



Golden Threads

How do river processes influence landscapes along a river profile and people who live nearby?
 How does weather and climate affect ecosystems around the world and create certain characteristics? How do plants and animals adapt to these ecosystems? How can humans interact with ecosystems?
 How can humans utilise resources in a sustainable way?

Enrichment

Review and Evaluation

Topics & Substantive Knowledge	Disciplinary Knowledge	Assessment	Misconceptions	Key Vocabulary	Knowledge Tracking
<p>Rivers (as a part of physical landscapes in the UK) – focuses on understanding the processes, landforms, and management of river environments. Students explore the hydrological cycle, erosion, transportation, and deposition processes that shape river channels and valleys. They study landforms such as waterfalls, meanders, and floodplains, considering their formation and evolution over time. Additionally, students investigate human interactions with rivers, including flood management strategies, water supply schemes, and the impact of urbanization and agriculture on river systems.</p> <p>The core knowledge and key facts of this topic are:</p> <ul style="list-style-type: none"> UK physical landscapes – diversity and upland/lowland areas <p>Rivers</p> <ul style="list-style-type: none"> River processes Erosion Transportation Deposition River landforms – including case study of the River Tees Flood risks Flood hydrographs Hydrology Management – soft and hard engineering – Banbury case study <p>Fieldwork</p> <ul style="list-style-type: none"> Day trip to Burnham-on -Sea to collect data for physical fieldwork data (preparation for paper 3) 	<p>Students will gain and develop this knowledge through:</p> <ul style="list-style-type: none"> Do now tasks based around core knowledge Exam preparation Extended writing opportunities Cross-curricular skills e.g. maths Class discussions and debates Group work Research opportunities Analysis of information Evaluation of case studies Peer assessment Fieldwork Quizzes Variety of sources to support learning e.g. videos, extracts 	<p>End of module – 15 marks – exam questions from AQA GCSE paper and exampro including a range of questions</p> <p>Booklet to collect data and analysis and data presentation techniques upon return to school</p>	<p>Common misconceptions include the processes which take place in a river and that these processes are all the same and occur in every river worldwide. This is addressed through the use of case studies and examples to apply the knowledge students have gained to a range of different examples around the world.</p>	<p>Fluvial processes: erosion and transportation</p> <p>Meander</p> <p>Oxbow lake</p> <p>Waterfall</p> <p>Floodplain zoning</p> <p>Hard engineering</p> <p>Soft engineering</p> <p>Hydrological cycle</p> <p>Floodplain</p> <p>Delta</p> <p>River profile</p> <p>Management</p> <p>Sustainability</p> <p>Upland</p> <p>Lowland</p> <p>Landforms</p> <p>U-shaped valley</p> <p>V-shaped valley</p> <p>Fold mountains</p> <p>Weathering</p> <p>Land use</p> <p>Urbanisation</p> <p>Eustatic change</p> <p>Isostatic change</p>	<p>This is carried out through regular formative (do now, questioning, book looks) and summative assessments (past paper questions, homework quizzes) during the lesson. Students complete weekly online homework quizzes which provide an overview of key misconceptions which can be addressed during the lessons or through further homework assignments. Book scrutinies are carried out during department time to explore the quality of books across the year group as well as feedback and offer staff development.</p>



	Topics & Substantive Knowledge	Disciplinary Knowledge	Assessment	Misconceptions	Key Vocabulary	Knowledge Tracking
Term 2	<p>Living world – Students study the characteristics, distribution, and interrelationships of ecosystems such as tropical rainforests, deserts, and coral reefs. They investigate factors influencing biodiversity, including climate, soil, and human activities, and examine the importance of conservation and sustainability in preserving these environments. Through case studies students gain insights into the ecological processes and management strategies employed to protect and manage the living world. Overall, the module aims to foster an appreciation for the rich diversity of life on Earth and the importance of responsible stewardship for future generations.</p> <p>The core knowledge and key facts of this topic are:</p> <ul style="list-style-type: none"> • How ecosystems function • Global biomes and their key features • Characteristics of a Tropical Rainforest • Threats and management of a Tropical Rainforest • Malaysia - Tropical Rainforest case study to apply knowledge on above themes • Small scale ecosystem – pond – Vincients wood 	<p>Students will gain and develop this knowledge through:</p> <ul style="list-style-type: none"> • Do now tasks based around core knowledge • Exam preparation • Extended writing opportunities • Cross-curricular skills e.g. maths • Class discussions and debates • Group work • Research opportunities • Analysis of information • Evaluation of case studies • Peer assessment • Fieldwork • Quizzes • Variety of sources to support learning e.g. videos, extracts 	<p>End of module – 25 marks - exam questions from AQA GCSE paper and exampro including a range of questions</p>	<p>Students mistakenly believe that ecosystems are unchanging and static and certain human and physical processes that take place in a biome only have localised impacts. Addressing these misconceptions involves engaging students in discussions, providing real-world examples and incorporating interactive lessons to deepen their understanding of the complexities of the living world unit.</p>	<p>Ecosystem Biodiversity Abiotic factors Biotic factors Habitat Niche Canopy Understory Emergent layer Liana Epiphyte Biotic interdependence Deforestation Sustainable management Cultural diversity Indigenous people Climate change Conservation</p>	<p>This is carried out through regular formative (do now, questioning, book looks) and summative assessments (past paper questions, homework quizzes) during the lesson. Students complete weekly online homework quizzes which provide an overview of key misconceptions which can be addressed during the lessons or through further homework assignments. Book scrutinies are carried out during department time to explore the quality of books across the year group as well as feedback and offer staff development.</p>



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Term 3	<p>Cold Environments – focuses on the study of polar and alpine regions. Students explore the characteristics, formation, and significance of cold environments, including glaciers, permafrost, and tundra ecosystems. They investigate the unique adaptations of flora and fauna to extreme cold and examine the environmental processes shaping these landscapes, such as glacial erosion and deposition. Additionally, students explore the impacts of climate change on cold environments, including melting ice caps and permafrost thaw, and consider the implications for global sea levels and biodiversity. Through case studies students gain practical experience and insights into the ecological, social, and economic dynamics of cold regions, preparing them to analyse and address contemporary environmental challenges in these areas.</p> <p>The core knowledge and key facts of this topic are:</p> <ul style="list-style-type: none"> • Characteristics • Processes in cold environments • Challenges and opportunities for development • Management • Svalbard – cold environments case study to apply knowledge on above themes 	<p>Students will gain and develop this knowledge through:</p> <ul style="list-style-type: none"> • Do now tasks based around core knowledge • Exam preparation • Extended writing opportunities • Cross-curricular skills e.g. maths • Class discussions and debates • Group work • Research opportunities • Analysis of information • Evaluation of case studies • Peer assessment • Fieldwork • Quizzes • Variety of sources to support learning e.g. videos, extracts 	<p>End of module – 25 marks - exam questions from AQA GCSE paper and exampro including a range of questions</p>	<p>Students think that all cold environments around the world are the same and that key features such as the types of animals who live in cold environments are similar. There is also the belief that humans do not exist in cold environments. This is addressed through the use of the core case study and other global examples to offer comparisons and understanding about the individuality of different places around the world.</p>	<p>Permafrost Tundra Taiga Arctic circle Antarctic circle Polar climate Ice cap Ablation Glacier Iceberg Ice shelf Fjord Flora Fauna Adaptation Indigenous people Subsistence living Climate change Melting ice caps Global warming</p>	<p>This is carried out through regular formative (do now, questioning, book looks) and summative assessments (past paper questions, homework quizzes) during the lesson. Students complete weekly online homework quizzes which provide an overview of key misconceptions which can be addressed during the lessons or through further homework assignments. Book scrutinies are carried out during department time to explore the quality of books across the year group as well as feedback and offer staff development.</p>



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Term 4	<p>Resource management - explores the sustainable use and distribution of natural resources. Students study topics such as water, energy, food, and minerals, examining the factors influencing resource availability, consumption patterns, and management strategies. They investigate issues related to resource depletion, pollution, and waste management, as well as the social, economic, and environmental implications of resource extraction and utilization. Additionally, students explore strategies for resource conservation, efficiency, and equitable distribution, considering the role of technology, policy, and international cooperation in addressing resource challenges.</p> <p>Pre-release paper 3</p> <p>The core knowledge and key facts of this topic are:</p> <ul style="list-style-type: none"> • Water, energy, and food resources in the UK • Energy as a global resource • Supply and demand • Energy insecurity • Strategies to increase energy supply • Small scale energy scheme in LIC's – case study Peru or Kenya • Environmental impacts of a large-scale energy scheme – case study tar sands, Athabasca 	<p>Students will gain and develop this knowledge through:</p> <ul style="list-style-type: none"> • Do now tasks based around core knowledge • Exam preparation • Extended writing opportunities • Cross-curricular skills e.g. maths • Class discussions and debates • Group work • Research opportunities • Analysis of information • Evaluation of case studies • Peer assessment • Fieldwork • Quizzes • Variety of sources to support learning e.g. videos, extracts 	<p>End of module</p> <p>Pre-planned questions based on interrogation of release document</p>	<p>Students may have the belief that certain global resources are infinite, and technologies can solve the problems of depletion. Economic growth is incompatible with resource conservation due to the negative media that sustainable sources of energy currently receive. These are managed through providing a clear understanding of the knowledge and revisiting these core concepts as we move through the unit to ensure the knowledge is applied in the correct areas and understood when exploring the core case studies.</p>	<p>Renewable Non-renewable Depletion Sustainable management Conservation Global commons Ecological footprint Fair trade Overconsumption Carbon footprint Circular economy Energy security Energy scarcity Efficiency Development Economic Social Environmental Political</p>	<p>This is carried out through regular formative (do now, questioning, book looks) and summative assessments (past paper questions, homework quizzes) during the lesson. Students complete weekly online homework quizzes which provide an overview of key misconceptions which can be addressed during the lessons or through further homework assignments. Book scrutinies are carried out during department time to explore the quality of books across the year group as well as feedback and offer staff development.</p>



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Term 5	<p>Revision - Revision for Key Stage 4 Geography is essential for consolidating knowledge and preparing for exams. Students should start by organizing their notes and materials, focusing on key concepts, case studies, and exam techniques. Creating concise revision notes, mind maps, or flashcards can help condense information for easier recall. Practice exam-style questions and past papers to familiarize yourself with the format and time constraints. Reviewing textbooks, online resources, and revision guides can provide additional support and clarification on difficult topics. Collaborating with classmates through study groups or peer teaching can offer different perspectives and enhance understanding.</p> <p>The class teacher will make an assessment based on class data, student requests and information from the specification and curriculum to create a tailored revision programme which is best suited to the class.</p>	<p>Students will gain and develop this knowledge through:</p> <ul style="list-style-type: none"> • Do now tasks based around core knowledge • Exam preparation • Extended writing opportunities • Cross-curricular skills e.g. maths • Class discussions and debates • Group work • Research opportunities • Analysis of information • Evaluation of case studies • Peer assessment • Fieldwork • Quizzes • Variety of sources to support learning e.g. videos, extracts 	<p>Past papers Key words Exam technique Exam command words</p>	N/A	N/A	<p>This is carried out through regular formative (do now, questioning, book looks) and summative assessments (past paper questions, homework quizzes) during the lesson. Students complete weekly online homework quizzes which provide an overview of key misconceptions which can be addressed during the lessons or through further homework assignments. Book scrutinies are carried out during department time to explore the quality of books across the year group as well as feedback and offer staff development.</p>