

Subject	Year 10 Threshold Concepts – Autumn Term	How to support students' learning
Geography	<p>Topic- The challenge of tectonic hazards</p> <p>Lesson 1: Why is the earth like a jigsaw? Objectives:</p> <ul style="list-style-type: none"> ✓ To describe the layers of the earth ✓ To explain how the cores of the earth drives plate tectonics ✓ To evaluate the distribution of volcanos and earthquakes <p>Lesson 2: Where do we find earthquakes and volcanoes? Objectives:</p> <ul style="list-style-type: none"> ✓ To describe different types of plate margins ✓ To explain the processes at each plate margin ✓ To investigate how the processes lead to earthquakes and volcanos <p>Lesson 3: What are the differences between composite and shield volcanoes? Objectives:</p> <ul style="list-style-type: none"> ✓ To describe the differences between shield and composite volcanoes ✓ To explain why hotspots occur ✓ To evaluate the impact of development on the management of tectonic hazards <p>Lesson 4: What are the impacts of tectonic hazards? Objectives:</p> <ul style="list-style-type: none"> ✓ To be able to describe primary and secondary hazards ✓ To be able to explain why Haiti suffered an earthquake 	<ul style="list-style-type: none"> • Study a map of the seven continents, can you see how they fit together like a jigsaw? • Watch the video clip 'Layers of the earth' Layers of the Earth - YouTube Discuss the four layers and their characteristics e.g., composition and temperature • Read the information on the four types of plate boundaries Destructive, constructive and conservative plate margins - Plate margins and plate tectonics - AQA - GCSE Geography Revision - AQA - BBC Bitesize Can you think of a way to use hand signals to remember the four plate boundaries?! • Read the information on National Geographical website on continental drift continental drift National Geographic Society Use the interactive images to study the differences in the geologic plates overtime. • Study the National Geographic clip 'Long Way Down: Mariana Trench' Long Way Down: Mariana Trench National Geographic - YouTube and produce a diagram showing the changes in sunlight and species found. • Question your child on how many mountain ranges they can name e.g., Alps. Discuss how mountain ranges are formed, including the Himalayas, using the interactive BBC resource Explore mountains - BBC Bitesize • Use the template from Twinkl Cross Section Paper Model Volcano Art - KS2 Resources (twinkl.co.uk) to produce a paper model of a volcano cross section • Watch the BBC video clip BBC Two - How Earth Made Us, Deep Earth, Earth's moving plates where Professor Iain Stewart explains how hotspots are formed and the associated mineral wealth • Watch the following video clips to help your child to produce a mind map with the advantages and disadvantages of living near a tectonic hazard:

	<p>✓ To evaluate the effects of natural hazards on a named country</p> <p>Lesson 5: How does a country's level of development affect earthquake responses? Objectives:</p> <ul style="list-style-type: none"> ✓ To describe the immediate and long-term responses to the Haiti earthquake ✓ To explain the impacts and responses of the Christchurch earthquake ✓ To assess how a country's level of development affects earthquake responses <p>Lesson 6: Why do people live in hazardous areas? Objectives:</p> <ul style="list-style-type: none"> ✓ To be able to describe the advantages and disadvantages of living in hazardous areas ✓ To explain reasons why people live in hazardous regions ✓ To evaluate how a country's level of development determines hazard risk 	<ol style="list-style-type: none"> 1. 'Why live near a volcano?' Why live near a volcano? - YouTube 2. 'Living with Volcanoes' GCSE Geography for AQA - Living With Volcanoes - YouTube 3. 'Iceland Eruption Disrupts Travel' Iceland Eruption Disrupts Travel Flashback NBC News - YouTube <ul style="list-style-type: none"> • Watch the video clip 'Millions To Participate in Earthquake Drill' Millions To Participate In Earthquake Drill - YouTube Ask your child how they would protect themselves during an earthquake at school or/and at home? • Complete the formative tests using the BBC Bitesize website: The challenge of natural hazards - GCSE Geography Revision - AQA - BBC Bitesize • Use the website Kerboodle to access the AQA E-text book for additional reading, tasks, and practice paper questions
	<p>Topic- The challenge of weather hazards and climate change</p> <p>Lesson 1: What is global atmospheric circulation? Objectives:</p> <ul style="list-style-type: none"> ✓ To know what global atmospheric circulation is ✓ To describe surface winds and pressure belts ✓ To explain how global atmospheric circulation works 	<ul style="list-style-type: none"> • Watch the Met Office video clip What is global circulation? Part One Differential heating - YouTube and What is global circulation? Part Two The three cells - YouTube Discuss the location of the world's deserts and rainforests in relation to Global Circulation with your child • Draw a labelled diagram showing global atmospheric circulation including lines of latitude • Discuss with your child why we don't get tropical storms in the UK. Watch The Guardian video clip Hurricane Michael pounds Florida - YouTube to aid your discussion

	<p>Lesson 2: How are tropical storms formed?</p> <ul style="list-style-type: none"> ✓ To describe and explain why tropical storms form where they do ✓ To identify and label the structure of tropical storms ✓ To explain the formation and development of tropical storms <p>Lesson 3: What are the impacts and responses to tropical storms?</p> <ul style="list-style-type: none"> ✓ To describe the formation of a named tropical storm ✓ To identify the primary and secondary effects of a named tropical storm ✓ To explain the responses to a named tropical storm <p>Lesson 4: How can we monitor, predict, plan and prepare for a tropical storm?</p> <ul style="list-style-type: none"> ✓ To define planning, protection, monitoring and prediction ✓ To explain how tropical storms can be monitored, predicted, planned for and protected against ✓ To apply knowledge of tropical storms, their impacts and how they can be managed <p>Lesson 5: What evidence is there of climate change?</p> <ul style="list-style-type: none"> ✓ To explain the frequency of extreme weather in the UK ✓ To identify evidence for climate change ✓ To explain the natural causes of climate change 	<ul style="list-style-type: none"> • Read the article Can we get hurricanes in the UK? ITV News Start a discussion with your child, could we get UK tropical storms in the future? • Study the diagram showing how tropical storms develop on the BBC bitesize website Structure, features and the development of tropical storms - Tropical storms - AQA - GCSE Geography Revision - AQA - BBC Bitesize • Create a timeline showing tropical storm development including the impact of changing air pressure and wind speed. • Discuss the Saffir-Simpson Hurricane Wind Scale Saffir-Simpson Hurricane Wind Scale (noaa.gov) including sustained winds and types of damage. Watch the interactive diagram showing the Hurricane Intensity Scale. • Read the article 'The Science of Hurricane-Proof Buildings' The Science of Hurricane-Proof Buildings & Homes [Animated] BigRentz • Produce an A3 poster of a hurricane proof building using the 'The Science of Hurricane-Proof Buildings' article. Encourage your child to consider the cost of their building design and reiterate it is not yet possible to create a completely hurricane-proof building! • Watch the 'Natural Causes of Global Warming' Natural Causes of Global Warming - YouTube and write down three reasons why climate change occurs naturally • Watch the following video clips about human causes of climate change and produce a table outlining the impacts on climate change: <ol style="list-style-type: none"> 1. Deforestation https://www.youtube.com/watch?v=Nc7f5563azs 2. Fossil fuels https://www.youtube.com/watch?v=zaXBVYr9lj0
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	<p>Topic- The living world</p> <p>Lesson 1: What are the features of the tropical rainforest?</p> <ul style="list-style-type: none"> ✓ To be able to describe the distinctive characteristics of climate, plants and animals in the tropical rainforest ✓ To be able to explain how climate, soil, and animals are interlinked in the tropical rainforest ✓ To be able to evaluate the value of the tropical rainforest <p>Lesson 2: What are the impacts of deforestation?</p> <ul style="list-style-type: none"> ✓ To be able to describe the impacts of deforestation ✓ To be able to explain the impacts of deforestation ✓ To be able to evaluate the impact that deforestation has on the amazon rainforest. <p>Lesson 3: What are the features of a hot desert?</p> <ul style="list-style-type: none"> ✓ To be able to describe features of the hot desert ✓ To be able to explain how the climate and animals are interlinked in the hot desert 	<ul style="list-style-type: none"> • Question your child on the basic concepts of ecosystems covered in Year 9 Geography including key-term definitions of ecosystems, biomes, biotic, abiotic, food chains and food webs. • Watch the BBC Teach video clips on ‘Rainforests’ Rainforests Geography - Ecosystems and Biomes - YouTube and ‘Food Chains’ Food Chains Biology – Life Lessons - YouTube • Use The Wildlife Trusts guide to ‘How to build a pond’ to create an informative poster on the biotic and abiotic features of a small-scale ecosystem How to build a pond The Wildlife Trusts • Ask your child how can rainforests be managed sustainably so that people can make money from them now, and will still be able to in the future? • Watch the following video clips about types of sustainable management and write down 3-5 ideas: • Ecotourism – Eco-tourism a \$7 billion per year boon for Brazil - YouTube • Selective logging and replanting – Sustainable Logging National Geographic - YouTube

	<ul style="list-style-type: none"> ✓ To be able to evaluate animal adaptations to desert conditions <p>Lesson 4: What are the biotic and abiotic characteristics of a hot desert?</p> <ul style="list-style-type: none"> ✓ To be able to identify key biotic and abiotic features of a hot desert, such as climate ✓ To be able to describe biotic and abiotic features of a hot desert ✓ To be able to explain the interdependence of biotic and abiotic features of a hot desert <p>Lesson 5: What are the challenges and opportunities in hot deserts?</p> <ul style="list-style-type: none"> ✓ To be able to describe the location of the Thar Desert ✓ To be able to describe the climate of the Thar Desert ✓ To evaluate the challenges and opportunities of the Thar Desert <p>Lesson 6: What is desertification?</p> <ul style="list-style-type: none"> ✓ To be able to define desertification ✓ To be able to explain the causes and effects of desertification ✓ To evaluate ways of preventing desertification 	<ul style="list-style-type: none"> • Conservation and education – THE RAINFOREST ALLIANCE: CONSERVATION & BIODIVERSITY - YouTube • International agreements – Norway Threatens to Cut Aid to Brazil Over Deforestation Time • Debt reduction - US Enters Debt-for-Nature Swap With Indonesia - YouTube • Watch the video clips ‘David Attenborough on the World’s Deserts’ David Attenborough on the World's Deserts - YouTube ‘Desert Adaptations’ Desert Adaptations - YouTube and ‘BBC Teach Deserts’ Deserts Geography - Ecosystems and Biomes - YouTube Encourage your child to make notes on the how people, plants and animals have adapted to be able to survive the harsh arid conditions of the desert. • You can view the full episode of ‘Africa 5. Sahara’ on BBC iPlayer - Africa - 5. Sahara • Complete the Desert test questions on the BBC Bitesize Desert test questions - GCSE Geography Revision - BBC Bitesize • Read the information on the United Nations website about strategies to combat desertification World Day to Combat Desertification and Drought United Nations and lead a discussion on the importance of 17th June as ‘World Day to Combat Desertification and Drought’ • Use the website Kerboodle to access the AQA E-text book for additional reading, tasks, and practice paper questions
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