



**Topic 1: GCSE Hazardous Earth PLC**

Element of the course			
The global atmospheric circulation, how circulation cells and ocean currents transfer and redistribute heat energy around the Earth, and how global atmospheric circulation determines the location of arid (high pressure) and high rainfall (low pressure) areas.			
The natural causes of climate change and how they explain past climate change events: asteroid collisions, orbital changes, volcanic activity, variations in solar output.			
Evidence for natural climate change (ice cores, tree rings, historical sources) and how it is used to reconstruct glacial and interglacial climate during the Quaternary and UK climate since Roman times to the present day.			
How human activities produce greenhouse gases that cause the enhanced greenhouse effect leading to global warming.			
Evidence for how human activity is causing climate change the possible consequences on people.			
The range of projections for global temperature change and sea level rise in the future, including physical process and human reasons for uncertainty about those projections.			
Characteristics and seasonal global distribution of tropical cyclones including source areas and tracks and how these change over time.			
How the global circulation of the atmosphere leads to tropical cyclones in source areas, reasons why some tropical cyclones intensify and their dissipation.			
Physical hazards of tropical cyclones and their impact on people and environments.			
Why some countries are more vulnerable than others to the impacts of tropical cyclones.			
How countries can prepare for, and respond to, tropical cyclones: weather forecasting, satellite technology, warning and evacuation strategies, and storm-surge defences.			
The effectiveness of methods of preparation and response in one developed country and in one developing or emerging country.			
Earth's layered structure, with different composition and physical properties (temperature, density, composition, physical state)			
How the core's internal heat source (through radioactive decay) generates convection, the key foundation for plate motion.			
Distribution and characteristics of the three plate boundary types (conservative, convergent and divergent) and hotspots.			
Causes of contrasting volcanic (volcano type, magma type/lava flows and explosivity) and earthquake hazards, including tsunami (shallow/deep, magnitude)			
Primary and secondary impacts of earthquakes and volcanoes on property and people in a developed and emerging or developing country.			
Management of volcanic and earthquake hazards, in a developed and emerging or developing country including short-term relief (shelter and supplies) and long-term planning (trained and funded emergency services), preparation (warning and evacuation; building design) and prediction.			

**SELF ASSESSMENT**

PM (Progress Made?)

PF (Progress Forward?)

**TEACHER ASSESSMENT**

Your strengths in this activity are...

To improve your grade you should...