

What are the aims and intentions of this curriculum?

The aim of our Key Stage 4 Curriculum is to:

- Prepare students for the future by developing key communication, literacy and digital and online skills.
- Allow students to experience the importance of creativity, wellbeing and individuality
- Allow students to experience a curriculum with a richness, breadth and depth that develops a web of knowledge
- Give students equitable opportunities for success

Term	Topics	Knowledge and key terms	Skills developed	Assessment
Summer 2	Alliance Challenge Plate Tectonics Careers: geologist, disaster risk management, volcanologist, civil engineer, seismologist	During Alliance Challenge, the form classes are given tasks to complete as they compete for the top place. Students will deepen their understanding of the internal structure of the earth and how continental drift has led to the occurrence of earthquakes and volcanoes. They will also examine the impact of tectonic activities on developing and developed countries. Key terms: core, mantle, crust, lithosphere, asthenosphere, oceanic and continental plates, plate margins (constructive, destructive, conservative, collision), subduction zone, ocean trench, folding, faulting, earthquake, volcano, tsunami, seismograph, Richter Scale PSHE-pg.34: physical health and fitness; pg. 36: mental wellbeing	Students will develop communication and collaborative skills as they work together during the Transition period. During the Alliance Challenge, their creative, innovative and collaborative skills are enhanced. They are able to communicate more with their peers as they work together and present their productions. Students will create models of the plate margins which depict the tectonic activities which occur at each. The students conduct research and compile a project which examines the benefits and costs related to living in areas that are prone to volcanic activities. They will compare how developing and developed countries prepare for tectonic hazards.	• Discussions • Projects • Presentations • Worksheets • Models
Autumn 1	Plate Tectonics	They will also examine the impacts and management of tectonic activities on developing and developed countries.	Students will research case studies which outline how specific countries are impacted by earthquakes, tsunamis and volcanoes.	• Worksheets • Homework • Models

	Careers: geologist, disaster risk management, volcanologist, civil engineer, seismologist Global Temperatures Global Circulation Climate Changes Careers: meteorologist, weather forecaster, climatologist	Key Terms: earthquake, volcano, tsunami, seismograph, Richter Scale, Moment Magnitude Scale How does the world's climate system function, why does it change and how can this be hazardous for people? Students will gain knowledge of how winds and oceans impact global weather patterns and climate. Students will become aware of the suggested causes of past climate changes, and will evaluate the evidence provided. They will also gain a greater understanding about the role of human activities in the occurrence of the enhanced greenhouse effect and subsequent global warming. Key terms: atmospheric cells, ocean currents, ITCZ, high pressure, low pressure, Coriolis force, atmosphere, enhanced greenhouse effect, global warming PSHE-pg.34: physical health and fitness; pg. 36: mental wellbeing	Students will improve their map skills through the use of the globe and atlas as they locate the movement of winds and ocean currents globally. They will label these on world maps. They will interpret satellite imagery of weather systems, from websites which provide live feed. Students will analyze graphs which illustrate temperature changes throughout the centuries and calculate differences. Students will conduct debates about the role of human activities in the occurrence of global warming and efforts to combat increasing global warming. The students will improve their essay writing skills with the use of writing frames.	• Research • Group presentations • Classwork
Autumn 2	Tropical Cyclones Planning and preparing for cyclones Careers: meteorologist, disaster risk management	How are extreme weather events increasingly hazardous for people? Students will increase their knowledge of the formation, path and effects of tropical cyclones. They will compare the mitigation strategies used in a more developed country versus those used in a lesser developed country. Key Terms: tropical cyclone, storm surge, Saffir Simpson Hurricane Scale, cyclone warning, hurricane shelter, evacuation PSHE-pg.34: physical health and fitness; pg. 36: mental wellbeing	Students will improve their map skills by using the globe and atlas to plot the path taken by hurricanes. They will also use websites which provide live satellite imagery, along with maps to track current atmospheric disturbances. Students will work in groups to research and compare the mitigation strategies used in different countries to deal with the occurrence of tropical cyclones.	• Termly Test • Homework • News /weather reports of the passage of cyclones

		How does wave action influence the United Kingdom's coastline? Students will enhance their knowledge of the impacts of wave action along the United Kingdom's coastline, the processes at work and the resultant landforms and effects. The importance of the coast to humans will be examined as well as the coastal management strategies utilized along some coastlines. Key Terms: bay, cliff, cove, spit, stump, stack, headland, hard and soft engineering, joint, faults, coastal flooding, coastal processes and human modification, coastal management Careers: geologist, coastal management consultant, civil engineer PSHE- pg.34: physical health and fitness; pg. 36: mental wellbeing	Benefit Analysis on various sites to investigate coastal management strategies used. The students will create models which depict how coastlines can be managed.	
Summer 1	River processes and landforms Investigating Rivers Storm Hydrographs Flood threats and the future Managing flood risk	River processes and human modification River management The students will increase their knowledge of river processes and landforms which are created within the drainage basin as the river flows from its source to mouth. Students will become aware of Bradshaw's Model and its relevance in describing changes in stream characteristics throughout its stages. The factors which influence the shape of storm(flood) hydrographs will be examined and will enable the students to link the role of natural and human activities in assessing flood risks. Students become more aware of the social, economic and environmental impacts of river flooding. The students will also assess hard and soft engineering strategies used to mitigate flood damage. Key Terms: upper course, lower course, middle course, waterfall, estuary, meander, traction.	Students will draw and label valley cross sections and river landforms such as waterfall, meander bend and oxbow lake. They will draw and interpret storm hydrographs from various drainage basins. The students will use OS and flood risk maps, photographs and GIS to investigate threats from river flooding. Fieldwork: the students will carry out field work investigations based on variations in stream characteristics at Amersham Field Studies Council and the impacts on flood risk management.	• Test • Classwork • Homework • Group presentation • Field trip worksheets • Students will participate in World Environmental Day activities, through class discussions, debates, poster/comic/poem creation and display and conducting and presentation during assembly.

	Careers: hydrologist, disaster risk management, urban planning, civil engineer	solution, saltation, suspension, channel, flood plain, Bradshaw's model, storm hydrograph PSHE-pg.34: physical health and fitness; pg. 36: mental wellbeing,		
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