Opening Worlds Progression of knowledge and skills – Geography – Y3/4 – Year B

Year 3 Autumn 1: Rhine and Mediterranean
Disciplinary Skill: diversity
Disciplinary Outcome: By the end of the unit pupils will be able to explain how rivers, people and the land affect each other.

Learning Intent	Lesson Sequence and Big Question.	Core Knowledge	Core Skills	Suggested activities (with resource links)	Core Vocabulary	Connections
Pupils will learn about: • Rhine and Mediterranean • Cologne and cities on the Rhine • Rotterdam and the mouth of the Rhine • How the course of the river has been changed by human activity including canals • Mediterranean Sea • Suez Canal • This unit has a synoptic element, using the Rhine and the Mediterranean to pick up and draw together themes launched already: including, water as a resource, human use of resources, including land, factors influencing the growth of settlements and cities from earlier (also ties in with all Y3 and Y4 history on ancient settlements). • Geographical skills: Extending use of maps	1. Where does the River Rhine begin and end, and what is its journey?	• - Rhine is **764 miles long**. - Longer than the Thames (215 miles) and Severn (220 miles) combined. - Flows through **6 countries**: Switzerland, Liechtenstein, Austria, Germany, France, Netherlands. - Known as **Rhein** (Germany), **Rhin** (France), **Rijn** (Netherlands). - **Source**: Alps, Switzerland. - **Mouth**: North Sea, Netherlands. - Upper Rhine = near source (mountains). - Lower Rhine = near mouth (sea). - **Tributaries**: Main, Moselle, Neckar. - **Confluence** = where tributary joins main river. - Longest stretch of Rhine is in Germany.	- Reading maps (locating Rhine across countries). - Labelling (source, mouth, Alps, tributaries, North Sea). - Using geographical vocabulary (source, mouth, tributary, Upper Rhine, Lower Rhine). - Reading to extract key facts. - Writing explanatory paragraphs with technical terms. - Drawing illustrations of river journey.	• Label the Rhine on a map; identify source, mouth, Alps, and tributaries; • read narrative pages 3–9; • write a paragraph explaining the journey of the Rhine using key terms.	Rhine, Alps, North Sea, Upper Rhine, Lower Rhine, confluence	
	2. How has the River Rhine affected life in Cologne?	• - Rhine forms borders (Germany–France, Germany–Switzerland). - Roman Empire used Rhine as a **frontier**. - Cologne is a large city on the Rhine, with **bridges**, **cathedral (Dom)**, **rail station (Hauptbahnhof)**, **Rheinpark**, **Rathaus (council building)**, **Lufthansa HQ**, **post office**. - Rhine has **left bank** and **right bank**; bridges connect them. - Ann lives on right bank; cathedral and train station are on left bank. - Famous **Christmas market** next to cathedral. - Flooding risk due to **rainfall** (seasonal variation). - Flood walls built on both banks to protect city. - Average rainfall studied by month; flooding more likely when rainfall is highest (autumn/winter).	- Map reading (locating city features and banks). - Interpreting photographs and maps. - Using sentence starters and cloze activities to check understanding. - Analysing how humans adapt to rivers (flood walls, bridges). - Writing/drawing about city-river interactions using vocabulary (left bank, right bank, bridges, rainfall, flooding, flood walls).	• Identify landmarks on a map of Cologne; • complete sentence cloze on flooding; • use data to discuss rainfall; • write and illustrate how the Rhine affects people living in Cologne.	Cologne, banks, bank, rainfall, flooding, flood walls	
	3. Why is Rotterdam an important city at the mouth of the Rhine?	• - **Source** = Alps (Switzerland). - **Mouth** = North Sea. - Rotterdam is at the **mouth**. - Rotterdam is the **busiest port in Europe**. - A **port** is man-made: ships dock, load/unload. - Differences with Cologne: Cologne = cathedral, bridges, flooding; Rotterdam = port, shipping, trade. - Humans **harness** wind with **turbines** near North Sea for electricity. - Rotterdam needs careful organisation: many ships daily. - **Importing** = bringing goods in. - **Exporting** = sending goods out. - Examples: coal from South America/Africa, iron ore from Asia; vegetables to England; ships sailing to/from China, West Africa, Germany. - Rotterdam exports goods inland via Rhine (to Cologne, Mainz, etc.).	- Comparing/contrasting human use of rivers in different cities. - Map shading (Upper Rhine = source to Strasbourg; Lower Rhine = Cologne to mouth). - Watching video to observe ports and turbines. - Using and applying terms (importing, exporting, harness, port). - Writing comparison paragraphs using evidence.	• Add features to a Rhine map (source, mouth, Alps, etc.); compare Cologne and Rotterdam; • use case studies to identify importing/exporting; • watch video of the Port of Rotterdam and discuss wind turbines.	port, harness, importing, exporting	
	4. How has the Rhine changed naturally and through human action?	• - **Natural features**: - Source = small stream in Alps. - **Waterfalls** where Rhine crashes over rocks. - Width: up to **1 km wide** in Middle Rhine; only **100 m wide** near source. - Depth: deep in Middle/Lower Rhine; shallow near source. - **Natural effects**: mountains, rocks affect flow/width. - **Wetlands**: >2000 islands; flooded when rains; wading birds nested; waterborne diseases spread. - **Human changes**: - Dug **canals** to allow ships to pass Upper Rhine. - Built **locks** (10 in total) to raise/lower ships. - **Straightened river** to ease navigation. - **Drained wetlands** to build villages, reduce disease.	- Observing and inferring how natural features affect human use (depth, width, waterfalls). - Drawing and annotating diagrams of natural/human features. - Comparing past (painting of Rhine, wetlands) and present. - Understanding cause–effect (why canals/locks needed). - Writing explanations with new terms (canal, lock, wetlands, natural/human changes).	• Watch clips on natural and human river changes; • label diagrams of the Rhine's features; • describe how canals and locks work; • write about how human action has changed the river.	canal, wetlands, drained, lock	
	5. What are the key features of the Mediterranean Sea?	- **Touches 3 continents**: Europe, Africa, Asia. - Connected to Atlantic by **Strait of Gibraltar** (only 8.9 miles wide). - A **strait** = narrow water linking larger seas/oceans. - Mediterranean = an **enclosed sea** (only one exit). - Smaller seas: Balearic (Spain), Aegean (Greece). - **21 countries** + 2 territories have Mediterranean coastline. - Some Mediterranean countries are islands (2 examples).	- Map work: locating continents, seas, straits, peninsulas. - Identifying and labelling features (peninsulas, mainland, islands). - Using key vocabulary (strait, peninsula, enclosed sea, mainland). - Drawing and annotating maps with	• Label the Mediterranean map with Europe, Africa, Asia, Atlantic, and Gibraltar;	strait, the Med, enclosed sea, peninsula, mainland	

and photographs		- 3 countries also border Atlantic. - **Italy** = peninsula (land surrounded on 3 sides, connected to mainland). - **Spain** = peninsula. - **Egypt/Libya** = not peninsulas. - Examples: Greece (east Med), Morocco (west Med).	arrows. - Questioning: salinity, geography of coasts.	• identify seas and peninsulas; read pages 22–25; • draw and label features with arrows and notes.		
	6. How did the Suez Canal change the way people and goods moved between continents?"	The Suez Canal is a human-made waterway that connects the Mediterranean Sea with the Red Sea, allowing ships to travel between Europe and Asia without sailing around Africa It was completed in 1869 in Egypt. The canal separates Africa and Asia; the Friendship Bridge links the two continents. Before the canal, ships had to travel around the Cape of Good Hope (southern Africa), which was dangerous and much longer. The canal made trade quicker, cheaper, and safer. It remains one of the busiest shipping routes in the world, with around 50 ships daily. Parts of the canal are wide and allow two ships to pass, but narrow stretches mean only one ship can travel at a time. A modern example: in March 2021, the ship Ever Given blocked the canal, halting global trade.	Locating continents and seas on a map. Using directional language (north, south, east, west). Distinguishing between natural features (seas, rivers, straits) and human-made features (canals, ports). Inquiry and reasoning: Asking and answering geographical questions in full sentences. Explaining why the Suez Canal was built and the problem it solved. Comparing different possible routes for trade before and after the canal. Critical thinking: Recognising how human intervention changes geography. Making connections between geography, history (Egyptians, Persians, 19th century engineering), and economics (trade and costs).	• Label continents and seas; answer questions on Suez trade routes; • watch clip of the canal and discuss; read pages 26–28; • write about how the Suez Canal changed global trade.	waterway, Suez Canal, Red Sea	
	Synoptic Task:	By the end of the unit pupils will be able to answer the question: **How are different parts of the Rhine and the Mediterranean used by people?** This will include explaining how rivers affect the land,				

Year 4: Autumn 2: Population
Disciplinary Skill: diversity
Disciplinary Outcome: **How and why does population distribution vary across Great Britain?**

Learning Intent	Lesson Sequence and Big Question.	Core Knowledge	Core Skills	Suggested activities (with resource links)	Core Vocabulary	Connections
Pupils will learn: • Characteristics of population including distribution and diversity. Migration. • Depth focus: multicultural London. • Depth focus: multicultural Cardiff. • Welsh language and culture, effect of changing demographics • Welsh or British? Idea of national identity • Geographical skills: Thematic maps and using census data	1. What is population?	• Population means the total number of people living in a place. • Population density compares the number of people to the size of the area (people per sq km). • The UK has a population of around 66 million; England has the largest, Northern Ireland the smallest. • Places like Glasgow are densely populated; Skye is sparsely populated. Australia is much larger but has a lower population density than the UK.	• Use geographical vocabulary accurately (population, density, densely/sparsely populated). • Compare populations of countries and cities using maps and statistics. • Draw and interpret simple diagrams showing population density.	• Use PowerPoint lesson to define population and population density. • Search online for population data of London, England, Africa, and Europe. • Draw and label examples of densely and sparsely populated areas. • Read pages 3–8 in booklet and discuss comparisons between countries.	population, population density, densely populated, sparsely populated	
	2. Why do people choose to migrate?	• Population distribution describes how people are spread across a country. • Some areas of the UK are more densely populated (south-east England) while others are sparsely populated (Scottish Highlands). • People move for reasons such as jobs, transport, family, or lifestyle – this is migration. • Hundreds of years ago Britain was mostly rural; today it is mostly urban due to rural-to-urban migration.	• Read and interpret population distribution maps using compass directions and map keys. • Explain reasons for migration using geographical evidence. • Distinguish between rural and urban areas.	• Analyse map on page 11 of booklet and identify high/low population density areas. • Discuss reasons people migrate to the south-east of England. • Create a diagram showing rural-to-urban migration and add labels explaining causes. • Read pages 10–15 in booklet and complete comprehension questions.	population distribution, migration, rural, urban, rural to urban migration	
	3. How has London become one of the world's most diverse cities?	• London is the largest and capital city of the UK with a population of about 9 million. It is ethnically diverse – people come from many parts of the world. • The census collects information every ten years to understand population and diversity. In 2011, 37% of Londoners were born outside the UK. • London's diversity can be seen in languages, religions, food, and culture.	• Use data from the census to describe ethnic diversity. • Explain what makes a city ethnically diverse. Identify and describe cultural diversity using examples.	• Use lesson slides to explore the meaning of ethnic and diverse. • Discuss census data and predict future trends. • Draw a divided square diagram showing London's diversity with labelled examples. • Read pages 17–21 in booklet and discuss what diversity means.	ethnic, diverse, census, ethnically diverse	
	4. How is Cardiff diverse and how is diversity celebrated there?	• Cardiff is the capital of Wales and an ethnically diverse coastal city. • The 2011 census showed 84.7% white, 2.4% black, 8% Asian, and 1.6% mixed ethnicities. • Cardiff is also religiously diverse with mosques, temples, gurdwaras, and churches. • The Mela festival celebrates Cardiff's ethnic and cultural diversity.	• Compare ethnic and religious diversity in two UK cities. • Use census data to describe differences in population makeup. • Explain how cultural festivals reflect diversity in place.	• Watch the Lucia and Mela videos about life in Cardiff. • Analyse census results and discuss what they show. Write an advert for the Mela festival highlighting Cardiff's diversity. • Read pages 23–24 in booklet.	ethnicity, diverse, religiously diverse	
	5. Why is the Welsh language an important part of Welsh culture and identity, and how is it kept alive today?	• Welsh (Cymraeg) is the language of Wales and differs from English. • About 20% of people in Wales speak Welsh, especially in the north-west.	• Identify regions where Welsh is most spoken using maps. • Recognise how language reflects cultural identity.	• Study maps showing Welsh language speakers. • Watch short videos of Welsh speakers and the Eisteddfod festival.	Welsh, Cymraeg, Eisteddfod	

		• Road signs and school lessons in Wales use both Welsh and English. • The Eisteddfod is an annual festival celebrating Welsh language, music, poetry, and culture.	• Describe how traditions help preserve cultural heritage.	• Write a paragraph describing how Wales celebrates its language and culture. Read pages 25–27 in booklet.		
	6. How can someone be both Welsh and British, and what does identity mean to different people?	• Wales has a strong sense of Welsh identity but is also part of Britain. • Symbols of Welsh identity include the leek, daffodil, and red dragon. Some people identify as both Welsh and British. • The census shows national identity varies across the UK. The Senedd is the Welsh parliament, showing political identity. • The Prince of Wales Bridge connects Wales to England, symbolising shared identity.	• Describe and compare national identities. Interpret data from the census about identity. • Explain how symbols represent identity and belonging.	• Watch rugby clips showing Welsh symbols and discuss identity. • Explore census data on national identity. • Create a diagram about Welsh identity showing cultural and national symbols. Read pages 28–29 in booklet.	Wales, British, identity, minted, floral	
	By the end of the unit pupils will be able to answer the question: How and why does population distribution vary across Great Britain? Population density varies across the UK: densely populated in the south-east, sparsely populated in Scotland and Wales. Factors include geography (mountains, access, cities) and human activity (jobs, transport, trade). Apply knowledge from all lessons to explain causes of population variation. Interpret and annotate maps showing density and distribution. Use evidence to support geographical explanations. Use the synoptic task sheet to analyse UK population maps. Add arrows and boxes to explain density patterns. Write extended answers drawing on knowledge of migration, diversity, and identity.					

Year 4: Spring 1: Costal Processes and Landforms
Disciplinary Skill: interaction

Disciplinary Outcome: Pupils are able to answer the question, 'How does the location of west Wales affect its coast?'

Learning Intent	Lesson Sequence and Big Question.	Core Knowledge	Core Skills	Suggested activities (with resource links)	Core Vocabulary	Connections
Pupils will learn: • Coastal processes and landforms Diversity in the UK coastline. • Processes of erosion, transportation & deposition. • Coastal landforms including beaches, headlands and bays. • Overview of Jurassic coast, including significance of its rocks, fossils and landforms. • Coastal habitats using contrasting examples, including coasts of the Indian Ocean • Depth focus: West Wales coast	How do waves shape and change our coastlines?	• The coastline is where the land and sea meet - a narrow stretch between them • The shape of our coastline is constantly changing • Coastlines are shaped by the sea, air and land • The UK has many different types of coastlines (beaches, cliffs, harbours, salt marshes) • Waves hammer against rocks and wear them away • Erosion is when waves wear away rocks and land • Waves fling sand, pebbles and stones against rocks, eroding them like sandpaper • On the Holderness coast in Yorkshire, the sea erodes around 8mm of land every day • In the last 1000 years, 29 villages have been lost at Holderness • The Holderness cliffs are made of clay and chalk • Chalk is easier to erode when wet	• Identifying different types of coastlines in photographs • Explaining how waves cause erosion • Using geographical vocabulary (coastline, waves, erosion) • Drawing and labelling diagrams of coastlines with geographical terms • Describing the Holderness coast and explaining coastal change	• Draw an island with different shapes and label using: coastline, waves, erosion • Watch video clips of waves and identify erosion • Read pages 3-7 in Coastal Processes booklet • Write a paragraph explaining why the Holderness coastline has changed using key vocabulary	• coastline, waves, erosion	
	How do waves transport and deposit materials along the coast?	• Waves erode rock and carry away the eroded material • The sea transports material around the coast • Transportation is the movement of material by waves • Waves move rocks in a zig-zag pattern along the coastline • Wind and waves move rocks at an angle into shore, then drag them out at a different angle • Groynes are low walls built from land into the sea • Groynes are made of heavy wood or concrete • Groynes reduce the amount of sand being transported by waves	• Explaining how transportation works (zig-zag movement) • Describing the purpose and function of groynes • Using geographical vocabulary (transport, transportation, deposition, groynes) • Drawing diagrams showing transportation and deposition with wind direction • Analysing photographs to identify coastal processes	• Draw diagram of land and sea showing wind direction, zig-zag transportation pattern, and deposition • Watch video clips of groynes and waves • Physical demonstration of wave movement and material transportation • Read pages 8-11 in Coastal Processes booklet • Complete sentences using coastal process vocabulary	• transport, transportation, groynes, depositing, deposit, deposition	

		• Groynes help slow erosion but cannot stop it completely • Depositing (deposition) is when the sea loses energy and drops transported material • The sea deposits rocks, sand and pebbles • Deposition happens when there is little wind (in sheltered bays/harbours) or when there is lots of material				
	What are the different coastal landforms and how are they created?	• A landform is the shape of something on Earth • Different landforms include mountains, rivers, and coastal features • Coastal landforms are found along the coast • A bay is formed by erosion - the sea slowly erodes the land • A cliff is formed by erosion over time as the sea crashes against land • Chalk is a softer rock that is easier to erode • A headland is formed when a cliff is eroded inwards on both sides so part sticks out • A beach is formed by deposition when the sea deposits material along the shore • Sand beaches have very fine, light-coloured sand • Shingle beaches have small flat stones • Coastal landforms can be created by erosion OR by deposition	• Identifying different coastal landforms in photographs • Explaining how bays, cliffs, headlands and beaches are formed • Distinguishing between erosion and deposition landforms • Sketching and labelling coastal landforms with explanations • Using geographical vocabulary accurately (bay, cliff, headland, beach, shingle)	• Divide page into four boxes - sketch and explain formation of: bay, beach, cliff, headland • Watch video clips to identify coastal landforms • Describe photographs using geographical vocabulary • Read pages 12-14 in Coastal Processes booklet • Match landforms to whether they're formed by erosion or deposition	• landforms, bay, cliffs, headland, shingle	
	What makes the Jurassic Coast special and how were its landforms created?	• The Jurassic Coast is on the south coast of England • It stretches from Exmouth (Devon) to Studland (Dorset) • The Jurassic Coast shows 185 million years of erosion • 'Jurassic' describes a period millions of years ago when there were no humans • During the Jurassic period there were rocks, plants and animals but no humans	• Locating the Jurassic Coast on a map • Explaining the formation sequence: headland → cave → arch → stack • Understanding geological time and fossil formation • Labelling coastal landforms in photographs • Using geographical vocabulary (fossils, cave, arch, stack, preserved)	• Watch video clips of the Jurassic Coast landforms • Label photograph of Jurassic Coast with different landforms • Read pages 16-18 in Coastal Processes booklet • Explain in sentences how each landform is formed by erosion • Identify caves, arches and stacks in images	• Jurassic Coast, preserved, fossils, cave, arch, stack	

		• Fossils are evidence of animals and plants from millions of years ago preserved in rocks • Charmouth Beach has fossils from millions of years ago • Different rocks are hard or soft, so the sea erodes them at different rates • Old Harry Rocks started as a headland • Waves crash against cracks to form caves • Caves erode and break through rock to form arches • When arch roofs collapse, they leave behind stacks (rocks standing alone in the sea)				
	How do different coastal habitats support different plants and animals?	• Everyone in the UK lives within 80 miles of the coast • Coasts in different parts of the UK are very different • A habitat is where plants and animals live • Coastal habitats are different types of places along the coast • Rock pools are windy and wet coastal habitats • Seaweed grows in and around rock pools • Crabs live in rock pools • Sand dunes are coastal habitats with dry sand and grass • Birds nest in sand dune grass • Humans can damage habitats (e.g. tourists trampling sand dunes) • Boardwalks protect sand dunes from tourists at places like Holkham • The Indian Ocean washes against coastlines of east Africa, west Asia and west Australia • The Indian Ocean provides warm coastal water habitats • Coral reefs are found in warm shallow waters (e.g. off Tanzania's Spice Islands) • Coral reefs are fragile habitats	• Identifying different coastal habitats in photographs • Describing characteristics of different habitats • Explaining which plants and animals live in each habitat • Understanding human impact on habitats • Locating the Indian Ocean and understanding its coastal habitats	• Identify sand dunes and rock pools in photographs • List plants and animals found in different coastal habitats • Read pages 19-21 in Coastal Processes booklet • Describe two different coastal habitats and what makes them different • Locate Tanzania and Spice Islands on a map	• habitat, rock pools, sand dunes, coral reefs	

		• If coral is destroyed, the reef and its plants and animals die • Dugongs (sea cows) live in warm shallow bays • Turtles swim in warm coastal waters				
	Why does the west Wales coast have such dramatic coastal landforms?	• The Wales coastline has many different coastal landforms • Cardigan Bay is the largest bay in the UK • Broad Haven bay (Pembrokeshire) was formed by erosion • Hard rock on either side of Broad Haven was left as headlands • Softer rock in between was eroded to form the bay • The bay is sheltered by hard rocks (headlands) on either side • Strong storm winds batter the west Wales coast making powerful waves • Waves wrap around headlands and attack from both sides • Waves open cracks in headlands to form caves • Caves are eroded all the way through to form arches • When arches collapse, they leave stacks (pillars of rock) • The Green Bridge of Wales is an arch with stacks • The west Wales coast has dramatic landforms because of powerful waves and varying rock hardness	• Describing how bays are formed with reference to hard and soft rock • Explaining the sequence of erosion creating caves, arches and stacks • Using geographical vocabulary accurately • Predicting future changes to coastal features • Describing and annotating photographs with geographical terms	• Choose one photograph of west Wales coast and describe what you can see • Describe what you can't see but know has happened (erosion processes) • Read pages 22-23 in Coastal Processes booklet • Label photographs with arrows, sketches and geographical vocabulary • Predict what will happen to the Green Bridge of Wales over time	• Cardigan Bay	
	By the end of the unit pupils will be able to answer the question: 'How does the location of west Wales affect its coast?'					

Year 4 Spring 2: Tourism
Disciplinary Skill: Interaction

Disciplinary Outcome: By the end of the unit pupils will be able to answer the question: How do tourists interact with a place?

Learning Intent	Lesson Sequence and Big Question.	Core Knowledge	Core Skills	Suggested activities (with resource links)	Core Vocabulary	Connections
Pupils will learn: • Depth focus: Llandudno, Wales - a seaside town (link back to coastal processes in previous unit) • Types of tourism (e.g. visiting friends and family activity holidays). Skiing holidays in the Alps. • The growth of tourism in the UK and overseas. • Sunshine holidays in Spain. • Advantages and disadvantages of tourism. • Sustainable tourism. Geographical skills: Interpreting climate data	How do seaside towns attract tourists?	• A seaside town is a settlement on the coast that people visit. Llandudno is a seaside town in north Wales. Features include piers, promenades, beaches, and tourist accommodation.	Using maps and compass directions; identifying human and physical features; describing place.	Identify seaside features in photographs and maps; label a map of Llandudno; design a tourism poster.	seaside, coast, pier, promenade, tourist, seaside town, accommodation	: How do seaside towns attract tourists?
	What different types of tourism are there?	• Tourists travel for different reasons. Types include seaside tourism, visiting friends and relatives, cultural tourism, and activity tourism. Tourism creates income.	Classifying; explaining examples; using geographical vocabulary.	Sort examples of tourism; write explanations; create a spider diagram showing tourism and income.	tourist, tourism, income, souvenir, industry, cultural, activity	: What different types of tourism are there?
	Why do tourists visit mountain areas?	• Mountain regions like the Alps attract tourists for skiing and walking. Climate affects tourism. Zermatt is a mountain settlement in Switzerland.	Interpreting climate graphs; comparing places; explaining advantages and disadvantages.	Analyse climate data for Zermatt; compare summer and winter tourism; write pros and cons.	mountain, summit, climate, temperature, rainfall, ski slope, ski lift	: Why do tourists visit mountain areas?
	How has tourism changed over time?	• Tourism has grown due to better transport such as railways and air travel. More people now travel abroad to destinations like Spain and France.	Interpreting data; drawing bar graphs; identifying change over time.	Create and interpret bar graphs; discuss reasons for change; answer data questions.	destination, transport, airline, airport, graph, data	: How has tourism changed over time?
	Why is Spain a popular tourist destination?	• Spain is closer to the Equator than the UK and has a warmer climate. Majorca is a popular island destination with beaches and tourist accommodation.	Using locational language; interpreting climate tables; explaining cause and effect.	Describe Spain's location; analyse climate data; explain reasons for tourism growth.	climate, Equator, mainland, island, Mediterranean, package holiday	: Why is Spain a popular tourist destination?
	How can tourism be managed sustainably?	• Tourism has economic and environmental impacts. Sustainable tourism aims to reduce harm while supporting local economies.	Evaluating impacts; categorising effects; proposing solutions.	Sort economic vs environmental effects; study examples of ecotourism; write balanced explanations.	sustainable tourism, economy, environment, ecotourism, impact	: How can tourism be managed sustainably?
	Synoptic Task:	By the end of the unit pupils will be able to answer the question: How do tourists interact with a place?				

Year 4 Summer 1: Earthquakes
Disciplinary Skill: Interaction

Disciplinary Outcome: By the end of the unit pupils will be able to answer the question: answer the question: How do earthquakes affect people and environments?

Learning Intent	Lesson Sequence and .	Core Knowledge	Core Skills	Suggested activities (with resource links)	Core Vocabulary	Connections
Pupils will learn: • Depth focus: The Christchurch earthquake, New Zealand. Causes of earthquakes: tectonic plates, fault lines • Depth focus: California & San Andreas fault, Indian Ocean tsunami	**What is an earthquake and what does it feel like to experience one?**	• An earthquake is a sudden, violent shaking of the ground. • The shaking and moving felt during an earthquake are called tremors. • Tremors can cause objects to fall, buildings to shake, and electricity to cut out. • Aftershocks are smaller tremors that occur after the main earthquake. • The 2010 Christchurch earthquake in New	• Using geographical language to describe the location of Christchurch, New Zealand (hemisphere, ocean, distance from equator). • Recalling and sequencing events from a narrative account of an earthquake. • Distinguishing between tremors and aftershocks using examples. • Drawing a spider diagram around "An earthquake"	• Read the narrative account of Jenny's experience of the Christchurch earthquake (pages 3-5 of booklet); pupils recall and sequence events. • Create a retrieval spider diagram: pupils write "An earthquake" in the centre, then record events from the story and label which are examples of tremors. • Paired discussion: Why are smaller tremors that follow an earthquake called "aftershocks"? Pupils explain	• earthquake • tremors • aftershocks	

• Effects of earthquakes How humans live in earthquake zones and adapt their settlements (e.g. Japan) • Revisits knowledge on volcanoes from Year 4 Spring 1. • Geographical skills: Thematic maps		Zealand lasted 40 seconds. • Christchurch experienced more than 14,000 aftershocks over three years after the 2010 earthquake. • New Zealand is located in the Pacific Ocean, south-east of Australia.	and labelling examples of tremors. Writing sentences using key vocabulary: earthquake, tremors, aftershocks.	using reasoning, then write a definition. • Locate New Zealand on a world map and describe its position using geographical language (compass direction, ocean, hemisphere). • Exit task: Pupils write two sentences - one explaining what a tremor is and one explaining what an aftershock is, using their own words without looking at notes (retrieval practice).		
	Why do earthquakes happen, and where on Earth do they occur?	• The Earth's crust is the outer layer of the Earth on which we live. • Some of the crust is visible as land; some is hidden under the oceans. • The Earth's crust is made up of large sections of rock called tectonic plates. • The Earth's crust is very thin compared to the mantle beneath it, like the shell of an egg. • Molten rock in the mantle moves, and this can cause the tectonic plates to move. • Tectonic plates move a few centimetres each year. • Where two tectonic plates meet is called a plate boundary. • Earthquakes occur near plate boundaries; New Zealand is close to a plate boundary but the UK is not.	• Drawing and labelling a diagram of the Earth's crust divided into tectonic plates. • Identifying and labelling plate boundaries on a map. • Explaining why earthquakes occur in New Zealand but not in the UK. • Using geographical vocabulary accurately: crust, tectonic plates, plate boundary, visible, mantle. • Comparing the Earth's crust to the shell of a cracked egg as an analogy.	• Read pages 8-11 in the Earthquakes booklet; pupils annotate a diagram of the Earth's layers. • Draw a diagram of the Earth's crust divided into tectonic plates (some large, some small); label plate boundaries and write a sentence explaining what a tectonic plate is. • Use a world map showing tectonic plates; pupils draw houses to show where earthquakes are likely and unlikely to occur and justify their choices in writing. • Paired discussion: Why are there earthquakes in New Zealand but not in the UK? Pupils use the map and their knowledge of plate boundaries to explain in full sentences. • Concept mapping: pupils create a connected diagram linking the terms crust, mantle, tectonic plates, and plate boundary with explanations on the arrows (generative elaboration).	• visible • tectonic plates • plate boundary	
	What is the San Andreas Fault and how does friction cause earthquakes?	• A fault line is a crack in the Earth's crust where two tectonic plates meet and cause earthquakes. • The San Andreas Fault is where the North American Plate meets the Pacific Plate in California. • There are seven major tectonic plates and many smaller ones.	• Reading and interpreting a world map of tectonic plates and plate boundaries. • Explaining what a fault line is and how friction causes earthquakes. • Adding annotated arrows to a tectonic plates diagram to show direction of movement and predict where earthquakes occur.	• Physical activity: use two large pieces of cardboard as tectonic plates; pupils demonstrate the three types of plate movement (away, towards, sliding past) and identify which causes earthquakes. • Read pages 12-15 in the Earthquakes booklet; pupils annotate the world map by adding arrows to plate boundaries to show direction of	• fault line • San Andreas fault • seven major plates • friction	

		• Tectonic plates can move away from each other, towards each other, or slide past each other. • When plates slide past each other, friction builds up; when pressure is released suddenly, an earthquake occurs. • Plates moving away from each other can form ridges; plates moving towards each other can form mountains. • Earthquakes occur on land and underwater at plate boundaries. • Not every plate boundary is a fault line; earthquakes only occur where friction builds up.	• Classifying plate boundary types (moving away, towards, sliding past) and predicting outcomes. Writing explanatory sentences using: fault line, San Andreas Fault, friction, tectonic plates.	movement and label which type of boundary each one is. • Prediction activity: pupils look at a diagram showing arrows of plate movement and write a sentence explaining whether an earthquake is likely and why, justifying with knowledge of friction. • Draw and label the San Andreas Fault; write an explanation of why earthquakes occur there, using the terms: plates sliding past, fault line, friction, plate boundary. • Exit task: retrieval - pupils write from memory the definition of a fault line and explain what friction is in the context of earthquakes (no notes).		
	How do scientists measure the strength of earthquakes?	• The focus is the point deep inside the Earth's crust where the earthquake starts. • The epicentre is the point on the Earth's surface directly above the focus. • Seismic waves are waves of energy released from the epicentre; they are felt most strongly near the epicentre. • A seismograph is a machine that measures seismic waves. • A seismograph produces a seismogram, which shows the strength of seismic waves as lines (longer lines = stronger waves). • The power (magnitude) of an earthquake is measured using the Richter scale, numbered 1 to 10. • Earthquakes measuring 1-2 on the Richter scale happen thousands of	• Drawing and labelling a diagram showing focus, epicentre and seismic waves, including where effects would be strongest and weakest. • Reading and interpreting a Richter scale graph; plotting earthquake data from a table. • Explaining the difference between focus and epicentre in full sentences. • Using data from a table of historical earthquakes to draw a bar/scatter graph and answer questions. • Describing how a seismograph works and what a seismogram shows.	• Read pages 16-21 in the Earthquakes booklet; pupils annotate a cross-section diagram with focus, epicentre and seismic waves. • Draw a diagram of an earthquake's cross-section; draw two houses at different distances from the epicentre and write a sentence explaining the difference in damage using the words: focus, epicentre, seismic waves. • Use the historical earthquake data table (page 21) to plot four earthquakes on a Richter scale graph; analyse which earthquakes were most destructive and how common they are. • Paired explanation: one pupil explains to the other what a seismograph does and what the seismogram shows; swap and repeat with the Richter scale. • Exit task: pupils write from memory - what is the difference between the focus and epicentre, and what does the Richter scale measure? (retrieval practice).	• epicentre • tsunami • focus • seismic waves • seismograph • seismogram • magnitude • Richter scale	

		times a day and are not felt. • Earthquakes measuring 7 or above cause major destruction. • The 2004 Indian Ocean earthquake measured 9.1 and caused a tsunami killing over 220,000 people. • An underwater earthquake can cause a huge wave called a tsunami.				
	What are the immediate and long-term effects of earthquakes on people and the environment?	• Immediate effects are the effects felt at the moment the earthquake occurs (e.g. buildings shaking, electricity cut off, water pipes bursting). • An earthquake can cause buildings to collapse and leave rubble. • A landslide can be triggered by an earthquake - soil and rock slide down a hillside. • Subsidence is when the ground becomes uneven after an earthquake. • Liquid mud can form when wet soil is shaken and water rises to the surface; buildings on liquid mud may sink. • A tsunami (tidal wave) is an immediate effect when an earthquake occurs underwater. • Long-term effects last for months or years after the earthquake (e.g. roads and bridges needing repair, coastlines changing shape). • Effects can be on people (deaths, homelessness, loss of electricity) or on the environment (pollution, landslides, change in coastline).	• Classifying effects of earthquakes as: affecting people / affecting the environment / both. • Distinguishing between immediate and long-term effects with examples. • Writing two structured paragraphs about earthquake effects on people and on the environment. • Analysing photographs to identify and name earthquake effects (rubble, landslide, subsidence, liquid mud). • Using evidence from a case study (2004 Indian Ocean tsunami) to explain effects at scale.	• Watch a video clip of earthquake effects (until 02.35); pupils sort a grid of effects into "people", "environment", or "both" categories. • Paired discussion: which effects from the grid are immediate and which are long-term? Pupils annotate their sorted grid and justify decisions. • Read pages 22-26 in the Earthquakes booklet; pupils use notes to write two paragraphs - one on effects on people, one on effects on the environment, using vocabulary: trembling, rubble, landslide, subsidence, liquid mud, long-term effects. • Photograph analysis: pupils describe four images (rubble, landslide, subsidence, liquid mud) using geographical vocabulary, then explain how each effect was caused by the earthquake. • Retrieval task: without notes, pupils draw and label a diagram showing three immediate effects and two long-term effects of an earthquake.	• trembling • immediate effects • tidal wave • devastate • liquid mud • environment • rubble • landslide • subsidence • long-term effects	

		• The 2004 Indian Ocean tsunami killed over 220,000 people in 14 countries. • An earthquake in Japan moved the country 2.4 metres closer to North America.				
	How do humans adapt buildings and behaviour to survive in earthquake-prone regions?	• Some regions are prone (likely) to earthquakes because they are on or near plate boundaries (e.g. Japan, New Zealand, California). • Humans cannot stop earthquakes, but they can adapt to reduce the damage. • Buildings can be constructed with rubber foundations that absorb the shock of an earthquake. • Steel frames inside buildings allow them to sway during an earthquake rather than collapse. • Smaller buildings are less dangerous if they do collapse. • Plastic windows do not shatter during earthquakes, unlike glass. • In earthquake-prone countries, schoolchildren practise earthquake drills - sheltering under strong tables. • Hospitals, police, ambulances, and residents also practise drills to increase survival rates. • Japan is an example of a country that has adapted both buildings and people's behaviour to cope with earthquakes.	• Explaining why some regions are prone to earthquakes using knowledge of plate boundaries. • Describing how buildings have been adapted (rubber foundations, steel frames, building height, plastic windows). • Evaluating which adaptations are most important and why. • Drawing and annotating a diagram of an earthquake-resistant building with labelled features. • Explain how earthquake drills reduce harm and increase survival rates.	• Watch a clip of a Japanese earthquake and observe buildings swaying; discuss what adaptations allow this and why this reduces damage. • Read pages 27-30 in the Earthquakes booklet; pupils draw a simple building and annotate it with all the adaptations used to make it earthquake-safe, adding arrows and explanatory labels. • Watch an earthquake drill video clip; pupils identify what children do and what teachers/adults do, then explain in writing how drills reduce harm. • Design task: given a set of adaptation options (rubber foundations, steel frame, plastic windows, short height, drills), pupils rank them in order of importance and justify their ranking with geographical reasoning. • Synthesis writing: pupils write a paragraph answering "How do humans live with earthquakes?" using all six lessons of knowledge, bringing together plate boundaries, effects, and adaptations (generative integration task).	• prone • absorb • rubber • drill	
	What is an earthquake and what does it feel like to experience one?	• An earthquake is a sudden, violent shaking of the ground. • The shaking and moving felt during an	• Using geographical language to describe the location of Christchurch, New Zealand	• Read the narrative account of Jenny's experience of the Christchurch earthquake (pages 3-5 of booklet); pupils recall and sequence events.	• earthquake • tremors • aftershocks	

		earthquake are called tremors. • Tremors can cause objects to fall, buildings to shake, and electricity to cut out. • Aftershocks are smaller tremors that occur after the main earthquake. • The 2010 Christchurch earthquake in New Zealand lasted 40 seconds. • Christchurch experienced more than 14,000 aftershocks over three years after the 2010 earthquake. • New Zealand is located in the Pacific Ocean, south-east of Australia.	(hemisphere, ocean, distance from equator). • Recalling and sequencing events from a narrative account of an earthquake. • Distinguishing between tremors and aftershocks using examples. • Drawing a spider diagram around "An earthquake" and labelling examples of tremors. • Writing sentences using key vocabulary: earthquake, tremors, aftershocks.	• Create a retrieval spider diagram: pupils write "An earthquake" in the centre, then record events from the story and label which are examples of tremors. • Paired discussion: Why are smaller tremors that follow an earthquake called "aftershocks"? Pupils explain using reasoning, then write a definition. • Locate New Zealand on a world map and describe its position using geographical language (compass direction, ocean, hemisphere). • Exit task: Pupils write two sentences - one explaining what a tremor is and one explaining what an aftershock is, using their own words without looking at notes (retrieval practice).		
	Synoptic Task:	By the end of the unit pupils will be able to answer the question: How do earthquakes affect people and environments?				

Year 4 Summer 2: Deserts
Disciplinary Skill: Diversity
Disciplinary Outcome: By the end of the unit pupils will be able to Why are deserts located where they are?

Learning Intent	Lesson Sequence and .	Core Knowledge	Core Skills	Suggested activities (with resource links)	Core Vocabulary	Connections
Pupils will learn: • Distribution and climate of deserts • Depth focus: The Sahara Desert How deserts are formed, variety of landscapes. • Plants and animals in deserts How humans live and adapt in deserts • Depth focus: The Patagonian Desert • Geographical skills: Interpreting	1. Are deserts always hot?	• A desert is defined by low precipitation (less than 250mm per year), not temperature. • All deserts are arid — extremely dry places. • Deserts can be hot (e.g. Sahara) or cold (e.g. Gobi). • The Gobi Desert in Asia can reach extreme cold (as low as -42°C at night) as well as heat in summer. • The Sahara Desert is the largest hot desert and can reach 45°C during the day, plummeting to -4°C at night. • Vegetation is very sparse in deserts because of the lack of precipitation.	• Interpreting and comparing climate data tables for deserts and the UK. • Drawing bar graphs for precipitation and line graphs for temperature. • Using geographical vocabulary accurately: arid, precipitation, vegetation, hydrated, dehydrated. • Locating key deserts on a world map using compass directions. • Reading to extract and apply key facts.	• Read pages 3–7 in the Deserts booklet and discuss what makes a place a desert. • Retrieval warm-up: pupils write 'A desert is...' and complete the sentence from memory using key vocabulary. • Draw a dual-axis climate graph for the Gobi Desert (bar graph for precipitation; line graph for temperature) — generative drawing to process data. • Compare Gobi Desert climate data with London: pupils write two sentences explaining key differences using data as evidence. • Locate key deserts on a world map; label them and add compass direction relationships (e.g. 'The Sahara is west of the Gobi Desert'). • Exit task: pupils write from memory — what is a desert and	• hydrated • dehydrated • desert • vegetation • arid • Sahara Desert • plummet	

thematic maps and satellite photographs		• Hydrated means having enough water; dehydrated means lacking water. • Key deserts include the Sahara, Gobi, Great Salt Desert (Iran), and Central Australian Desert. • Climate data (temperature and precipitation) can be read from tables and displayed as bar and line graphs.		why is it not always hot? (retrieval practice).		
	2. What is the Sahara Desert and what surrounds it?	• The Sahara Desert is the largest hot desert in the world, stretching across northern Africa from west to east. • The Arabic word 'sahra' means 'desert' — the Sahara was simply called 'The Desert'. • The Sahara has less than 250mm of precipitation per year — it is arid. • Sand dunes are formed when wind blows and deposits sand; they vary in shape and size. • An oasis (plural: oases) is a place in the desert where underground water reaches the surface, allowing vegetation to grow. • Oases can be found across the Sahara in countries such as Algeria, Egypt, and Chad. • Camels can store water and travel long distances across the desert. • The Sahel is the semi-arid zone on the edge of the Sahara with between 250mm and 450mm of rainfall per year. • Semi-arid land is less dry than a desert but not as fertile as lush	• Using compass directions to locate features within the Sahara (oases in Algeria, Egypt, Chad). • Distinguishing between arid, semi-arid, and fertile landscapes from photographs. • Using and applying specialist vocabulary: sand dunes, oasis, oases, Sahel, semi-arid, lush. • Drawing and annotating a map of the Sahara and Sahel, including oasis locations. • Writing descriptive sentences using geographical vocabulary.	• Read pages 8–12 in the Deserts booklet. • Retrieval starter: pupils complete sentence starters ('A desert is...', 'The Sahara is...') from memory before reading. • Sort photographs into arid / semi-arid / lush and justify choices using precipitation data — generative categorisation. • Draw an annotated map of the Sahara showing oasis locations in Algeria, Chad, and Egypt; add compass directions. • Sketch an oasis with labels showing water, vegetation, and surrounding desert — generative illustration to consolidate understanding. • Write a paragraph comparing the Sahara Desert with the Sahel, using vocabulary: arid, semi-arid, lush, precipitation, oasis.	• lush • sand dunes • oasis • oases • store • camels • Sahel • semi-arid • drought	

		land; some vegetation grows. • Lush land is fertile with plentiful vegetation and more than 250mm of rainfall.				
	3. How are deserts formed, and can a fertile place become a desert?	• Deserts form when evaporation of water exceeds precipitation over a long period. • Productive land is land that produces vegetation; non-productive land does not. • Desertification is the slow process by which fertile, productive land turns into non-productive desert land. • Physical (natural) causes of desertification include drought, lack of precipitation, and loss of nutrients from soil. • When vegetation dies, nutrients are no longer returned to the soil, making it even less productive. • Human causes of desertification include overgrazing (animals eating too much vegetation) and over farming (farming depleting soil nutrients). • Overgrazing removes vegetation and exposes soil; over farming dries out the soil by removing nutrients. • Desertification happens very slowly over a long time. • The Sahel region in Mali is an example area at risk of desertification.	• Explaining the water cycle in relation to desert formation (evaporation vs precipitation). • Distinguishing between physical and human causes of desertification. • Writing structured explanations using cause-and-effect language. • Using vocabulary accurately: productive, non-productive, desertification, nutrients, overgrazing, over farming. • Analysing photographs of landscape change to identify desertification.	• Read pages 13–16 in the Deserts booklet. • Retrieval warm-up: pupils label arid, semi-arid, and fertile landscapes from photographs — recall from previous lesson. • Concept map activity: pupils create a connected diagram linking 'precipitation', 'evaporation', 'vegetation', 'nutrients', 'non-productive land', 'desertification' with arrows and explanatory labels (generative elaboration). • Four-box writing task: pupils complete boxes explaining (1) physical causes using water cycle, (2) effect on nutrients/soil, (3) overgrazing, (4) over farming — building up a full explanation progressively. • Pupils write two final paragraphs: one on physical causes and one on human causes of desertification, using all key vocabulary. • Exit task: pupils draw and annotate a simple diagram showing how fertile land becomes desert — retrieval with generative drawing.	• productive • non-productive • desertification • physical • nutrients • overgrazing • herd • over farming	
	4. How have plants and animals adapted to survive in desert environments?	• Deserts may look desolate but support a variety of flora (plant life) and fauna (animal life). • Desert plants grow far apart to reduce competition for water.	• Distinguishing between flora (plant life) and fauna (animal life). • Explaining how specific plants and animals have adapted to desert conditions.	• Read pages 17–22 in the Deserts booklet. • Retrieval starter: pupils answer 'What is a desert?' using as many vocabulary words as possible — competitive recall. • Generative drawing task: pupils draw a desert scene in layers — cacti above ground, fauna	• variety • flora • fauna • obtain • desolate • succulents • cactus • cacti • spines	

		• Succulents are plants that store water in their leaves, stems, or roots. • Cacti are a type of succulent with spines (instead of leaves) to prevent water loss by stopping airflow across the plant surface. • Meerkats are nocturnal desert fauna that obtain water from the insects they eat and burrow underground to avoid heat. • Chameleons collect moisture from insects and from water droplets on their skin. • Antarctica is the largest desert in the world (less than 250mm precipitation per year) — a cold desert. • Penguins in Antarctica have adapted to drink salt water. • Polar bears in the Arctic (another cold desert) eat the blubber (fat) of other animals for water rather than eating snow. • Lichen is a type of flora that grows on rocks in Arctic desert conditions.	• Classifying examples of desert organisms as flora or fauna. • Drawing and annotating a desert scene showing flora and fauna with adaptation labels. • Locating Antarctica and the Arctic on a world map.	underground — and annotate each organism with two adaptation facts. • Sort cards: pupils classify a set of photographs as flora/fauna, then add a written explanation of how each has adapted to obtain water or avoid heat. • Cold deserts discussion: pupils compare hot and cold desert adaptations (penguin vs camel; lichen vs cactus) and create a comparison table. • Exit task (retrieval): pupils write from memory — 'What is a succulent?' and 'What does nocturnal mean?' — without notes.	• prevent • meerkat • nocturnal • chameleon • Antarctica • penguins • polar bears • blubber lichen	
	5. How have different people adapted to live in and use desert environments?	• Humans use deserts in many different ways: exploration, living, trading, and building modern cities. • Indigenous Australians have lived in Australian deserts for thousands of years, finding water in waterholes, plant roots, and certain animals. • Modern desert cities like Dubai and Las Vegas exist by diverting water from other sources into the desert. • The Bedouin are nomadic people who live in portable tents and travel to oases.	• Comparing how different groups of people (indigenous, nomadic, modern) use desert environments. • Locating deserts, steppes, and cities on world maps. • Using specialist vocabulary: indigenous, divert, steppe, Silk Road, yurt, portable, nomadic. • Writing in sentences that compare different human uses of deserts. • Drawing annotated maps showing trade routes and human settlements.	• Read pages 23–27 in the Deserts booklet. • Retrieval starter: pupils recall flora and fauna vocabulary from lesson 4 using a 'how many words can you use?' challenge. • Pupils create an annotated 'human uses of deserts' mind map with labelled drawings/symbols for: Casey (explorer), Bedouin (nomadic tents/oases), indigenous Australians (waterholes), Dubai/Las Vegas (modern cities/diverted water), Great Steppe traders (Silk Road/yurts) — generative organising task. • Map activity: pupils add the Silk Road trade route to a world map and annotate with facts	• modern • traditional • tents • indigenous • divert • steppe • Great Steppe • Silk Road • yurts portable	

		• A steppe is a semi-arid plain where only grasses grow. • The Great Steppe is the largest grassy steppe in the world, stretching from China to Europe. • Traders historically used the Great Steppe as the Silk Road — a trade route bringing silk from China to Europe. • People on the Great Steppe live in yurts — round, portable tents they can pack up and move. • If steppe land is over farmed, the grasses are destroyed and the land can become desert.		about what was traded and why the steppe was used. • Writing task: pupils write three structured sentences — 'Some people use deserts for...', 'Other people use deserts by...', 'Humans have also used deserts to...' — incorporating all groups. • Exit task: pupils explain from memory what a yurt is and why it is suitable for steppe life (retrieval + application).		
	6. Why is Patagonia a desert and what challenges does it face?	• The Patagonian Desert is located in South America, east of the Andes mountain range. • To the west of the Andes is fertile land; to the east is the arid Patagonian Desert. • A rain shadow is created when a mountain range blocks precipitation from reaching the land on the other side. • The Andes block rain from the Pacific Ocean, creating a rain shadow that makes Patagonia very arid. • Patagonia is also a cold desert — average temperatures rarely exceed 12°C. • Patagonia is hostile to flora and fauna due to its combination of aridity, cold, and dry winds. • Desertification is a serious problem in Patagonia, caused by over farming with sheep. • Sheep overgrazing exposes soil to erosion by wind.	• Explaining what a rain shadow is and how it is caused by a mountain range. • Interpreting climate data for Patagonia (precipitation and temperature table). • Locating Patagonia, the Andes, Pacific Ocean, and Atlantic Ocean on a map. • Drawing and annotating a map showing the rain shadow effect. • Identifying and explaining challenges facing the Patagonian Desert (desertification, extinction, over farming).	• Read pages 28–30 in the Deserts booklet. • Retrieval starter: pupils match sentence halves about key desert vocabulary from all previous lessons (cumulative retrieval). • Map annotation task: pupils label Pacific Ocean, Atlantic Ocean, Andes mountain range, fertile land (west) and Patagonian Desert (east), then draw and explain the rain shadow effect with annotated arrows. • Climate data interpretation: pupils read the Patagonian climate table, draw a bar graph for precipitation, and write two sentences identifying the most and least rainy months and whether it qualifies as a desert. • Problem-solving task: pupils read about over farming, overgrazing, and extinction in Patagonia, then write a structured paragraph explaining the challenges using: desertification, exposes, extinct, hostile, over farming. • Synthesis exit task: pupils answer 'Why is Patagonia a desert?' in three to four sentences from memory, incorporating: rain shadow,	• Patagonia • rain shadow • hostile • exceeds • feature • exposes • extinct	

		• Some Patagonian animal species have become extinct due to hunting for their skins. • The population density of Patagonia is very low due to its hostile conditions.		Andes, arid, precipitation — full unit integration.		
		•				
	Synoptic Task:	By the end of the unit pupils will be able to answer the question: Why are deserts located where they are?				