

## Class – 9 Navigator Curriculum - Geography/2 Lessons weekly

Year	2023 – 2024 Autumn 1 Unit 1	2023 – 2024 Autumn 2 Unit 2	2023 – 2024 Spring 1 Unit 3	2023 – 2024 Spring 2 Unit 4	2023 – 2024 Summer 1 Unit 5	2023 – 2024 Summer 2 Unit 6
Year 9 (8035)  Paper 1 Living with the physical environ ment	<p><b>Topic: Section A</b> <b>The challenges of natural hazards</b> – 1 Natural hazards, 2 Tectonic plates.</p> <p><b>Key questions:</b></p> <p><b>Key skills and knowledge:</b> 1 Natural hazards. 1.1 What are natural hazards?  <ul style="list-style-type: none"> <li>• explain what is meant by a natural hazard.</li> <li>• give examples of different types of natural hazards and be able to distinguish between atmospheric, flooding and geological hazards.</li> <li>• understand how various factors have increased the number of people at risk of natural</li> </ul> </p>	<p><b>Topic: Section A</b> <b>The challenges of natural hazards</b> – 3 Weather hazards.</p> <p><b>Key questions:</b></p> <p><b>Key skills and knowledge:</b> 3 Weather hazards. 3.1 Global atmospheric circulation.  <ul style="list-style-type: none"> <li>• explain how global atmospheric circulation works.</li> <li>• understand how global atmospheric circulation influences weather and climate in different parts of the world.</li> </ul> 3.2 Where are tropical storms formed?  <ul style="list-style-type: none"> <li>• explain what is meant by a tropical</li> </ul> </p>	<p><b>Topic: Section A</b> <b>The challenges of natural hazards</b> – 4 Climate change.</p> <p><b>Key questions:</b></p> <p><b>Key skills and knowledge:</b> 4 Climate change. 4.1 What is the evidence for climate change?  <ul style="list-style-type: none"> <li>• describe the pattern of global temperatures during the Quaternary period to the present.</li> <li>• describe the pattern of average global temperatures from 1860 to the present.</li> <li>• understand what is meant by global warming and</li> </ul> </p>	<p><b>Topic: Section B</b> <b>The living world</b> – 5 Ecosystems, 6 Tropical rainforests.</p> <p><b>Key questions:</b></p> <p><b>Key skills and knowledge:</b> 5 Ecosystems. 5.1 A small-scale UK ecosystem – freshwater pond.  <ul style="list-style-type: none"> <li>• understand that ecosystems can be found at different scales</li> <li>• identify and describe the components of a small-scale ecosystem</li> <li>• describe the role of producers, consumers, and decomposers</li> <li>• understand the concept of</li> </ul> </p>	<p><b>Topic: Section B</b> <b>The living world</b> – 7 Hot deserts.</p> <p><b>Key questions:</b></p> <p><b>Key skills and knowledge:</b> 7 Hot deserts. 7.1 Physical characteristics of hot deserts.  <ul style="list-style-type: none"> <li>• describe the distribution and location of hot deserts</li> <li>• outline the physical characteristics of hot deserts</li> <li>• describe and explain the characteristics of hot desert soils</li> <li>• understand interdependence in hot deserts.</li> </ul> </p>	<p><b>Topic: Section B</b> <b>The living world</b> – 8 Cold environments.</p> <p><b>Key questions:</b></p> <p><b>Key skills and knowledge:</b> 8 Cold environments. 8.1 Physical characteristics of cold environments.  <ul style="list-style-type: none"> <li>• describe the distribution and location of cold environments (polar/tundra)</li> <li>• contrast the characteristics of cold environments – polar and tundra</li> <li>• understand interdependence in cold environments</li> <li>• describe the impact of climate change on cold environments.</li> </ul> </p>

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	<p>hazards.</p> <p>2 Tectonic plates. 2.1 Plate tectonic theory.</p> <ul style="list-style-type: none"> <li>• explain what is meant by plate tectonics theory</li> <li>• describe the characteristics of oceanic and continental crust</li> <li>• outline the direction of plate movement at constructive, destructive, and conservative plate margins</li> <li>• explain why tectonic plates move.</li> </ul> <p>2.2 Distribution of earthquakes and volcanoes.</p> <ul style="list-style-type: none"> <li>• explain why an earthquake occurs</li> <li>• describe and explain the global distribution of earthquakes</li> <li>• describe and explain the global distribution of volcanoes.</li> </ul> <p>2.3 Physical processes at plate margins.</p> <ul style="list-style-type: none"> <li>• describe the physical processes taking place at</li> </ul>	<p>storm.</p> <ul style="list-style-type: none"> <li>• describe the distribution of tropical storms.</li> <li>• outline the physical conditions that are needed for tropical storm formation.</li> <li>• explain how aspects of global atmospheric circulation affect tropical storms.</li> </ul> <p>3.3 The formation and structure of tropical storms.</p> <ul style="list-style-type: none"> <li>• explain the causes of tropical storms.</li> <li>• describe the structure and main features of a tropical storm.</li> <li>• describe how the weather changes in different parts of the tropical storm.</li> </ul> <p>3.4 How might climate change affect tropical storms?</p> <ul style="list-style-type: none"> <li>• suggest how climate change may affect the distribution, frequency, and intensity of tropical storms in the future.</li> </ul> <p>3.5 Cyclone Idai – a tropical storm.</p> <ul style="list-style-type: none"> <li>• understand the</li> </ul>	<p>climate change.</p> <ul style="list-style-type: none"> <li>• give examples of some of the global effects of climate change.</li> <li>• describe recent evidence for climate change.</li> </ul> <p>4.2 What are the natural causes of climate change?</p> <ul style="list-style-type: none"> <li>• explain the three Milankovitch cycles, and how each one affects global climate</li> <li>• understand how variation in sunspot activity affects global climate</li> <li>• explain how volcanic eruptions can temporarily affect global temperatures.</li> </ul> <p>4.3 What are the human causes of climate change?</p> <ul style="list-style-type: none"> <li>• explain the greenhouse effect</li> <li>• explain how fossil fuel usage, agriculture, and deforestation are contributing to greenhouse gases</li> <li>• explain how increasing</li> </ul>	<p>interrelationships and interdependence.</p> <p>5.2 How does change affect ecosystems?</p> <ul style="list-style-type: none"> <li>• understand the causes and effects of change to ecosystems (natural and human activities)</li> <li>• explain how change can have an impact on the balance between components in a freshwater pond ecosystem</li> <li>• explain how management can help to restore balance in Stow Bedon freshwater pond.</li> </ul> <p>5.3 Introducing global ecosystems.</p> <ul style="list-style-type: none"> <li>• understand that global ecosystems are defined by their dominant vegetation type</li> <li>• describe and explain the distribution of global ecosystems</li> <li>• outline the characteristics of global ecosystems</li> </ul>	<ul style="list-style-type: none"> <li>• Adapting to hot desert environments</li> <li>• describe the extreme climatic characteristics experienced in hot deserts</li> <li>• describe and explain the adaptations of plants and animals</li> <li>• explain the issues threatening biodiversity</li> <li>• construct and make comparisons between two climate graphs</li> <li>• calculate temperature range and mean (average) annual rainfall.</li> </ul> <p>7.2 Opportunities for development in hot deserts.</p> <ul style="list-style-type: none"> <li>• describe the location of the Thar Desert</li> <li>• identify valuable minerals extracted</li> <li>• suggest how tourism creates opportunities for development</li> </ul>	<p>8.2 Adapting to cold environments.</p> <ul style="list-style-type: none"> <li>• describe the extreme climatic characteristics</li> <li>• describe and explain the adaptations of plants and animals</li> <li>• explain the issues threatening biodiversity</li> <li>• construct and make comparisons between two climate graphs</li> <li>• calculate temperature range and mean (average) annual rainfall.</li> </ul> <p>8.3 Opportunities for development in cold environments.</p> <ul style="list-style-type: none"> <li>• describe the location of Svalbard</li> <li>• identify valuable minerals extracted in Svalbard</li> <li>• describe opportunities for energy developments in Svalbard</li> <li>• outline opportunities for fishing in Svalbard</li> <li>• suggest how tourism creates opportunities for development in Svalbard.</li> </ul> <p>8.4 Challenges of</p>
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<p>constructive, destructive, and conservative plate margins.</p> <p>2.4 The effects of earthquakes.</p> <ul style="list-style-type: none"> <li>• describe the primary and secondary effects of the Japan and the Nepal earthquakes.</li> <li>• explain how wealth influenced the impacts of the two earthquakes.</li> </ul> <p>2.5 Responses to earthquakes.</p> <ul style="list-style-type: none"> <li>• describe and compare the immediate and long-term responses to the Japan and the Nepal earthquakes.</li> <li>• explain how wealth influenced the responses to the two earthquakes.</li> </ul> <p>2.6 Living with the risks from tectonic hazards.</p> <ul style="list-style-type: none"> <li>• identify densely populated areas that are located on plate margins.</li> <li>• suggest reasons why people live in areas at risk from</li> </ul>	<p>difference between primary and secondary effects, and immediate and long-term responses.</p> <ul style="list-style-type: none"> <li>• describe the primary and secondary effects of Cyclone Idai.</li> <li>• describe the immediate and long-term responses to Cyclone Idai.</li> </ul> <p>3.6 Reducing the effects of tropical storms.</p> <ul style="list-style-type: none"> <li>• explain what is meant by monitoring, prediction, protection, and planning</li> <li>• explain and give examples of how the impacts from tropical storms can be reduced.</li> </ul> <p>3.7 Weather hazards in the UK.</p> <ul style="list-style-type: none"> <li>• understand the difference between weather and climate.</li> <li>• explain what is meant by extreme weather.</li> <li>• give examples of</li> </ul>	<p>amounts of greenhouse gases in the atmosphere are leading to climate change.</p> <p>4.4 Managing climate change – mitigation explain what is meant by mitigation.</p> <ul style="list-style-type: none"> <li>• explain how alternative energy production, carbon capture and storage, planting trees, and international agreements can mitigate the causes of climate change.</li> </ul> <p>4.5 Managing climate change – adaptation explain what is meant by adaptation.</p> <ul style="list-style-type: none"> <li>• describe the effects that climate change will have on agriculture, and how farmers can adapt to these changes</li> <li>• explain the strategies that can be used to manage water supply</li> <li>• describe some of the effects of sea level rise on coastal areas</li> </ul>	<p>(climate, vegetation, animals)</p> <ul style="list-style-type: none"> <li>• explain how the climate and characteristics of global ecosystems are linked to global atmospheric circulation.</li> </ul> <p>6 Tropical rainforests.</p> <p>6.1 Physical characteristics of rainforests.</p> <ul style="list-style-type: none"> <li>• describe the distribution and location of tropical rainforests</li> <li>• outline the physical characteristics of tropical rainforests</li> <li>• describe and explain the characteristics of tropical rainforest soils</li> <li>• understand nutrient cycling in tropical rainforests.</li> </ul> <p>6.2 Adaptation and biodiversity in rainforests.</p> <ul style="list-style-type: none"> <li>• describe the characteristic stratification of vegetation in tropical rainforests</li> <li>• describe and</li> </ul>	<ul style="list-style-type: none"> <li>• describe opportunities for energy developments</li> <li>• explain how irrigation has revolutionised farming.</li> </ul> <p>7.3 Challenges of developing hot deserts.</p> <ul style="list-style-type: none"> <li>• outline the challenges associated with extreme temperatures</li> <li>• describe the sources of water</li> <li>• understand the importance of irrigation in supporting agriculture</li> <li>• understand how extreme temperatures, water supply and inaccessibility present challenges for development in hot deserts.</li> </ul> <p>7.4 Causes of desertification in hot deserts.</p> <ul style="list-style-type: none"> <li>• explain why desert margins are at greatest risk from desertification</li> </ul>	<p>developing cold environments.</p> <ul style="list-style-type: none"> <li>• outline the challenges associated with extreme temperatures</li> <li>• explain why Svalbard faces challenges associated with inaccessibility</li> <li>• understand why permafrost creates challenges in the provision of buildings and infrastructure</li> <li>• understand how extreme temperatures and provision of buildings present challenges for development in cold environments.</li> </ul> <p>8.5 Value of cold environments as wilderness areas.</p> <ul style="list-style-type: none"> <li>• describe the characteristics of cold environment wilderness areas</li> <li>• understand why cold environment wilderness areas are fragile</li> <li>• suggest how cold environment wilderness areas are at risk from human activities</li> <li>• explain why cold environment</li> </ul>
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<p>earthquakes and volcanic eruptions.</p> <ul style="list-style-type: none"> <li>• explain how people in Iceland benefit from living in a country on a plate margin.</li> </ul> <p>2.7 Reducing the risks from tectonic hazards.</p> <ul style="list-style-type: none"> <li>• explain what is meant by monitoring, prediction, protection, and planning.</li> <li>• explain and give examples of how the risks from earthquakes can be reduced.</li> <li>• explain and give examples of how the risks from volcanoes can be reduced.</li> </ul> <p>2.8 Dispersion graphs.</p> <ul style="list-style-type: none"> <li>• construct a dispersion graph showing earthquake depth values for a destructive plate margin.</li> <li>• calculate mean, median, range, lower quartile, upper quartile, and</li> </ul>	<p>different types of weather hazards experienced in the UK.</p> <ul style="list-style-type: none"> <li>• suggest reasons why the UK experiences a wide range of different types of extreme weather.</li> </ul> <p>3.8 Extreme weather in the UK.</p> <ul style="list-style-type: none"> <li>• give examples of different extreme weather events in the UK</li> <li>• suggest reasons why the frequency of extreme weather events in the UK is increasing.</li> </ul> <p>3.9 The Somerset Levels floods, 2014.</p> <ul style="list-style-type: none"> <li>• describe the location and environment of the Somerset Levels.</li> <li>• explain the causes of the floods in 2014.</li> <li>• describe the social, economic, and environmental impacts of the floods.</li> <li>• describe the immediate responses to the flood event.</li> <li>• explain what has been done to reduce the risk of future</li> </ul>	<ul style="list-style-type: none"> <li>• describe how the Maldives are managing the impacts of rising sea levels.</li> </ul> <p>4.6 Graphs and charts.</p> <ul style="list-style-type: none"> <li>• calculate percentages and use a variety of techniques to present data – line graph, divided bar chart and pie chart</li> <li>• use and calculate measures of central tendency – mean and median</li> <li>• evaluate the usefulness of Arctic Sea ice data as an indicator of climate change</li> <li>• evaluate the effectiveness of different measures of central tendency – mean, median and mode</li> <li>• describe the effects of climate change on the Arctic.</li> </ul>	<p>explain the adaptations of plants and animals to the physical conditions in tropical rainforests</p> <ul style="list-style-type: none"> <li>• describe and suggest reasons for the huge biodiversity in tropical rainforests</li> <li>• explain the issues threatening biodiversity in tropical rainforests.</li> </ul> <p>6.3 Causes of deforestation in Malaysia.</p> <ul style="list-style-type: none"> <li>• describe the changing global rate of deforestation (2002–2019)</li> <li>• describe the changing rate of deforestation in Malaysia</li> <li>• describe and explain the causes of deforestation in Malaysia, such as road building and energy developments.</li> </ul> <p>6.4 Impacts of deforestation in Malaysia.</p> <ul style="list-style-type: none"> <li>• contrast the</li> </ul>	<ul style="list-style-type: none"> <li>• suggest how human activities contribute to desertification</li> <li>• outline the causes of desertification in the Badia</li> <li>• evaluate the extent to which poor land management contributes towards desertification.</li> </ul> <p>7.5 Reducing the risk of desertification in hot deserts.</p> <ul style="list-style-type: none"> <li>• describe the process of salinisation and explain how it can contribute to desertification</li> <li>• explain how water and soil management has helped to reduce desertification in the Badia</li> <li>• explain how tree planting can reduce the risk of desertification</li> <li>• understand how intermediate technology can help to reduce the risk of desertification.</li> </ul>	<p>wilderness areas should be protected.</p> <p>8.6 Managing cold environments.</p> <ul style="list-style-type: none"> <li>• understand how technology has helped to conserve the natural environment in Alaska through the construction of the trans-Alaska oil pipeline</li> <li>• outline the role of government (Alaska), international agreements (Antarctic Treaty) and conservation groups (WWF, Canada) in managing cold environments</li> <li>• understand that managing cold environments involves balancing economic development and conservation.</li> </ul>
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	<p>inter-quartile range.</p> <ul style="list-style-type: none"> <li>• compare earthquake depths at different types of plate margin.</li> <li>• suggest reasons for the variation in earthquake depths between different types of plate margin.</li> <li>• evaluate mean and median as different measures of central tendency.</li> </ul>	<p>flooding.</p> <p>3.10 OS maps (1:25 000) and photo skills</p> <ul style="list-style-type: none"> <li>• use a variety of OS map skills including four- and six-figure grid references to locate places, symbols to identify features, scale to calculate distance, direction to describe location, and contours to describe the relief of the land</li> <li>• be able to compare maps with photographs</li> <li>• use OS maps and photographic evidence to explain why an area is at risk of flooding</li> <li>• use OS maps and photographic evidence to suggest impacts of flooding</li> <li>• evaluate the use of OS maps and aerial photographs in devising flood management strategies.</li> </ul>		<p>positive and negative economic impacts of deforestation</p> <ul style="list-style-type: none"> <li>• describe the sequence of events leading to soil erosion</li> <li>• suggest reasons why deforestation can contribute to climate change</li> <li>• explain how deforestation can have environmental impacts.</li> </ul> <p>6.5 The value of tropical rainforests.</p> <ul style="list-style-type: none"> <li>• describe how indigenous people live sustainably in tropical rainforests</li> <li>• identify the medicinal value of tropical rainforest plants and animals</li> <li>• outline the value of resources found in tropical rainforests</li> <li>• understand the value of tropical rainforests to the environment</li> <li>• discuss whether tropical rainforests are more valuable left intact or deforested.</li> </ul>		
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				<p>6.6 Sustainable management of tropical rainforests.</p> <ul style="list-style-type: none"><li>• understand the reasons why rainforests need to be managed sustainably</li><li>• describe the selective logging and replanting system</li><li>• describe the characteristics of ecotourism</li><li>• explain how strategies, such as ecotourism and international agreements (such as hardwood forestry and debt relief), can help to manage tropical rainforests sustainably.</li></ul> <p>6.7 Graphs.</p> <ul style="list-style-type: none"><li>• calculate rates of deforestation and extrapolate into the future</li><li>• construct a bar chart showing the loss of primary rainforest</li><li>• draw a line graph to show the changing rate of deforestation in</li></ul>		
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				<p>Malaysia</p> <ul style="list-style-type: none"> <li>• calculate percentages and construct a pie chart</li> <li>• interpret a satellite image showing deforestation for an oil palm plantation</li> <li>• use graphical and satellite photo evidence to describe and suggest reasons for trends in deforestation.</li> </ul>		
	<p><b>Assessment outcomes:</b></p> <p>Sample student answer. Practice questions. Past paper.</p>	<p><b>Assessment outcomes:</b></p> <p>Sample student answer. Practice questions. Past paper.</p>	<p><b>Assessment outcomes:</b></p> <p>Sample student answer. Practice questions. Past paper.</p>	<p><b>Assessment outcomes:</b></p> <p>Sample student answer. Practice questions. Past paper.</p>	<p><b>Assessment outcomes:</b></p> <p>Sample student answer. Practice questions. Past paper.</p>	<p><b>Assessment outcomes:</b></p> <p>Sample student answer. Practice questions. Past paper.</p>
<p>Links to Gatsby Benchmarks:</p>	<p><b>Gatsby Benchmark</b> 4. Linking curriculum learning to careers.</p> <p>Students to consider what skills are needed to access the opportunities they are interested in.</p>	<p><b>Gatsby Benchmark</b> 3. Addressing the needs of each pupil.</p> <p>Students to consider what skills are needed to access the opportunities they are interested in.</p>	<p><b>Gatsby Benchmark</b> 4. Linking curriculum learning to careers.</p> <p>Students to consider what skills are needed to access the opportunities they are interested in.</p>	<p><b>Gatsby Benchmark</b> 5. Encounters with employers and employees.</p> <p>Students to consider what skills are needed to access the opportunities they are interested in.</p>	<p><b>Gatsby Benchmark</b> 3. Addressing the needs of each pupil.</p> <p>Students to consider what skills are needed to access the opportunities they are interested in.</p>	<p><b>Gatsby Benchmark</b> 6. Experiences of workplaces.</p> <p>Students to consider what skills are needed to access the opportunities they are interested in.</p>