

Year	3	Topic	Angry Earth
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This topic builds upon children's prior knowledge of the United Kingdom taught in Year 2 and weather taught in Year 1 by increasing in complexity and expanding into new learning based on Europe and, eventually, the wider world. Children will learn the features of a volcano, what happens to cause an earthquake and the impact extreme natural events can have on a place and its inhabitants. Introducing children to new vocabulary such as tectonic plates, crust, mantle and core will enable them to explain with increasing confidence how an active volcano erupts and how earthquakes change the physical geography of a location. Children will develop their skills in using maps and simple Keynote presentations to locate places of interest, using positional and geographical vocabulary with increasing complexity to describe the human and physical features of a place.

Prior Learning	Future Learning
Locational and Place Knowledge: - Know the names of and locate the seven continents in the world on a globe or map (Y2) - Know the name of and locate the five oceans on a globe or map (Y2) - Know main differences between a place in England and that of a small place in a non-European country (Y2) Human and Physical Geography: - Explain some of the advantages and disadvantages of living in a city or a village (Y2) Skills and Fieldwork: - Know and use: left, right, below and next to (Y2) - Know which is North, East, South and West on a compass (Y2)	Locational and Place Knowledge: - Know the names of and locate at least 8 major capital cities across the world - Know, name and locate the main rivers in the UK Human and Physical Geography: - Know and label the main features of a river - Know the name of and locate a number of the world's longest rivers - Explain the features of the water cycle - Know why most cities are located by a river Skills and Fieldwork: - N/A

National Curriculum Links

Locational Knowledge:

- Know the names of and locate at least eight European countries.
- Know the names of a number of European capitals.

Place Knowledge:

- Know at least 5 differences between living in the UK and a Mediterranean country.

Human and Physical Geography:

- Know what causes an earthquake.

- Label the parts of a volcano.

Skills and Fieldwork:

- Use maps to locate European countries and capitals.
- Know and name the eight points of a compass (N, S, E, W, NE, NW, SE, SW).

Key Vocabulary

Volcano, active, extinct, dormant, Europe, capital city, Mediterranean, earthquake, tsunami, tornado, relocate, climate, mountain range, contour lines, crust, mantle, core, tectonic plates, Pangaea, magma, lava, magma chamber, main vent, side vent, crater, Ring of Fire, natural disaster

Recommended Texts & Web Links

- Earth Shattering Events by Sophie Williams
- The Pebble in my Pocket by Meredith Hooper
- Volcano and Earthquake by DK
- Journey to the Centre of the Earth by Sarah Courtauld
- DK Find Out! Volcanoes
- Volcanoes and Earthquakes KS2 Geography by CGP
- Earth Shattering Earthquakes by Anita Ganeri
- Violent Volcanoes by Anita Ganeri

What pupils need to know or do to be secure

Lesson 1 – What is Europe?

Focus: Locating Europe on a world map, naming key countries and capital cities, and using compass directions to describe their positions.

Key Knowledge (Declarative Knowledge)	Activities (Disciplinary Knowledge)	Assessment / Skills
• Europe is one of the seven continents and contains many countries, each with its own capital city.	Map labelling: Pupils label a printed outline map of Europe, colouring and naming at least eight countries and adding each country's capital city. They add a compass rose and use it to write two sentences describing the position of two countries (e.g. 'Spain is in the south-west of Europe'). Completed maps are	<i>Name and locate the countries of Europe and identify their main physical and human characteristics. (End of Year 4)</i>

• Eight European countries to know: France, Germany, Spain, Italy, Greece, Portugal, Norway and Poland. • Capitals to know: Paris, Berlin, Madrid, Rome, Athens, Lisbon, Oslo and Warsaw. • Most of Europe is in the Northern Hemisphere — countries closer to the Equator (e.g. Spain, Greece) have warmer climates than those further north (e.g. Norway).	photographed with the iPad camera and posted to Showbie.	
	Compass directions activity: Using their completed maps from the previous task, pupils choose three European countries and write one sentence for each, using compass directions to describe its position within Europe using sentence frames (e.g. '_____ is in the _____ of Europe' for 'Germany is in the north-east of Europe'). The teacher leads a quick whole-class check using a large map displayed on screen, asking pupils to point to the country they have described.	<i>Use the eight points of a compass to communicate knowledge of the United Kingdom and the wider world. (End of Year 4)</i>
	Discussion: Teacher displays a world map on screen and asks: 'Which hemisphere is most of Europe in, and what does this tell us about its climate?' Pupils discuss in pairs using what they already know about the Equator from Year 2. Class share-back: pupils identify which European countries are likely to be warmer and which cooler, giving one geographical reason each.	<i>Ask and answer geographical questions about the physical and human characteristics of a location. (End of Year 4)</i>

Lesson 2 – Why do people relocate to Spain?

Focus: Comparing the human and physical characteristics of the UK and a Mediterranean country.

Key Knowledge (Declarative Knowledge)	Activities (Disciplinary Knowledge)	Assessment / Skills
• Spain is a Mediterranean country in southern Europe with a much warmer and drier climate than the UK. • Many people from the UK choose to relocate to Spain because of its warmer weather, lower cost of living and outdoor lifestyle. • The UK and Spain differ in climate, landscape, language, food, architecture and daily life.	Similarities and differences sort: Pupils are given a set of cards with facts about the UK and Spain (climate, food, landscape, language, housing, temperature). They sort the cards into a Venn diagram on their table, identifying what is the same and what is different. They record their three most interesting differences in a sentence each. Completed Venn diagrams are photographed and submitted via Showbie.	<i>Describe geographical similarities and differences between countries. (End of Year 4)</i>

Comparing two places helps geographers understand what makes each location unique. <i>DISCO (Compare): What are TWO similarities and TWO differences between the UK and Spain? Use evidence to support your answer.</i>	ChatterKids postcard: Pupils imagine they have just arrived in Spain after moving from the UK. Using ChatterKids on the iPad, they record a short spoken 'postcard message' of two sentences describing two things that are different about Spain compared to the UK.	<i>Describe geographical similarities and differences between countries. (End of Year 4)</i>
	Discussion: Teacher asks: 'Would you choose to move to Spain? Why or why not?' Pupils briefly discuss in pairs, then share their view with the class, giving at least one geographical reason (e.g. climate, landscape, distance from family, language). The teacher notes the reasons on the board and highlights which are physical and which are human geographical reasons.	<i>Explain own views about locations, giving reasons. (End of Year 4)</i>

Lesson 3 – Where are the mountain ranges in Europe?

Focus: Locating mountain ranges in Europe and the UK, and beginning to read contour lines.

Key Knowledge (Declarative Knowledge)	Activities (Disciplinary Knowledge)	Assessment / Skills
- Mountain ranges are long chains of mountains — major European examples include the Alps, the Pyrenees and the Apennines. - In the UK, mountain ranges include the Grampians (Scotland), Snowdonia (Wales), the Lake District and the Pennines (England). - Contour lines on a map show the height of land — lines close together mean steep slopes; lines far apart mean gentle slopes. - Compass points help us describe where mountain ranges are located (e.g. 'The Alps are in the south of Europe').	Mountain ranges map: Pupils label a printed outline map of Europe and the UK, marking at least three European mountain ranges and two UK mountain ranges in the correct positions. They use compass directions to describe the location of two ranges in a written sentence. Completed maps are photographed with the iPad camera and submitted via Showbie.	<i>Name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, including hills, mountains, cities, rivers, key topographical features and land-use patterns; and understand how some of these aspects have changed over time. (End of Year 4)</i>
	Contour line activity: The teacher displays a simple contour map of a hill alongside a photograph of that hill. Pupils discuss what the lines mean and how close spacing relates to steep slopes. They then sketch their own simple three-ring 'hill' on plain paper, labelling the summit and adding a height in metres. Completed sketches are held up and briefly compared as a class — whose hill looks steepest?	<i>Describe key aspects of physical geography, including: rivers, mountains, volcanoes and earthquakes and the water cycle. (End of Year 4)</i>

	Discussion: Two photographs displayed side by side — the Alps and the Scottish Highlands. Pupils discuss in pairs: what is similar about these two places? What looks different? Class share-back: pupils give one geographical observation each, using vocabulary from the lesson (e.g. snow, altitude, vegetation, settlement).	<i>Ask and answer geographical questions about the physical and human characteristics of a location. (End of Year 4)</i>
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Lesson 4 – Why don't we have serious earthquakes in the UK?

Focus: Understanding the structure of the Earth and how tectonic plate movement causes earthquakes.

Key Knowledge (Declarative Knowledge)	Activities (Disciplinary Knowledge)	Assessment / Skills
- The Earth has three layers: the crust (thin outer layer), the mantle (mostly solid, churned by heat) and the core (the very hot centre). - The crust is broken into large sections called tectonic plates — when two plates get stuck and then suddenly slip, the energy released is an earthquake. - The UK sits in the middle of a tectonic plate, far from plate boundaries, which is why we rarely experience serious earthquakes. - A large underwater earthquake can trigger a tsunami — a massive wave that can devastate coastal areas. <i>DISCO (Imagine): Imagine you are a child living in Japan expecting a tsunami. How will you keep yourself safe?</i>	Earth layers & tectonic plate diagrams: Pupils label a pre-drawn cross-section diagram of the Earth, writing the names crust, mantle and core in the correct places and adding one describing word next to each layer (e.g. 'thin', 'hot', 'solid'). They then label a simple diagram of two tectonic plates meeting with an arrow to show movement. Completed diagrams are photographed and uploaded to Showbie.	<i>Describe key aspects of physical geography, including: rivers, mountains, volcanoes and earthquakes and the water cycle. (End of Year 4)</i>
	Tectonic plates map: Pupils are given a simplified world map showing the main tectonic plate boundaries. They colour the plates, locate and label the UK, then write one sentence explaining why the UK does not have serious earthquakes. They also mark one place on the map where they predict earthquakes would be common, giving one reason.	<i>Use maps, atlases, globes and digital/computer mapping to locate countries and describe features. (End of Year 4)</i>
	Discussion: Earthquake safety. Ask: In countries that are prone to earthquakes, what precautions would governments and local people have to put in place? Take ideas from children, e.g. structurally strong housing; flood barriers etc.	<i>Ask and answer geographical questions about the physical and human characteristics of a location. (End of Year 4)</i>

Lesson 5 – Are all mountains volcanic?

Focus: Understanding how volcanoes form, labelling key features, and learning the terms active, dormant and extinct.

Key Knowledge (Declarative Knowledge)	Activities (Disciplinary Knowledge)	Assessment / Skills
- Not all mountains are volcanoes — most form when tectonic plates collide and push land upward. - A volcano forms where magma rises through a weakness in the Earth's crust and erupts as lava at the surface. - Key features of a volcano: magma chamber, main vent, side vent, crater, lava flows, layers of ash and lava. - Volcanoes are described as active (erupting or likely to), dormant (not erupted recently but could again) or extinct (unlikely to ever erupt again). <i>DISCO: Volcanoes have rich, fertile soil on their slopes making them good places to farm. However, there are obvious risks.</i>	Volcano diagram labelling: Pupils label a pre-drawn cross-section of a volcano with the correct terms: magma chamber, main vent, side vent, crater, lava flows and layers of ash and lava. They then write one sentence explaining in their own words what happens when a volcano erupts. Completed diagrams are photographed and submitted via Showbie.	<i>Describe key aspects of physical geography, including: rivers, mountains, volcanoes and earthquakes and the water cycle. (End of Year 4)</i>
	Active, dormant, extinct sort: Pupils are given five volcano fact cards (e.g. for Vesuvius, Mauna Loa, Stromboli, Surtsey, an unnamed eroded stump). They contain the following phrases: This volcano is erupting now; This volcano has not erupted for a long time but could erupt again; this volcano is very unlikely to erupt again; smoke and lava are coming from the crater; it looks quiet but scientists still monitor it. Children indicate whether each refers to an 'active', 'dormant' or 'extinct' volcano.	<i>Use a range of resources to identify the key physical and human features of a location. (End of Year 4)</i>
	Discussion: ask: if volcanic places are so dangerous, why do so many people live there? Display examples of well-known volcanic locations, e.g. Canary Islands, Iceland, Sicily. Ask the children if they have visited any of these places and share their experiences/memories.	<i>Use a range of resources to identify the key physical and human features of a location. (End of Year 4)</i>

Lesson 6 – Where is the angriest place on Earth?

Focus: Comparing data about extreme natural events and using evidence to form a geographical opinion.

Key Knowledge (Declarative Knowledge)	Activities (Disciplinary Knowledge)	Assessment / Skills
Extreme natural events — volcanoes, earthquakes, tsunamis and tornadoes — are sometimes called natural disasters.	Natural disasters map: Pupils mark on a printed world map at least one location for each of the four natural events studied (volcano, earthquake, tsunami, tornado), using a simple colour-coded key. They write	<i>Name and locate the countries of Europe and identify their main physical and human characteristics. (End of Year 4)</i>

• Tornadoes are powerful rotating columns of air that cause enormous destruction and are most common in the USA. • Natural disasters are most frequent where tectonic plates meet, particularly around the Pacific Ocean — an area known as the Ring of Fire. • Geographers use data, maps and graphs to compare how often natural disasters occur and where they are most severe.	one sentence describing a pattern they can see (e.g. 'Many earthquakes happen around the edge of the Pacific Ocean'). Completed maps are photographed and uploaded to Showbie.	
	Bar chart task: Pupils are given a simple table showing how many natural disasters were recorded in a recent year. They use the data to complete a pre-drawn bar chart by colouring each bar to the correct height and adding a suitable title (the resource for this can be produced using an A.I tool). They answer questions related to the data e.g. 'Which natural disaster was recorded the most?' Completed bar charts and 'analyses' of the data to be submitted via Showbie.	<i>Describe geographical similarities and differences between countries. (End of Year 4)</i>
	Discussion – The Angriest Place on Earth: Using their completed maps and bar charts, pupils are asked: 'Where do you think is the angriest place on Earth, and why?' Pupils discuss in pairs, then each pair shares their view with the class, using evidence from the lesson (e.g. 'We think the Ring of Fire is the angriest place because it has the most volcanoes and earthquakes'). The class votes on the most convincing geographical argument (make voting criteria clear e.g. name the place, use evidence from the map, use evidence from the bar chart and explain why this makes this place active or dangerous). Note: 'angriest' is a hook word; the geographical language is active, hazardous, volcanoes, earthquakes, tectonic plates, etc.	<i>Explain own views about locations, giving reasons. (End of Year 4)</i>

Enrichment

- European countries and capitals quiz – competitive whole-class quiz using a Keynote slide
- Volcano in a bottle science experiment – bicarbonate of soda and vinegar eruption
- Watch BBC Teach: 'Volcanoes' and 'Earthquakes' short documentary clips
- Earthquake-proof building STEM challenge – design a structure using spaghetti and marshmallows that survives a 'quake'

- Ring of Fire map – labelling active volcanoes and earthquake zones around the Pacific
- Surtsey island case study – how an under-ocean volcano created new land in the 1960s
- Pompeii case study – exploring the impact of Mount Vesuvius erupting on a community
- Class debate: 'Would you choose to live near a volcano?'