**Unit planning guidance**

***Enquiry question: What are natural disasters and how do they impact the lives of people living in Asia?***

**Unit context**

This unit is designed to expand pupils’ locational and place knowledge, as well as their understanding of human and physical geography, by studying mountains, earthquakes, and volcanoes through the continent of Asia. In preparation for beginning this unit and to excite pupils about the content, activities from the Discovery box can be sent home. Pupils will start in Lesson 1 by looking at the physical geography of Asia and exploring the different types of land and climate across the continent. Pupils will then look at the human geography of Asia in Lesson 2, identifying the countries that are within Asia and the diverse range of people and cultures within them. Pupils will explore some of the most significant borders of Asia in Lesson 3, recognising that some are man-made, and some are natural. In Lesson 4, pupils will learn about tectonic plates and identify the four layers that make up Earth. They will learn about how continental drift created the continents, and the different plate boundaries and their movements. Understanding the movement of the plate boundaries creates the foundation for the second part of the unit where pupils explore how mountains and volcanoes form and how earthquakes occur.

In Lesson 5, pupils learn how mountains are formed, identify different types of mountains in Asia, and focus on the Himalayas: how they were formed, their features, and who lives there. In Lesson 6, pupils learn about how volcanoes are formed: their features, the different types of volcanoes, and where to find them. Pupils then explore how volcanoes erupt and how eruptions affect the local area in Lesson 7. In Lesson 8, pupils learn about earthquakes: their features, how they are measured, and where they occur. In Lesson 9, pupils explore the Nepal earthquake in 2015 as a case study. They will then learn about how people recover from earthquakes and how buildings are made to be earthquake-proof. Finally, Lesson 10 ends with an exploration of the secondary consequences of volcanic eruptions and earthquakes. This lesson focuses on tsunamis. Pupils learn about how Anak Krakatoa in 2018 and the Japan earthquake in 2011 triggered tsunamis, their effects, and how people are supported after natural disasters.

Pupils should now respond to the enquiry question: *What are natural disasters and how do they impact the lives of people living in Asia?* They should use their completed Knowledge records to help them. This could be in the form of an extended piece of writing, an oral presentation, an annotated poster, or another format of your choice which best suits your class. For further information to help support pupils to answer the enquiry question, please refer to the Enquiry Question Teacher Support document.

**Links to previous and future learning**

*The knowledge from previous and future units that closely links with this current unit is shown below. For more information about how this unit fits into the wider sequence of learning, please see the Geography progression document.*

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| **Year 4** | **Year 6** |
| **The USA**   * The USA is located in the continent of North America and is in the Northern Hemisphere. * The USA is divided into 50 different states. * Four major climate zones are found across North America and the USA. * There are many physical features across the USA, including the Appalachian Mountains, Rocky Mountains, Great Salt Lake, Grand Canyon, Missouri and Mississippi rivers, Mojave Desert, Everglades, and Niagara Falls. * The USA is a very large country with many varied physical characteristics and features, including mountain ranges, rivers, lakes, and deserts. * The USA is separated into states. * The population differs across the states. * There are human-made landmarks in the USA, which were built at different times throughout history, including the Statue of Liberty, Mount Rushmore, the Golden Gate Bridge, the Space Needle, and the Hoover Dam. * California is a state on the west coast of the USA. It is bordered by the Pacific Ocean and the states of Nevada, Arizona, and Oregon, as well as the country of Mexico. * Yosemite National Park is a protected area of land in California. * New York is a state on the east coast of the USA and is bordered by Pennsylvania, New Jersey, Connecticut, Rhode Island, Massachusetts, Vermont, and the Atlantic Ocean. | **Global challenges: Climate change**   * Climate is the average weather conditions in a place for a long period of time (30 years or more). * There are seven climate zones: equatorial, arid, tropical, Mediterranean, temperate, subpolar, and polar. * Climate changes such as rises in temperatures and increases in rainfall can affect how we use land. * Climate change is a long-term change in the temperature and weather patterns in a place. * Climate change can refer to a particular location or the planet as a whole. * The more greenhouse gases there are in the atmosphere, the more heat gets trapped, which increases Earth’s temperature. * The rise in the planet’s temperature is often referred to as global warming. * Burning fossil fuels produces energy, but also releases greenhouse gases such as carbon dioxide, methane, and nitrous oxide into the air. * The consequences of global warming will affect billions of people all around the world. * The effects of global warming include glaciers and polar ice melting, sea levels rising, patterns of rainfall changing, producing floods or droughts, and habitats changing. * Unexpected weather patterns can make it difficult to maintain and grow crops in areas that rely on farming. * There are simple steps each of us can do to reduce our greenhouse emissions and our carbon footprint. * The Paris Agreement is an international treaty which aims to reduce the emissions that different countries produce and prevent the global temperature from increasing further. |

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| **Unit overview** | | |
|  | **Key knowledge** | **Key vocabulary** |
| **Lesson 1**  ***What are the key physical features of Asia?*** | * Asia is the largest continent in the world. * Asia is located in the Northern Hemisphere. * There are many different climate zones across Asia. * There are many topographical features of Asia such as deserts, tropical rainforests, and the highest mountains in the world. | * climate zone * continent * hemisphere * **topography** |
| **Lesson 2**  ***What are the key human features of Asia?*** | * Asia can be split into five regions. * Asia is made up of 48 countries. * Different factors affect life expectancy, such as how wealthy or poor a person’s country is, whether they are male or female, their health care, diet, nutrition, and exercise. | * **life expectancy** * population * region |
| **Lesson 3**  ***What are some of the most significant borders in Asia?*** | * Borders can be natural or made by humans. * Borders are often political because they are dividing lines between countries. * A soft border is a border between countries where people and goods are allowed to pass through with few or no checks. * A hard border is a border between countries that is strictly controlled by officials, police, or the military. | * **border** * hard border * independence * political * soft border |
| **Lesson 4**  ***What are tectonic plates?*** | * Earth is made up of four layers: inner core, outer core, mantle, and crust. * The scientist Alfred Wegener believed that the continents were once a supercontinent called Pangaea. Over millions of years the continents drifted apart thousands of kilometres. * Earth’s mantle is made up of large pieces called tectonic plates. * Tectonic plates move and, when they meet, they collide, tear apart, or slide against each other. | * crust * inner core * mantle * outer core * **tectonic plates** |
| **Lesson 5**  ***How are mountains formed?*** | * Most geologists classify a mountain as a landform that rises at least 1,000 feet (300 metres) or more above its surrounding area. * Around 20 per cent of Earth’s surface is covered with mountains. * Mountains are most often formed by movement of the tectonic plates in Earth’s crust. * The Himalayas are the tallest mountains in the world. | * **landform** * plateau * slope * summit * valley |
| **Lesson 6**  ***How are volcanoes formed?*** | * A volcano is an opening in Earth’s crust that allows magma, hot ash, and gases to escape. * The majority of volcanoes in the world form along the boundaries of Earth’s tectonic plates. * Around 75 per cent of the world’s active volcanoes are underwater. | * crater * lava * magma chamber * main vent * secondary vent * **volcanic eruption** |
| **Lesson 7**  ***What happens when a volcano erupts?*** | * Volcanic eruptions vary depending on the type of volcano and the different types of plate boundary they sit on. * Eruptions can be catastrophic, damaging towns and farmland, and even taking lives. * Volcanic eruptions can benefit the surrounding area as it creates fertile ground. | * dormant * erupt * geothermal energy * volcanic ash * **volcanic eruption** |
| **Lesson 8**  ***What is an earthquake?*** | * An earthquake is the shaking and vibration of Earth’s crust due to movement of Earth’s tectonic plates. * An earthquake starts from the focus. * Seismic waves spread out from the focus. The waves are felt most strongly at the epicentre, becoming less strong as they travel further away. * The magnitude (how powerful an earthquake is) is measured by a Moment Magnitude Scale. | * epicentre * **fault lines** * focus * seismic waves * seismograph |
| **Lesson 9**  ***What happens when an earthquake strikes?*** | * Depending on whether a country is rich or poor, the effects of an earthquake can differ. * People need to prepare before, during, and after an earthquake if they can. * To withstand the incredible forces of an earthquake, buildings have to absorb as much seismic energy as possible. * Engineers aim to build structures that can ‘wobble’ when an earthquake strikes and not collapse. | * **aftershock** * debris * earthquake-proof * engineer * seismic energy |
| **Lesson 10**  ***What are the secondary consequences of a volcanic eruption or an earthquake?*** | * A tsunami is a sequence of huge waves of water that usually occur in oceans or large lakes. * In 2011, a magnitude 9.0 earthquake struck Japan and a tsunami followed with waves as high as 40 metres. * In 2018, Anak Krakatoa erupted and a landslide on the south-western flank of the volcano triggered a tsunami. | * landslide * **natural disaster** * tsunami |

Further to the standard lesson resources, additional resources are provided including a Knowledge organiser, posters and a discovery box containing fantastic cross-curricular activities.

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| **Lesson question** | **Key knowledge** | **Learning resources** | **Key vocabulary** |
| **Lesson 1**  ***What are the key physical features of Asia?*** | * Asia is the largest continent in the world. * Asia is located in the Northern Hemisphere. * There are many different climate zones across Asia. * There are many topographical features of Asia such as deserts, tropical rainforests, and the highest mountains in the world. | Lesson 1 slides  Pupil workbook (pp5–7)  Atlases  Access to Google maps | * climate zone * continent * hemisphere |
| **Outcomes/assessment** | **Disciplinary concepts** | **Key term** | **Key takeaway** |
| Pupil workbook  Response to enquiry question | DC1: Physical world | **Topography** is the study  of the physical features  of land. | Asia is a diverse continent, and the largest. It is in the Northern Hemisphere. |
| **Teacher notes:**   * Share a hook with pupils—such as a video showing natural disasters to spark engagement and discussion. * Share the enquiry question ‘What are natural disasters and how do they impact the lives of people living in Asia?’, Learning journey and specific lesson statement, key term, knowledge, and vocabulary. Discuss any key words that the pupils already know and the definitions of any new words. Pupils can use their Knowledge organisers to help. * Explain that all lessons in this unit will support the pupils in answering the enquiry question at the very end of the unit in a final writing task. Each lesson has its own question, and they should be able to answer each of these individually too. In this lesson, pupils are using maps to name and locate physical characteristics and topographical features within the continent of Asia. * **Existing knowledge**: Gauge pupils’ current knowledge of mountains, volcanoes, and earthquakes. What do pupils already know and what might they like to find out? * **Key term**: **Topography** is the study of the physical features of land. Pupils have studied this key term in previous units, such as the USA and Amazon units in Year 4. Revise knowledge about what this term means and other words associated with it (land, physical features). * **Talk task**: Pupils locate the continents of the world on the map shown on the teaching slide. If necessary, you may wish to provide a list of continents and allow pupils to identify the correct locations to place them. Pupils have studied the locations of different continents in previous year groups. * **Write**: Pupils answer the questions to describe the location of Asia using an atlas. * **Read**: Section titled—What is the climate like in Asia? * **Retrieval**: Pupils use the reading text to answer questions about Asia’s climate zones. * **Read**: Section in the teaching slides titled—What is the land like in Asia? * **Investigation**: Pupils locate and label the physical features on the map. Provide an atlas for pupils to do this. As a class, you may wish to use the information to discuss the physical feature and where it is before locating it. * **Write**: Pupils briefly describe each of the features they have labelled on the map. Encourage them to use the selection of words in their pupil workbooks.   **Learning review:** Talk partners tell each other a response to the lesson question. Add further review questions if you wish to. Pupils should write an independent response into the Knowledge record. | | | |

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| **Lesson question** | **Key knowledge** | **Learning resources** | **Key vocabulary** | |
| **Lesson 2**  ***What are the key human features of Asia?*** | * Asia can be split into five regions. * Asia is made up of 48 countries. * Different factors affect life expectancy, such as how wealthy or poor a country is, whether they are male or female, their health care, diet, nutrition, and exercise. | Lesson 2 slides  Pupil workbook (pp8–10)  Atlases | * population * region | |
| **Outcomes/Assessment** | **Disciplinary concepts** | **Key term** | **Key takeaway** | |
| Pupil workbook  Knowledge quiz 1.1  Response to enquiry question | DC2: Human environments | **Life expectancy** is the number of years that a person is expected to live. | Different people in different countries have different life expectancies. These statistics are dependent on many factors. | |
| **Teacher notes:**   * Share the main enquiry question ‘What are natural disasters and how do they impact the lives of people living in Asia?’, Learning journey, and specific lesson statement, key term, knowledge, and vocabulary. Discuss any key words that the pupils already know and the definitions of any new words. Pupils can use their Knowledge organisers to help. In this lesson, pupils are recording, presenting, and comparing the life expectancy rates of countries within different regions of Asia. * **Knowledge quiz**: Pupils complete the Knowledge quiz in their pupil workbooks to assess knowledge from the previous lesson. They write their score on the Knowledge quiz scores page in the front of the pupil workbook. * **Key term**: **Life expectancy** is the number of years that a person is expected to live. Discuss the link between the words ‘expectancy’ and ‘expect (to live)’. * Pupils have used the words ‘population’ and ‘capital city’ before (in the USA unit in Year 4 and the Europe unit in Year 3). Likewise, the word ‘civilisation’ may have been used in history teaching and learning. Recap their meanings together and use their Knowledge organiser or a dictionary to help. Talk about examples of civilisations (ancient Greeks, Egyptians, and Romans, for example). * **Talk task**: Pupils recall previous lesson learning—what is physical geography? Ask them to point out and describe some of the physical features they can see on the map. * **Read**: Section titled—What are the regions and countries of Asia? (Note: There are about 48 countries; however, some argue that Cyprus is part of Asia and some argue the State of Palestine is not a country, so it can range from 47–49 countries.) * Share with pupils a map of the five regions. On this map Russia is blue. Ask pupils to draw the border of where Russia as part of Asia meets Russia as part of Europe. This highlights Russia as transcontinental. Also, North Asia is not necessarily used as Russia is the only country in the north, but pupils may raise this. * **Investigation**: Pupils name a country in each region. Pupils then locate the capital cities of their chosen countries using their atlas. Examples are given on the slides. Alternatively, the internet could be used. Finally, pupils label the countries and cities on their pupil workbook maps. * **Read**: Section titled—What do we know about the people of Asia? * **Investigation**: Pupils research the ten countries given and find out population size, language, and life expectancy. Index mundi is a website that can find all of this information: [www.indexmundi.com/asia.html](https://www.indexmundi.com/asia.html). Pupils then rank the countries in terms of life expectancy to show the spread of different rates across Asia. Example answers are given on the slides, but the figures may change from year to year. [Oxford University Press is not responsible for content available on third-party websites. The content of these websites may have changed since publication.] * **Write**: Pupils write a short paragraph to explain why they think there is a difference in life expectancy across Asia. Draw pupils’ attention to what the reading text says about the factors that affect life expectancy to help them write their paragraph.   **Learning review:** Talk partners tell each other a response to the lesson question. Add further review questions if you wish to. Pupils should write an independent response into their Knowledge record. | | | |

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| **Lesson question** | **Key knowledge** | **Learning resources** | **Key vocabulary** | |
| **Lesson 3**  ***What are some of the most significant borders in Asia?*** | * Borders can be natural or made by humans. * Borders are often political because they are dividing lines between countries. * A soft border is a border between countries where people and goods are allowed to pass through with few or no checks. * A hard border is a border between countries that is strictly controlled by officials, police, or the military. | Lesson 3 slides  Pupil workbook  (pp11–13)  Atlases | * hard border * independence * political * soft border | |
| **Outcomes/Assessment** | **Disciplinary concepts** | **Key term** | **Key takeaway** | |
| Pupil workbook  Knowledge quiz 1.2  Response to enquiry question | DC4: Place and space | A **border** is something  that separates  geographical areas. | Borders can be natural or human-made and separate different countries. Borders can be classified as hard or soft. | |
| **Teacher notes:**   * Share the main enquiry question ‘What are natural disasters and how do they impact the lives of people living in Asia?’, Learning journey, and specific lesson statement, key term, knowledge, and vocabulary. Discuss any key words that the pupils already know and the definitions of any new words. Pupils can use their Knowledge organisers to help. In this lesson, pupils are learning to understand the role that different borders play in separating countries within Asia. * **Knowledge quiz**: Pupils complete the Knowledge quiz in their pupil workbooks to assess knowledge from the previous lesson. They write their score on the Knowledge quiz scores page at the front of the pupil workbook. * **Key term**: A **border** is something that separates geographical areas. Discuss some of the borders that pupils are aware of, for example, the borders within the United Kingdom. * Revisit any key words that are not known. For example, what does it mean to be ‘independent’, and so what might it mean if a country is independent? Also, what does ‘political’ mean, or what do pupils think might be the difference between a ‘hard’ and ‘soft’ border? * **Read**: Section titled—What is a border? Ensure pupils can define a border themselves. Urge them to define it using their own words first but use the Knowledge organiser or a dictionary to help if necessary. * **Retrieval**: Pupils define the terms in their pupil workbooks using the information in the text. Discuss answers together and compare with the answers on the slide. * **Read**: Section in the teaching slides titled—India, Bangladesh, and Pakistan. The information could be read as a whole class and then in groups. * **Retrieval and investigation**: Pupils can have discussions about what they have found out before answering questions about the border between India and Pakistan. Bear in mind that the case study includes sensitive material. There may be some children in the class that have been directly or indirectly affected by partition. * **Read**: Section titled—Palestine and Israel. The information could be read as a whole class and then in groups. Bear in mind that the case study includes sensitive material. There may be some children in the class that have been directly or indirectly affected by the conflict between Israel and Palestine. * **Write**: Pupils discuss the image of the changing borders of Palestine and Israel and write an explanation of the changes. * **Talk task**: Are borders useful? Discuss together and in groups and collect information to use in the next independent writing task. Consider the difference between hard and soft borders and the issues or benefits of each. Discuss what would happen if there were no borders. Would that be good or what issues might that create? * **Write**: Pupils answer the final writing question. They should be able to use their understanding of hard and soft borders and the purpose of them, and also use the examples to highlight how borders might be linked to conflict.   **Learning review:** Talk partners tell each other a response to the learning question. Add further review questions if you wish to. Pupils should write an independent response into the Knowledge record. | | | |

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| **Lesson question** | **Key knowledge** | **Learning resources** | **Key vocabulary** | |
| **Lesson 4**  ***What are tectonic plates?*** | * Earth is made up of four layers: inner core, outer core, mantle, and crust. * Earth’s mantle is made up of large pieces called tectonic plates. * Tectonic plates move and, when they meet, they collide, tear apart, or slide against each other. | Lesson 4 slides  Pupil workbook  (pp14–16) | * crust * inner core * mantle * outer core | |
| **Outcomes/assessment** | **Disciplinary concepts** | **Key term** | **Key takeaway** | |
| Pupil workbook  Knowledge quiz 1.3  Response to enquiry question | DC1: Physical world | **Tectonic plates** are pieces of the rocky outer layer of Earth known as the crust. | The Earth is comprised of different layers. Tectonic plates move in different directions and at different speeds. | |
| **Teacher notes:**   * Share the main enquiry question ‘What are natural disasters and how do they impact the lives of people living in Asia?’, Learning journey, and specific lesson statement, key term, knowledge, and vocabulary. Discuss any key words that the pupils already know and the definitions of any new words. Pupils can use their Knowledge organisers to help. In this lesson, pupils are learning to describe Earth's structure, plate movement, and boundaries. * **Knowledge quiz**: Pupils complete the quiz in their pupil workbooks to assess knowledge from the previous lesson. They write their score on the Knowledge quiz scores page at the front of the pupil workbook. * **Key term**: **Tectonic plates** are pieces of the rocky outer layer of Earth known as the crust. * **Read**: Section titled—What is Earth made of? * **Retrieval**: Pupils label a diagram of Earth, picking out the key layers from the text. * **Read**: Section titled—What is continental drift? Ask pupils to paraphrase in pairs to check understanding. * **Write**: Pupils describe what they can see happening to the continents over millions of years. * **Read**: Section titled—What are tectonic plates? Draw pupils’ attention to the map showing the tectonic plates and how these are invisible boundaries beneath us. [www.learner.org/wp-content/interactive/dynamicearth/tectonicsmap/index.html](http://www.learner.org/wp-content/interactive/dynamicearth/tectonicsmap/index.html) is a good interactive website for children. [Oxford University Press is not responsible for content available on third-party websites. The content of these websites may have changed since publication.] * **Investigation**: Pupils use an atlas to locate the countries that the arrows point to on the map. * **Read**: Section in the teaching slides titled—What are plate boundaries? * **Retrieval**: Pupils label each boundary using the information in the reading text.   **Learning review:** Talk partners tell each other a response to the lesson question. Add further review questions if you wish to. Pupils should write an independent response into the Knowledge record. | | | |

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| **Lesson question** | **Key knowledge** | **Learning resources** | **Key vocabulary** | |
| **Lesson 5**  ***How are mountains formed?*** | * Most geologists classify a mountain as a landform that rises at least 1,000 feet (300 metres) or more above its surrounding area. * Around 20 per cent of Earth’s surface is covered with mountains. * Mountains are most often formed by movement of the tectonic plates in Earth’s crust. * The Himalayas are the tallest mountains in the world. | Lesson 5 slides  Pupil workbook  (pp17–19)  Metre rules | * plateau * slope * summit * valley | |
| **Outcomes/Assessment** | **Disciplinary concepts** | **Key term** | **Key takeaway** | |
| Pupil workbook  Knowledge quiz 1.4  Response to enquiry question | DC1: Physical world | A **landform** is a natural feature of Earth's surface. | Mountains are most often formed by the movement of the tectonic plates. 20 per cent of the Earth’s surface is covered by mountains. | |
| **Teacher notes:**   * Share the main enquiry question ‘What are natural disasters and how do they impact the lives of people living in Asia?’, Learning journey, and specific lesson statement, key term, knowledge, and vocabulary. Discuss any key words that the pupils already know and the definitions of any new words. Pupils can use their Knowledge organisers to help. In this lesson, pupils are learning to use maps to locate and describe the topographical features of mountains. Mountains were previously studied in Year 3 UK settlements and land use, where pupils learned the features of hills and mountains and the differences between the two. * **Knowledge quiz**: Pupils complete the quiz in their pupil workbooks to assess knowledge from the previous lesson. They write their score on the Knowledge quiz scores page at the front of the pupil workbook. * **Key term**: A **landform** is a natural feature of Earth’s surface. Discuss this key term. Break down the word to think about it being a form that is on the land (so, a natural/physical feature of the Earth’s surface). * Discuss any key words that have been learned before. Pupils will have seen the words ‘slope’ and ‘summit’ if they have previously studied mountains in the UK. * **Investigation**: Explain to the class that we have different units to measure things like length. Ask: ‘Does anyone know of any?’ (centimetres, feet, inches, metres). Share the slide about measuring in feet and metres with the class and read it together. Ask pupils to paraphrase it in pairs to check their understanding, particularly of converting between metres and feet. Hand out metre rules and ask pupils to measure three objects from the classroom in both feet and metres. Discuss what is mostly used now (metres) and what was mostly used in the past (feet). Discuss what the difference is between metres and feet (metres are broken down into centimetres and feet into inches). * **Read**: Section titled—What is a mountain? Revise previous learning if necessary and focus on new vocabulary here. * **Write**: Pupils use the definitions to locate the features of a mountain on the diagram. Pupils write the numbers from the diagram beside the definitions below the diagram. Check answers against those on the slide and address any misconceptions. * **Read**: Section titled—Case study—The Himalayas. Make time to define any unknown vocabulary. Ensure understanding by asking questions as you read if necessary. * **Retrieval**: Pupils answer questions about the Himalayas. Discuss the answers together. * **Read**: Section titled—What is it like to live in the Himalayas? Again, discuss or ask questions to establish understanding as you read. Deal with any unknown or difficult vocabulary, such as ‘fuel’, ‘source’, ‘pasture’, ‘market’, ‘expert’, and ‘ascent’.   **Learning review:** Talk partners tell each other a response to the learning question. Add further review questions if you wish to. Pupils should write an independent response into the Knowledge record. | | | |

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| **Lesson question** | **Key knowledge** | **Learning resources** | **Key vocabulary** | |
| **Lesson 6**  ***How are volcanoes formed?*** | * A volcano is an opening in Earth’s crust that allows magma, hot ash, and gases to escape. * Most volcanoes in the world form along the boundaries of Earth’s tectonic plates. * Around 75 per cent of the world’s active volcanoes are underwater. | Lesson 6 slides  Pupil workbook  (pp20–22) | * crater * lava * magma chamber * main vent * secondary vent | |
| **Outcomes/Assessment** | **Disciplinary concepts** | **Key term** | **Key takeaway** | |
| Pupil workbook  Knowledge quiz 1.5  Response to enquiry question | DC1: Physical world | A **volcanic eruption** is when lava and gas are released from a volcano—sometimes explosively. | Volcanoes most often form along tectonic boundaries and allow magma, ash, and gases to escape from inside the Earth. | |
| **Teacher notes:**   * Share the main enquiry question ‘What are natural disasters and how do they impact the lives of people living in Asia?’, Learning journey, and specific lesson statement, key term, knowledge, and vocabulary. Discuss any key words that the pupils already know and the definitions of any new words. Pupils can use their Knowledge organisers to help. In this lesson, pupils are learning to create and label diagrams to describe how volcanoes are formed. * **Knowledge quiz**: Pupils complete the quiz in their pupil workbooks to assess knowledge from the previous lesson. They write their score on the Knowledge quiz scores page at the front of the pupil workbook. * **Key term**: A **volcanic eruption** is when lava and gas are released from a volcano—sometimes explosively. * **Read**: Section titled—What is a volcano? Explain what a volcano is. * **Retrieval**: Pupils label the features of a volcano on the diagram using the information given in the table at the end of the reading text. * **Read**: Section in the teaching slides titled—How are volcanoes formed? Read together and ask questions to establish understanding of the content. You could carry out a demonstration, for example by squeezing toothpaste through holes punched in cardboard to represent magma emerging through the Earth’s crust, or by carrying out a fizzy drink explosion to represent the explosive release of gas and ash. * **Talk task**: Pupils use the information to explain in their own words how volcanoes are formed. Challenge them to explain it in three steps. An example answer might be as follows: 1. Tectonic plates collide and one usually slides below the other. 2. Magma explodes to the surface in an eruption. Magma becomes lava on Earth’s surface. 3. Lava cools to make a new crust and over time becomes a volcano. * **Read**: Section titled—Where are volcanoes found? * **Retrieval**: Pupils name the three types of volcano. * **Investigation**: Looking at the map, in which countries in Asia can large clusters of volcanoes be found? Pupils use the map and an atlas to respond to this question.   **Learning review:** Talk partners tell each other a response to the learning question. Add further review questions if you wish to. Pupils should write an independent response into their Knowledge record. | | | |

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| **Lesson question** | **Key knowledge** | **Learning resources** | **Key vocabulary** | |
| **Lesson 7**  ***What happens when a volcano erupts?*** | * Volcanic eruptions vary depending on the type of volcano and the different types of plate boundary they sit on. * Eruptions can be catastrophic, damaging towns and farmland, and even taking lives. * Volcanic eruptions can benefit the surrounding area as it creates fertile ground. | Lesson 7 slides  Pupil workbook  (pp23–25) | * dormant * erupt * geothermal energy * volcanic ash | |
| **Outcomes/Assessment** | **Disciplinary concepts** | **Key term** | **Key takeaway** | |
| Pupil workbook  Knowledge quiz 1.6  Response to enquiry question | DC1: Physical world | A **volcanic eruption** is when lava and gas are released from a volcano—sometimes explosively. | Volcanic eruptions can be catastrophic but they can also bring benefits to the surrounding area. | |
| **Teacher notes:**   * Share the main enquiry question ‘What are natural disasters and how do they impact the lives of people living in Asia?’, Learning journey, and specific lesson statement, key term, knowledge, and vocabulary. Discuss any key words that the pupils already know and the definitions of any new words. Pupils can use their Knowledge organisers to help. In this lesson, pupils are learning about the impact volcanic eruptions can have on human life. * **Knowledge quiz**: Pupils complete the quiz in their pupil workbooks to assess knowledge from the previous lesson. They write their score on the Knowledge quiz scores page at the front of the pupil workbook. * **Key term**: A v**olcanic eruption** is when lava and gas are released from a volcano—sometimes explosively. * **Talk task**: What happens when tectonic plates collide and cause weaknesses in Earth’s crust? Pupils should recall learning from the previous lesson about volcanoes forming. * **Read**: Section titled—What happens during an eruption? * **Retrieval**: Pupils answer a question about whether thick lava is more dangerous than thin lava. * **Read**: Section titled—How does a volcanic eruption affect the local area? Highlight the positives and the negatives. * **Retrieval**: Pupils write why they think some people choose to live near volcanoes (for example, fertile land). Ensure pupils understand that, while volcanoes can be dangerous and have negative impacts on humans, there are also many positives. * **Group task**: Pupils think about which impact of volcanoes is most positive and which is most negative. Explain that these are subjective opinions, and pupils need to be able to justify their choices. * **Read**: Section titled—How have some volcanoes erupted? * **Retrieval**: Pupils answer questions about the Asian volcanoes. * **Investigation**: Pupils research another volcano in Asia. They might describe where it is and when it last erupted.   **Learning review:** Talk partners tell each other a response to the learning question. Add further review questions if you wish to. Pupils should write an independent response into their Knowledge record. | | | |

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| **Lesson question** | **Key knowledge** | **Learning resources** | **Key vocabulary** | |
| **Lesson 8**  ***What is an earthquake?*** | * An earthquake is the shaking and vibration of Earth’s crust due to movement of Earth’s tectonic plates. * An earthquake starts from the focus. * Seismic waves spread out from the focus. The waves are felt most strongly at the epicentre, becoming less strong as they travel further away. * The magnitude (how powerful an earthquake is) is measured by a Moment  Magnitude Scale. | Lesson 8 slides  Pupil workbook  (pp26–28) | * epicentre * focus * seismic waves * seismograph | |
| **Outcomes/Assessment** | **Disciplinary concepts** | **Key term** | **Key takeaway** | |
| Pupil workbook  Knowledge quiz 1.7  Response to enquiry question | DC1: Physical world | **Fault lines** are located in many parts of the world and are closely related to the structure of Earth. | Earthquakes are caused by the movement of tectonic plates. Seismic waves travel out from the focus. The intensity of an earthquake can be recorded. | |
| **Teacher notes:**   * Share the main enquiry question ‘What are natural disasters and how do they impact the lives of people living in Asia?’, Learning journey, and specific lesson statement, key term, knowledge, and vocabulary. Discuss any key words that the pupils already know and the definitions of any new words. Pupils can use their Knowledge organisers to help. In this lesson, pupils are learning about the features of earthquakes and where they happen. * **Knowledge quiz**: Pupils complete the quiz in their pupil workbooks to assess knowledge from the previous lesson. They write their score on the Knowledge quiz scores page at the front of the pupil workbook. * **Key term**: **Fault lines** are located in many parts of the world and are closely related to the structure of Earth. * **Talk task**: What do you know about earthquakes? * **Read**: Section titled—What is an earthquake? Ask pupils to paraphrase what they have learned to check understanding. * **Retrieval**: Pupils identify the features of an earthquake on the diagram using the information given. * **Read**: Section titled—How are earthquakes measured? NB the Moment Magnitude Scale is now used, rather than the Richter Scale. * **Write**: Discuss the different impacts of earthquakes and the Moment Magnitude Scale. Pupils then match each description of an earthquake’s impact to the relevant range of magnitudes on the scale by writing the correct letter in each box. * **Read**: Section titled—Where do earthquakes occur? * **Retrieval**: Looking at the map on the slide, and using the text, pupils identify four countries in Asia that experience earthquakes often.   **Learning review:** Talk partners tell each other a response to the learning question. Add further review questions if you wish to. Pupils should write an independent response into their Knowledge record. | | | |

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| **Lesson question** | **Key knowledge** | **Learning resources** | **Key vocabulary** | |
| **Lesson 9**  ***What happens when an earthquake strikes?*** | * Depending on whether a country is rich or poor, the effects of an earthquake can differ. * People need to prepare before, during, and after an earthquake if they can. * To withstand the incredible forces of an earthquake, buildings have to absorb as much seismic energy as possible. * Engineers aim to build structures that can ‘wobble’ when an earthquake strikes and not collapse. | Lesson 9 slides  Pupil workbook  (pp29–31)  Gummy sweets or sticky tack  Toothpicks  Something heavy—a brick, for example | * aftershock * debris * earthquake-proof * engineer * seismic energy | |
| **Outcomes/Assessment** | **Disciplinary concepts** | **Key term** | **Key takeaway** | |
| Pupil workbook  Knowledge quiz 1.8  Response to enquiry question | DC3: Interdependence | An **aftershock** is a smaller earthquake that happens in the same area after the main earthquake. | People can prepare for earthquakes. However, people’s ability to prepare and deal with earthquakes varies depending on where the earthquakes occur and their intensity. | |
| **Teacher notes:**   * Share the main enquiry question ‘What are natural disasters and how do they impact the lives of people living in Asia?’, Learning journey, and specific lesson statement, key term, knowledge, and vocabulary. Discuss any key words that the pupils already know and the definitions of any new words. Pupils can use their Knowledge organisers to help. In this lesson, pupils are learning about the impact earthquakes can have on humans and how engineers are trying to make structures safe. * **Knowledge quiz**: Pupils complete the quiz in their pupil workbooks to assess knowledge from the previous lesson. They write their score on the Knowledge quiz scores page at the front of the pupil workbook. * **Key term**: An **aftershock** is a smaller earthquake that happens in the same area after the main earthquake. * **Read**: Section titled—What is it like to live in an earthquake zone? * **Read**: Section titled—Nepal Earthquake 2015. * **Retrieval**: Pupils answer questions to summarise the effects of the Nepal earthquake. * **Read**: Section in teaching slides titled—How do people protect themselves from earthquakes? * **Group task**: Pupils create a poster to inform people about what to do before, during, and after an earthquake. * **Read**: Section titled—How are buildings made earthquake-proof? * **Write**: Pupils answer questions using the text and illustration. * **Investigation**: You will need some items to set up this experiment—gummy sweets or sticky tack, toothpicks, and something heavy like a brick. These items can be different as long as pupils can make the cube and the triangular prism. Pupils will need to see that the force on the triangle is balanced out and therefore can withstand heavy weights. Pupils write up what they find from the investigation.   **Learning review:** Talk partners tell each other a response to the learning question. Add further review questions if you wish to. Pupils should write an independent response into their Knowledge record. | | | |

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| **Lesson question** | **Key knowledge** | **Learning resources** | **Key vocabulary** | |
| **Lesson 10**  ***What are the secondary consequences of a volcanic eruption or an earthquake*?** | * A tsunami is a sequence of huge waves of water that usually occur in oceans or large lakes. * In 2011, a magnitude 9.0 earthquake struck Japan and a tsunami followed with waves as high as 40 metres. * In 2018, Anak Krakatoa erupted and a landslide on the south-western flank of the volcano triggered a tsunami. | Lesson 10 slides  Pupil workbook  (pp32–35) | * + landslide * tsunami | |
| **Outcomes/Assessment** | **Disciplinary concepts** | **Key term** | **Key takeaway** | |
| Pupil workbook  Knowledge quiz 1.9  Knowledge quiz 1.10  Response to enquiry question | DC3: Interdependence | A **natural disaster** is a natural event such as a flood, earthquake, or hurricane that causes great damage or loss  of life. | Tsunamis can be caused by underwater earthquakes or volcanoes and can have a significant impact on people and the environment. | |
| **Teacher notes:**   * Share the main enquiry question ‘What are natural disasters and how do they impact the lives of people living in Asia?’, Learning journey, and specific lesson statement, key term, knowledge, and vocabulary. Discuss any key words that the pupils already know and the definitions of any new words. Pupils can use their Knowledge organisers to help. In this lesson, pupils are learning the impact of secondary consequences on humans. * **Knowledge quiz**: Pupils complete the quiz in the pupil workbook to assess knowledge from the previous lesson. They write their score on the scores page at the front of the pupil workbook. * **Key term**: A **natural disaster** is a natural event such as a flood, earthquake, or hurricane that causes great damage or loss of life. * **Read**: Section titled—What is a tsunami? * **Write**: In their own words, pupils explain what a tsunami is and how it might affect people living near the coast. * **Talk task**: Look at the satellite images showing an area of Sumatra before and after a tsunami. Discuss how the tsunami affected the people living near the coast. Use the satellite images to point out areas of flooding and the destruction of roads and buildings. You could also discuss effects on businesses, power lines, and water supplies. * **Read**: Section titled—Case study—Japan earthquake 2011. * **Retrieval**: Pupils circle the correct response to complete each sentence correctly. * **Write**: Pupils respond to the question, looking at the picture on the teaching slide: how did the tsunami affect Japan? * **Read**: Section titled—Case study—Anak Krakatoa 2018. * **Retrieval**: Pupils describe what happened during the eruption, the damage it caused, and how people were affected. * **Knowledge quiz**: Pupils complete the quiz in their pupil workbooks to assess knowledge from this lesson. They write their score on the Knowledge quiz scores page at the front of the pupil workbook.   **Learning review:** Talk partners tell each other a response to the learning question, and write three key points to summarise what they have learned. Add further review questions if you wish to. Pupils should write an independent response into their Knowledge record.  **Enquiry question:** Pupils should now respond to the enquiry question: ‘What are natural disasters and how do they impact the lives of people living in Asia?’. They should use their completed Knowledge records to help them. This could be in the form of an extended piece of writing, an oral presentation, an annotated poster, or another format of your choice which best suits your class. | | | |
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