to communicate their vision so that other people will engage with the business idea and put their energy into achieving it.

Discipline

Entrepreneurs do not need to be told what to do—they are motivated by their own ideas and vision. They understand the relationship between hard work and success. Entrepreneurs are prepared to spend many hours over an extended period of time to grow their business and achieve their business goals.

Risk management

Risk management is a very important skill for entrepreneurs. **Risk** is the possibility of incurring a loss or experiencing business failure. If a business loses money or fails, the entrepreneur could face personal debts. Entrepreneurs are courageous and will trust their decisions. They also know how to manage risk so that the negative **consequences** are minimised. Entrepreneurs manage risk by making well-considered decisions, working with others who provide finance, and making strong plans for business success.

Problem solving

Business involves decision-making. In order to make appropriate decisions, entrepreneurs need to be able to solve complex problems where there may be competing priorities. A further complicating factor involves managing time when making decisions. Sometimes an entrepreneur cannot wait to deeply consider a problem—they have to be quick to understand the issue and also the implications. Entrepreneurs can quickly leave lost opportunities because they know there will always be more opportunities. They do not dwell on what has gone, but instead focus on what can be.

An example of this kind of problem is whether to invest in the latest technology. An investment in technology can be risky because new technologies have sometimes not been fully tested in the context of a business. To not invest in technology can mean the business may get left behind. Another example is whether to outsource an activity to another company. If an activity is outsourced, the business may find that it loses control over quality. The decisions here carry risk and need to be made in a timely manner. Entrepreneurs need to manage decisions like these often and will generally make good choices.

Interpersonal skills

Entrepreneurs need to be able to communicate their vision to others so that all the people in the business are working to achieve the same goals. Understanding how to motivate others through creating a shared vision is an important skill. Entrepreneurs need the capacity to understand staff and their feelings. Empathy, which is the ability to fully understand and articulate other people's feelings, is extremely important. An entrepreneur will also know each staff member's weaknesses and will ensure that other people in the business have strengths in those areas.

Critical and creative thinking

Critical thinking and creative thinking are distinct but complementary skills. Critical thinking involves analysis, evaluation and interpretation. Creative thinking means that a person can synthesise (combine) ideas, generate new ideas and act on intuition. When entrepreneurs are faced with problems, they will apply a mix of critical and creative thinking skills to find the best solution.

17.1.1 Some important entrepreneurial skills

In business, risk is inherently (inseparably) linked with reward. The greater the risk a decision carries, the greater the potential reward. This can be seen when innovators spend a lot of money to create a new product. If no one buys the product, there will be massive financial losses. If the product is very popular, the entrepreneur may achieve extremely high returns.
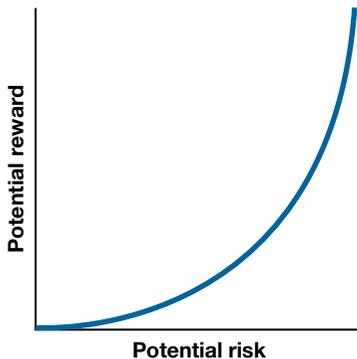
17.1.2 Risk and reward are often related

Activities

Remembering and understanding

1 What is an entrepreneur?
2 List six entrepreneurial skills.
3 State the general goal of business owners.
4 Define the term 'risk'.
5 Outline the importance of risk management.

Applying and analysing

6 Analyse the importance of problem-solving as an entrepreneurial skill.

Evaluating and creating

7 Evaluate the entrepreneurial skills and place them in order of most to least important. Explain the reasons for your ranking.

17.2 Let's get enterprising

The term 'enterprise' has many applications in business studies. **Enterprise**, at its heart, means a complex activity. Often a business is called an enterprise, meaning that it is operating under complex circumstances and solving problems in market. A business enterprise does this by providing products (goods and services) to the market that people want and at prices they can afford. People who run businesses need to demonstrate the skills associated with enterprise. Enterprise skills can significantly improve the way that workplaces and businesses operate.

Enterprising behaviours

Behaviours are the things that people do. The habits and activities of workers and how they conduct themselves will directly affect the productivity of a workplace.

Enterprising behaviours are important to setting up, growing and managing a business, particularly when the business operates in a competitive market. A key difference between the businesses that are successful and those that are not is the quality of skills and behaviour demonstrated by its staff.

Enterprising behaviours include:

➤ sensing and seizing opportunities
➤ taking responsibility
➤ making connections between people and between ideas
➤ researching and creating solutions
➤ remembering important ideas.

Sensing and seizing opportunities

An entrepreneur must be aware of opportunities if their business is to adapt and grow. Opportunities will come to a person who observes the market and is aware of emerging trends, who listens closely to what customers say and who thinks about how to make people's lives easier by solving problems. The passenger drone shown in Figure 17.2.1 is an example of how sensing and seizing opportunities can totally shape an enterprise.

17.2.1 The Ehang 184 model drone on display at the Consumer Electronics Show (CES) in Las Vegas, Nevada, in 2016. Controlled by a tablet computer, this is the world's first passenger drone.

Taking responsibility

Being able to take responsibility is an important skill. It is common for people to blame others when things do not go to plan, or to invent excuses for why something occurred. An important enterprising behaviour is owning up to mistakes or errors. By taking responsibility, a person invites growth. This means they shape their character around openness and honesty. In a business, customers and other staff respond well to someone they feel they can trust. If people are negatively affected by a decision, the decision-maker should take responsibility by apologising and changing how things are done. In a business context, this behaviour creates loyal customers and sustained growth.

Making connections between people and between ideas

People who are always thinking about their work are always open to learning and connecting new ideas. This means connecting seemingly unconnected things. For example, it took some imagination for staff at Amazon® to consider that drones could be used to assist in product deliveries. It takes imagination to think of designing drones that can transport people (see Figure 17.2.1), in competition with taxis and ride-sharing services.

Making connections between people in different industries and professions can be a significant source of inspiration for new ideas. For example, scientists can use biometric data to read and map human faces—banks and other secure businesses can adapt this technology to improve security.

Researching and creating solutions

Being able to research or create solutions to problems is an important enterprising behaviour. Online research can be quite complicated because search results on popular search engines are affected by paid site boosts. When businesses pay search engines such as Google® and Yahoo!® to boost their searchability, this can make it hard to finding the information or articles we are looking for. It is important to develop good research and critical reading skills so that we can find information and assess its usefulness and validity.

We can also design solutions to problems. Creating solutions to problems in business can be tricky. Consider the development of the waterproof smartphone, which lead to the problem of phone batteries overheating. To address this problem, Samsung redesigned its batteries and also created an eight-point safety check. This creative solution refocused customers' attention on safety and away from the original problem of the overheating batteries.

Remembering important ideas

Sometimes an idea can be ahead of its time. That is, a person has a good idea but the technology is not advanced enough to be able to support the idea. Another enterprising behaviour is keeping these ideas alive, so that when the opportunity is right, the business can act on them.

Improving enterprising behaviours

There are important steps that a workplace must follow if it wants to improve enterprising behaviours (see Figure 17.2.3).

17.2.2 Biometric data can be used by businesses that require security
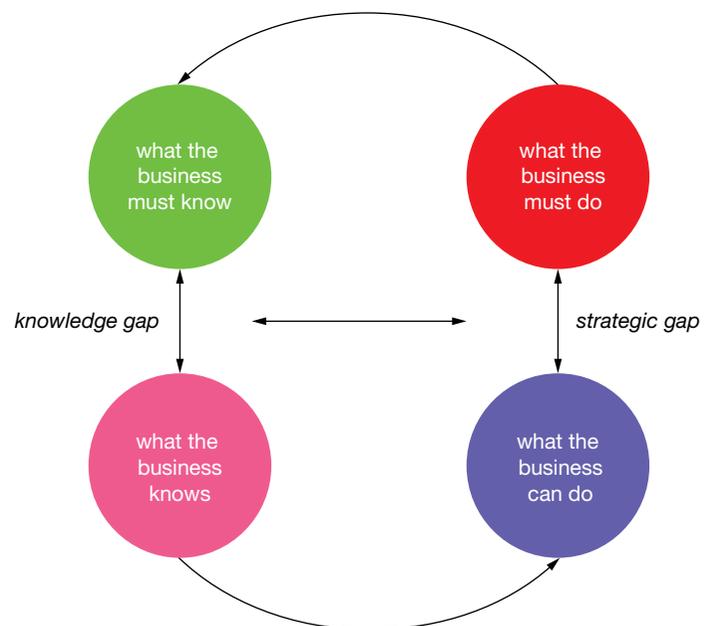
17.2.3 A gap analysis can be used to identify which enterprising behaviours need to be improved

The first step is to identify the various enterprise behaviours that the business requires. Next, an audit is conducted of the present behaviours of staff. The difference between the enterprising behaviours the business needs and the staff's actual behaviours represents a competence gap. This gap needs to be analysed so that the business can put a plan in place to address it. This plan should identify the training that the staff will need to help shape their skills and attitudes to achieve the desired enterprising behaviours.

Planning for improvement

Using the gap analysis, a business can design a plan for improvement. Improvement will not be immediate. It takes time for skills to be targeted and for people to accept that they may have certain skills limitations or weaknesses. This is important, because in any process of change there has to be an understanding of the time it takes for people to adapt and learn new skills.

Planning for improvement includes measuring improvement and change. Various measures can be used to determine whether people's skills have improved and that they are demonstrating productive and enterprising behaviours. For example, a business can measure the number of good ideas suggested by staff that lead to increased sales. Alternatively, a business can measure how often a staff member's contact with a customer leads to a sale. These metrics (measures) are significant to any business.

Process improvements

An important enterprise skill is being able to improve the business's processes. **Process improvements** involve redesigning how work is done within a business to ensure the greatest efficiency and productivity. This improvement should be continuous. To focus on continual improvement is an important enterprise behaviour, because it means the business is finding ways to operate more effectively.

Improving organisational capability

Process improvements and the other enterprising behaviours aim to improve organisational capability. This means that the business can meet customers' needs more easily, and also that a customer's experience of the business is a positive one. It also means that for suppliers and employees, the work processes within the business are ordered, smooth and clear.

Targeted training and development (T&D)

Most businesses wanting to improve the capabilities of employees will require planned and targeted training and development (T&D) programs. To properly develop the enterprise behaviours that the business needs, the training and development needs to be matched to the skills gaps that have been identified.

17.2.4 Targeted training and development programs can boost organisational effectiveness

Training can be done within the business as in-house training, or it can be done at a conference centre or other off-site location. One of the benefits of in-house training is that staff can learn new enterprise skills and practise them immediately in the context of their work. It is important that training is reinforced through practice and repetition because this means it will be more effective.

Development is a form of training that is targeted towards future work needs. Here the focus is on what the person's work will involve in the future, such as at the end of the year or after a change to the structure of the business.

Activities

Remembering and understanding

1 What is enterprise?
2 List five enterprising behaviours.
3 How can workers and business owners demonstrate that they take responsibility when dealing with customers' problems?
4 Researching problems arising in a business and creating solutions for them is an important enterprise behaviour. Why is it important?

Applying and analysing

5 What is the relationship between vision and the skill of sensing and seizing opportunities?
6 Why are plans important for creating improvement in a business?

Evaluating and creating

7 Evaluate the importance of training and development to the improvement of staff in a business. Create a poster that shows the benefits of training and development to both the individual and the business.

LS↗ 17A
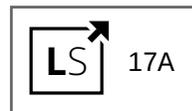
17.3 Building business skills

Business skills are significant to the successful operation of an enterprise. Particular skills are required to ensure that income is earned from sales, and that **expenses** (costs) are managed.

The main business skills required to build a successful enterprise are:

➤ financial management
➤ capturing a market and selling
➤ communication skills
➤ organisation and planning (including time management)
➤ networking.

Financial management

Business owners and managers must understand the relationship between sales income, expenses and profits. In order for a business to generate profit, the income from sales must be greater than all of its expenses. In order to keep track of income and expensives, business owners need to have financial management skills. **Financial management** involves keeping proper financial records, being able to distinguish between cash flow and profit, understanding financial reports and making decisions to control finances as required.

Capturing a market and selling

A business needs to be able to sell its products to the designated target. The target is the segment of the market (group of consumers) that the business wants to sell to.

First, business owners need to know who the targets for the products are. Second, the business needs to have the skills to sell to those people. **Promotion** is an important business skill. It involves attracting customers and persuading them to buy products and become loyal to the business.

Communication skills

Communication requires a person to be able to clearly articulate their ideas and plans to others in a way that they can be understood. Well-developed verbal communication skills and effective written communication skills are both important in business. To be an effective communicator, you need to understand that communication is not a one-way process. Rather, it involves all parties making an effort to understand one another to ensure that what is communicated is understood in the way it was intended.

For a business owner, the style of communication will vary depending on who they are dealing with. Formal negotiations with suppliers will require a different style of communication from building a rapport with customers. Another style of communication is used with staff, to ensure they understand the plans, strategies and ethos (characteristic spirit) of the business.

Traditional

sender	→	message	→	receiver

Modern

sender	↔	message with a context including culture, language and meanings	↔	receiver is an active maker of meaning
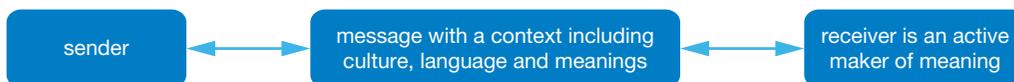
17.3.1 The nature of communication skills—traditional and modern

17.3.2 Organisation and planning are essential management skills for business leaders

Organisation and planning

All good business leaders are well organised and able to follow a plan. Organisation brings predictability, certainty and order to business processes. Organisation determines how things are done, while planning guides what is done and when. Both organisation and planning are necessary skills to effectively control a business.

Networking

Networking involves forming relationships with other businesses, suppliers and customers in order to benefit the business. Networking is an important business skill for building a reputation and making people aware of what the business does. Networking can create opportunities for the business, and it also allows business owners to support, advise and share with each other.

Activities

LS 17B
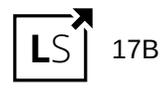
Remembering and understanding

1 List five important business skills.
2 How is cash flow different to profit?
3 What does promotion involve?
4 What is the difference between planning and organisation?

Applying and analysing

5 Analyse the importance of networking as a business skill. In what type of industries or organisations is networking especially important for success? List three that you can think of.

Evaluating and creating

6 Evaluate the following statement, demonstrating the importance of what a business communicates to its customers. *Communication misunderstandings are the fault of the business owner.*

One way to build business and entrepreneurial skills is by applying these skills to actual business problems. A significant issue affecting the financial management of a business is making decisions about major purchases. Many businesses invest in technology such as computers, mobile phones and printers. They may also invest in production equipment, tools and motor vehicles. Some businesses will even consider buying premises to operate from.

Learning to make the best financial decisions

Significant financial decisions require business owners and managers to evaluate options and alternatives so that the best choices are made. Consider the example of office furniture. Furniture can be leased or it can be bought. Leasing means that a business can use the furniture without owning it—instead, it makes regular payment for the use of the asset. The option to lease has no upfront cost but ongoing monthly payments. The option to buy has a big initial cost and then no further costs. In this example, the cost of the office furniture is a few thousand dollars, but other purchasing decisions can involve much higher amounts.

Major personal purchases, such as buying a car, also involve complex financial decisions.

Buying a car

For most people, a new motor vehicle is generally the second largest purchase (after property) that they will make in their life. Major purchasing decisions, such as whether to buy a new car, can be made more easily if financial decision-making tools are used. These tools include:

➤ cost-benefit analysis—to buy or to lease?
➤ assessment of borrowing costs and interest rates.

Cost-benefit analysis—lease or buy?

Whether a person decides to buy or lease a new vehicle, each option involves its own particular costs. A **cost-benefit analysis** compares the financial costs and the financial benefits of each option. A cost-benefit analysis helps with making financial decisions. Here we will evaluate an example of a person leasing or buying a new motor vehicle, using an analysis of the costs and benefits of each option.

17.4.1 Buying a new car is usually the second-largest purchase a person makes in their lifetime

Leasing costs

The cost of a 5-year lease for the new car is as follows:

➤ car value: $25 000
➤ residual value: $5000
➤ monthly payments: $462.93 for 5 years (equals 60 months)
➤ interest rate: 13 per cent per annum.

The total amount spent is: $462.93 × 60 = $27 775.80.

Buying

The costs of buying the motor vehicle include the actual cost of purchase, as well as the costs of registration, insurances and taxes such as stamp duty. After the car has been purchased and is then being used, there will be maintenance and repair costs (servicing costs). These have not been considered in the summary of costs below.

Buying a motor vehicle	Costs
purchase price	$25 000
registration costs	$350
insurances • compulsory third party • comprehensive insurance	$370 $900
stamp duty	$350
Total upfront costs	**$26 970**

In this analysis, the cost of the lease over five years is more expensive than the cost of buying the car upfront. But there are other costs associated with buying the car. Each year the owner has to pay for registration and insurances. This means that the annual cost of owning the vehicle will be higher than the leasing costs. The person who buys a car will also have to pay for any repairs and maintenance. In both cases the person will pay for fuel and cleaning.

Financial benefits

Either buying or leasing the car will cost money. Both choices also return some financial benefits. These benefits include the following:

➤ either buying or leasing a car saves on alternative transport costs
➤ if buying, the person does not have to pay monthly lease costs
➤ if leasing, the person does not have to pay for annual registration, servicing and insurance costs.

In this example, there is greater initial benefit from buying but greater ongoing costs over the longer term.

Borrowing money to finance a purchase

If a person wanting to buy a car has not saved enough for the total purchase price, they will need to borrow money. In this analysis we will look at how to calculate the costs of funding a purchase when a loan is required. Look closely at the following example.

Jessica's new car

Jessica wants to buy a new car which costs $28 000. She has saved $4000 and needs to borrow the rest. She goes to three different car dealers and each offers different terms.

➤ Car dealer 1—$4000 deposit and the balance (amount remaining) to be paid in monthly instalments of $500 over 5 years.
➤ Car dealer 2—$4000 deposit and the balance paid in fortnightly instalments of $240 over 4 years (26 fortnights per year).
➤ Car dealer 3—$4000 deposit and the balance paid in weekly instalments of $115 over 6 years (52 weeks per year).

17.4.2 Loans are often used to finance the purchase of a car

17.4.3 Evaluating Jessica's car purchase options

Car dealer	Deposit	Term (years)	Payment regularity	Number of payments	Repayment amount	Total repayment amount
1	$4000	5	monthly	60	$500 per month	$30 000
2	$4000	4	fortnightly	104	$280 per fortnight	$29 120
3	$4000	6	weekly	312	$115 per week	$35 880

Jessica needs to know which of the options is best, and what the effective cost of purchase is in each case. The calculation is shown in Table 17.4.3.

When the deposit is included, the costs of each option are as follows:

➤ Car dealer 1—$4000 deposit + $30 000 repayment amount = $34 000
➤ Car dealer 2—$4000 deposit + $29 120 repayment amount = $33 120
➤ Car dealer 3—$4000 deposit + $35 880 repayment amount = $39 880.

The lowest-cost option is to pay fortnightly repayments of $280 on the borrowed amount. The most expensive option is to pay weekly amounts of $115.

Assessment of borrowing costs and interest rates

Interest is a term that means the cost of borrowing. In each of the options, Jessica pays a deposit of $4000 and borrows the balance of $24 000. The interest, or cost of borrowing, is the difference between what she borrowed and the amount she repaid.

We can now look at the effective cost of borrowing facing Jessica in each of the three options. The interest rate for each option is calculated as follows.

Dealer 1:

➤ amount borrowed: $24 000
➤ amount repaid: $30 000
➤ interest: $6000
➤ interest rate is ($6000 ÷ $24 000) × 100 per cent = 25 per cent.

Dealer 2:

➤ amount borrowed: $24 000
➤ amount repaid: $29 120
➤ interest: $5100
➤ interest rate is ($5120 ÷ $24 000) × 100 per cent = 21.3 per cent.

Dealer 3:

➤ amount borrowed: $24 000
➤ amount repaid: $35 880
➤ interest: $11 880
➤ interest rate is ($11 880 ÷ $24 000) × 100 per cent = 49.5 per cent.

When a person makes a major purchasing decision, they need to understand the costs and benefits of the different options. They might decide that they do not need to buy, because leasing is cheaper. If they do opt to buy, they need to make careful calculations to determine which of the available options is most affordable and best suited to their needs.

17.4.4 Borrowers should compare the interest rates of different lenders so they know the total cost of their loan and the total repayment amount over the life of the loan

Buying a computer

Minto wants to buy a new computer which costs $3000. He has saved $500 and needs to borrow the rest. He goes to two computer retailers, who offer the following:

* Retailer 1—$500 deposit and the balance (amount remaining) paid in monthly instalments of $100 per month over 32 months
* Retailer 2—$500 deposit and the balance paid in fortnightly instalments of $40 over 3 years (26 fortnights per year).

17.4.5 Which option is best for Minto?

Minto needs to know which of the options is best, and what the effective cost of purchase is in each case.

Complete the table below and determine which option is best. Justify your answer.

Retailer	Deposit ($)	Term (months/ years)	Payment regularity	Number of payments	Repayment amount	Total repayment amount ($)
1					$100 per month	
2					$40 per fortnight	

Activities

Remembering and understanding

1 What is a major purchase?
2 Distinguish between buying and leasing.
3 Define the term 'cost-benefit analysis'.
4 Identify four costs associated with buying a car.

Applying and analysing

5 Describe how an analysis of costs and benefits is important when comparing different buying options.
6 Analyse the effect of interest costs on borrowing.

Evaluating and creating

7 Evaluate the effect of interest rate increases on borrowing costs.

LS 17C

17.5 Choices and consequences

Every decision that a person makes will result in consequences. In business, the pursuit of profits can carry the risk of loss. The consequences (outcomes) of a decision can be beneficial, but in some instances decisions can also lead to unintended consequences. Enterprising business owners and managers will seek to make decisions where the outcomes are known. They do this through careful planning and by considering possible consequences that could arise from their decisions. Despite the best of plans, however, every decision made in business may bring both intended and unintended consequences.

Intended consequences

The intended consequences of a decision are the desired outcomes. This means that what people wanted to happen did happen. As far as possible, business owners and managers will seek to ensure that what they want to happen will occur. The likelihood of this being the case depends on how decisions are made and how processes to implement the decisions are managed.

Example: Reducing costs and increasing profit

The owners of MD Enterprises wanted to reduce costs to increase overall profits. Before they could reduce the costs, the owners had to first see what the costs of the business were. This required carefully measuring and reporting on expenses such as mobile phones, internet, wages, maintenance of the website and social media, cleaning costs, electricity, rent, insurances and incidentals (minor additional expenses).

Once all the costs were known, the owner decided to track trends and noticed that the costs of electricity, mobile phones and wages were rising, even when income was falling. An investigation revealed that the business was not on the best electricity plan and the mobile phone provider was not the cheapest option for the service delivered. The owners called the electricity provider, who advised of a cheaper plan, and they switched to a mobile phone carrier that charged less.

The high wage costs were due to paying people full-time salaries even when the level of work fell. The owners decided to restructure the working hours, offering staff more money and overtime pay during busy times, but less during times of light workloads. The overall pay was less predictable, but it was also better matched to the cash flow of the business.

The effect of the changes was that costs were reduced. The plan to save money was successful because of the planning and processes that took place.

Measurements such as those to do with costs, income, delivery times, productivity (output per person) and other variables are very useful for helping business owners make informed decisions about what action to take.

Unintended consequences

Sometimes, a planned course of action does not occur, or the planned outcome can lead to unexpected and unintended consequences. Such consequences may have a negative effect, but they can also lead to new opportunities and therefore have a positive effect.

Did you know?

Sometimes experimentation can lead to unintended innovation and breakthroughs. Percy Spencer was an engineer who worked for the Raytheon® Corporation. The business was working on radar technologies in a vacuum tube. Spencer noticed that when he worked, a peanut chocolate bar in his pocket would melt. He experimented with corn kernels and an egg, both of which were cooked by the machine in seconds. This led Spencer to develop the microwave oven.

Example: Nike's production

When a business makes decisions, the results of those decisions will need to be managed. When Nike® sought to save money by reducing wage costs, it moved its manufacturing operations to China. An unintended consequence of this decision was that the Nike suppliers in China treated their employees as slave labour, allegedly forcing them to work in sweatshop conditions. When this was made public, Nike lost sales because of public disapproval and faced huge international embarrassment.

Example: 3M's formula

When the company 3M® discovered that the chemicals in a product called Scotchgard® (a fabric and upholstery protector) were toxic, there was widespread public concern. In order to address the issue, 3M changed the formula of the product. However, there is a concern that the chemicals used in the past could continue to harm the environment in the long term.

17.5.1 Unintended consequences can be significant, such as Nike moving operations to China

Strategies to address unintended consequences

When unexpected consequences arise from business decisions, the business has different options. If the consequences are negative, the owners must identify why. They must also limit any damage, manage any losses, make reparations (attempt to fix the problem, such as by paying to clean up environmental damage) and learn from the experience. If the consequences are positive, the owners can take advantage of new opportunities and use these to grow the business.

Activities

Remembering and understanding

1. Define the term 'consequences'.
2. Describe the relationship between decisions and outcomes.
3. Distinguish between intended and unintended consequences.

Applying and analysing

4. Explain why measuring various indicators helps to bring about intended consequences.
5. Compare the effects of intended and unintended consequences on business decision-making.

Evaluating and creating

6. Research innovations that have been created through making the most of an error or unintended business consequence. Use your research to create a poster promoting bravery, experimentation and innovation.

LS 17D

17.5.2 3M changed Scotchgard's formula in response to public concern
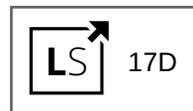
World of work

The world of work is evolving at a rapid pace. Employers need to stay competitive, so careful planning helps businesses set and achieve their objectives, as well as keep all workers on track. For employees, the work environment provides new challenges and different expectations. Jobseekers should reflect on their own personal capabilities and conduct thorough research to determine the career that will be the best fit for them. Much job hunting is done online and workers now compete for jobs with a global labour force. At the end of a work life, planning is essential to ensure a steady income.

OVERVIEW QUESTIONS

18A How can a business best plan for success?

18B How has the nature of work changed?

18C How can you find employment and build a career?

GLOSSARY

career all of the work-related experiences a person has, including employment, volunteering, education and training, personal interest and hobbies

casualisation the change in the workforce away from full-time jobs towards casual jobs with flexible hours, higher hourly pay and fewer work benefits

corporate culture the values, beliefs and attitudes that a company upholds and the way in which these affect how its employees behave

market research a process of gathering information about the potential customers in a market

mission the strategies a business will put in place to reach its overall objective or vision

policy a documented guideline for how employees are expected to act, such as a uniform policy

primary data information collected personally by the business owner

resignation a written document notifying an employer of a worker's intention to end the work agreement and leave their job

résumé a document that lists a worker's personal details, qualifications, skills set, work history and referees

secondary data information collected by a third party, such as the Australian Bureau of Statistics or a market research firm

union a group that represents workers in negotiations, offers workplace law advice and organises large-scale actions to support workers' rights

vision the future goal of a business

L S ↗ Before you begin

18.0.1 In the world of work, employees and employers work together for personal and business success

18.1 Productive planning

Planning is a key enterprising skill for employers. It involves carefully considering the market, examining current problems, and identifying all of the available alternatives to find a solution. This ensures that employers remain aware of trends and issues, are in full control of the business's financial and human resources, and have a plan for future success. Planning is done at the beginning of a venture, when the business is going to change its focus, and for its ongoing management and marketing.

Being organised and well prepared contributes greatly to business success. Employers can use a systematic planning approach that covers all important aspects, such as consulting stakeholders. Planning can be for the short term, such as daily or weekly staff rosters, or the long term, such as monthly to yearly departmental targets.

Planning tool: SWOT analysis

A SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis is a planning tool. It is used to examine one area of a business to plan for the future. This exercise involves listing strengths and weaknesses within the business and any opportunities and threats outside the business. Using this information, workers and managers can make plans to improve strengths, minimise weaknesses, take advantage of opportunities and avoid potential negative outcomes from threats. This allows employers to maintain their business as a viable venture (a business that is capable of working successfully).

Example business SWOT: Infinite Spinner

Strengths	Weaknesses
• product is now a schoolyard craze • product doesn't cost much to make • a major celebrity used our product on Instagram	• not enough staff to increase production • not enough finished stock to meet current demand

Opportunities	Threats
• our product could be featured on the *So Hot Right Now* TV show • customers are willing to pay more to buy exclusive colours/ designs	• competitors will quickly copy our product • customers may lose interest when they find another fad product

Planning document: Business plan

Business plans are used to ensure all team members are working towards the goals of the business. The document includes planned objectives, why they are attainable and how to achieve them. Business plans set out the best allocation of resources, list marketing strategies, and describe detailed day-to-day operations. They also prove the business's ability to make a future profit. This means that the business can prove its worth to banks and investors if

strengths—what they are doing right, what they excel at, how they are ahead of their competitors

weaknesses—what they are doing wrong, areas they can improve on

opportunities—areas they can move into, ideas they haven't thought of, new uses for technology in their business

threats—potential problems they may face in the future, what competition they have in the marketplace

18.1.1 A graphic organiser is often used to set out a SWOT analysis in order to make plans for future improvements

it needs to borrow money in the future. A business plan is a living document—it is essential to create a business plan when the business is first starting up, but it is also very important to revise and update it regularly as things change. By keeping its planning up-to-date, a business can:

➤ be reminded of its vision goals
➤ evaluate whether its strategies are working
➤ adapt smoothly to changes
➤ have guidance for challenging times
➤ make the most of unexpected opportunities
➤ remain competitive.

The business plan needs to cover a number of important areas.

➤ *Business core objective*—the most important aim for a business, most often to make a profit or provide a service
➤ *Vision*—the key overall goals specific to the business (such as providing the best customer service in the industry); this communicates what the business is about and keeps all workers on track
➤ *Mission*—a statement about how the business will achieve the goals set out in the vision, while maintaining the business's core values and principles
➤ *Product or service concept*—a detailed description of the business's core product or service
➤ *Operations plan*—how the organisation will operate day-to-day (such as a structure chart showing levels of management authority and responsibility, or a list of essential skills that employees will need)
➤ *Marketing plan*—an overview of market research data and marketing strategies (such as advertising, product launches, promotions and loyalty programs)
➤ *Financial plan*—a detailed financial analysis of the business (such as sources of finance, the value of assets, or budgets showing expected income and expenses to achieve future profits).

18.1.2 Business plans are essential for well-informed decision-making

Planning area: Marketing

If no one knows about your product or service, it will not sell. Marketing is an important part of business planning. Marketing strategies and related costs, such as market research, advertising and promotion, should be included in the business plan. **Market research** may be done by the business owner. Research data can also be purchased from specialist research organisations, or collected from different sources. **Primary data** is collected first-hand, such as through face to face surveys. **Secondary data** is collected by someone else, such as population growth trends recorded by the Australian Bureau of Statistics (ABS). Employers should analyse both primary and secondary data sources to create effective marketing strategies to reach their target market.

Did you know?

According to the Australian Bureau of Statistics, 97 per cent of all Australian businesses are small businesses (employing fewer than twenty people), and around 60 per cent of small businesses fail within the first 3 years. Around 20 per cent of all businesses don't have a business plan and 86 per cent operate without any marketing strategies. However, 70 per cent of businesses with planned strategies increase their profits.

Activities

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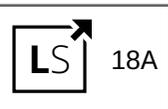
Remembering and understanding

1 Explain what a SWOT analysis is and give an example to indicate how a business manager could use this planning tool.
2 Explain what is included in a business plan and why a business needs one.

Applying and analysing

3 Apply a planning tool.
   a Choose one local business you know well.
   b Conduct a SWOT analysis including at least two points in each category— strengths, weaknesses, opportunities and threats. Remember that strengths and weaknesses are already a part of the business and opportunities and threats are external and often out of the business owner's control.
   c Share your analysis with a partner and together come up with some appropriate strategies to improve upon the weaknesses and minimise the threats.

Work has changed

Although earning an income has always been a reason for working, there are now other motivations and opportunities. Some people choose to work because they experience pride and satisfaction knowing they have done a job well. Others enjoy the mental challenge of work, or the physical aspects. Making a positive contribution to society through work is part of being an active citizen. Most workplaces are pleasant to be part of, allowing employees to develop work skills and build relationships. But even in the greatest workplaces, work isn't fun all the time. Employees should reflect on why they work, to help them focus on the positive aspects of work opportunities.

The traditional aim of working for the same company in a 9-to-5 job for many years or even one's entire working life, now applies to few, if any, employees in Australia. At the same time, many businesses are paying increasing attention to the wellbeing and job satisfaction of their employees in an attempt to retain valuable workers for as long as possible.

18.2.1 Workers in manufacturing industries usually have limited flexibility in their work arrangements. If a factory worker does not arrive on time for their shift, it can affect the whole production process.

As a result, some of the biggest changes taking place in the work environment include:

➤ changes to the timing and location of the work day
➤ the introduction of job-sharing
➤ increased emphasis on employee wellbeing
➤ the introduction of pay incentives for some workers.

Changes to the timing and location of the work day

Many Australian workers now have some say in determining their start and finish times. One reason for this is the **casualisation** of the work environment: a greater proportion of workers have casual or short-term work arrangements. This allows them to renegotiate conditions such as work times more often than those on long-term or permanent contracts.

The potential for flexibility in work arrangements is also growing as the Australian economy shifts further away from manufacturing industries, which require employees to be at a factory or warehouse at specific times in order for production to occur. Service industries such as hospitality and computer programming offer much greater potential for negotiation about when, and sometimes where, an employee will work.
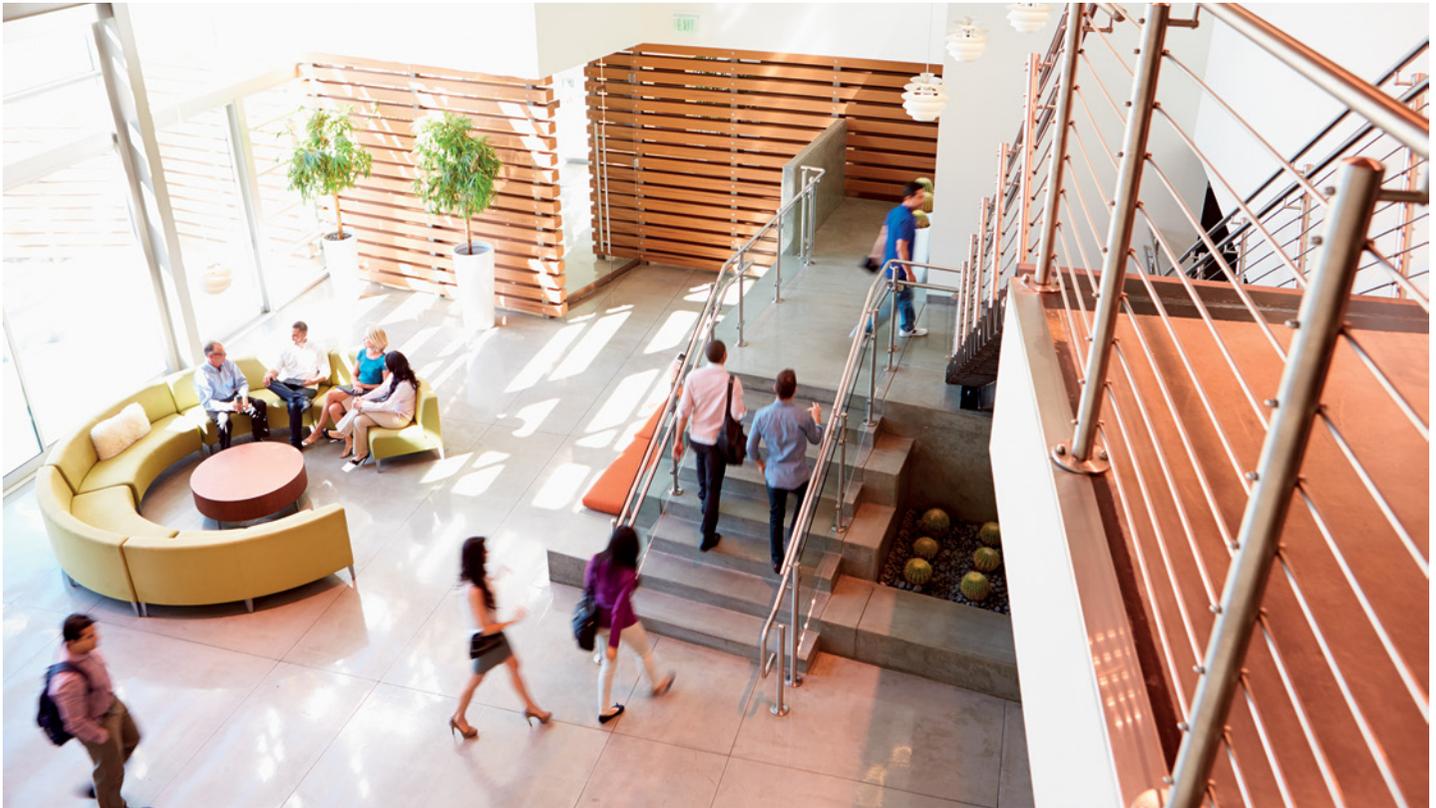
18.2.2 Modern office layouts include collaborative and shared spaces to encourage interaction and teamwork

Technological developments such as mobile and cloud computing have also contributed to changes in the way people work. Working from home or while travelling is now practical in some industries, for at least some of the time. For example, financial advisors and mortgage brokers can travel to meet clients while still remaining in contact with their managers. Offering flexibility in the timing and location of work can help a business become a more attractive workplace and may therefore help managers attract and hire individuals with highly valued skills.

Job-sharing

Job-sharing is now becoming a possibility in a growing number of industries. This allows two, or sometimes more, people to each work part-time hours, which add up to one full-time position. For example, one person may work for two days per week and the other for three days. While an arrangement of this type may not suit all positions, it can be a useful way to retain staff during periods where they require extra flexibility. Some examples of roles for which job-sharing is becoming more frequent are teachers, pharmacists and mechanics.

Increased emphasis on employee wellbeing

Employees in early factories were often expected to perform repetitive tasks, with little or no consideration given to issues such as job satisfaction or employee wellbeing.

In today's workplaces, employers are required to provide facilities that minimise the risk of physical and emotional injury. Examples include safety shields around dangerous machinery, telephone headsets for employees who are required to make large numbers of phone calls and time-out spaces for staff to take a break.

At a time when it can be very easy for an employee to move from one job to another, many businesses now go beyond the requirements of basic health and safety in an effort to retain valuable workers. These businesses are paying more attention to the overall wellbeing of their workers. This is also associated with shifts in management theory, which now emphasises the vital role that employee satisfaction and happiness can play in a business's overall success.

Measures designed to foster employee wellbeing include providing standing desks to employees who request them, or paying part of the cost of gym memberships and yoga classes. Less costly options for businesses include open days when employees' family members are welcome to visit the workplace, or structuring the work day and the office environment to make it easier for workers to collaborate, or even just to have lunch together.

Pay incentives

In some industries, workers can now qualify for extra pay if they meet certain criteria. In the mining industry, it is common for workers to receive a bonus payment at the end of the year if the company has met predetermined production and safety targets. This is designed to encourage workers to feel they have a direct connection to the overall company goals, and a responsibility to work with their peers to ensure everyone receives the bonus.

In some cases, workers can receive one-off bonuses if they develop new ideas to improve the business's operations or if they make a particularly notable contribution to the business—for example, workers who find ways to reduce wastage in manufacturing processes, or employees who bring valuable new clients to the business.

Workplace challenges

After surveying over 1000 workers for his 2016 snapshot of the Australian workplace, Dr Lindsay McMillan found that the key challenges in our workplaces are:

1 job satisfaction and engaging workers by ensuring their work has purpose and personal meaning

2 the impact of technology which changes the way work is defined and accomplished

3 productivity and factors that impact performance levels

4 workers' personal health and life challenges and how quickly a workplace can adapt to these when needed.

Job satisfaction

44% of Australian workers are extremely/ very satisfied with their current job

49% of workers will likely look for a new position in the coming year

71% believe their boss has vision and direction

About a third (35%) of workers feel the poor leadership at work is the most stressful part of their job

72% are searching for purpose and meaning through their work

Productivity

43% of workers say they are working at peak productivity most of the time

Half of Australian workers have experienced one or more serious incidences of conflict or other negative impacts at work

Impact of technology

54% of millennials are experiencing technology–related stress with Gen X at 47% and Boomers at 37%

Over 40% of workers are relying on technology to perform over 75% of their work. Gen X claims the highest percentage of work done using technology

65% agree that the impact of new and emerging technologies is affecting the way their work is defined and accomplished

Health

About 29% of Australian workers feel a high amount of stress in relation to their job often or always. 44% feel a high amount of stress at work sometimes

18.2.3 Dr Lindsay McMillan's research on key challenges in workplaces

Skills builder

Employers: Questioning and research

1. Identify a large business you know and write a sentence about how you think its workers might be treated. You can refer to workspaces and manufacturing facilities, pay, hours of work, treatment of different genders or abilities, available benefits or any other relevant work conditions.

2. Research the business online to investigate how it treats their workers. Collect your findings in a digital profile. The information you find will be varied but try to cover areas such as:

    a. the name of business and some explanation of the organisational structure

    b. how many people it employs

    c. any kind of statement or policy regarding how the business intends to treat its workers

    d. any kind of worker benefits or special programs advertised by the business

    e. at least two current workplace laws to do with workers and how this business complies

    f. any kind of positive or negative media regarding treatment of workers, such as newspaper articles. Try to find more than one and be careful to use the most up-to-date articles, as changes may have happened over time.

3. Imagine you are a business advisor who has been asked to investigate how this business can improve the way it treats its workforce.

    a. Reflect on your initial assumption and whether it was correct.

    b. Draw on at least three pieces of research to demonstrate how this business treats its staff.

    c. Suggest three reasons why it is important for the business to treat workers well.

    d. Suggest three strategies for the business to improve. Even if your selected business is doing well, you can still suggest improvements.

    Present your work in writing (one A4 page) or a two-minute spoken recording.

Employees: Communication and reflection

1. The purpose of this activity is to find out about some positive and negative experiences a worker has had at work. Find a worker in your personal network who is willing to share their work experiences with you. Make an appointment with them to do an interview. You may choose someone who has a job in an area that interests you, but this is not essential. It is hoped you will gain some valuable advice about the world of work.

2. Design a set of questions to collect the data that you would like to know about working in general, or in the specific industry or career. Give the questions to the interviewee beforehand so they can think about their responses. Refer to areas such as:

    - what they do
    - why they do it
    - challenges they have at work, particularly in relation to technology, globalisation, sustainability or any other workforce changes
    - success they have experienced
    - any intended or unintended consequences they have experienced from their work decisions
    - their work plans for the future and the work opportunities they expect are to come
    - any tips or advice they have for you as you enter the workforce.

3. Record their spoken answers so that you can play them back later and take summary notes. Remember to thank them for their time and valuable opinions.

4. Reflect on their answers and communicate your findings clearly by writing a one-page reflection covering who you interviewed and what you found out. Be sure to note what surprised you and give reasons why you would or would not be interested in similar work yourself.

5. Finish by suggesting an action you might take to find out more about what work might interest you.

Best workplaces

Dealing with all these changes to the work environment is challenging for workers, but as things change employees have become more selective as they seek out the best places to work. Like customers and investors, workers want to contribute to a worthwhile enterprise and they will do research to find a good fit for them and their own personal values. Employers that are able to attract and retain the best workers by offering better work conditions and benefits (sometimes called perks) are called employers of choice.

Employers of choice

Employers of choice must carefully monitor and continually encourage a positive corporate culture. **Corporate culture** refers to the way people within the organisation behave, how they speak to and treat each other and how that is supported by official policies and management practices. Businesses with a strong corporate culture encourage their employees to share the business's values, work towards the business's vision and share positive interactions in the workplace. In a weak culture, the corporate values are not defined or there is disagreement about what employees should be doing, meaning that in practice workers do whatever they please. Managers need to be able to clearly communicate the company vision so everyone is on the same track. Workers need to be able to trust the accuracy of what managers say to feel confident, stable and happy to behave as the organisation requires.

Did you know?

Did you know that every full-time or part-time work contract, written or verbal, has to comply with the ten minimum conditions under the *Fair Work Act 2009*? These are called the National Employment Standards and include things like maximum hours of work and minimum amounts of leave. Failing to adhere to these standards can result in an individual penalty of up to $12 600 for an individual and $63 000 for a corporation.

The National Employment Standards (NES) are the 10 minimum standards of employment which cover the following:

- *Maximum weekly hours of work*—38 hours per week, plus reasonable additional hours.

- *Requests for flexible working arrangements*—certain employees can ask to change their working arrangement.

- *Parental leave and related entitlements*—up to 12 months unpaid leave and the right to ask for an extra 12 months unpaid leave. Also includes adoption-related leave.

- *Annual leave*—four weeks paid leave per year, plus an additional week for some shift workers.

- *Personal/carer's leave and compassionate leave*—10 days paid personal/carer's leave, two days unpaid carer's leave as required, and two days compassionate leave as required.

- *Community service leave*—unpaid leave for voluntary emergency activities and leave for jury service, with an entitlement to be paid for up to 10 days for jury service.

- *Long service leave*—paid leave for employees who have been with the same employer for a long time.

- *Public holidays*—a paid day off on a public holiday (unpaid for casuals), except where reasonably requested to work.

- *Notice of termination and redundancy pay*—termination (ending the working contract whether by resignation or dismissal) and up to 16 weeks redundancy pay, depending on length of service at the business.

- *Provision of a Fair Work Information Statement*—must be provided by employers to all new employees.

18.2.4 The National Employment Standards (NES)

18.2.5 Many workers gain personal satisfaction from being part of a productive team. Workplaces that encourage teamwork and worker wellbeing are more able to retain staff.

Activities

Remembering and understanding

1 Explain what is meant by the term '9-to-5 job' and why that term is no longer relevant.
2 List and describe three of the biggest changes taking place in work environments.
3 Outline why the potential for flexibility in work arrangements has increased.
4 Describe how both employees and employers benefit from job-sharing.

Applying and analysing

5 Analyse the relationship between changes that a business might make to help improve the wellbeing of its employees and the consequences for the business.
6 Survey a range of adults to discover ways in which their workplaces have changed in the last 5 years.

Evaluating and creating

7 Find two Victorian businesses that are focused on building positive relationships with their employees in order to meet the changing nature of the workplace. Use a Venn diagram to compare the two companies and show the similarities and differences between them in terms of employee relations. Consider the following when researching your companies:
    • working hours
    • parental leave conditions
    • use of technology
    • physical and mental health and wellbeing of employees
    • retirement/superannuation packages
    • bonuses
    • any other innovations the businesses have adopted to enhance working conditions for employees.

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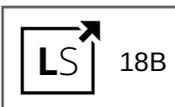
18.3 Investigating careers

A **career** is more than just a job—it is made up of all the work-related experiences you have, including volunteering, education and training, personal interests and hobbies and more. Careers are constantly evolving and need research and planning to achieve. In the past, a career in one industry was for life, but that no longer applies. Workers need to be ready to deal with change while following their personal career path. It is important that workers are willing to take on challenges and build their personal skill set.

The time is fast approaching when you will need to select school subjects to support your interests and career aspirations. Many people are not certain of their career direction while they are still at school, or even after they've finished school. Careers now change over time, so don't worry if you are unsure. You may be taking advantage of the opportunities at school to try out different subject areas, or you may already have some idea of the direction in which you'd like to go. Some university courses have specific prerequisites, and some careers require lots of study, so it is a good idea to start thinking about your personal pathway. A detailed career investigation can at least indicate what you might *not* want to do, and so can help give you direction.

To conduct a career investigation, begin by examining the required skill set. Next, look at the working conditions in your chosen industry. Finish by researching the required qualifications and outlining actions that you can take to achieve the overall career goal.

The person

Before you consider a career pathway it is important to examine yourself, your values, your strengths, your weaknesses and your skill set. These factors must be aligned to the type of work you choose to help you find job satisfaction and longevity. Job satisfaction means workers are content in the work they do. Longevity means staying in that work for an extended period of time. If you don't reflect on your personal characteristics and capabilities, you may choose a job that is too difficult or too easy—it may become frustrating or boring and will not retain your interest or motivate you to stay. This is why you should not take on a career that someone else wants for you, unless you agree that it is suited to your personal abilities and interests.

You will need to consider your personal:

➤ values
➤ interests and hobbies
➤ strengths and weaknesses
➤ skills
➤ work preferences.

Personal values

Personal values are an individual's general beliefs and morals about what is important in life. For example, a person might be spiritual and believe in a higher power, they might feel strongly about women's rights or protecting the environment. It is important to take your personal values into account when deciding on your career. If financial security is important to you, you will need a career with good financial rewards. If you are happiest contributing to society, you might choose a career in a public service such as health or education.

Personal interests and hobbies

Our interests and leisure pursuits at home can give us an idea about the work we might enjoy. For example, if you love moving furniture around and decorating your bedroom, interior design could offer you job satisfaction. Transferable skills are capabilities that we have that can be used across different environments such as having good communication skills or being able to read people's emotions. Practical skills, like being competent in construction, and sporting abilities, or having good stamina, might also help us decide what kind of work will be the best fit. Personal hobbies can help us practice skills that can be used at work: using computers develops technology skills and craft encourages attention to detail.

Personal strengths and weaknesses

Your strengths and weaknesses are what make you an individual. It's important to take those characteristics into consideration when choosing a suitable career.

Think about areas you need to improve on and honestly evaluate your weaknesses. If you find it hard to be punctual, perhaps you would not be suited to a retail position where you would be expected to arrive at work on time. Home-based work such as freelance graphic design might be more suitable. If you do not enjoy public speaking, auctioning real estate may be too far out of your comfort zone. You might be more skilled at one-to-one personal interactions, so customer service would be a better choice.

It is often easier for us to list our weaknesses, but it is equally important to recognise our strengths. Maybe you are very punctual, or can be relied on to complete set tasks. You may be a fast learner or good at encouraging other people to contribute to a team. If you are well-organised and good at arranging parties, for example, event management could be an appealing career path for you. If you are a good listener and your friends always come to you when they are upset, you might consider training to become a counsellor.

Personal skills

Personal skills can often be useful in a work context. They include skills learned on training courses, such as computer, first aid and customer service skills, or skills developed through hobbies. Maybe you pay close attention to detail, are able to prioritise tasks to meet deadlines or find it easy to communicate clearly with different kinds of people. All of these skills are transferable because they are useful in different settings. These are the kinds of skills you need to mention on your résumé when trying to secure employment.

Personal preferences

What is your ideal work environment? You need to give careful consideration to who you are and what you are comfortable with. Perhaps you want to work outside most of the day, or you would prefer to work at night. You might want flexible shifts during the week or to work only on the weekends. Maybe you want to work on your own, or perhaps you are at your most energetic when working in a team. Consider whether you would prefer to dress up for a formal office environment, or whether you would be more comfortable with a casual dress code.

18.3.1 Just like choosing a shoe that fits your lifestyle, your career should suit the type of person you are

The career

The career you choose could be a big part of your life for a long time. It will take a lot of your time, energy and effort in order to make it a success. Find out as much as you can about your chosen career before you make any important decisions. Research the industry you are interested in, including how well that industry is performing and how it has been affected by the major changes going on in the world of work, as well as the working conditions and benefits.

When you are choosing a career, consider:
➤ industry options
➤ work conditions and benefits
➤ what would be your dream job.

Industry options

Choosing a career in a suitable industry involves some research, because the business environment is changing rapidly. Globalisation and new technologies are disrupting the business world, causing old industries to change and creating new ones. The industries that currently contribute the most to Australia's economy include agriculture, education, energy, metals and mining, tourism, health care, construction, retail trade and finance. Digitisation (converting information into digital data) is disrupting most industries by changing the way business is done, so the skills that make a worker employable are changing too. Workers need to be technologically literate (able to understand and work productively with technology), adaptable and ready to accept and even embrace change. Changing careers can mean staying in the same industry but working in a different capacity. For example, a school classroom teacher might change to a different career within the education industry by becoming an academic researcher at a university.

Work conditions

The minimum requirements of all work contracts in Australia are set out in the National Employment Standards in the *Fair Work Act 2009*. This means that it is relatively easy to find out the minimum work conditions for different jobs, such as regular hours of work and annual leave. However, many large organisations negotiate their own enterprise bargaining agreements with groups of workers or their representative unions. These are always over and above the award standards but may be difficult to find when researching a job. Speaking to someone in the industry you are interested in is the best way to find out current conditions. Keep in mind that they may not want to reveal their own particular conditions and benefits, especially if they have personally negotiated a special arrangement in an individual contract. It is important to find out a rough estimate of the pay scale in your chosen industry to avoid a nasty shock once you have worked your way through the various stages of recruitment.

Dream job

When you are planning a career, there is nothing wrong with aiming high—in fact, you should. Make it a job that you really want to do and ensure that you have, or are willing to develop, the required skillset. Someone has to do those great jobs, so why not you?

You may have more than one idea. You may have decided on an industry but not a specific job, or you may know the type of work you want to do but not the industry—or maybe you have even decided on a job that hasn't been invented yet. Brainstorming will help you clarify your ideas so you can start to make some plans for how you will achieve your overall goal. Brainstorming will also help you think about the jobs you really do not want to do, narrowing down your field of options. So dream big and work out what would be the best job for you.

18.3.2 With careful planning your dream job could become your reality

Activities

Remembering and understanding

1 Describe how a career is more than just a job.

2 Why is it important to examine yourself before you decide on a career path?

Applying and analysing

3 Transferable skills can be developed in many ways. Suggest what work skills are being developed in the following activities:

    a playing volleyball

    b playing online computer games

    c doing household chores

    d getting pocket money

    e doing homework

    f helping your grandparents with gardening

    g serving food at a family gathering.

4 Research the work conditions (minimum hours, leave, pay, entitlements) of a job that interests you. Assess whether or not those conditions would suit you and why.

Evaluating and creating

5 What do you value?

    a Draw up a table with four columns, as shown in the example below.

    b List the things in life that you value.

    c Suggest why you value these things.

    d Describe actions you take that show you value these things.

    e Suggest what else you could do to demonstrate your belief in the things you value.

6 Create an A3-size reverse concept map to brainstorm your dream job. Start with the outer layer and work towards the middle bubble. The small outer bubbles point in, listing all the things you want in a dream job. Wait until you have exhausted all of your ideas before you consider what actual job should go in the middle. Make sure the job is one with a skillset that you are willing and able to develop.

    a Research the education or qualifications you would need to get your dream job.

    b List the steps you would need to take to get your dream job.

What I value	Why I value it	How I show I value it	What else I could do to show I value it
family	Because I love them and need their support for my whole life	By giving handmade birthday cards	Spend more time with my siblings having fun

18.4 Changing careers

Reasons for career change

A career is more than just a job. A career involves a long-term view, and should take into account a worker's satisfaction in their role and how they are progressing professionally. It is now an expected part of working life that people will not only change jobs within the same field of work but also change careers, even across different industries. There are many reasons why a worker would make a job or career change. According to job-search website Seek.com.au some common reasons include:

➤ career progression
➤ negative experiences at work
➤ external factors out of the worker's control
➤ a desire for improved working conditions.

Career progression

Around a third of Australian workers change their job because they want better remuneration (salary and other benefits) or better opportunities for promotion.

Although some employers encourage employees to achieve their full potential and adequately compensate workers for their contribution to the business through incentives, bonuses or commission, this is not always the case. Some employers do not increase salaries in line with the rising costs of living. This means that employees may have difficulty paying for their everyday expenses.

18.4.1 Workers are not always in control of career changes. In 2017, Devondale® Murray Goulburn®, Australia's largest dairy processor, closed three factories in Victoria and Tasmania and put 360 people out of work.

These employees are likely to look elsewhere to find more profitable work. Workers may also move on if their achievements at work are not recognised or rewarded.

Many employees are motivated by the challenging work or increased responsibilities offered by a promotion to a more senior role. If there are few opportunities for promotion in their workplace, they may look for a new job elsewhere.

Negative experiences at work

Almost a quarter of employees in Australia change jobs because they find themselves in an unpleasant, uncomfortable or dangerous work situation. Personal reactions to work situations are individual and varied. What one person finds harmless or even funny, another might feel is offensive or inappropriate in the workplace. Some workers experience so much pressure at work that they become distressed. Personality clashes with colleagues or managers can cause an employee to move on.

External factors out of the worker's control

Various situations that are outside a worker's control can cause someone to seek a career change.

Changes to a business's operations can lead to employees needing to find new work. For example, when a business downsizes to make operations more efficient, the number of jobs may be cut back or positions may be made redundant. When a business moves to a new location in order to expand or shifts its operations overseas, its employees may need to change where they live or find another job.

There are also changes beyond the workplace that can affect a person's career. A worker may be forced to seek more flexible working arrangements either because of their own medical problems or because they need to care for a sick loved one. Work situations can also be affected by new laws or a change in government.

Improved working conditions

People commonly change careers because they are not happy with their working conditions. For example, fixed-term contracts can make workers lose confidence in the security of their job. Large companies trying to maintain workforce flexibility now regularly offer only fixed-term contracts for 12 months or less. This means that workers may not feel secure that they can meet their regular ongoing expenses, such as mortgage payments, after the contract ends. They may instead look elsewhere for a more permanent position. Workers will also change jobs to achieve better work/life balance, which means they are able to balance work hours with time to themselves for study, hobbies, exercise or family.

Notice periods

Before changing jobs, workers need to understand the rules about ending a work contract and carefully consider their situation. Planning well will ensure a smooth career transition. Legally, there are rules about how much notice a worker has to give their employer. The usual notice period for a full-time employee is around 4 weeks; it is less for part-timers. Casual workers do not need to give notice but can simply decline shifts. Workers who leave without giving notice may forfeit (have to give up) their final pay to cover the notice period. They may also have difficulty getting a reference from their employer to support their next job application. Requirements for notice periods can usually be found in an individual's work contract, or in the award for the particular industry and job type. Check the Fair Work website for more information on notice periods and how to offer a legal **resignation**.

Job change considerations

Employees need to carefully consider whether it is in their best interests to leave a job. They need to ask themselves:

➤ Is it the right time for me to change jobs or be without work?
➤ Is there anything that I can do to improve my work situation?
➤ Can I easily find another position that offers better conditions?
➤ Should I wait to resign until I have secured a new job?
➤ Will leaving affect my chances of securing work in the future?

When changing careers, workers may need to investigate professional development training to prepare them for a new role or a different industry. They may also need to build new professional networks to support them as they take on a new direction.

Did you know?

On average, a person who begins work with a part-time job at 18 and retires at 75 will have seventeen different employers, and change their career five times.

18.4.2 Workers must think carefully about their personal situation before they change careers. Discussing the pros and cons with a colleague can help clarify the best path.

Activities

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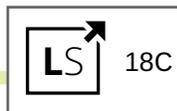
Remembering and understanding

1 Outline three common reasons why people change their careers.

Applying and analysing

2 Distinguish between a standard career path 50 years ago and what building a career means today. You may need to do some internet research to be able to justify your contentions.

Evaluating and creating

3 Interview a person who has changed career, moving to a very different role or a new industry, or find a case study online.
  a What career did they leave? What was their new career?
  b Why did they make that change?

  c Were they happy with their planning and the change process? Why or why not?
  d Were they happy with the new career? Why or why not?
  e What would they like to have done differently?
  f What tips do they have for changing careers?

4 Imagine that a co-worker has come to you for advice because they are not happy in their job and they want to leave. Create a one-paragraph response about how you would counsel them to make sure they are making the best decision and to help them make a smooth career transition.

18.5 Going global

Just as the work environment has changed, so has the way jobseekers look for work. Dramatic improvements in telecommunications technology have opened up our world as a global trading place and an international jobs market. Three main factors have led to the digitisation and internationalisation of the labour force:

➤ technology
➤ globalisation
➤ sustainability.

18.5.1 The world is a global village

Technology

In the past jobseekers would respond to a sign posted at the workplace or check the job advertisements in the newspaper. The most common way to find work now is by using websites such as Seek®, Indeed®, JobSearch® or Career One®. Larger companies also have well-constructed, self-directed application processes, applicant testing and induction training.
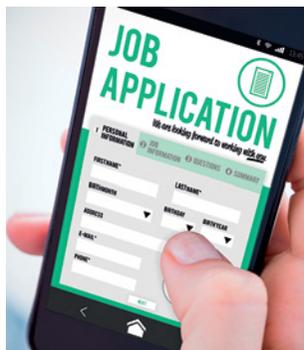
18.5.2 Job seeking is now mostly done online

A **résumé** is more important than ever before because it may be the only document a potential employer sees—it needs to represent the applicant honestly and show a clear alignment with what the employer is seeking.

Globalisation

Globalisation allows businesses to employ workers in other countries, rather than pay higher domestic (home country) labour costs. Some overseas contract workers are able to offer their services at a lower rate than local workers, because the employment laws and wage rates are different in their country, while others may do specific types of work for less. Businesses can also bring in international workers with special skills or in numbers that cannot be found locally.

There is now a growing freelance market where self-employed people offer their services for project or contract work and bid against others with the same skills. Many freelancers work from home and have great flexibility. Cloud computing means that documents can be shared easily from any location and finished projects can be delivered almost instantaneously via the internet.

Sustainability

In an employment context, 'sustainability' means attracting and retaining the right workers with the right skills at the right time. Sometimes this means that an employer will need to recruit from the international labour force. In 2018, the federal government introduced the Temporary Skills Shortage (TSS) Visa to avoid predicted skills shortages. The TSS Visa allows companies to hire skilled migrants to fill job vacancies when they are unable to find the employees they need locally. This is important to prevent companies from moving their production facilities overseas.

For a workforce to be truly sustainable, it needs to be able to meet predicted future needs. Employers must ensure that their employees are appropriately trained so that they can serve the company both now and in the future.

Key workplace participants

Key workplace participants include workers, managers, unions and government representatives. All these parties must work together to successfully navigate the new globalised workplace and keep Australia productive.

18.5.3 The Australian Government has identified there will be gaps in domestic skills in the areas of science, technology, engineering and mathematics (STEM). From 2018, employers will be able to fill positions with skilled migrants on the TSS Visa.

With the internationalisation of our labor force, workplace relations need to be negotiated not just across business communities but across nations. Workers and managers have always had to comply with relevant laws and be respectful when considering each other's needs. Today those needs may include different languages, customs, religious celebrations, attitudes to work and work environment expectations.

The Fair Work Commission is the government's representative in the workplace. The Fair Work Commission resolves contract disputes when employees and employers cannot reach an agreement, such as the negotiation of a new enterprise bargaining agreement or when an employee believes they have been unfairly dismissed. The Fair Work Commission also sets the minimum award wages and conditions that cover all workers in Australia.

Unions represent workers, and the size of their membership gives them bargaining power. There are specific unions for all industries. Unions offer legal advice and work-related services, and organise protest actions to protect the rights of workers.

18.5.4 The Construction, Forestry, Maritime, Mining and Energy Union has negotiated with employers to achieve improvements such as higher wages and a 36-hour week for its members

Activities

Remembering and understanding

1 Identify and define the three factors that have caused the digitisation and internationalisation of the workforce.

Applying and analysing

2 Research online to find a résumé template or a page that gives advice on writing a good résumé.

   a Use your research to assess a completed résumé that you have found online or in print. (If you have a résumé of your own you can use this.) What does the résumé do well? What does it not do well? Is it missing anything?

   b Suggest at least three improvements to the résumé. Give reasons for your suggestions.

3 Identify two key participants in the workplace. Suggest what their response might be to the following situations:

   a workers refusing to use a new kind of machinery

   b managers getting very large monetary bonuses

   c unions protesting outside a large company

   d the Fair Work Commission removing the need for penalty rates (extra money per hour) to be paid on Sundays.

Evaluating and creating

4 Find a job advertisement on an online job site. Imagine you are the person best suited to the position. Write a letter of application and a résumé to fit that job.

5 Imagine a business that needs to build a sustainable workforce that is reliable and loyal. In a small group, brainstorm the Best Workplace Ever.

   a Create a concept map of all the brainstormed ideas—every idea should be included on the diagram.

   b With a partner, draw a bird's-eye view of how your Best Workplace Ever would look. Annotate your drawing with short explanations.

   c Share your ideas as a class and create an overall list of what makes a great workplace.

   d Display your Best Workplace Ever drawings and class list in the classroom so you can see them over time and aim to make some of your ideas a reality.

6 Write your own up-to-date résumé using a standard layout, altering it if necessary to suit your needs. Incorporate résumé-writing advice you have been given in class or found online. Ask a trusted family member, friend or past employer to be your referee and include their contact details.
   This is an important document, so save a digital copy and keep a hard copy in a safe place. You never know when you might need to give it to a potential employer.

Retirement

When a person goes into retirement, they are leaving their job with no intention of returning to work in the future. This is usually associated with age but in some cases the person no longer needs to earn an income through work. The retiree still needs access to money so they can continue purchasing a range of goods and services. The three most common sources of income for retirees are:

➤ the age pension
➤ superannuation
➤ private savings.

18.6.1 Retirement means you're no longer working, but you'll still need an income to live comfortably

Age pension

The age pension is a form of welfare—that is, a payment made by the government to people in need of income support. Australian residents may become eligible for the age pension when they reach pension age. Before 1 July 2017 this was 65 years old. Pension age will gradually rise so that people born on 1 January 1957 and later will not be able to receive the age pension until they are 67 years old. These increases in the pension age are necessary because people are now living longer than ever before. The government has to encourage people to keep working and supporting themselves for longer than in the past.

The age pension was introduced in Australia in 1908, to be paid to men over 65 (and later to women over 60) who could not support themselves. At that time, life expectancy was 55 years for men and 59 years for women. Today, life expectancy has risen to 80 years for men and 84 years for women, but many people are eligible for the age pension before they turn 70. Workers need to plan for retirement to ensure they will have enough money coming in from welfare or other income sources to maintain their standard of living. This may mean working for longer than they expected.

Superannuation

Superannuation is a compulsory way of saving for retirement. This government **policy** was designed so that not all retirees would rely on the aged pension in the future. This is important because Australia's population is ageing, which means that welfare costs funded by tax-paying workers will increase as more and more people leave the workforce through retirement.

By law, a person's employer must pay 9.5 per cent of their wage or salary into a superannuation account—this will gradually rise to 12 per cent in 2026. Some employers elect to pay a higher rate to attract workers. Over their working lives, a person can choose to make additional contributions to their superannuation. Personal contributions to superannuation are taxed at a lower rate than regular savings, effectively meaning the person gets to keep more of their income.

Superannuation payments accumulate (build up) over a person's entire working life, and the money is invested by a superannuation fund for the person to access during their retirement. The more the person saves over their working life, the earlier they can afford to retire, or the more comfortable their retirement will be. Usually, a worker is not able to withdraw the money they have built up in their superannuation account until they are in their 60s. Once the person retires they can decide to be paid their entire superannuation amount in one lump sum, or they can elect to receive a steady income stream.

Private savings

Workers can build up savings aside from their superannuation. An individual has a far greater degree of control over their private savings than they do over their superannuation. While a person usually cannot receive their superannuation until they are in their 60s, depending on what kind of savings account they have, it may be possible for the worker to access their saved money at relatively short notice. These private savings can affect the size of age pension payments, so it is important to plan carefully to ensure that an appropriate balance is reached.

Planning for retirement

Carefully planning for retirement is very important. Depending on a person's health and other circumstances, it is possible that someone who retires at 65 may need to have measures in place to support them for another 30 years or more. Understanding when and how earned income can affect the amount available through the age pension can have a significant influence on the level of wealth a person can enjoy in retirement.

Life expectancy at birth 1890–2017
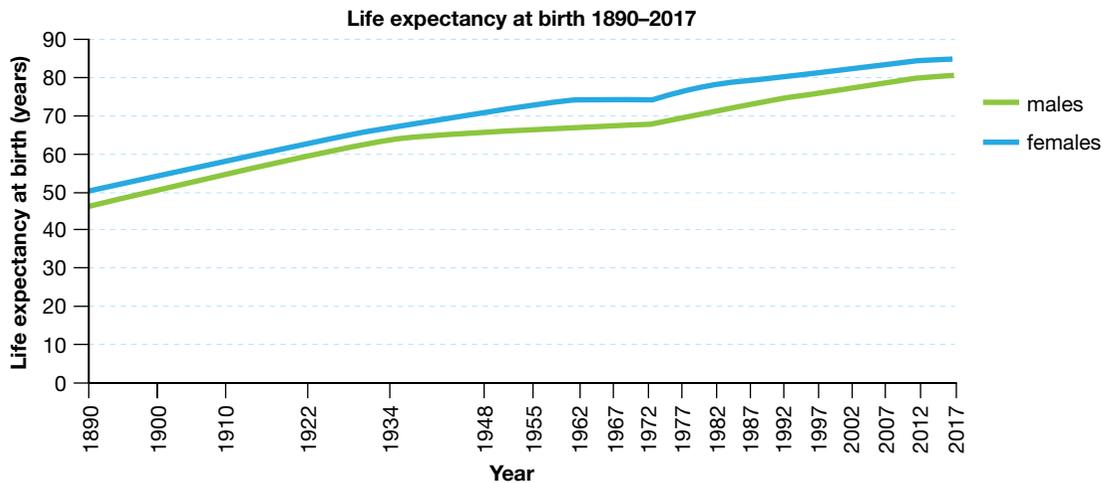
18.6.2 As life expectancy rises, Australians need to plan carefully for their retirement because they may be able to live full and active lives for many years after they finish work

Did you know?

How much superannuation you need to retire depends on a number of complex variables which are difficult to determine—for example, how long you will live, how much you will want to spend each year, and how healthy you are. Some people estimate you will need around 67 per cent (around two-thirds) of your pre-retirement income each year.

To generalise, modest living costs (assuming you own your home outright and pay no mortgage or rent) are around $40 000 per person annually. To have that amount of income available for retirement, your superannuation account will probably need hold over $1 million.

18.6.3 With careful planning, most workers should be able to look forward to a fun retirement with enough money for reasonable spending on goods and services

Activities

Remembering and understanding

1 Identify the three most common sources of income for retirees.

2 State the age that Australian residents are eligible for the age pension.

3 How much of a person's wage or salary must an employer must pay into a superannuation account? Propose how the overall regular amount could be increased.

4 Identify the two ways a worker can decide to be paid their superannuation. State one advantage of each.

Applying and analysing

5 Australia has an ageing population. Suggest how the age pension for retirees might be affected by this trend.

Evaluating and creating

6 Retirement is a big step. Propose a set of criteria that workers could use to help them judge the right time to retire.

7 Evaluate the following statement:
Workers need to plan for their retirement by saving their own money long before they retire.

Create a one-page persuasive piece arguing either for or against the idea that workers should save their own money for retirement.

Glossary

A

abolitionist a person who favours the abolition (ending) of a process such as capital punishment or slavery

acceptance to be seen as valued or adequate; to be received with support

acidification the build-up of hydrogen in soil, which reduces the soil pH

adversarial legal system a legal system in which two parties present their opposing cases to a jury or judge

agrobiodiversity all forms of life directly relevant to agriculture, including seed varieties and animal breeds, soil, fauna, weeds, pests, predators, and all of the native plants and animals (wild biodiversity) existing on and passing through a farm

agrochemicals chemicals used in agriculture, such as pesticides and fertilisers

algal blooms high concentrations of microscopic aquatic plant life

alliance an agreement between nations to support and protect each other

analyse to break down into parts and study the interrelationships of those parts

annuals plants that complete their life cycle in one year

aquatic ecosystems water-based communities of plants and animals

artillery large guns that can fire over great distances and cause a lot of damage

assassination the murder of a public figure

asylum seekers people who have fled their home countries due to persecution on the grounds of race, religion or political status and seek to live safely elsewhere

B

belonging to feel or be a part of something; to be part of a community

bias the unfair favouring of one opinion or point of view

bicameral the system of government in Australia that refers to the two houses of parliament: the House of Representatives and the Senate

Bill a document that describes a proposed law or change to a law

biodiversity the variety of all life forms in a habitat—this includes plants, animals and micro-organisms, the genes they contain, the ecosystems of which they form a part and the processes that link them

biofuels solid, liquid or gas fuels derived from biological material, or living matter

biomass the total weight or quantity of organisms in a particular place

biome a vegetation community occupying a large area of the Earth's surface

bombardment continuous shelling (bombing) by the artillery as preparation for an attack or invasion

built-in obsolescence a policy to produce goods that have a limited functional life or become outdated quickly

Bushido samurai code, sometimes known as the Way of the Warrior

C

career all of the work-related experiences a person has, including employment, volunteering, education and training, personal interest and hobbies

cash cropping the growing of agricultural crops for sale and profit

casualisation the change in the workforce away from full-time jobs towards casual jobs with flexible hours, higher hourly pay and fewer work benefits

casualties people who are killed, wounded or taken prisoner during a war

cause-and-effect relationship the relationship between events, actions or processes

cede lose control of a territory

chattels personal possessions or property

chlorophyll a green pigment that is present in all green plants and is responsible for the absorption of light to provide energy for photosynthesis

citizen a person who legally belongs to a country and has the rights and protection of that country

citizenship the position or status of being a citizen of a country

civics the study of the rights, responsibilities and duties of citizens and how the government works

civil law law that applies to ordinary private matters, where the maximum punishment does not include prison

coalition a temporary alliance of people, factions or parties; in politics, refers to parties that cooperate to form a government

common good for the benefit society as a whole, rather than individual members or groups

Commonwealth the Commonwealth of Australia, which is Australia's official title

concubine a long-term mistress of a married man, often living as part of the man's household

Confucian relating to the teachings of the philosopher Confucius

conscription compulsory service in the armed forces

consequences the natural result of an action taken

constitution a written set of principles according to which an organisation or a nation is governed

consumer goods commodities that are produced and subsequently consumed to satisfy people's current wants or needs

consumers organisms that gain their energy requirements by eating plant or animal matter

contention an argument or point of view, expressed simply and directly

contested the subject of debate or controversy

convict a person convicted of a crime

corporate culture the values, beliefs and attitudes that a company upholds and the way in which these affect how its employees behave

corroboration confirming information in a source by finding supporting evidence elsewhere

cost-benefit analysis a process of comparing the financial costs and financial benefits of a business decision; this can also assess the social costs and social benefits

criminal law law imposing punishment for illegal actions

crop yield a measurement of the amount of crops harvested per unit of land

cross-section a side view, or profile, of a landscape, providing a visual impression of the shape of the land

culture the complex mixture of the origin and heritage, language, religion, customs and way of life of a group of people

D

daimyo feudal lords who controlled major regions during the rule of the shogun

decomposers organisms that break down the remains of other living things

defendant the person or organisation in a court case whose behaviour is at issue and who will be proven guilty or not guilty

democracy a form of government in which people choose leaders by voting; in a democracy everyone is treated equally and has equal rights

demographic a particular part of the population, for example, people of a particular age group, income bracket, gender or ethnic background

desertification the expansion of deserts due to overgrazing, soil erosion, climate change or prolonged drought

diaspora the dispersion or spread of a people from their original homeland

digitisation the process of transcribing data into a digital form so that it can be directly processed by a computer

dissent a variation of or challenge to the dominant belief system of society

diversification spreading investment across several areas to reduce risk

dividends a small part profit paid to shareholders when a company makes a profit

E

e-commerce the buying or selling of products or services using the internet

ecological footprint a measure of the load imposed on nature by a given population

ecologically sustainable development economic development that uses, conserves and enhances the resources available, and ensures the ecological processes on which all life depends are maintained and the quality of life improved for both present and future generations

economic depression a long period of poor economic performance

economic growth an increase in capacity to produce goods and services

ecosystems communities of interacting plants and animals, and their physical surroundings

egalitarianism the idea that all people are equal and deserve equal rights and opportunities

electorate a defined area that is represented by a Member of Parliament, and its residents

emigration the process of leaving one's country of birth to settle permanently in another country

enclosure a process lasting from the 1500s to the 1800s of enclosing formerly common (shared) lands and creating large, privately owned farms

enterprise a complex activity; another word for a business or company

enterprising applying enterprise behaviours such as the ability to sense and seize opportunities

entrepreneur a person who applies entrepreneurial skills including vision, discipline, risk-management, problem-solving, interpersonal skills, critical and creative thinking

entrepreneurship the ability to apply entrepreneurial skills

environmentalism advocacy for, or work towards, protecting the natural environment from destruction or pollution

ephemera items intended to be used only for a short time

estuaries areas near the mouths of rivers, where the tide ebbs and flows

evaluate to judge the accuracy or reliability of a source

evaluative questions questions that deal with matters of judgement, value and choice

expenses costs associated with running a business

exports the goods or services a country creates and sends to another country

F

factor market a market in which resources (factors of production) are sold to businesses in exchange for income

fast fashion low-cost clothing that mimics current luxury trends

Federation the process that occurred in 1901 whereby Australia's independent colonies came together to form a single nation called the Commonwealth of Australia

feudalism a system in which a ruler claims ownership of all lands, but rewards loyal nobles with control of a domain

financial literacy understanding how money works, and the factors that affect how a person makes, manages, invests and spends it

financial management managing a business's finances by keeping track of its income and costs

food security having reliable and adequate access to sufficient, safe and nutritious food to continue a healthy and active life

G

globalisation the process in which goods and services become similar throughout the world; also the process of businesses operating or influencing on an international scale

goods items that are tangible (actual, or able to be touched) and meet human needs

government the elected group of people who control and make decisions for a country or state

graphic organiser a visual display demonstrating relationships, concepts or ideas

gross domestic product (GDP) the value of all the goods and services produced within a country in a given period of time, usually 1 year

H

'half-caste' now considered offensive, this term was used to describe an Aboriginal or Torres Strait Islander person who had one parent who was European

hierarchy a social structure in which some members are ranked higher than others; a system that reflects order of importance

hinterland an area surrounding a place that is linked to that place through lines of exchange or interaction

historical evidence primary or secondary sources used to interpret the past

historical interpretations views of people after the period of study, usually found in secondary sources

historical perspectives views of people in the period of study, usually found in primary sources

homogeneous consisting of parts or people that are similar to each other or of the same type

household sector the part of the economy made up of all the consumers

hung parliament a situation in which no single political party (or coalition) holds an absolute majority of seats in the House of Representatives

hypothesis a research statement that is investigated in order to reach a conclusion

I

identity theft the practice of using another person's identity to steal money or obtain other benefits

imperial pertaining to an emperor or their empire

income the money a worker or business makes through the production and sale of goods or services

independents political candidates who do not belong to any political party

infantry soldiers who fight on foot

influence the ability to have an effect on something

injection monetary value added to the economic circular flow, causing economic activity to rise

interfaith understanding cooperation between people and groups of different religions and faiths to understand and tolerate the views of others

internment restriction (which sometimes included imprisonment) of enemy 'aliens' (for example, foreign citizens and people born overseas) during a war

J

jurisdiction the territory controlled by a government

justice treatment or behaviour that is considered to be fair and reasonable

K

Kanaka a Pacific Islander taken (often forcibly) to work as a labourer in Australia in the late 1800s, especially in the sugar and cotton plantations of Queensland

kowtow to kneel and bow before the emperor as a sign of respect

Kulin the nation of five Aboriginal language groups living in Victoria: the Wathaurong, the Dja Dja Wurrung, the Woiwurrung, the Boon Wurrung and the Taungerong

L

land degradation the downgrading of land and soils, and their productive capacity

larrikinism rebellious and disrespectful behaviour

leakage monetary value no longer circulating in the economy, causing economic activity to fall

legally binding a common legal phrase indicating that an agreement has been consciously made, and certain actions are now either required or prohibited

liabilities debts that allow the consumer to borrow money now and repay it later, such as credit cards and bank loans

living standards the amount of wealth households have access to

location the place where something is or where something is occurring

M

malware software that allows a scammer to access the target's files or monitor what the computer is used for

manifesto a public declaration of intentions

market research a process of gathering information about a market

martial law when normal government is suspended and authorities use military power to control society

mediation a discussion and negotiation process that seeks to resolve disputes without involving the courts

meteorologists scientists who study the atmosphere and related phenomena, especially weather

mission the strategies a business will put in place to reach its overall objective or vision

monoculture the cultivation of a single crop on a farm

monopoly when a business or government has exclusive (complete) control over a product or service

N

nationalism belief that people of the same race, culture or ideals ought to belong to the same nation-state and rule themselves

nationalists people who believe their country is superior to others

natural systems cropping systems based on processes found in nature

net primary production the capacity of the Earth to support life through its biophysical processes

networking forming relationships with other businesses, suppliers and customers for the benefit of the business

New World the name given to North and South America by the Europeans

nomadic a way of life that involves moving across a territory seasonally in search of food and water

non-governmental organisation (NGO) a group independent of government that aims to improve the wellbeing of society

nuanced argument an argument that acknowledges complexity or contradiction

O

Opposition the main party, or coalition of parties, that has the second-largest number of members elected to the House of Representatives

organic food movement the organisations and individuals involved in promoting organic products and organic farming methods

ozone layer an outer layer of the Earth's atmosphere that has very high levels of ozone gas, which absorbs most of the ultraviolet radiation from the sun

P

parliament an assembly of the democratically elected representatives of a people; in Australia, the legislative branch of the government, which consists of three elements: the British monarch, the Senate and the House of Representatives

penal colony a place where convicts were transported to serve out their sentences for crimes committed in their home country

perceptions the way in which something is regarded, understood or interpreted

perennial crops crops that live for more than 2 years

perspective a particular attitude or way of thinking; a point of view

philanthropy the giving of resources such as time, expertise, goods and money to improve the wellbeing of society

phishing attempts to trick the target into disclosing information such as passwords or account details

photosynthesis a process by which green plants make carbohydrates such as sugar, using water, carbon dioxide and sunlight

place perception people's awareness of places and the particular opinions they have about them

places specific areas of the Earth's surface that have been given meanings, or which have been shaped by people

plaintiff a person who makes a legal complaint against someone else in court

plebiscite a vote to answer a question of national importance that does not affect the Constitution; also called an advisory referendum

policy a documented guideline for how employees are expected to behave, such as a uniform policy

political spectrum a way of classifying political beliefs and ideologies on a scale between two extreme points

pore spaces the spaces between individual soil particles

position to construct a source of information so that it makes the audience feel or act in a particular way

precedent a principle established in a previous legal case that a court or other tribunal must take into account when deciding subsequent cases with similar issues or facts

preselection the selection by a political party of a candidate for possible election

primary data information collected personally by the business owner

primary productivity the rate of energy accumulation (gathering), usually through photosynthesis

private sector the part of the economy containing all for-profit businesses that are not owned or operated by the government

process improvements redesigning how work is done within a business for better efficiency and productivity

producers organisms (plants) that produce their own food via the process of photosynthesis

product market a market in which goods and services are sold

profit the amount of money remaining from revenue after paying costs

promotion the process of attracting customers and persuading them to buy products and become loyal to the business

propaganda information given to the public that is designed to influence the way people think about an issue

protest action taken to show the disapproval of something, such as public demonstrations and marches

public policy the laws, priorities and governmental actions that reflect the attitudes, rules and needs of the public

public sector the part of the economy that provides government services and includes government-owned organisations such as schools, hospitals and the police force

R

ratio decidendi the reason or rule of law on which a judicial decision is based

reconciliation the process of repairing and strengthening relationships between groups; in Australia, this process includes the relationship of Aboriginal and Torres Strait Islander peoples and non-Indigenous Australians

redundant a person, product or service that is no longer required

referendum a vote to change the Constitution of Australia. In order to be passed, a referendum must be agreed to by a majority of the people and a majority of the states

regulation a rule or order given by an authority, such as the government, that guides behaviour and actions

reliability the trustworthiness or accuracy of the the sources you are investigating

relief the shape, height and steepness of the land

reprisals acts of retaliation (revenge) against others, often as a punishment by military forces

republic a country in which ultimate power is held by the people entitled to vote and the head of state is a representative of them, not a hereditary monarch

resignation a written document notifying an employer of a worker's intention to end the work agreement and leave their job

resilience the capacity of an ecosystem to respond to a disturbance by resisting damage and recovering quickly

resilient able to resist damage and recover quickly; strong

respiration the production of energy in living organisms, often involving the intake of oxygen and the release of carbon dioxide

résumé a document that lists a worker's personal details, qualifications, skills set, work history and referees

risk the possibility of incurring a loss or experiencing business failure

S

safeguard a measure or action taken to protect or to prevent harm from occurring

samurai members of the Japanese warrior class

scam an attempt to mislead a person to dishonestly obtain personal details, money or other valuables

secondary data information collected by a third party, such as the Australian Bureau of Statistics or a market research firm

sense of place the characteristics that make a place special or unique, and which contribute to a sense of human attachment and belonging

services things you pay people to do for you that are intangible (cannot be touched)

shell shock World War I term for the psychological and physical trauma caused in soldiers who experienced continued bombardment

shifting cultivation a farming system that involves moving from site to site as soil fertility declines due to leaching

shogun military ruler

shogunate military government

slave someone who is the property of another person

smallpox a contagious viral disease that was feared in the past but has since been eradicated

social cohesion how well a society ensures its citizens live without discrimination, have access to basic rights, and work together to improve society

social media digital tools such as websites and apps that allow users to create, share and comment on content in a network of other users

soil compaction the process in which a weight applied to soil causes air to be displaced from the pores between the soil particles

solar insolation the amount of solar energy that reaches a particular part of the Earth

source someone or something that provides information and evidence

Speaker the spokesperson for the parliament, who chairs (runs) its sessions

species a group of organisms capable of interbreeding and producing fertile offspring

sphere of influence a region where one foreign power is recognised as the controlling power

stakeholder a person or group that is involved in an issue

stalemate a situation in a contest (including war) where neither side is able to move forward or make progress

staple food a food that is the main part of the diet of a community or society

statute law law made by state and federal parliaments, also known as legislation

steam engine engine driven by steam pressure produced by boiling water

sustainability a future-focused concept that protects and enhances environments and the resources available to people, now and into the future

sustainable agriculture environmentally friendly farming methods that preserve an ecological balance by avoiding depletion of natural resources

syncretism the merging together of two religions or traditions

T

telegraphs system for transmitting messages along a wire over long distances

terrestrial ecosystems land-based communities of plants and animals

topographic map a detailed, large-scale representation of part of the Earth's surface

tourism travel for recreational, leisure or business purposes

trade barriers any government policies or regulations that restrict the international trade of goods and services

trade deficit when the value of a country's imports is higher than the value of its exports

trade liberalisation reductions in the direct and indirect forms of industry protection

trade unions an organised association of workers in a trade, formed to protect and improve workers' rights and interests

transect a straight line or narrow section through a natural feature or across the Earth's surface, along which observations are made or measurements taken

transnational corporations (TNCs) large companies that operate in a number of countries but generally have their headquarters in one of the countries of the developed world

transportation the complete removal of prisoners from their home country for a number of years, or potentially for the rest of their lives

treaty an agreement or contract

tributary state a subordinate state that sends gifts to the superior state

tubers the thick underground part of a stem of certain food plants (such as a potato)

turnpike gates erected on roads by local residents that travellers had to pay to pass through

U

unequal treaties one-sided treaties that usually benefited Europeans

union a group that represents workers in negotiations, offers workplace law advice and organises large-scale actions to support workers' rights

V

verdict a decision as to whether the accused person is guilty or innocent

virtual communities communities or groups of people sharing common interests, ideas and feelings over the internet or using other collaborative technologies

virtual space a computer environment that can simulate a physical presence in places in the real world or imagined worlds

vision the future goal of a business

W

water degradation the contamination of waterways with pollution

workforce the total number of people currently undertaking work or seeking work within a country

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Chapter 8   123RF: bugphai, fig. 8.7.5. **AAP Photo:** Peer Grimm/picture-alliance/dpa/AP Images, fig. 8.3.2. **Alamy Stock Photo:** All Canada Photos, fig. 8.3.3; Arco Images/Reinhard, H., fig. 8.4.3; Blickwinkel/McPhoto/Diz, fig. 8.4.5; David R. Frazier Photolibrary, Inc., fig. 8.5.1b; Tim Gainey, fig. 8.7.3; R. Hamilton Smith, fig. 8.5.1d; Greg Ryan, fig. 8.5.1c; Inga Spence, fig. 8.5.1e. **Dreamstime:** Andrew Chambers, fig. 8.4.2 (bl); Amador García Sarduy, fig. 8.4.1 (tr); Tyler Olson, fig. 8.5.4 (b); Sielan, fig. 8.4.1 (tc); Skouatroulio, fig. 8.5.1a; Stockcube, fig. 8.4.2 (br); Olivér Svéd, fig. 8.4.1 (tl); Raluca Tudor, fig. 8.4.2 (bc); Aleksandr Volodin, fig. 8.5.4 (t). **Fairfax Photo:** Jamila Toderas, fig. 8.8.3. **Fotolia:** Alis Photo, fig. 8.6.1 (c); fabiosa_93, fig. 8.6.1 (l); Tyler Olson, fig. 8.6.1 (r). **Getty Images:** Barbara Rich/Moment, fig. 8.4.4. **Ian McNiven:** fig. 8.8.2. **National Geographic Society:** Jim Richardson/National Geographic Creative, fig. 8.6.1 (background). **Oz Aerial:** Daryl Jones, fig. 8.7.4. **Precision Agriculture:** fig. 8.2.2. **Shutterstock:** Sirichai Chinprayoon, fig; 8.5.5Svetlana Gajic, fig. 8.0.1; Vladislav Gajic, fig. 8.1.2; Steve Lovegrove, fig. 8.1.3; Rashmiraj Patil, fig. 8.2.1; Rocky33, fig. 8.3.1. **The Land Institute:** fig. 8.6.2.

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