

Subject content	As a result, what students should know /understood	What students should be able to do	How students will be assessed	By when
<b>Plate Tectonics</b>				
Plate Movement	<p>Understand the Earth's structure and plate tectonics theory.</p> <p>Destructive, constructive and conservative plate margins. Processes: seismicity and vulcanicity. Associated landforms: young fold mountains, rift valleys, ocean ridges, deep sea trenches and island arcs. Hot spots associated with plumes of magma and their relationship to plate movement.</p>	<p><i>Explain theories for convection currents and sea-floor spreading with evidence: continental drift and palaeomagnetism.</i></p> <p><i>Describe and explain the formation of landforms associated with Plate Movement.</i></p>	<p>Independent report</p> <p>Past exam question</p>	1
Vulcanicity	<p>Variations in the type and frequency of volcanic activity in relation to types of plate margin and types of lava. Forms of intrusive activity – dykes, sills, batholiths. Minor forms of extrusive activity – geysers, hot springs and boiling mud. Major forms of extrusive activity – types of volcanoes. Two case studies of recent volcanic events should be undertaken from contrasting areas of the world.</p>	<p><i>Explain with examples intrusive and extrusive activity.</i></p> <p><i>Discuss 2 recent case studies relating to volcanic events. Within discussion the following should be included:</i></p> <ul style="list-style-type: none"> <li>•the nature of the volcanic hazard</li> <li>•the impact of the event</li> <li>•management of the hazard and responses to the event.</li> </ul>	<p>Past exam question</p> <p>Presentation</p>	1
Seismicity	<p>The causes and main characteristics of earthquakes: focus and epicentre; seismic waves and earthquake measurement. Tsunamis – characteristics and causes. Two case studies of recent seismic events should be undertaken from contrasting areas of the world.</p>	<p><i>Describe the main characteristics of earthquakes</i></p> <p><i>Explain the main causes of earthquakes and tsunamis</i></p> <p><i>Discuss 2 recent case studies relating to Seismic events. Within discussion the following should be included:</i></p> <ul style="list-style-type: none"> <li>•the nature of the seismic hazard;</li> <li>•the impact of the event;</li> <li>•management of the hazard and responses to the event.</li> </ul>	<p>Past exam question</p> <p>Presentation</p> <p>40 mark essay</p>	2
<b>Weather and Climate</b>				
Major Climate Controls	<p>The structure of the atmosphere and atmospheric heat budget. The general atmospheric circulation and planetary surface winds.</p>	<p><i>Describe the structure of the atmosphere and atmospheric heat budget.</i></p> <p><i>Explain the effects of general atmospheric circulation and planetary surface winds.</i></p>	<p>Past exam question</p>	3

		<i>Describe how latitude, oceanic circulation and altitude impact weather.</i>		
The Climate of the British Isles	<p>Basic climatic characteristics: temperature, precipitation and wind.</p> <p>Air masses affecting the British Isles.</p> <p>Origin and nature of depressions. Weather changes associated with the passage of a depression.</p> <p>Origin and nature of anticyclones. Associated weather conditions in winter and summer.</p>	<p><i>Understand basic climatic characteristics</i></p> <p><i>Describe the different air masses affecting the British Isles.</i></p> <p><i>Explain the origin and nature of depressions. Weather changes associated with the passage of a depression.</i></p> <p><i>Explain the origin and nature of anticyclones. Associated weather conditions in winter and summer.</i></p> <p><i>Discuss storm events:</i></p> <ul style="list-style-type: none"> <li>• <i>their occurrence,</i></li> <li>• <i>their impact</i></li> <li>• <i>responses to them. One case study from within the last 30 years should be undertaken.</i></li> </ul>	<p>Past exam question</p> <p>Synoptic chart presentation</p> <p>40 mark essay</p>	3
The climate of one tropical region (tropical wet/dry savanna or monsoon or equatorial)	<p>Basic climatic characteristics: temperature, precipitation and wind.</p> <p>The role of sub-tropical anticyclones and the intertropical convergence zone.</p> <p>Tropical revolving storms. Their occurrence, their impact, management of the hazard and responses to the event.</p>	<p>Discuss the role of sub-tropical anticyclones and the intertropical convergence zone.</p> <p>Explain tropical revolving storms. Their occurrence, their impact, management of the hazard and responses to the event.</p>	40 mark essay	4
Climate on a local scale: urban climates	<p>Temperatures: the urban heat island effect.</p> <p>Precipitation: frequency and intensity, fogs, thunderstorms, and their relationship to urban form and processes.</p> <p>Air quality: particulate pollution, photochemical smog and pollution reduction policies.</p> <p>Winds: the effects of urban structures and layout on variations in wind speed, direction and frequency.</p>	<p>Explain how temperature, precipitation, air quality and winds can be impacted by urban climates.</p>	Past exam question	4
<b>Global climate change</b>	<p>Evidence for climatic change over the last 20 000 years.</p> <p>Global warming – possible causes. Possible effects: on a global scale, on the chosen tropical region (above) and on the British Isles.</p> <p>Responses to global warming: international, national and local.</p>	<p>Describe and evaluate evidence for climate change.</p> <p>Discuss Global warming, focussing on possible causes, effects and responses on 2 locations.</p>	<p>Presentation</p> <p>Debate</p>	5