



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
Autumn 1	Global Temperatures Global Circulation Climate Changes Careers: meteorologist, weather forecaster, climatologist	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	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.	<ul style="list-style-type: none">• Worksheets• Homework• Models• 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

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

Spring 1

Measuring development
Global Inequality

What are the causes of global disparities in development?

Students will enhance their knowledge of the key indicators of development and causes of global disparities in development with detailed studies of countries such as Malawi and India.

Key Terms: birth rates, death rates, fertility rates, infant mortality rates, HDI, literacy rate, landlocked, corruption index, GDP per capita, GNP per capita, purchasing power parity, life expectancy, dependency ratio, models of development, standard of living, poverty, Rostow's Model, Frank's Dependency Theory, Clarke-Fisher Model

PSHE-pg. 29: Sexual health; pg. 37: health and prevention

Students will compare rankings of countries using development measures and interpret population pyramids of these countries. The students will debate the relevance/merits of the cited theories and models in their attempts to account for disparities in development. They will use numerical data to make comparisons of countries and create likely development strategies. Students will improve their map skills by locating places using map, atlas and globe. Students will conduct research and make presentations about development in Malawi and India. The students will improve their essay writing skills with the use of writing frames.

- Research
- Classwork
- Home Work
- Presentations
- Peer assessment

Spring 2	<p>Urbanisation</p> <p>Sustainable Mumbai</p> <p>Careers: social development consultant, urban planner, environmental consultant</p>	<p>What are the causes and effects of rapid urbanization?</p> <p>Students will be able to broaden their knowledge of the causes and consequences of rapid urban growth. They will develop an awareness of the factors which have influenced the growth of Mumbai, the challenges faced and efforts attempted to overcome them.</p> <p>Key Terms: site, situation, sustainability, and use models, spatial, Vision Mumbai, top down and bottom up development</p>		
	<p>Landscapes from the past</p> <p>UK's relief and geology</p> <p>UK's coastline</p> <p>Coastal erosion and deposition</p> <p>Human activities and the coast</p> <p>Managing the coasts</p>	<p>Why does the physical landscape of the UK vary from place to place?</p> <p>Students will gain an appreciation for the variations in the United Kingdom's landscape by examining the factors which caused them, including geology, glaciation, plate tectonics and human activities.</p> <p>Key terms: igneous, metamorphic, sedimentary, weathering</p> <p>How does wave action influence the United Kingdom's coastline?</p> <p>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.</p>	<p>Students will analyse photographs of landscapes and features across the United Kingdom. They will also identify and locate and physical landforms on relief and Ordnance Survey (OS) maps of the United Kingdom and make comparisons with the geological map of the United Kingdom. The students will calculate the mean rates of coastal erosion at various sites in the United Kingdom. They will also use OS maps and GIS to investigate threats from coastal erosion. The students will conduct Cost Benefit Analysis on various sites to investigate coastal management strategies used. The students will create models which depict how coastlines can be managed.</p>	<ul style="list-style-type: none"> • Group project • Homework • Group presentations on the types of engineering • Worksheets • Models

	<p>Careers: geologist, coastal management consultant, civil engineer</p>	<p>Key Terms: bay, cliff, cove, spit, stump, stack, headland, hard and soft engineering, joint, faults, coastal flooding, coastal processes and human modification, coastal management</p> <p>PSHE- pg.34: physical health and fitness; pg. 36: mental wellbeing</p>		
Summer 1	<p>River processes and landforms Investigating Rivers Storm Hydrographs Flood threats and the future Managing flood risk</p> <p>Careers: hydrologist, disaster risk management, urban planning, civil engineer</p>	<p>River processes and human modification River management</p> <p>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.</p> <p>Key Terms: upper course, lower course, middle course, waterfall, estuary, meander, traction. solution, saltation, suspension, channel, flood plain, Bradshaw's model, storm hydrograph</p> <p>PSHE-pg.34: physical health and fitness; pg. 36: mental wellbeing,</p>	<p>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.</p> <p>Fieldwork: the students will carry out field work investigations based on variations in stream characteristics at the river on the site of Amersham Field Studies Council and the impacts on flood risk management.</p>	<ul style="list-style-type: none"> • 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.

Summer 2

Alliance Challenge Plate Tectonics

During Alliance Challenge, the form classes are given tasks to complete as they compete for the top place.

How do tectonic activities occur and what are the impacts?

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

Careers: geologist, disaster risk management, volcanologist, civil engineer, seismologist

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