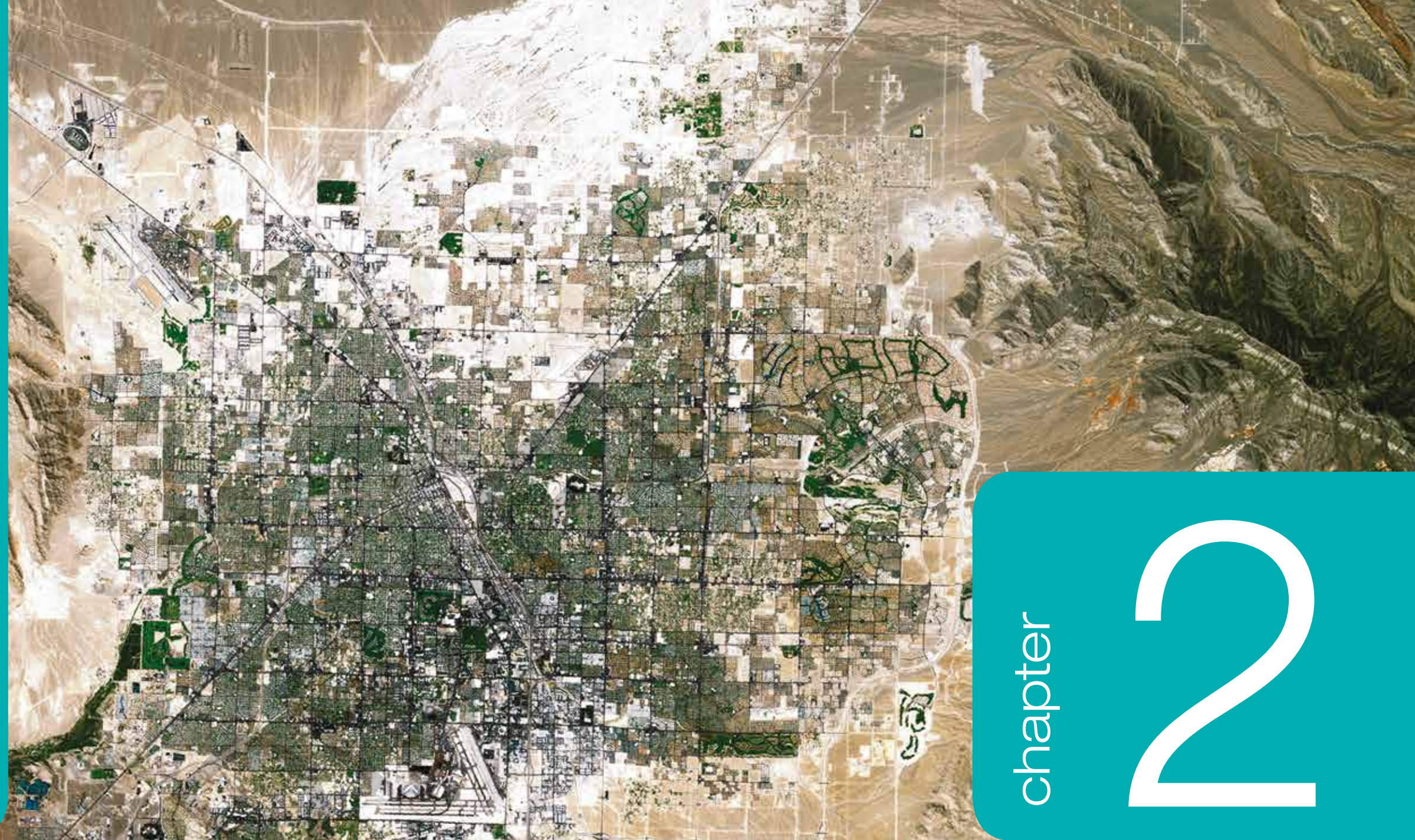


Unit 1 Landforms and landscapes

Landforms and landscapes

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



chapter 2

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

2A

What are landforms and landscapes?

- 1 Use Source 1 to identify two different landforms and two types of landscapes.
- 2 Think about the place in which you live. Can you identify two different landforms and two types of landscapes that you see every day?

2.1 The Earth's landscapes

What is a landscape?

A **landscape** is part of the Earth's surface. It consists of a variety of geographical features that are characteristic of an area. Landscapes are divided into two main categories – natural and human. Natural landscapes (for example, mountains and deserts) are

mainly unaffected by human activity and are typical to particular areas of the world. Human landscapes (for example, cities and farms) have been created and modified by people. Human landscapes are sometimes also referred to as cultural landscapes. Some different types of landscapes are described below.

WORLD: EXAMPLES OF DIFFERENT LANDSCAPES



Source 1

Source: Oxford University Press



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

1 Mountain landscapes

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

2 Coastal landscapes

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



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



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

3 Riverine landscapes

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

4 Arid landscapes

A desert is defined as an area of land which receives no more than 25 millimetres of rain per year. Deserts cover about one-third of the Earth's surface and contain some of the most uninhabitable regions on Earth. There are two types of deserts – hot deserts and cold deserts. Hot deserts are located along the tropics of Cancer and Capricorn (the latitude lines to the north and south of the Equator). Cold deserts

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



are located closer to the Arctic and Antarctic Circles (the circles of latitude in the far north and far south). Because of the lack of rain they have little vegetation (plant life). Instead deserts are characterised by sand dunes, rock and gravel.

5 Karst landscapes

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



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

7 Human landscapes

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

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



Check your learning 2.1

Remember and understand

- 1 What is the meaning of the geographical term 'landscape'?
- 2 Which types of landscapes are found around the Tropics of Cancer and Capricorn?
- 3 Why do you think human landscapes are included in the definition of the word 'landscape'?

Apply and analyse

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

Evaluate and create

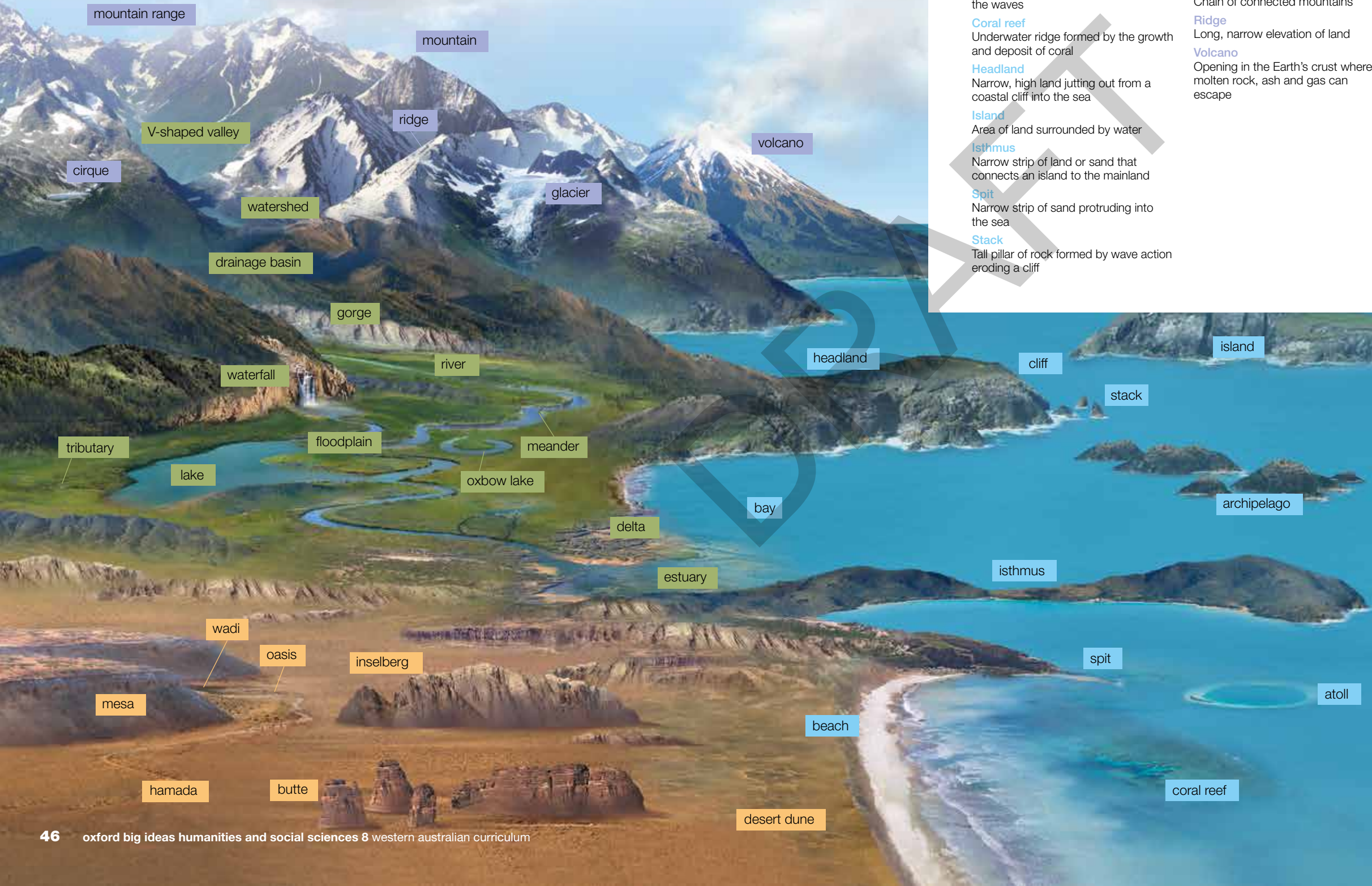
- 5 Research one landscape that interests you. Your chosen landscape might be on the World Heritage List (such as karst in The Skocjan Caves Regional Park) or in your local area. Investigate what makes this landscape unique, and provide information about how it is used. Present your research in the form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

2.2 The Earth's landforms

What is a landscape?

A **landform** is a natural geographic feature or shape that appears on the Earth's surface. Large landforms include mountains, plains, and rivers while small landforms include hills and billabongs. Landforms

are shaped and created by a **natural process**, such as **tectonic plate movement** and **erosion**. Natural landscapes are made up of a variety of landforms. Often landforms are not unique to a single landscape. For example, a hill can be found in many different landscapes.



COASTAL LANDSCAPES

Atoll

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

Archipelago

Group or chain of islands

Bay

Broad, curved indentation in the coastline

Beach

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

Cliff

Steep rock face formed by the action of the waves

Coral reef

Underwater ridge formed by the growth and deposit of coral

Headland

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

Island

Area of land surrounded by water

Isthmus

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

Spit

Narrow strip of sand protruding into the sea

Stack

Tall pillar of rock formed by wave action eroding a cliff

MOUNTAIN LANDSCAPES

Cirque

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

Glacier

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

Mountain

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

Mountain range

Chain of connected mountains

Ridge

Long, narrow elevation of land

Volcano

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

RIVERINE LANDSCAPES

Delta

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

Drainage basin

Area providing water to a river system

Estuary

River mouth broadening into the sea

Floodplain

Flat area over which water spreads in times of flood

Gorge

Deep, narrow, steep-sided valley

Lake

Large body of water surrounded by land

Meander

Bend in a river

Oxbow lake

Crescent-shaped lake on a river floodplain

River

Natural waterway that takes water downhill by gravity to the sea

Tributary

Small river that joins a larger river

V-shaped valley

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

Waterfall

River-water spill over resistant rock

Watershed

High point from which water flows into a drainage basin

ARID LANDSCAPES

Butte

Flat-topped hill

Desert dune

Wind-blown particle formation

Hamada

Area covered in boulders and large stones

Inselberg

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

Mesa

Flat-topped, steep-sided plateau

Oasis

Desert area with a water supply provided by groundwater

Wadi

Dry watercourse in a narrow valley that divides a plateau

Source 1 Some common landforms found in different natural landscapes

Check your learning 2.2

Remember and understand

- 1 Describe the meaning of the geographical term 'landform'.
- 2 Identify four geomorphic processes.

Apply and analyse

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

Evaluate and create

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

2.3 Landforms and landscapes around the world

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

Iconic landscapes and landforms

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

historical meaning, and they provide an identity for people and places. Countries all over the world have their own unique landforms. Some examples are Yellowstone National Park in the United States, the Sossusvlei red dunes in Namibia or the Perito Moreno Glacier in Argentina.

Protecting our landscapes landforms

While some landscapes and landforms around the world are protected from humans, many landscapes have been affected by human activity. A challenge for people around the world is to ensure that natural landscapes and landforms are enjoyed in a sustainable way so that they are there for us in the future. It is everyone’s responsibility to look after our landforms and landscapes. There are over 500 national parks in Australia alone that cover over 28 million hectares of land. These parks, along with other conservation reserves and heritage listed sites, are kept safe from human activities such as farming and land clearing, which are banned in these areas.

Source 1 Some common landforms found in different landscapes

Landscape type	Some common landforms found in that landscape	An Australian example	A world example
Mountain	<ul style="list-style-type: none">Mountain – a large elevation on the Earth’s surfaceRidge – a long, narrow, elevated surfaceValley – a low area enclosed by mountains	<p>At a height of 2228 metres above sea level, Mt Kosciuszko in NSW is the highest mountain in Australia</p> 	<p>Mt Everest is the tallest mountain in the world at 8848 m tall.</p> 
Coastal	<ul style="list-style-type: none">Stack – a vertical column of rockBeach – a sandy or pebbly shoreHeadland – a high, rocky outcrop of land	<p>The Twelve Apostles is a group of limestone stacks off the shore of the Port Campbell National Park in Victoria.</p> 	<p>The White Cliffs of Dover are found along the southern coast of England.</p> 
Riverine	<ul style="list-style-type: none">Flood plain – a low-lying area regularly flooded by a riverRiverbed – the channel in which the river flowsBillabong – an arm of a river which forms a pool, only joining with the river in times of flooding	<p>The Riverina area in NSW is made up of flat flood plains irrigated by the Murrumbidgee, Edward and Lachlan rivers.</p> 	<p>Majuli is one of the largest river islands in the world on the Brahmaputra River in India.</p> 
Arid	<ul style="list-style-type: none">Inselberg – an isolated steep-sided rock hill on a plainOasis – a supply of groundwater in the desertGrassland plains – a large, flat area sparsely covered with grasses	<p>Uluru is a large sandstone rock formation in the southern part of the Northern Territory, known as an inselberg.</p> 	<p>The Sahara Desert, located in northern Africa, is an example of an arid landscape. It is the third largest desert in the world.</p> 
Karst	<ul style="list-style-type: none">Spring – a basin in the rock allowing water to come to the Earth’s surfaceCave – a large hollow underground with an openingStalactite – a formation that hangs from the ceiling of a cave, formed by dripping water and minerals	<p>The Wombeyan Caves in NSW consist of nine limestone caves with spectacular stalactites and other formations.</p> 	<p>The Guilin Karst hills and caves are made of limestone and are a spiritual place to visit in China.</p> 

Check your learning 2.3

Remember and understand

1 In which two landscape types would you find valleys?

2 In which Australian location would you find an inselberg?

Apply and analyse

3 Look carefully at Source 1.

a How many different types of landforms are included in this table?

b Why do you think Australia has so many different landforms?

c Write a short description of the image of the Riverina flood plain in NSW. Describe the advantages and disadvantages of living in this area.

Evaluate and create

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

2.4 Valuing landforms and landscapes

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

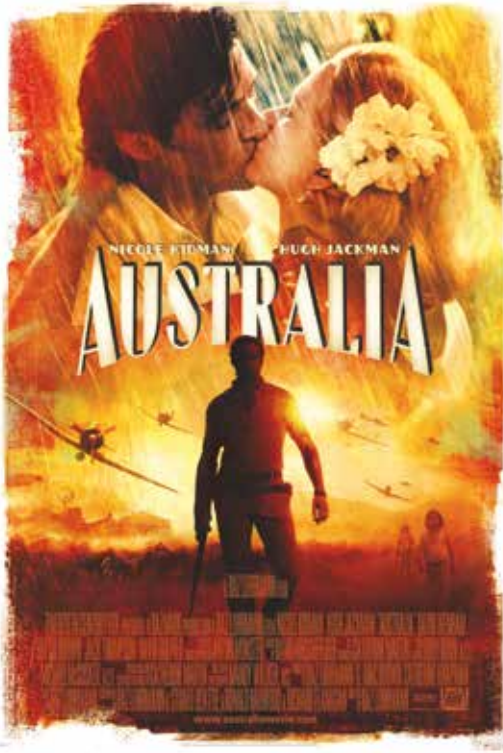
- cultural value
- spiritual value
- aesthetic value
- economic value.

Cultural value

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



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



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

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

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

Spiritual value

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

Aesthetic value

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

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

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

Economic value

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

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

What is the true value?

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



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



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

Check your learning 2.4

Remember and understand

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

Apply and analyse

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

Evaluate and create

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

2.5 Connecting through landscape stories

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

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

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

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

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

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



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

keyconcept: Place

Links between people and the natural landscape

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

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

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

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

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

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



Source 2 Mount Taranaki wearing a cloak of clouds

Check your learning 2.5

Remember and understand

- 1 Examine Source 1. Which of these mountains is Beerwah and which is Coonowrin? Give reasons for your answer.
- 2 According to the creation story from New Zealand, why did the volcanoes fight?
- 3 Why do you think many Indigenous people have legends to explain landscapes?

Apply and analyse

- 4 Compare the two legends.
 - a What features do both have in common?
 - b What is unique about each legend?
- 5 As well as helping people to understand their natural environment, each of these legends contains advice about how to live and behave. What is this advice?
- 6 What did you learn about the Indigenous people of these three regions by reading their legends?

Evaluate and create

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

2A rich task

Uluru: an iconic Australian landform

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

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



Source 1 Uluru is Australia’s most recognisable landform.

skilldrill

Constructing a population pyramid

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

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

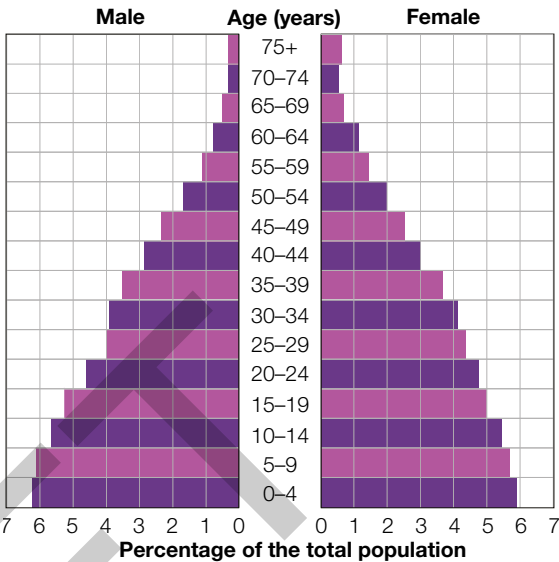
Rather than show the actual numbers of men and women at each age group, population pyramids show each of these groups as a percentage of the total population. This makes it easier for geographers to identify trends and changes in different areas of the population.

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

Source 2 The Northern Territory’s Indigenous population

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

Source 3 Population pyramid for the Northern Territory’s Indigenous population



The steps to construct a population pyramid using the statistics in Source 2:

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

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

Label the top of your y-axis, ‘Age (years)’.

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

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

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

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

Step 4 Give your population pyramid a title.

Apply the skill

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

Source 4 The Northern Territory’s non-Indigenous population

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

Extend your understanding

- 1 Use your population pyramid to answer the following questions:
 - a Which age group has the largest percentage for both males and females?
 - b Which is the smallest age group for each gender?
 - c What is the total percentage for the 0–4 age group?
 - d What is the total percentage for the 35–39 age group?
 - e What is the total percentage for the 70–74 and 75+ age groups?