OXFORD ATLAS+ FOR AUSTRALIAN SCHOOLS



HASS STEM | Inquiry | Coding

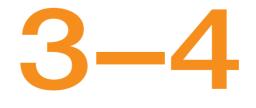
SAMPLE CHAPTERS

UNCORRECTED PAGE PROOF









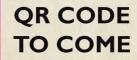
HASS | STEM | Inquiry | Coding



Contents

Discovering map skills

- What is a map? 2
- The map legend 4
- 6 Maps use direction and scale
- Finding places on maps
- 8 In ting data
- Differen. kinds of maps 10 12



E

Discovering our world

Earth, Sun and Moon

- Earth, Sun and Moon 16
- Day and night 18
- Seasons

Changing Earth

- Rivers change the land
- The changing coastline
- 26 Humans change the land 24

Natural resources

- Habitats in Australia
- Australia's natural resources
- Using our natural resources

Living things

- Living and non-living things 34
- Extinct animals
- 38 Life cycles

Heat

2

- Hottest and coldest
- Producing heat 42
- How do we use heat? 44

Forces

- Different forces
- Speed and friction
- Magnets

First people

- Australia's first people Indigenous sustainability practices
- 54

Arrival and impact

- Exploration
- The British arrive in Australia 58
- Living cultures

Communities and celebrations Communities around the world

- Democracy 64
- Multicultural Australia
- Remembering the ANZACs

Discovering our country

72 Australia

- 74 Western Australia
- 76 Northern Territory
- 78 South Australia
- 80 Queensland
- 82 New South Wales
- 84 Australian Capital Territory
- 86 Victoria
- 88 Tasmania

Discovering continents and countries

- 92 World environments
- 94 World countries
- 96 Pacific
- 98 New Zealand
- 100 Asia
- 102 South-East Asia
- 104 East Asia
- 106 South Asia
- 108 Middle East
- 110 Europe
- 112 Northern Europe
- 114 Southern Europe
- 116 Russia and neighbours
- 118 Africa
- 120 Northern Africa
- 122 Southern Africa
- 124 North America
- 126 Canada, Alaska and Greenland
- 128 United States of America
- 130 Central America and the Caribbean
- 132 South America
- 134 Northern South America
- 136 Southern South America
- 138 Antarctica
- 140 Map index
- 142 Subject index



Your essential HASS and STEM resource



Oxford Atlas+ *for Australian Schools* goes beyond a traditional atlas series by providing comprehensive coverage of the Science and Humanities and Social Sciences curricula for Years F–6, integrated into one program. There is also targeted support for the Technologies curriculum.

The atlases:

- teach essential map-reading skills and feature world, continent and country maps
- contain high-interest topics explicitly linked to outcomes in the Science curriculum and the Humanities and Social Sciences curriculum
- use practical, inquiry-based activities and experiments to teach topics and to develop students' critical thinking and problem-solving skills
- foster the application of humanities and STEM knowledge, concepts and skills within and across content areas to help students make real-world connections
- are accompanied by a wealth of digital resources that support the Technologies curriculum, including interactives designed to develop authentic design solutions and computational thinking across different subject areas.

Integrated learning within and across the curriculum

The integrated curriculum approach enables authentic learning experiences, while the application of cross-disciplinary and problem-solving skills encourages students to be innovative, creative learners.

C The atlases can be used in guided reading as an information text; to explore map references and grid lines in Maths; and during Inquiry Learning to explore the various geographical and geological features of countries.

"



To order this series or product, please go to page 240.

Literacy. See page 132.

Links to OZBOX: Learning Through

- Literacy Coordinator, Victoria



What does *Oxford Atlas*+ *for Australian Schools* look like in the classroom?



1

Introduction

Evaluate students' prior knowledge with the pre-assessment ideas on the Teacher Dashboard.

Play video relating to the topic as a class introduction.



2

Whole-class or guided-group work

Select some of the activities on the Teacher Dashboard to explore as a class or within small groups.

Demonstrate digital interactives related to the topic.

4

Assess

Implement suggested assessment activities from the Teacher Dashboard to evaluate student understanding and skill development.

View student quiz results on the Teacher Dashboard to analyse student achievement and identify trends. (Years 3–6 only)

										Show all	
elect and load the class or studer	t below.										
2017 Class 5C	•	Select st	udent			•	Load		RESULTS		
Exploring our World									Assign work		
Earth in Space											
Support View assessment			c	ompleted	by T stud	lents	Avg score:	85.71% S	tudent results ~		
									2 14 12		
Name	Q.1	Q.2	63	Q.4	Q.5	Q.6	Q.7	Attempts	Latest score		
Ethan Alwood	*	~	*	*	×	-	*	1	71.4%		
Sebastian Bird	×	~	~	~	~	~	~	1	85.72%		
Jonas Lee	*	ж	~	~	~	~		1	\$1.7%		
Nurah Ibrahim	~	~	~	~	~	~	~	1	100%		
Isabella Naimo	*	~	×	×	*	*	*	1	71.4%		
Kim Lowe	~	~	~	~	-	×	×	1	71.4%		
Evie Seabrook	×	×	*	*	×	*	~	1	42.9%		

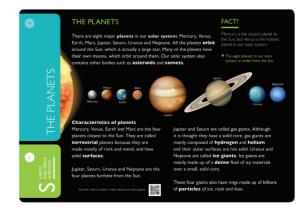
3

Independent work

Allocate activities from the Teacher Dashboard for students to do in pairs or small groups.

Assign a selection of relevant OZBOX cards to students for deeper exploration of topics. (Years 3–6 only)

Assign students independent work to develop their research skills through questions and project work.





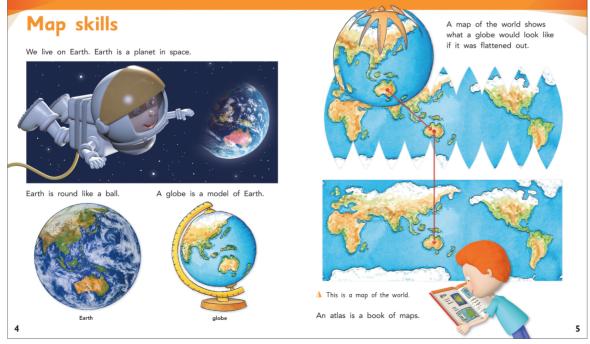
Look inside

STUDENT RESOURCES

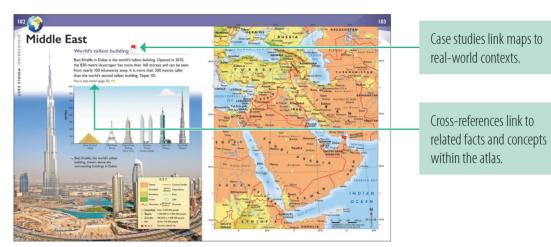
Print atlases

- Introduce, discover and explore essential map-reading skills.
- Contain world, continent, country and state maps, with case studies to help students explore the world.
- Provide high-interest topic spreads covering Science, History, Geography, Civics and Citizenship (Years 3–6), and Business and Economics (Years 5–6) content from the Australian Curriculum.
- Contain updated world facts and statistics.

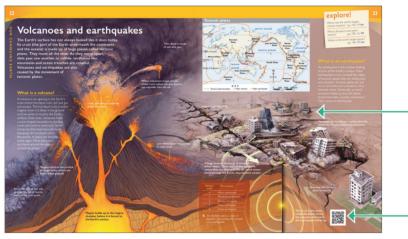




Oxford Atlas+ *for Australian Schools F*-2, Basic Mapping Skills.



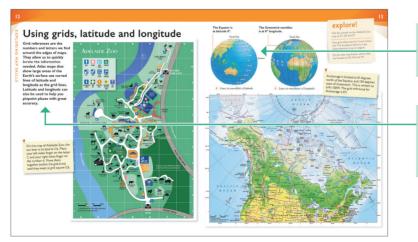
Oxford Atlas + *for Australian Schools 3*-4, Physical and Political Map.



Oxford Atlas+ *for Australian School 5–6*, Geography Topic Spread.

Stunning visuals and clear diagrams help engage students.

QR codes throughout the book link to videos.



Clear progression of learning

concepts matched to students' developmental stages.

Explicit instruction to develop spatial reasoning.

Oxford Atlas+ *for Australian Schools 5–6*, Advanced Map Reading Skills.



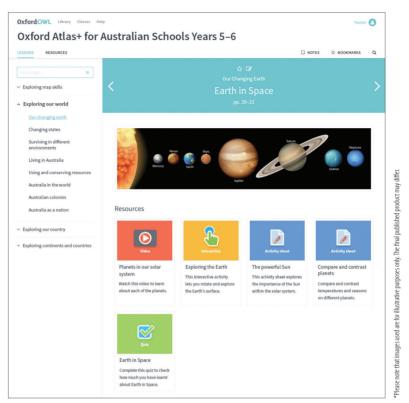
Look inside

STUDENT DIGITAL RESOURCES^{*}

- Digital interactive maps for deeper exploration of geographical regions.
- Mapping and skills interactives enrich and supplement the mapping skills section in the print books.
- Digital Technologies interactives based on themes found within the atlases help develop computational thinking.
- Video links connect to high-quality videos.
- OZBOX cards can be assigned by teachers for further exploration of topics and concepts in the atlases.
- Self-correcting quizzes help students test their knowledge and understanding.
- *Years 3–4 and Years 5–6 only

Student and Teacher Dashboards coming Term 1, 2018!

Subscription options for the *Oxford Atlas* + *for Australian Schools* Dashboards will be available for teachers and students in 2018. For more information, contact your local Oxford Primary Consultant.



Oxford Atlas+ for Australian Schools 5-6, Student Dashboard.

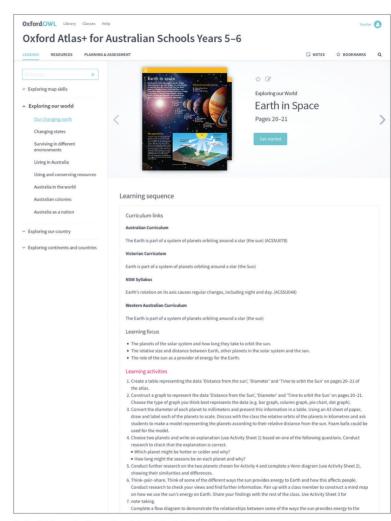


Oxford Atlas+ for Australian Schools 5-6, Geo-skills Interactive.

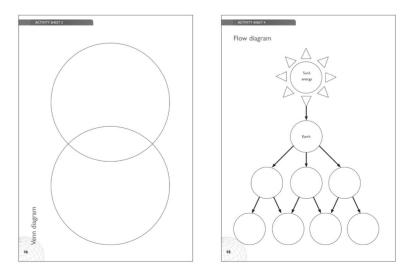
TEACHER RESOURCES

A suite of *Oxford Atlas*+ for Australian Schools online teaching resources can be found on *Oxford Owl*. A Teacher Dashboard is available for each stage of the atlas. Resources include:

- explicit links to specific Australian Curriculum Science, History, Geography, Civics and Citizenship (Years 3–6 only), and Economics and Business (Years 5–6 only) content descriptions
- professional support notes with teaching activities, ideas and experiments
- suggested pre-assessment and assessment activities
- videos, mapping skills interactives, interactive layered maps, and Digital Technologies interactives for front-of class teaching
- links to a selection of relevant OZBOX cards, with the ability to assign cards to students (Years 3–4 and Years 5–6 only)
- downloadable activity sheets and graphic organisers
- online tracking of student quiz results.



Oxford Atlas+ for Australian Schools 5–6, Teacher Dashboard.



Oxford Atlas+ for Australian Schools 5-6, Activity Sheets.

The map legend

The map legend explains the colours, patterns and symbols used on the map.

Colours

We know what the colours on a traffic light mean—red is stop, yellow is wait and green is go. The colours used on maps also help the reader to recognise them. Green is used for parks and forests. Blue is used for water.

Symbols

Symbols are used on maps to help the reader find features. Symbols are simple pictures that represent a feature. We read the picture rather than the word. Here are two common symbols we see every day.

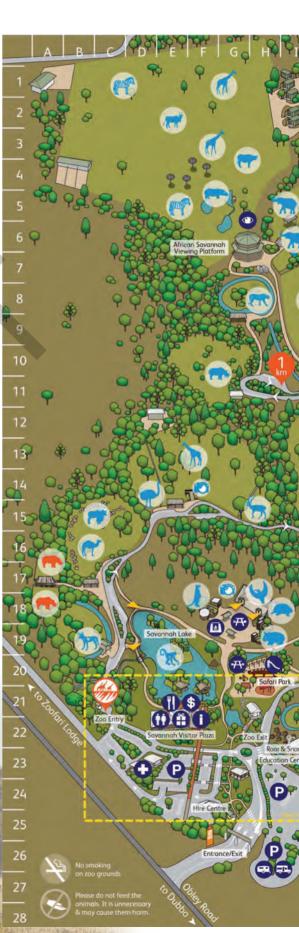
Grass

Trees

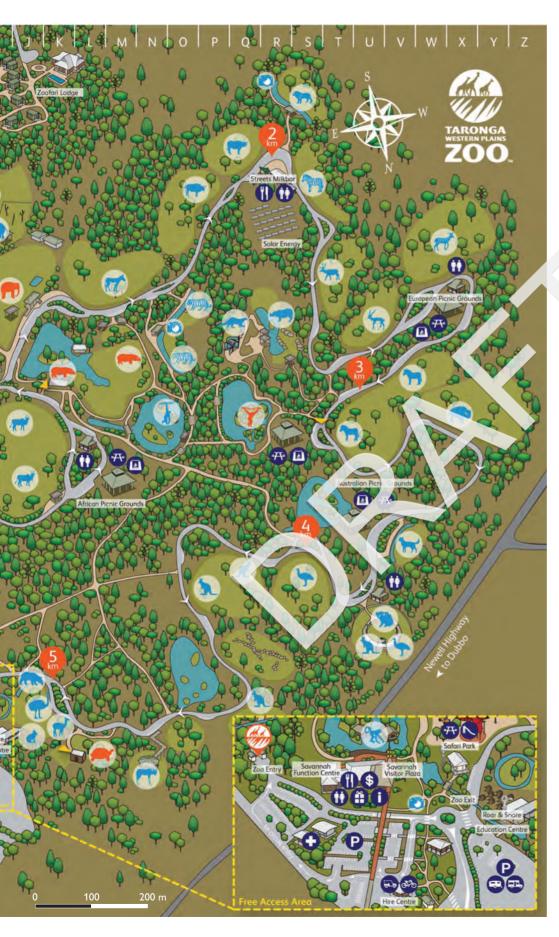


Colours, patterns and symbols used on the map of the Western Plains Zoo.

Giraffe



4



discover!

What animal can be found on an island in Savannah Lake?

Go to the red '4 km' label on the map. Name three Australian animals found near here. (Not all of these animals are listed in the legend.)

< Map of Taronga Western Plains Zoo



Interpreting data

Maps, tables and graphs can give readers a lot of information. They help you see patterns and trends in the data presented. These pages display different information about bilbies in the Arid Recovery Reserve in South Australia. See what you can learn about these bilbies by carefully studying the table, graphs and map.

Bilbies have been released into the Arid Recovery Reserve in outback Australia. The reserve is fenced to keep out predators such as feral cats, rabbits and foxes.

Data tables

Data tables arrange information into a series of rows and columns. This makes it easier to compare or tally information.

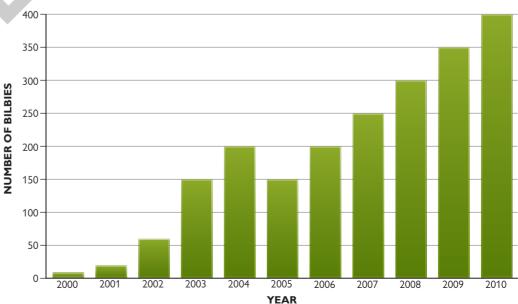
Column graphs

Column graphs show information in a column or a bar. They help us to easily compare things or to see trends.

Bilbies released into the Arid Recovery Reserve

Year	Males	Females	Total
2000	4	5	9
2003	4	4	8
2004		4	15
2005	5	5	10

Bilby population in the Arid Recovery Reserve



Picture graphs

Picture graphs use symbols to represent different amounts. This helps the reader to understand the data. Often symbols on picture graphs can represent more than one.

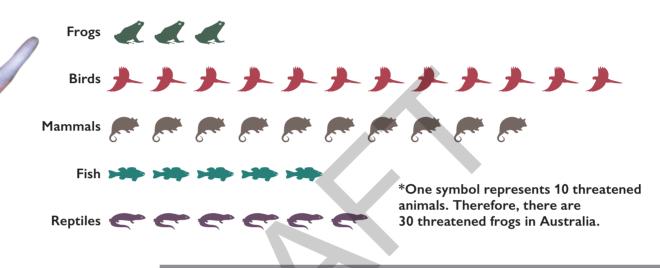
Australia's threatened animals, 2013

discover!

In what year were 15 bilbies released into the Arid Recovery Reserve?

How many threatened mammals are represented on the picture graph?

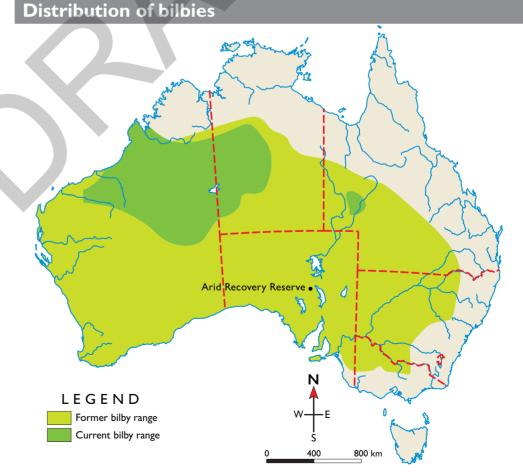
Look at the graph on page 108. How tall is the Eiffel Tower?



Maps

Data can also be shown on maps to let the reader know where something occurs. Maps can hold a lot of information:

- the names and borders of countries and states
- the locations of towns, cities and places
- distribution patterns in this case, the areas where bilbies are found in Australia.



The changing coastline

As waves crash into the coast they create landforms with many different shapes. The waves erode the land to form steep cliffs and caves. Sometimes a cave can become so large that it forms an arch. The rock that breaks away is smashed into smaller pieces by the waves. The smallest rock pieces form the sand that we find on beaches.



▲ The coast near Port Campbell in Victoria is made of a soft rock called limestone. The waves have eroded the rocks to form shapes like this arch.

> Headlands are steep, high parts of the coast that extend out into the sea. The area between two headlands is called a bay.

discover!

What is the main cause of erosion along the coast?

How does a cave become an arch?

Where are the caves in Halong Bay? (page 102 >>)

As the rocks are worn away by waves, the grains of rocks gather on the beach as sand.

wave

bay

arch

cave

Groynes are walls built on the beach to stop the sand washing away.

A LANS

sea

The roots of plants on sand dunes hold the sand together.

Headlands are made from hard rocks that are left behind when the softer rock has worn away.

stack

cliff

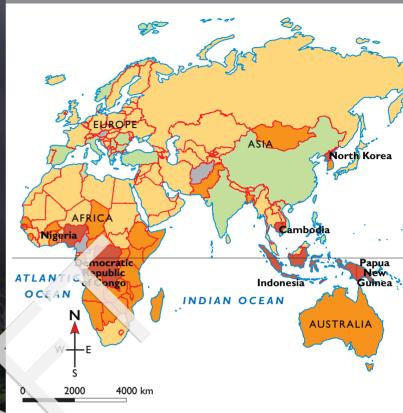
Risk of deforestation

Humans change the land

Human activities change the surface of the land. We clear forests to build roads, farms and towns, as well as for logging and mining. Clearing the Earth's forests to use the land for a different purpose is called deforestation. Trees protect the land from erosion. When trees are removed, rain washes the topsoil away. The habitats of plants, animals and indigenous peoples are also destroyed.

The Amazon rainforest

The Amazon rainforest is the world's largest rainforest. One in three of all the plant and animal species in the world live in the Amazon rainforest. In the last 50 years, around 17 per cent of the forest has been lost mostly due to deforestation for grazing cattle. The government of Brazil has protected areas of forest and made laws to limit the amount of forest that can be cut down.



Trees are cut down and burned.



How do trees hold the soil together?

Where is the largest rainforest on Earth?

Where is the world's	tallest	
flowering plant?	(page	88 🕨)

Why are the habitats of many animals in Madagascar under threat? (page 118 >>)

Land is cleared for a village.

Gold mining destro the forest and pollutes the river.

ATLANTIC

OCEAN

SOUTH Equator

Brazil

Nicaragua

AMERICA

Bolivia

Land is cleared for agriculture and cattle grazing.

Deforestation in the Amazon rainforest

The habitat of these

birds is destroyed

The river is brown. It carries away topsoil that is no longer protected by trees.

ARCTIC OCEAN

PACIFIC OCEAN

4

LEGEND

Risk of deforestation

Extreme risk High risk Medium risk Low risk No data

NORTH

AMERICA

Trucks take logs to the paper mill.

Different forces

Forces are pushes and pulls. There are contact and non-contact forces that make things speed up, slow down and change direction.

Contact forces

There are contact forces like pushing a toy car or kicking a ball. The force of a push or a kick moves an object. Friction (page 48) is a contact force between two surfaces that slows things down. Air resistance is a type of friction that slows things down. Walking into a strong wind is an example of air resistance.



Trying to walk into a very strong wind can be difficult. Air resistance is pushing against these walkers.

The force is pushing the tractor

The tractor moves forward.

Friction between the grass and the tyres slows the tractor down.

Non-contact forces

There are also non-contact forces such as gravity and magnetism (page xx). Non-contact forces push and pull objects without touching them. Gravity is the force that makes things fall to the ground. On Earth, gravity stops everything (including our air) from drifting into space.

discover!

What example of air resistance occurred in the Caribbean in 2012? (page 130 ►) Why does the log flume ride go so fast? (page 128 ►)

How does the gravitational pull between the Earth and the Moon affect our seas? (page 125 >>)

force of gravity

 If you drop or throw a
basketball, gravity will pull it to the ground.

The force of gravity is much weaker on our Moon. This is because the Moon is much smaller than Earth. Imagine you can jump 30 centimetres high on Earth. On the Moon, you could jump two metres high. You could also throw a ball six times further.

ground

When astronauts walked on the Moon, they hopped across the surface.

48

Speed and friction

Forces influence the speed at which an object moves. Friction is a contact force between two surfaces that are trying to slide across each other. Friction always slows a moving object down.

Useful friction

Friction can be a useful force because it stops our shoes slipping on the floor and helps cars to stop. More friction is produced when the surfaces are rough. Ice is very smooth and causes very little friction. It is easy to slip on ice, but it helps ice-skating because there is little friction.

Tyres are made of rubber. Rubber is waterproof and resists tearing. Tyres are designed to increase or decrease friction with the ground. Less friction increases speed. More friction reduces speed. This woman has slipped on the ice. Less friction is produced on smooth surfaces like ice.

The force of the air pushes against the car.

This smooth, thin tyre is for a racing bike. It is designed to reduce friction.

In annument

This bike tyre is designed to increase friction. It gives the rider greater grip on slippery slopes.



Air resistance

Air resistance is friction between air and another object. When a car drives along the road, air particles hit the car and slow it down. Cars use smooth, curved (streamlined) shapes to reduce air resistance. Aeroplanes are also streamlined to help them move through the air as easily as possible.

discover!

Does friction speed up or slow down objects?

How do people in Amsterdam overcome friction in winter? (page | | | >>)

How can you use friction to warm your hands? (page 43 <<)

This Australian Olympic cyclist needs to reduce air resistance. She wears a smooth, curved helmet and smooth, tight clothes. The rider bends down to let the air flow over her. The wheels are closed in to help the air flow around them.

The curved shape of the car allows air to flow around it.

▲ This car is aerodynamically designed to reduce friction.

Indigenous sustainability practices

Aboriginal and Torres Strait Islander people have a deep knowledge of the land. This special relationship is important in every aspect of their lives. They use both traditional and modern sustainability practices to manage the natural resources and environments.

Fire

Aboriginal people use fire to look after and heal their country. At the right time of the year and day slow-burning fires are lit to manage the growth of grasses and scrub and to rejuvenate the land. These cool burns are often managed by Aboriginal rangers and have a lower impact on wildlife and flora than a raging bushfire.



Art

Ancient Aboriginal rock art tells stories and describes cultural practices and the environment. Pieces of rock art, discovered in Arnhem Land in the Northern Territory, date back to 28,000 years ago. This is some of the oldest rock art in the world. The conservation of this art is an important part of sustaining Aboriginal history.



This rock art, depicting a fish, is found in Ubirr, Northern Territory.

 A ranger participates in cool burning in the Wardekken Indigenous Protected Area, in Arnhem Land, Northern Territory.

55

discover!

How is fire used as a sustainability practice?

What other kind of indigenous rock art is found in Australia?

(page 74 ►►)

What sustainability practices would have helped this extinct Mauritian species? (page 122)

Waterways

Many of Australia's waterways are special to Aboriginal people and need to be protected. There are many significant sites along, and in, river beds. Making sure there is no overuse of these waterways will help to protect these environments.





Threatened species

at Stand and States The

Aboriginal leaders work with state and federal governments to protect threatened species, such as dugongs. This work includes protecting habitats, tagging and tracking wildlife, and setting up parks to protect threatened species.

Rangers patrol the waters off the Gulf of Carpentaria, removing rubbish that has washed into the sea.



Exploration

Humans have always explored the world. Explorers recorded their expeditions as maps. The maps continued to change as new information about the world was discovered. Early sea explorers believed that the world was flat. They thought they would fall off the edge of the world if they sailed too close to the horizon, so they tended to stay close to coastlines.

Leif Eriksson

Leif Eriksson was a Viking. Eriksson was also the first European to reach North America. In 1001, he established a small settlement in modern-day Newfoundland. His discovery of this new world remained a secret and most of the credit for North America's discovery went to Christopher Columbus, nearly 500 years later.

James Cook

Captain James Cook explored and mapped the east coast of Australia in his ship, *Endeavour*. In 1770, Cook named Botany Bay (now Sydney). Cook's crew fired warning shots at two Aboriginal people who responded by throwing spears. Even though the Aboriginal people inhabited Australia, Cook claimed the whole eastern coast for the King of England, naming it New South Wales.

EUROPE

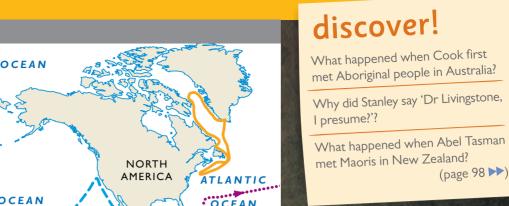
AFRICA

ATLANTIC

Exploration and discovery dates

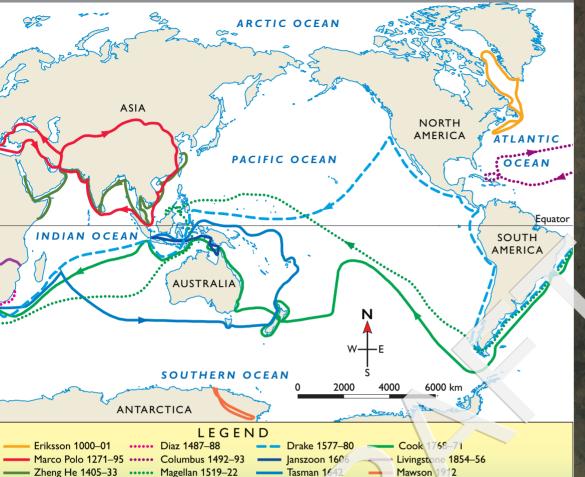
500 BCE	120 CE	982	1001	1271-95	1405-33	1487-88	1492-93	1519-22
The Silk Road,	Ptolemy makes the first flat map	Eric the Red discovers Greenland.	Leif Eriksson	Marco Polo goes to China.	Zheng He sails from China to the Pacific islands, the Middle East and Africa.	Bartholomew Diaz rounds the	Christopher Columbus sails to America.	Ferdinand Magellan sails around the world.

56



Sir Douglas Mawson

1912, Australian Sir Douglas Mawson, Xavier Mertz and Belgrave Ninnis explored an unknown region of Antarctica. After travelling over 500 kilometres across the ice, Ninnis and Mertz both died. Mawson then battled frostbite and starvation to reach the expedition base.



D

Exploration

stone

n 1856, Scottsman Dr David Livingstone pecame the first European to travel across Africa. After being reported missing, Livingstone was found by Henry Morton Stanley. 'Dr Livingstone, I presume?', said Stanley when he saw Livingstone on the shores of Lake Tanganyika in 1871.

1577-80	1606	1642	1770	1856	1909	1911	1912	1961	1969
Francis Drake sails around the world.	Willem Janszoon discovers the northern coast of Australia.	Abel Tasman reaches Van Diemen's Land (Tasmania) and New Zealand.	James Cook	David Livingstone	Robert Peary discovers the North Pole.	Roald Amundsen is the first person to reach the South Pole.	Douglas Mawson	Yuri Gagarin	Neil Armstrong is the first man on the Moon.

(page 98 ►►)

Democracy

Democracy means 'rule by the people'. In a democracy, most people have a say or a vote. When we vote for something and are included in making decisions, it helps us to feel valued and take responsibility for making something the best it can be. Usually, in a vote, the side or idea with the most votes wins.



Australian citizens aged 18 years and over must vote on election days. They vote for someone who best represents their opinions in the House of Representatives and the Senate.

64

Federal, state and local governments

Australia has three forms of government: federal, state and local. The federal government looks after issues on a national scale like immigration and trade. State governments looks after issues within a state, such as health and education. Your local government looks after the area you live in and is in charge of services such as libraries, parks, cultural events and recreation.

Laws and rules

One of the main roles of federal and state governments is to make laws. Laws make sure that our society operates safely and effectively. There are usually consequences if laws are broken. Rules, which you might have at home or school, help us understand the correct behaviour in certain situations and places.

discover!

What does the word 'democracy' mean?

What are the three forms of government in Australia?

Where did the idea of democracy come from? (page 110)

A democratic system of government

Australia has a democratic system of government. This means that representatives of the government are elected by the people in a public vote.

Government representatives attend a debate.

There are also laws to keep us safe on the roads. Here, a car stops at a stop sign to let a train go past.





72



Australia's Gold Coast

The Gold Coast attracts millions of tourists every year. It is famous for its beaches. There are also many attractions on the Gold Coast such as Sea World (pictured), Movie World and Dreamworld.

Australia's largest city

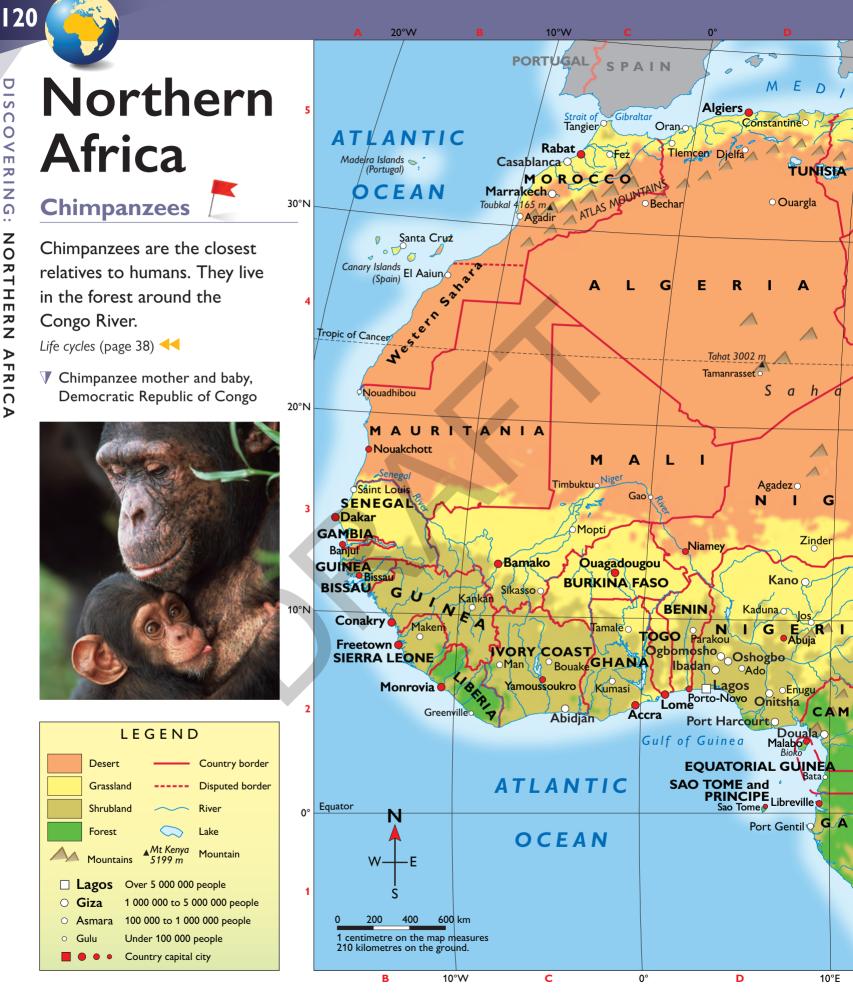
K

V Sydney is Australia's largest city.
It is located on Sydney Harbour.
The famous Sydney Opera House
is built on Bennelong Point.











South America

South America is divided by the Andes Mountains. To the west is desert and to the east is rainforest. The Amazon rainforest is the largest rainforest in the world. Brazil is the largest country in South America. Half of the continent's people live there. Christianity, in particular Roman Catholicism, is the most popular religion.

People of the Amazon rainforest

The Xingu Indians live in the Amazon rainforest in Brazil. They are skillful hunters. The Xingu Indians hunt for monkeys, wild pigs, fish and birds.

Australian Aboriginal people and hunting (page 52)



South America facts

Population: 424 000 000

Largest city: Sao Paulo 21 300 000 people

Galapagos Islands or)

Amazon River

The Amazon River carries more water than any other river on Earth. It is estimated that one-sixth of all the fresh water that drains into the world's oceans is from the Amazon River.

Rivers change the land (page 22)

CHILE PACIFIC OCEAN

Aruba (Netherlands) Curacao (Netherlands)

Bogota

COLÓMBIA

F N

CARIBBEAN SEA

Quito

ERU

P

Lima

ECUADOR

Santiago 🗖

LEGEND

BRAZIL Aruba (Netherlands)

Country border Country name Dependency

Country capital city

Sucre

- Santiago Over 5 000 000 people
- Brasilia 1 000 000 to 5 000 000 people
 - 100 000 to 1 000 000 people

• (no example) Under 100 000 people



Giant anaconda

Anacondas live in the Amazon rainforest. They are one of the world's largest snakes. Anacondas grow up to six metres long. Adult anacondas can eat sheep, dogs and even jaguars. 🕨 Feeding (page 132) 🔫

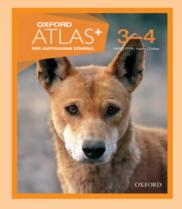


Stage two of the Oxford Atlas⁺ for Australian Schools series provides coverage of the Years 3–4 Science and HASS Australian Curriculum content, and fosters the application of STEM knowledge within and across content areas. In the **print atlas**, students will discover formal mapping skills and conventional map symbology. Engaging thematic spreads and case studies from around the world enable students to build on existing knowledge. The **online Student Dashboard** includes videos; digital interactives, including coding and mapping skills; and interactive maps to enrich and supplement the print atlas.

The **online Teacher Dashboard** includes professional support notes, with teaching activities, ideas and experiments; pre- and post-assessment activities; and tracking of student quiz results.



Introduce Students are introduced to mapping skills, highly engaging thematic spreads and world maps.



Discover

Students **discover** formal mapping skills and conventional map symbology, engaging thematic spreads and case studies from around the world.



Explore

Students **explore** advanced map-reading skills, visually stunning thematic spreads and a wide range of detailed maps complemented by case studies.



Did you know?

I'm a dingo. I live in a pack of about 10 dingoes. I eat meat but also fruit and nuts. I don't bark, but I do howl!

www.oxfordowl.com.au

Oxford Owl — the online destination for Oxford Atlas⁺ resources.





visit us at: **oup.com.au** or contact customer service: **cs.au@oup.com**

