

<u>Lesson</u>	<u>Learning Objective</u>	<u>Lesson Content and Learning Outcomes</u> <u>(resources hyperlinked)</u>	<u>Assessment and Prior Learning needed</u>	<u>Cross-Curricular Learning</u>	<u>Suggested Resources and Notes</u>	<u>Remote Learning</u>
1	<p>1.7 Earth's layered structure, and physical properties is key to plate tectonics.</p> <p>LO - To know the layers of the Earth.</p> <p>LO - To understand how the Earth's internal heat sources cause plate movement.</p>	<p>Explain Ws Overview of Hazardous Earth EQ3. Starter: what's the connection? Two pictures egg and earth.</p> <p>Task 1: Ws Blank cross section of Earth, Ws Fact sheet, in pairs match facts to correct layer. Feedback of responses and review, pupils' then produce own annotated copy of structure of Earth.</p> <p>Task 2: show movie clip/animation of reasons for plate movement, pupils then create their own diagram to answer the question: 'Explain how convection currents cause the movement of tectonic plates'.</p> <p>Ws Convection currents available.</p> <p>PP Structure of Earth and plate movement available.</p> <p>Homework – create Key vocabulary list and definitions/learn: inner core, outer core, mantle, crust, asthenosphere, lithosphere, convection currents, radioactive decay.</p>	<p>PL – basic structure of earth, cross-sections.</p> <p>Assess accuracy of responses from fact sort.</p> <p>Peer assess responses using purple pen.</p> <p>Assess homework with 5 minute vocabulary test next lesson.</p>	<p>Convention currents, radio-active decay – Science.</p>	<p>Covers 1.7a and b (see Overview sheet).</p> <p>GCSE Geography Edexcel B (Oxford) pg. 36-37.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 38-39.</p> <p>CGP revision guide pg. 13.</p> <p>Structure of Earth needs to include asthenosphere and lithosphere, different composition and physical properties of layers.</p> <p>Tectonics Vocabulary list and Knowledge Organiser needed. World map needed for front of exercise book to mark on named places/case studies covered.</p> <p>Broken pieces activity on convection currents available – groups of 3 or 4. You will need to explain rules of activity to class.</p> <p>Need to use terms – outer core, radioactive decay, rising, falling, cells,</p>	<p>CGP GCSE Geography revision guide pg. 13.</p> <p>Oak Academy – Pupil – Subjects – KS4 – Geography – Tectonic hazards lessons 1 and 2.</p> <p>Student Hub – Geography Hub – KS4 – 1 Hazardous Earth 1 Structure of earth and plate movement.</p>

					<p>mantle, magma, and crust in diagram/explanation.</p> <p>Key Vocabulary for EQ3.</p> <p>Key vocabulary – could either do this as a series of homework and give out a few words at a time, or could use printed vocabulary list as part of review/flexibility lesson.</p> <p>This will need two lessons to cover. Extended writing sheets are available for homework/classwork.</p>	
2	<p>1.8 There are different plate boundaries, each with characteristic volcanic and earthquake hazards.</p> <p>LO – To know the distribution and characteristic features of plate boundaries.</p> <p>LO – To understand how the interaction of processes cause hazardous</p>	<p>Starter: recap Key vocabulary as mini-test.</p> <p>Task 1: use Ws Plates to see how many plates pupils can name (in pencil), use textbook and whiteboard to label/name. Differences between continental and oceanic crust – annotate onto map.</p> <p>Task 2: teacher introduces three main plate boundaries (conservative, convergent, divergent) and hotspots theory. Pupils have A3 sheet/table (Ws Plate boundaries) to gain information from facts sheets around the classroom. Pupils move round in carousel activity – 7-10 minutes at each station.</p> <p>Feedback and discuss/show images from PP Plate boundaries. Add and define the following to vocabulary list: continental crust, oceanic crust and plate boundary.</p> <p>PP Plate boundaries available.</p>	<p>PL –continents, oceans, structure of earth, direction of plate movement, earthquakes and volcanoes.</p> <p>Peer or self-assess responses.</p> <p>Assess using feedback and self correction.</p> <p>Assess through oral feedback and self-correction.</p>	<p>Vocabulary – converge, diverge, subduction and boundary – Literacy</p> <p>Convection and subduction - Science</p>	<p>Covers 1.8a (see Overview sheet).</p> <p>GCSE Geography Edexcel B (Oxford) pg. 38-39.</p> <p>Edexcel GCSE Geography B (Pearson) pg.40-41.</p> <p>CGP revision guide pg. 14.</p> <p>AQA Geography A pg. 9 also has plate boundary map, also covers difference between continental and oceanic crust.</p> <p>May need to include key on map.</p> <p>Information sheets on plate boundaries are laminated and kept centrally in R019 (alternative – could use Pearson textbook).</p> <p>This will need two lessons to cover.</p>	<p>CGP GCSE Geography revision guide pg. 14.</p> <p>Oak Academy – Pupil – Subjects – KS4 – Geography – Tectonic hazards lessons 3 and 4.</p> <p>Student Hub – Geography Hub – KS4 – 1 Hazardous Earth 2 Types of plate boundary.</p>

	events at plate boundaries.					
3	<p>1.8 There are different plate boundaries, each with characteristic volcanic and earthquake hazards.</p> <p>LO – To know the differences in the characteristic features of composite and shield volcanoes.</p>	<p>Starter: short video clip on lesson PowerPoint showing volcanic explosions. Pupils jot thoughts on post-it – how are the explosions different and why?</p> <p>Task 1: Pupils are provided with two cross sectional diagrams of shield and composite volcanoes, Ws Volcanic features, cards listing key features, pupils match. Whole class review and explanation of differences.</p> <p>Task 2: Pupils produce 2 annotated sketches of volcanoes, labelled with key features. Comparative paragraph on the differences between the two volcanoes. Extension – explaining differences between the two volcanoes.</p> <p>Plenary – add to Key vocabulary list – see second column of Key Vocabulary for EQ3. Go back to post-it.</p> <p>Independent Learning Homework task - set on causes of earthquakes and how they are measured (include magnitude, epicentre, focus, Richter, deep/shallow, plate boundaries, seismic waves, pressure/friction).</p> <p>PP Tectonic Hazards available.</p>	<p>PL – volcanoes, earthquakes, magma, lava, plate boundaries and plate movements.</p> <p>Assess correct responses and explanations.</p> <p>Pupils peer assess sketches and paragraphs using purple pen</p>	<p>Comparative writing – Literacy.</p> <p>Convection, subduction, density – Science.</p>	<p>Covers 1.8b (see Overview sheet). Retain post-it note till end of lesson.</p> <p>Inference square activity – in pairs/groups featuring image of volcanic activity.</p> <p>AQA A Geography pg. 13 has shield/composite volcano. AQA A GCSE Geography (Oxford) pg. 13 also covers this. Staff answer sheet available.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 42-43.</p> <p>CGP revision guide pg. 15, 17.</p> <p>Locate example of shield and composite volcano onto blank world map</p> <p>Peer review needs to focus on success criteria of:</p> <ol style="list-style-type: none"> 1. All key features are discussed. 2. Comparison connectives are used – e.g. 'whereas'. <p>Insert extra lesson to cover content of Independent Homework task. Could set as flipped learning task for basic content – use extra lesson to reinforce.</p>	<p>CGP GCSE Geography revision guide pg. 15, 17.</p> <p>Oak Academy – Pupil – Subjects – KS4 – Geography – Tectonic hazards lessons 8 and 5.</p> <p>Student Hub – Geography Hub – KS4 – 1 Hazardous Earth 3 Tectonic hazards.</p>

<p>4</p>	<p>1.9 Tectonic hazards affect people, and are managed at contrasting locations.</p> <p>LO – To understand the primary and secondary impacts of an earthquake event on a developed and developing country.</p>	<p>Starter: review and exposition of homework on causes and measuring earthquakes, make sure pupils have clear readable diagram showing main features of EQ, causes and how measured.</p> <p>Show map of where EQ's occur – what do we notice about patterns? Movie clip of EQ.</p> <p>Task 1: Named places Haiti (developing world) and Sendai/Tohoku Japan (developed world) – research basic geographical facts, create table to contrast impacts of EQ's.</p> <p>Task 2: Review of information and colour coding/highlighting social, economic and environmental impacts, key (P) Primary and (S) Secondary impacts of EQ.</p> <p>Extension – explain why the impacts were different? Which country suffered the worst impacts? Justify your answers.</p> <p>Independent Learning Homework task – annotated diagram to explain causes of a tsunami (links to Japan named example).</p> <p>PP Earthquake Impacts available.</p>	<p>PL – Continents, oceans, place terminology, basic understanding of development, earthquake features and processes.</p> <p>Assess standard of homework through quick quiz using mini whiteboards.</p> <p>Assess through responses and self or peer marking.</p> <p>Assess through teacher reading/comment orally on answers.</p>	<p>Scale – arithmetic and logarithmic – numeracy.</p> <p>Pressure, friction and forces – Science.</p>	<p>Covers 1.9a (see Overview sheet)</p> <p>Maps from memory (as alternative to starter) showing earthquake diagrams – pair/group work.</p> <p>Task 1 - individual/paired or group work. Could divide class into two, each side completes one EQ. Haiti 2010/Japan 2011.</p> <p>Resources – Internet: social media, satellite images and economic data.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 50-53 covers both earthquakes.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 46-48 covers Japan and Nepal 2015 (as alternative).</p> <p>CGP revision guide pg. 16, 18-19.</p> <p>World/UK map needs to be at front/back of book to locate named places examples and case studies.</p> <p>Insert extra lesson to cover content of Independent Homework task. Could set as flipped learning task for basic content – use extra lesson to reinforce. Class clips DVD has good</p>	<p>CGP GCSE Geography revision guide pg. 16, 18-19.</p> <p>Oak Academy – Pupil – Subjects – KS4 – Geography – Tectonic hazards lesson 6.</p> <p>Student Hub – Geography Hub – KS4 – 1 Hazardous Earth 4 Primary and secondary EQ impacts</p>

					sections on explaining formation of tsunami wave.	
5	<p>1.9 Tectonic hazards affect people, and are managed at contrasting locations.</p> <p>LO - To recognise the strategies governments use to manage and earthquake event in a developed and a developing country.</p>	<p>Starter: re-cap images of impacts from two EQ studied – Japan/Haiti, Primary or secondary? Which EQ was worse?</p> <p>Task 1: Teacher exposition of ‘managing an EQ’, pupils create mind map of terms and concepts.</p> <p>Task 2: using Ws EQ management pupils complete for Japan/Haiti – review and feedback.</p> <p>Double bubble thinking map to compare/contrast management of EQ’s</p> <p>Extension - evaluate the management strategies used in developed EQ/developing EQ.</p> <p>Plenary – add to Key vocabulary list – see last column of Key Vocabulary for EQ3.</p> <p>PP EQ Management available.</p>	<p>PL – earthquakes features, processes and impacts, place terminology and basic understanding of development.</p> <p>Assess outcome of mini quiz.</p> <p>Assess though feedback and review.</p> <p>Peer/self-assess.</p> <p>Teacher reading/comments orally to assess.</p>	<p>Comparative writing and evidenced writing – Literacy.</p>	<p>Covers 1.9b (see Overview sheet)</p> <p>Task 1 needs to include – short-term relief (shelter and supplies) and long-term planning (trained and funded emergency service), preparation (warning and evacuation, building design) and prediction.</p> <p>Edexcel GCSE Geography B (Pearson) pg. 50-53 covers both Japan and Haiti.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 46-48 covers Japan and Nepal (as alternative).</p> <p>AQA A Geography pg. 30-31 has section on prediction, protection and preparation.</p> <p>CGP revision guide pg. 18-19.</p> <p>Set some thinking or discussion questions like: ‘Earthquakes and volcanoes only become hazards when they occur in areas of human population’ and ‘The impacts of earthquakes are far worse in emerging countries because they simply don’t have the resources to prepare, plan and respond’.</p> <p>Use Opinion Lines activity – cards Haiti and Japan, ask pupils a series of questions (e.g. which tectonic hazard was the worst impacts?), pupils have to stand/put their name card on either Japan/Haiti and justify/explain choice. Extend the activity by altering</p>	<p>CGP GCSE Geography revision guide pg. 18-19.</p> <p>Oak Academy – Pupil – Subjects – KS4 – Geography – Tectonic hazards lessons 5, 9 and 10.</p> <p>Student Hub – Geography Hub – KS4 – 1 Hazardous Earth 5 Management of earthquakes.</p>

					questions – economic impact, long-term response etc. Use large paper/pair work to evaluate a response/preparation strategy – positives and negatives (each pupil has to take a viewpoint).	
6	Flexibility.	Flexibility – complete content or use as opportunity to reinforce aspects of lessons covered.			Complete review and actions for Hazardous earth section EQ3 (see Overview sheet). Learning qird is available to re-cap and review. Pupil review sheet	Student Hub – Geography Hub – KS4 – 1 Hazardous Earth 6 Flexibility and review.
7	1.4 Tropical cyclones are caused by particular meteorological conditions. LO – To know the characteristics and seasonal global distribution of tropical cyclones.	Explain Ws Overview of Hazardous earth EQ2. Starter – show movie clip, pupils answer question: what is a tropical cyclone? Task 1 – global distribution of tropical cyclones. Pupils need to map location of tropical storms, use key to differentiate between hurricanes, typhoons and cyclones, mark on tracks of storms and seasonality. Written task – description. Task 2 – pair/group work – maps from memory task – structure of a tropical cyclone. Ws Structure of tropical cyclone . Feedback and draw information together as teacher led exposition. Plenary – 3 key point summary to be shared with partner (must tell each other different things). PP – Tropical cyclones characteristics is available. Homework – Intensity of tropical cyclones – Saffir-Simpson scale research and print/include in exercise books.	PL – continents, oceans, latitude, tilt of earth, winds and cloud. Assess understanding of what a tropical cyclone is. Assess ability to map distribution accurately and describe at different levels. Assess ability to interpret, gather and apply information. Assess ability to summarise as well	Scale and measurements - numeracy	Covers 1.4a (see Overview sheet). Starter – need to get definition of tropical cyclone accurate to include rotating system of clouds and storms that form and develop over tropical or subtropical waters. Have to be over 118km/hr (75 miles). Tropical Cyclones/Climate Vocabulary list and Knowledge Organiser needed. World map needed for front of exercise book to mark on named places/case studies covered. Maps from memory task is available for structure/features of a tropical cyclone. Task 1 – describe overall pattern, specific named areas using continents, countries and oceans, use of compass points to mention paths taken by tropical cyclones. GCSE Geography Edexcel B (Oxford) pg. 24-25.	CGP GCSE Geography revision guide pg. 9 Oak Academy – Pupil – Subjects – KS4 – Geography – Climatic Hazards – lesson 3. Student Hub – Geography Hub – KS4 – 1 Hazardous Earth 7 Tropical cyclones characteristics.

			as remember key information.		Edexcel GCSE Geography B (Pearson) pg.24, 26. Task 2 – group work use big paper and pens to record on. Key vocabulary for EQ1/EQ2 (very few terms for EQ2 – would leave this for review when EQ2 and EQ1 are completed). This will take two lessons to cover.	
8	1.4 Tropical cyclones are caused by particular meteorological conditions. LO – To understand the reasons for global variations in the intensity of tropical cyclones.	Starter – annotate image to show the hazards that a tropical cyclone can bring. Feedback and discuss. Task 1 – Watch sections of DVD Wild weather to understand formation of tropical cyclones. Pupils use textbook Edexcel (Pearson pg. 24-27) to complete Ws Tropical cyclones – work in pairs and divide up tasks. Peer teach each other. Feedback, review and discussion of tasks. Plenary – exam style question to complete: ‘Explain two causes of tropical cyclones’. (4 marks) PP – Tropical cyclones formation is available.	PL – weather, water cycle, cloud formation, physical and human hazards. Assess understanding of how tropical cyclone creates hazards. Assess ability to read and understand information relating to tropical cyclones. Self-assess answers and alter or amend using purple pen.	Air pressure, evaporation, condensation, rainfall and wind – Science. Measurement and scales – numeracy.	Covers 1.4b (see Overview sheet). Starter activity could utilise a Reading images activity, using observations, questions and inference. Feedback and needs to cover strong winds, storm surges, coastal flooding, intense rainfall, landslides. DVD Wild Weather has a good overview of wind and wind speed, plus looks at formation and impacts of hurricane Mitch. GCSE Geography Edexcel B (Oxford) pg. 26-27. Edexcel GCSE Geography B (Pearson) pg.24-27. Task 1 feedback needs to be very teacher directed due to complex nature of tropical cyclones. Read up on this before the lesson and make sure you can explain/answer each question clearly. I will have my own crib notes ready (using blank Ws	CGP GCSE Geography revision guide pg. 9 Oak Academy – Pupil – Subjects – KS4 – Geography – Climatic Hazards – lessons 4 and 5. Student Hub – Geography Hub – KS4 – 1 Hazardous Earth 8 Tropical cyclones formation and intensity.

					<p>Tropical cyclones) if you need to borrow them.</p> <p>Card sort on formation is available (answers Edexcel Oxford pg. 27).</p>	
9	<p>1.5 Tropical cyclones present major natural hazards to people and places.</p> <p>LO – To understand the impacts of tropical cyclones on people and environments.</p> <p>LO – To understand why some countries are more vulnerable than others to the impacts of tropical cyclones.</p>	<p>Starter – extensive re-cap on what we have learnt so far about tropical cyclones.</p> <p>Task 1 – impact of tropical cyclones on people and environment. Watch DVD Wild Weather Hurricane Mitch. Use post-its/exercise book to list impacts. Use Edexcel textbook (Pearson) pg. 28 to complete Ws Impacts of tropical cyclones.</p> <p>Task 2 – Why are some countries more vulnerable to tropical cyclones? Use knowledge from DVD clip Wild Weather viewed in task 1 to think about physical, social and economic vulnerability – in pairs use post-its’ to write down ideas and share using noticeboards in classroom.</p> <p>Feedback and read through ideas/discuss. Write up as mind map using the headings: Physical, Social and Economic vulnerability – supplement with Edexcel textbook pg. 30-31.</p> <p>Plenary – impacts and vulnerability – explain to partner.</p> <p>PP Tropical cyclones impacts and vulnerability is available.</p>	<p>PL – types of impact/effect, human and physical, development and place terminology.</p> <p>Assess knowledge and understanding of content covered so far on tropical cyclones.</p> <p>Assess ability to explain hazards and relate to impacts upon people and the environment.</p> <p>Assess knowledge, understanding and application.</p>	<p>Impacts and vulnerability – literacy.</p> <p>Ethical and moral consideration of issues – PHSE.</p>	<p>Covers 1.5a and 1.5b (see Overview sheet).</p> <p>Edexcel GCSE Geography B (Pearson) pg.28-31.</p> <p>Post-it notes of impacts can then be moved around in feedback/discussion to assess the impacts. Add deepening questions – social/economic/environmental impacts, long/short term impacts.</p> <p>DVD Wild Weather BBC section Hurricane Mitch about 10 minutes long, will go over formation, but good focus on impacts and why such devastation in Honduras/Nicaragua. You can pull out all kinds of ideas from the clip.</p> <p>Use headings cards: Social, Economic and Physical.</p> <p>Extension on Task 2 – which type of vulnerability has the greatest effect? Justify choice/ideas.</p>	<p>CGP GCSE Geography revision guide pg. 10-11.</p> <p>Oak Academy – Pupil – Subjects – KS4 – Geography – Climatic Hazards – lesson 6.</p> <p>Student Hub – Geography Hub – KS4 – 1 Hazardous Earth 9 Impacts and vulnerability.</p>

					Optional homework – review and re-learn all content covered on tropical cyclones so far. This will take two lessons to cover.		
1	0	<p>1.6 The impacts of tropical cyclones are linked to a country's ability to prepare and respond to them.</p> <p>LO – To understand the different preparation and response strategies to tropical cyclones.</p>	<p>Starter – multi-choice Saffir-Simpson scale exam question (1 mark) and vulnerability question (4 marks).</p> <p>Task 1 – in groups what is meant by preparation for tropical cyclones and responses to tropical cyclones and list ideas.</p> <p>Feedback, review and discuss ideas. Write up as a double page poster/information sheet 'Preparation' and 'Responses' – supplement discussion ideas with Edexcel textbook (Pearson) pg. 32-33.</p> <p>Extension task – Activity 3 pg. 33.</p> <p>Plenary – talk partner through poster/information sheet.</p> <p>PP Tropical cyclones preparation and response is available.</p> <p>Homework – flipped learning task – basic information and images for Hurricane Katrina, USA 2005 and Typhoon Haiyan, Philippines, 2013.</p>	<p>PL – development and place terminology; preparation and response.</p> <p>Peer-assess responses and mark with purple pen.</p> <p>Assess quality of discussion and ideas generated.</p> <p>Assess explanation and depth of content in write-up task.</p>		<p>Covers 1.6a (see Overview sheet).</p> <p>Edexcel GCSE Geography B (Pearson) pg.32-33.</p> <p>Use big rough paper/pens to record group work.</p> <p>Task 1 guidance to include – weather forecasting, satellite technology, warning and evacuation strategies, storm surge defences. Use images from the PP available as prompts. Could put big rough paper ideas on classroom walls, let class read them and add ideas.</p> <p>Diamond 9 activity Ws Management of tropical cyclones – in pairs pupils need to rank and justify the most/least effective strategies.</p> <p>Flipped learning homework task – pupils could be grouped to share</p>	<p>CGP GCSE Geography revision guide pg. 11.</p> <p>Oak Academy – Pupil – Subjects – KS4 – Geography – Climatic Hazards – lessons 6 and 8.</p> <p>Student Hub – Geography Hub – KS4 – 1 Hazardous Earth 10 Preparation and response.</p>

					research or in pairs and divide the two tropical storms between them.		
1	1	<p>1.6 The impacts of tropical cyclones are linked to a country's ability to prepare and respond to them.</p> <p>LO – To understand a country's ability to prepare and respond to tropical cyclones.</p> <p>LO – To be able to compare tropical cyclones.</p>	<p>Starter task – share with partner information from homework task on Hurricane Katrina and Typhoon Haiyan. Feedback and brief review – main points on whiteboard.</p> <p>Task 1 – use PP movie clips as introduction to Katrina and Haiyan. Use slide to complete basic information about each tropical cyclone, using Ws Comparing tropical cyclones.</p> <p>Extension – physical and human differences between the tropical cyclones?</p> <p>Task 2 – pair work, each pair given information sheet about Katrina or Haiyan – need to read and highlight the main points, then explain to their partner what they have found out about preparation and response. Complete the Ws Comparing tropical cyclones.</p> <p>Feedback, review and discuss.</p> <p>Plenary – cartoon/picture summary of Katrina/Haiyan to summarise what learnt.</p> <p>PP Comparing tropical cyclones is available.</p>	<p>PL – place terminology and development concepts.</p> <p>Assess quality, depth and understanding of information gained from homework task.</p> <p>Assess ability to extract information from movie clips, data and text to understand the differences between the tropical cyclones.</p>	Comparative and evidenced writing – literacy.	<p>Covers 1.6a and 1.6b (see Overview sheet).</p> <p>Edexcel GCSE Geography B (Pearson) pg.34-35.</p> <p>There is a very good documentary in the department DVD library 'When the levees broke' by Spike Lee, far too long to show, put on one lunchtime/after school?</p>	<p>CGP GCSE Geography revision guide pg. 12.</p> <p>Oak Academy – Pupil – Subjects – KS4 – Geography – Climatic Hazards lesson 7.</p> <p>Student Hub – Geography Hub – KS4 – 1 Hazardous Earth 11 Comparing Tropical cyclones 1.</p>
1	2	<p>1.6 The impacts of tropical cyclones are linked to a country's ability to prepare and</p>	<p>Starter – what's the difference between preparation and responses?</p> <p>Complete any outstanding work from previous lesson.</p> <p>Task 1 – completion of exam style extended writing questions:</p>	<p>Assess understanding of terms and ability to give examples to exemplify.</p>		<p>Covers 1.6a and 1.6b (see Overview sheet).</p> <p>Edexcel GCSE Geography B (Pearson) pg.34-35.</p> <p>All the practise exam questions are marked 8 marks for geographical content, plus 4 SPAG). Task could be</p>	<p>CGP GCSE Geography revision guide pg. 12</p> <p>Oak Academy – Pupil – Subjects – KS4 – Geography – Climatic hazards – lesson 7.</p> <p>Student Hub – Geography Hub – KS4 – 1 Hazardous</p>

	<p>respond to them.</p> <p>LO – To understand a country’s ability to prepare and respond to tropical cyclones.</p> <p>LO – To be able to compare tropical cyclones.</p>	<p>‘Effective preparation is the best way to reduce deaths from tropical cyclones’. Assess this statement.</p> <p>Assess the social and economic impacts of tropical cyclones on developing countries.</p> <p>Action – go through how marked and improve answers.</p> <p>PP Comparing tropical cyclones 2 is available.</p> <p>Homework – create a 10 question multi-choice quiz for partner/friend on tropical storms.</p>	<p>Peer and self-assess responses, mark in purple pen.</p>	<p>completed individually/or in pairs – open book or test conditions.</p> <p>Use Opinion Lines activity – cards Katrina and Haiyan, ask pupils a series of questions (e.g. which tropical cyclone was the worst impacts?), pupils have to stand/put their name card on either Katrina/Haiyan and justify/explain choice. Extend the activity by altering questions – economic impact, long-term response etc. Use large paper/pair work to evaluate a response/preparation strategy – positives and negatives (each pupil has to take a viewpoint).</p>	<p>Earth 12 Comparing Tropical cyclones 2.</p>
1	3 Flexibility.	<p>Flexibility – complete content or use as opportunity to reinforce aspects of lessons covered.</p> <p>Complete homework quiz.</p>		<p>Complete review and actions for Hazardous earth section EQ2 (see Overview sheet).</p> <p>Learning grid is available to re-cap and review.</p> <p>Complete Pupil review sheet.</p>	<p>CGP GCSE Geography revision guide pg. 20.</p> <p>Student Hub – Geography Hub – KS4 – 1 Hazardous Earth 13 Flexibility and review.</p>

<p>1</p>	<p>4</p> <p>1.1 The atmosphere operates as a global system which transfers heat around the Earth.</p> <p>LO – To know and understand the global atmospheric circulation system.</p>	<p>Explain Ws Overview of Hazardous earth EQ1.</p> <p>Starter – images of different global areas of hot/wet, hot/dry, cold/dry – connect to atmosphere.</p> <p>Task 1 – teacher exposition of incoming solar radiation, atmosphere and how the heat is redistributed by wind/pressure and ocean currents. Ws Solar radiation to annotate.</p> <p>Task 2 – in pairs read information sheets on Ocean currents and Wind to explain how these both redistribute heat from solar radiation. Pupils need to explain how each factor works – use bullet point summary/diagrams/flow diagram/tree map.</p> <p>Plenary – go back to starter image and try and connect the images.</p> <p>PP Atmospheric circulation 1 is available.</p> <p>Homework – flipped learning task, find and print images of tropical, arid (desert) and polar regions. These will be used during Task 2 of next lesson.</p>	<p>PL – weather, climate, latitude, atmosphere, solar radiation and oceans.</p> <p>Assess understanding of global atmospheric circulation and role of solar radiation.</p> <p>Assess understanding of how global atmospheric system operates.</p> <p>Assess understanding of processes from written text, DVD clip and teacher exposition.</p>	<p>Atmosphere, air pressure, solar system, space, radiation, light, properties of water, heating and change of states – Science.</p>	<p>Covers 1.1a (see Overview sheet).</p> <p>Need to stress that this is a very difficult section of the specification, need to listen carefully to teacher exposition. I will provide my own detailed explanation notes if you need to borrow/read – thinking of getting Norman Dutton back in (he was the only Geographer I knew who understood this).</p> <p>8Q Strategy/5W's could be applied to starter activity.</p> <p>Already have Climate Vocabulary list, but will need Knowledge Organiser. Use world map from Tropical Cyclones to locate places, may need to add a UK map.</p> <p>Teacher exposition will be needed for Task 1 and Task 2 – make sure you can explain simply/clearly – use revision guides to help write up summary explanation.</p> <p>Exam-style question: 'Explain how ocean currents can influence climates'. (4 marks)</p> <p>Extension – What do you think would happen to the UK if the North Atlantic Drift shut down?</p> <p>Edexcel GCSE Geography B (Pearson) pg.12-14.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 8-9.</p> <p>Key vocabulary for EQ1/EQ2 (very few terms for EQ2 – would leave this</p>	<p>CGP GCSE Geography revision guide pg. 2-3.</p> <p>Oak Academy – Pupil – Subjects – KS4 – Geography – Climatic hazards – lessons 1 and 2.</p> <p>Student Hub – Geography Hub – KS4 – 1 Hazardous Earth 14 Atmospheric circulation.</p>
-----------------	--	---	--	--	--	--

					for review when EQ2 and EQ1 are completed).		
1	5	<p>1.1 The atmosphere operates as a global system which transfers heat around the Earth.</p> <p>LO – To know and understand the global atmospheric circulation system.</p> <p>LO – To have an awareness of how air moves around the world to create three distinctive</p>	<p>Starter – extensive re-cap of content covered last lesson to check understanding and to reinforce.</p> <p>Task 1 – Ws Global circulation system (A3 version) – teacher exposition and re-cap: winds blow from areas of high pressure to areas of low pressure, transferring heat away from the equator. Winds are part of global atmospheric circulation loops called cells (Hadley, Ferrel and Polar cells)–warm rising air creating low pressure and cool, falling air creates high pressure. In pairs pupil have series of statements that they need to match to the diagram.</p> <p>DVD Clip available to watch (see PP). Feedback, discuss and review – write a brief explanation of each cell onto pupil copy of diagram (A4) use double page.</p> <p>Task 2 – Climate zones map – pupils mark on arid, polar and tropical areas – describe the latitudes and give real place examples, use photos from the PP. Use a double</p>	<p>PL – location, latitude, air pressure, atmosphere, weather, water cycle, climate and climate graph</p> <p>Assess recall and understanding of content from previous lesson.</p> <p>Assess understanding of content and ability to explain in own words.</p>	<p>Air pressure, circulation in atmosphere, heat transfer, and water cycle processes, convection, change of states – Science.</p> <p>Climate graph – Numeracy.</p>	<p>Covers 1.1b (see Overview sheet).</p> <p>Starter is crucial here – make sure you cover through Q and A incoming solar radiation, angles, latitudes, high/low pressure, wind, and ocean currents.</p> <p>Task 1 – I would have my own exposition notes ready for this – mine are in SOL folder if you want to borrow. CGP revision guide is better and clearer at explaining this than either textbook (see pg. 8-9). Differentiate – I would also have pre-prepared simple cell explanations for pupils to copy onto diagram if they are really struggling here (see my folder for handwritten versions of these).</p> <p>Edexcel GCSE Geography B (Pearson) pg.12-15.</p>	<p>CGP GCSE Geography revision guide pg. 2-3</p> <p>Oak Academy – Pupil – Subjects – KS4 – Geography – Climatic hazards – lesson 1 and 2.</p> <p>Student Hub – Geography Hub – KS4 – 1 Hazardous Earth 15 Atmospheric circulation 2.</p>

	atmospheric cells.	<p>page, add climate graphs and describe main features of climate (could add images from internet or homework from previous lesson). Pupils have to apply knowledge from Task 1 to try and explain the climate of tropical, arid and polar regions.</p> <p>Plenary – summary of the 3 cells – draw sketch of globe/latitude and cells on plain A4 paper or use mini-whiteboards.</p> <p>PP Atmospheric circulation 2 is available.</p> <p>Homework – Geographical skills learning about climate is available (take 2 weeks to complete).</p>	<p>Assess ability to use latitude, climate data and images to describe places.</p> <p>Assess ability to relate geographical theory and content to explain the climate of these places.</p>		<p>GCSE Geography Edexcel B (Oxford) pg. 10-13.</p> <p>Task 2 – explaining structure for pupils: area, latitude, cell, high/low pressure, - link to explaining temperature and precipitation. Use Edexcel (Pearson) pg. 14-15 for arid and tropical areas. Need to include Coriolis force and ITCV, tilt of earth.</p> <p>This will take 2-3 lessons to complete.</p> <p>Yes, I know I have gone into ridiculous levels of detail – but this is hard!</p> <p>Broken pieces activity is available for Task 2. Broken pieces cards and images are available. I would give each group the globe/latitude base map as a reference point.</p>	
1	6 1.2 Climate has changed in the past through natural causes on timescales ranging from hundreds to millions of years. LO – To understand and be able to explain the natural causes	<p>Starter – what do images from PP tell us about the Earth’s climate? Think, pair and share Kagan structure.</p> <p>Written summary of natural climate change – including Quaternary period, glacial and interglacial periods, and 4 main natural causes.</p> <p>Task 1 – finding out and explaining the natural climate change. Group only has information about 1 cause. Need to read and understand their cause – send other group members out with scrap paper to get information about the other causes, whilst remaining group member has to</p>	<p>PL – Geological time periods, climate changes, ice ages, past tectonic activity, Earth’s orbit, super volcano, and meteorites.</p> <p>Assess ability to use images to think, formulate questions and make connections.</p>	<p>Basic elements of Earth Science – not sure Science cover this anymore?</p> <p>Scales of time – Numeracy.</p> <p>Historical time periods - History</p>	<p>Covers 1.2a (see Overview sheet).</p> <p>Edexcel GCSE Geography B (Pearson) pg.16-17.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 16-17.</p> <p>Task 1 – the information cards need to stay on the desk of the group – they cannot be moved. I would time the activity and set up groups of 4. Allow each group to have A3 paper on</p>	<p>CGP GCSE Geography revision guide pg. 4-5.</p> <p>Oak Academy – Pupil – Subjects – KS4 – Geography – Climate change – lessons 1 and 2</p> <p>Student Hub – Geography Hub – KS4 – 1 Hazardous Earth 16 Natural climate causes.</p>

	of climate change.	<p>explain the cause to visitors. Ws Information sheets.</p> <p>Upon return, pupils take in turn to explain and draw rough diagrams to explain what they have found out to peers. Write up as illustrated mind map. Peer assess explanations with purple pen.</p> <p>Extension – which cause of natural climate change is more viable/convincing? Can you provide evidence for your answer?</p> <p>Plenary/Homework – ‘Explain one way the climate of the Earth can change because of natural causes.’ (3 marks)</p> <p>PP Natural climate change causes is available.</p>	<p>Understanding technical terminology.</p> <p>Assess ability to understand and explain information to peers.</p> <p>Assess ability to provide clear explanations of causes.</p> <p>Assess understanding using exam style questions.</p>		<p>desk and scrap paper to take with them. Repeat the ‘visiting other groups task’ twice? Use your judgement. This is based on Kagan structure ‘One stray’. Differentiate write-up task by having sentence structure/starters for explaining each cause.</p> <p>Feedback to activity could use Plus/Minus/Interesting strategy to deepen thinking.</p> <p>Variation on Opinion lines – 4 corners, 4 cards for each theory of natural change, stand by which one you are most convinced by and justify.</p>	
1	7 1.2 Climate has changed in the past through natural causes on timescales ranging from hundreds to millions of years. LO – To recognise the types of evidence that	<p>Starter – climate change graph from PP, pupils asked to describe how the global climate has changed over the past 450,000 years, using data in their answer.</p> <p>Share responses with whole class, provide feedback.</p> <p>Task 1 – evidence for natural climate change? Produce a pack of evidence for natural climate change, must provide clear explanations and include: ice cores, tree rings and historical sources. Evidence will be presented around graphs showing UK’s climate change. Ws Images and graphs</p>	<p>PL – Atmosphere, past climate periods, sources of evidence.</p> <p>Assess ability to use, interpret and describe graphs about natural climate change.</p> <p>Self-assess responses, use purple pen.</p>	<p>Scale and graphs over long time periods – Numeracy.</p> <p>Sources of evidence and reliability – History.</p>	<p>Covers 1.2b (see Overview sheet).</p> <p>Starter – really good answers will include glacial and interglacial time periods. Opportunity here for visualizer or use of iPad/Air server to put answers on the board. Provide paper version of graph for pupil’s exercise books.</p> <p>Task 1 – could get pupils to get own supporting images from internet or bring in from home.</p>	<p>CGP GCSE Geography revision guide pg. 4-5</p> <p>Oak Academy – Pupil – Subjects – KS4 – Geography – Climate change – lessons 1 and 2.</p> <p>Student Hub – Geography Hub – KS4 – 1 Hazardous Earth 17 Natural climate evidence.</p>

	support natural causes of climate change.	<p>available to use, as well as textbook and revision guide. Write-up on double page of exercise book.</p> <p>Extension – in different colours add onto your evidence pack the advantages and disadvantages of tree rings and historical sources as evidence. Assess the evidence.</p> <p>Plenary – multi-choice exam style question.</p> <p>PP Natural climate change evidence is available.</p>	<p>Assess ability to understand and explain evidence to support natural climate change.</p> <p>Assess knowledge and understanding of content to exam style question.</p>		<p>Edexcel GCSE Geography B (Pearson) pg.18-19.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 18-19.</p> <p>Feedback on plenary – which answers are correct, but why are the others wrong?</p>		
1	8	<p>1.3 Global climate is now changing as a result of human activity, and there is uncertainty about future climates.</p> <p>LO – To understand and be able to explain the natural greenhouse effect.</p> <p>LO – To outline how</p>	<p>Starter – how does a greenhouse work? Think, pair and share.</p> <p>Task 1 – active listening to exposition of the natural greenhouse effect. Pupils need to produce an annotated diagram to describe and explain the process. Ws Blank GHE diagram is available for pupils to use.</p> <p>Feedback and peer-assess, use guidance from the PP.</p> <p>Task 2 – image to suggest is going wrong with global climate. Why? Too many greenhouse gases – brief exposition. Pupils complete a card sort of the gases/sources to complete a table. This enhanced GHE then needs annotating into original diagram in a different colour.</p>	<p>PL – Atmosphere and gases, radiation, human activities, geographical processes; population increase, industrialisation and globalisation, development.</p> <p>Assess understanding of the principles of how a greenhouse works.</p> <p>Assess ability to listen and translate</p>	Ethical and moral issues – PHSE.	<p>Covers 1.3a (see Overview sheet).</p> <p>Task 1 – exposition of natural greenhouse effect needs to include short-wave radiation, absorption, re-radiating and long wave radiation – GCSE Environmental Science textbooks pg. 62 provide the best explanation. Need to emphasise natural greenhouse gases.</p> <p>The feedback and peer assessment provides an opportunity to reinforce understanding of how natural GHE works. I would use mini-whiteboard to draw my own explanation on and then remove before Task 1.</p> <p>Task 2 – Exposition needs to kept simple – too many greenhouse gases from human activity leads to too</p>	<p>CGP GCSE Geography revision guide pg. 6-7</p> <p>Oak Academy – Pupil – Subjects – KS4 – Geography – Climate change – lesson 3.</p> <p>Student Hub – Geography Hub – KS4 – 1 Hazardous Earth 18 Human climate change causes.</p>

	<p>human activities contribute towards global warming and the enhanced greenhouse effect.</p>	<p>Plenary – A4 plain piece of paper or use mini-whiteboards, draw the natural GHE and the enhanced GHE – explain difference to partner.</p> <p>PP – Human climate change is available.</p> <p>Homework – Ws Who is responsible for the emissions? Contains information and exam questions.</p>	<p>information into a diagram.</p> <p>Peer assess Task 1 using purple pen, amend, alter or add if needed.</p> <p>Assess understanding of how human activity can alter a natural process.</p> <p>Asses understanding and application of content covered.</p>		<p>much heat being trapped and retained in lower atmosphere.</p> <p>Edexcel GCSE Geography B (Pearson) pg.20-21.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 20-21.</p> <p>DVD Climate change – section The causes – looks at natural and human made climate change, about 9 minutes in total. My folder has full set of DVD notes.</p> <p>This may take two lessons.</p>		
1	9	<p>1.3 Global climate is now changing as a result of human activity, and there is uncertainty about future climate.</p> <p>LO – To understand how the human contribution to global warming can have wider consequences.</p>	<p>Starter – images of energy, industry, transport and farming – explain how these human activities have impacted upon climate change?</p> <p>Task 1 – evidence for human driven climate change. Create bullet point summary of evidence using 4 headings: declining Arctic ice, sea level rises/warming oceans, global temperature rise, extreme weather events.</p> <p>Task 2 - impacts of human driven climate change. Pupils need to create a mind map to show the impacts of climate change. Watch DVD Climate change – sections: melting ice, rising sea levels, changing weather patterns. Use card sort statements and textbook (Pearson pg. 22-23).</p>	<p>PL – Atmosphere, gases, human activities, development, population increase, industrialisation and globalisation, continents and oceans.</p> <p>Assess recall and ability to apply, explain and make links.</p> <p>Assess ability to summarise evidence together to support human</p>	<p>Energy production – Science.</p> <p>Ethical and moral issues – PHSE.</p>	<p>Covers 1.3b (see Overview sheet).</p> <p>Edexcel GCSE Geography B (Pearson) pg.20-21 (evidence) and 22-23 (impacts).</p> <p>GCSE Geography Edexcel B (Oxford) pg. 22.</p> <p>CGP Edexcel B revision guide pg.7 (clear, simple evidence).</p> <p>Task 2 – use cards to create Diamond 9 formation of the most negative/positive potential impacts of climate change in UK.</p> <p>Task 2 – could be done as group work, watch DVD as class, then divide up textbook/post-it notes and card statements between pairs – answers then collated together on A2 sheet of</p>	<p>CGP GCSE Geography revision guide pg. 6-7.</p> <p>Oak Academy – Pupil – Subjects – KS4 – Geography – Climate change – lesson 4.</p> <p>Student Hub – Geography Hub – KS4 – 1 Hazardous Earth 19 Human climate change impacts.</p>

		<p>Peer and self-assess by classifying statements according to: positive/negative, impacts on people, environment.</p> <p>Plenary – critical thinking – who will suffer the most due to the impacts of climate change? Justify and explain your response.</p> <p>PP Impacts of climate change is available.</p>	<p>driven climate change.</p> <p>Assess ability to collate information together from different sources to answer a central question, then categorise information.</p> <p>Assess ability to think critically about content and make links with other sections of subject.</p>		<p>paper. Teacher could type up class summary notes for next lesson.</p> <p>Extension – assess the impacts on developed, developing and emerging countries.</p> <p>Impacts of climate change is covered by most GCSE Geography textbooks, GCSE AQA Environmental Science textbook will also be of use here.</p> <p>Opinion lines activity – natural climate change vs current global warming – which is more convincing? Or use strongly agree, agree, neutral, disagree, strongly disagree. Justify and explain viewpoint.</p> <p>This will take two lessons.</p>		
2	0	<p>1.3 Global climate is now changing as a result of human activity, and there is uncertainty about future climate.</p> <p>LO – To recognise the range of projections for global temperature change and</p>	<p>Starter – image polar bear – what’s happening here and why? Pupils offer 3 different explanations.</p> <p>Task 1 –the range of change. Watch National Geographical DVD clips 6⁰ of change and pupils complete brief notes on potential impacts – world. Ws The effects of climate change.</p> <p>Extension – how would these potential changes impact upon the UK?</p> <p>Feedback, review and discuss.</p> <p>Task 2 – what are projections and why are there a range of different projections? In pairs, use Ws Projections and textbooks</p>	<p>PL – Climate change causes, biomes and ecosystems, human systems of governance.</p> <p>Assess ability to ask questions and offer alternative hypotheses.</p> <p>Assess ability to understand and summarise information, plus application to a different context.</p>	<p>Projections and data – Numeracy.</p> <p>Ecosystems links, connections and changes – Biology.</p> <p>Organisation of human society and governance systems – Sociology?</p>	<p>Covers 1.3c (see Overview sheet).</p> <p>CGP revision guide pg. 8.</p> <p>GCSE Geography Edexcel B (Oxford) pg. 23.</p> <p>Kick cards activity available for Task 2 – pose the question: why are there a range of different projections for global climate change? Cards then promote lateral thinking and ideas to help solve the central question.</p>	<p>CGP GCSE Geography revision guide pg. 6-8.</p> <p>Oak Academy – Pupil – Subjects – KS4 – Geography – Climate change – lessons 5, 6 and 7.</p> <p>Student Hub – Geography Hub – KS4 – 1 Hazardous Earth 20 Projections into the future.</p>

	sea level rise in the future.	<p>available to provide answers and own ideas.</p> <p>Plenary – exam style question: 'Explain two reasons why the prediction of future global temperatures are uncertain.' (4 marks)</p> <p>PP Future projections is available.</p>	<p>Amend, add and alter using purple pen.</p> <p>Assess comprehension and thinking ability.</p> <p>Assess understanding of content and ability to apply to exam style question.</p>		<p>Movie clip London climate change may be an interesting, alternative plenary – what's likely/what's not likely? Discussion.</p> <p>This will take two lessons to complete.</p>	
2	1 Flexibility.	Flexibility – complete content or use as opportunity to reinforce aspects of lessons covered.			<p>Complete review and actions for Hazardous earth section EQ1 (see Overview sheet).</p> <p>Learning grid is available for re-cap and review.</p> <p>Complete Pupil review sheet.</p>	<p>CGP GCSE Geography revision guide pg. 20.</p> <p>Student Hub – Geography Hub – KS4 – 1 Hazardous Earth 21 Flexibility and review.</p>

Scheme of Learning

Key Stage: KS4 GCSE Geography

Unit/Topic Title: Hazardous Earth (Component 1 Global Geographical Issues)

Curriculum area: Geography