Curriculum Overview – Geography

Introduction

This document outlines **the curriculum and key considerations** including:

- Aims and purpose
- Alignment with the whole school provision and curriculum intent
- A summary programme of study which includes sequencing of taught content

We use the National Curriculum as our statutory foundation and broadly share its principles and aims including:

- 'To provide students with an introduction to the essential knowledge that they need to be educated citizens. To introduce students to the best that has been thought and said and help engender an appreciation of human creativity and achievement'.
- To prepare students to be confident in themselves, to have a fulfilled and successful life beyond our school – one where they contribute positively to society.
- Our statutory curriculum is just one element in the education of every child. There is time and space in the school day and in each week, term, and year to range beyond statutory specifications.
- Provision of a framework of core knowledge around which teachers can develop exciting and stimulating lessons to promote the development of students' knowledge, understanding and skills as part of the wider school curriculum.
- The wider school curriculum includes an extensive range of opportunities and activities that are routinely available to students, are inclusive and reflect our diverse community.

Numeracy and literacy

Teachers should take opportunities to develop students' mathematical fluency, spoken language, reading, writing and vocabulary within their specific discipline and in line with the expectations laid out in our school curriculum statement.

Purpose of study

A high-quality geography education should inspire in students a curiosity and fascination about the world and its people that will remain with them for the rest of their lives. Teaching should equip students with knowledge about diverse places, people, resources and natural and human environments, together with a deep understanding of the Earth's key physical and human processes. As students progress, their growing knowledge about the world should help them to deepen their understanding of the interaction between physical and human processes, and of the formation and use of landscapes and environments. Geographical knowledge, understanding and skills provide the frameworks and approaches that explain how the Earth's features at different scales are shaped, interconnected and change over time. *(DFE 2013)*

Wolfreton Curriculum Intent

Our geography curriculum is underpinned by our Intent statement, or strapline:

Place Matters – without Geography you are nowhere

Curriculum Aims

To inspire a curiosity about the changing world in which we live. Geography is engaging, interesting, relevant and dynamic. Students will be challenged to think creatively and sustainably in order to address and solve world issues.

The Wolfreton curriculum for Geography aims to ensure that all students:

- Develop contextual knowledge of the location of globally significant places and their defining physical and human characteristics
- Develop communication skills that allow them to explain process and evaluate arguments
- Conduct fieldwork and research, interpret data from a range of sources and have a good grasp of map skills
- Understand and are able to articulate how they have a part to play in the world
- Develop a fascination about the wider world that will remain with them for the rest of their lives
- Have an understanding about how the world works and a thirst to expand this understanding

Building on prior learning

By the end of Key Stage 2, students should have knowledge and understanding beyond the local area to include the United Kingdom and Europe, North and South America. This should include the location and characteristics of a range of the world's most significant human and physical features. They should have developed their use of geographical knowledge, understanding and skills to enhance their locational and place knowledge.

- **Locate the world's countries, using maps** to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities
- **Name and locate counties and cities of the United Kingdom**, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time
- **Identify the position and significance of latitude,** longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night)
- **Understand geographical similarities and differences** through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region within North or South America

- Students can **describe and understand physical geography**, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle
- Students can **describe and understand human geography**, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water
- Students should be able to **use maps, atlases, globes and digital/computer mapping** to locate countries and describe features studied
- Students should be able to **use the eight points of a compass, four and six-figure grid references, symbols and key** (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world
- Students can **use fieldwork** to observe, measure, record and present the human and physical features in the area using a range of methods, including sketch maps, plans and graphs, and digital technologies.

What are the knowledge and skills gaps?

- Map skills – these can be inconsistent between students - some are very well developed, but others are more limited
- Reading and using grid references
- Data interpretation, using maps and graphs
- Geographical enquiry – recording and presenting data and findings
- Geographical enquiry – applying disciplinary knowledge to evaluate evidence and inform decisions

Curriculum Structure

At Wolfreton, we design our curriculum to develop students' **knowledge of key geographical concepts that thread throughout our seven-year curriculum** from Year 7 to Year 13. These concepts are interwoven throughout our Key Stage 3 and Key Stage 4 schemes of learning and provide students with **a framework to make synoptic links** between the different topics they encounter.

Key Geographical Concepts

- Geographical skills
- Place
- Systems
- Globalisation
- Resources
- Development
- Sustainability
- Risk

Content Area	Subject Content	Geographical Skills
Locational knowledge	**Extend their locational knowledge and deepen their spatial awareness** of the world's countries using maps of the world to focus on, • Africa • Russia • Asia (including China and India) • The Middle East **Focus on their environmental regions**, • Polar • Hot deserts **Key physical and human characteristics, countries and major cities**	**Cartographic skills:** • Use and understand gradient, contour and spot height on OS maps and other isoline maps (e.g. weather charts, ocean bathymetric charts) • Interpret cross sections and transects • Use and understand coordinates, scale and distance • Describe and interpret geo-spatial data presented in a GIS framework (e.g. analysis of flood hazard using the interactive maps on the Environment Agency website) **Graphical skills:** • Select and construct appropriate graphs and charts to present data, using appropriate scales and including bar charts, pie charts, pictograms, line charts, histograms with equal class intervals • Interpret and extract information from different types of graphs and charts including any of the above and others relevant to the topic (e.g. triangular graphs, radial graphs, wind rose diagrams, proportional symbols) • Interpret population pyramids, choropleth maps and flow-line maps **Numerical skills:** • Demonstrate an understanding of number, area and scale and the quantitative relationships between units • Design fieldwork data collection sheets and collect data with an understanding of accuracy, sample size and procedures, control groups and reliability • Understand and correctly use proportion and ratio, magnitude, frequency (e.g. 1:200 flood events) and logarithmic scales • Draw informed conclusions from numerical data **Statistical skills:** • Use appropriate measures of central tendency, spread and cumulative frequency (median, mean, range, quartiles and inter-quartile range, mode and modal class)
Place Knowledge	**Understand geographical similarities, differences and links** between places through the study of human and physical geography of a region **within Africa**, and of a region within Asia	
Physical geography	**Understand,** through the use of detailed place-based exemplars at a variety of scales, **the key processes in physical geography relating to:** • Geological timescales and plate tectonics • Rocks, weathering and soils • Weather and climate, including the change in climate from the Ice Age to the present • Glaciation, hydrology and coasts	
Human Geography	**Understand,** through the use of detailed place-based exemplars at a variety of scales, **the key processes in human geography relating to:** • Population and urbanisation • International development • Economic activity in the primary, secondary, tertiary and quaternary sectors; and the use of natural resources • Understand how human and physical processes interact to influence, and change landscapes, environments and the climate; and how human activity relies on effective functioning of natural systems	

Content Area	Subject Content	Geographical Skills
Geographical skills and fieldwork	• **Build on their knowledge of globes, maps and atlases** and apply and develop this knowledge routinely in the classroom and in the field. Interpret Ordnance Survey maps in the classroom and the field, including using grid references and scale, topographical and other thematic mapping, and aerial and satellite photographs. • **Use Geographical Information Systems (GIS)** to view, analyse and interpret places and data. • **Use fieldwork** in contrasting locations to collect, analyse and draw conclusions from geographical data, using multiple sources of increasingly complex information.	• Calculate percentage increase or decrease and understand the use of percentiles • Describe relationships in bivariate data: sketch trend lines through scatter plots; draw estimated lines of best fit; make predictions; interpolate and extrapolate trends • Be able to identify weaknesses in selective statistical presentation of data **Literary skills:** • Developing subject specific vocabulary to enable students to identify and name key features and processes • Using language effectively to describe trends and patterns • Explaining how human and physical processes lead to features and phenomena • Examining source materials to support explanations of specific processes and phenomena • Assessing differing viewpoints and/or evidence to form judgements

Vocabulary

Having a rich, ambitious, broad vocabulary is vital for students to succeed, both in school and throughout their lives.

Tier 1 vocabulary is the simplest. These are the words we use in everyday conversation, such as “put”, “get”, “walk”, etc. On the other side of the spectrum, Tier 3 vocabulary is the subject-specific vocabulary of a particular discipline. These are words that aren’t used outside of the context of a specific subject, or have a different meaning in one subject versus another. In the middle of these two tiers is Tier 2 vocabulary. Tier 2 vocabulary are challenging, ambitious words that don’t usually crop up in day-to-day conversation. These are the words that allow us to access academic texts, such as high-level literature, newspaper articles and exam papers.

At Wolfreton, Tier 3 and Tier 2 vocabulary is explicitly taught across our school curriculum. The Tier 3 vocabulary is indicated for each topic in the curriculum sequencing below. The following Tier 2 words are developed and used throughout our geography curriculum.

Tier 2 geographical vocabulary, developed throughout Key Stage 3 and Key Stage 4:
Cause, effect, response, source, resource, primary, secondary, social, economic, environmental, political,
identify, name, state, give, define, describe, compare, explain, examine, assess, evaluate, discuss,
sustainability, development, impact, consequences, scale, global, interconnections,
frequency, trend, anomaly, evidence, distribution, calculate, complete, complete, justify, outline, suggest, to what extent

Curriculum Sequencing

Key Stage 3: Year 7 – Long Term Planning

	Autumn term	Spring term	Summer term
Knowledge	**Map Skills** • What is geography? • Direction and sketch maps – the Great Barrier Reef • Scale and distance – Antarctica • Measuring distance – The Ganges • 4 figure grid references – Rio de Janeiro • 6 figure grid references – Victoria Falls • Measuring height – Mt St Helens • Cross sections – Mt St Helens • Map symbols – Bridlington **Hazards** • Categorising hazards and exploring hazard risk • Structure of the earth • Earthquakes, plate margins, earthquake distribution and preparation • The causes, effects, and responses to the Nepal earthquake • Volcanic features and hazards • The causes, effects, and response to the Eyjafjallajökull eruption • The formation of tropical storms • The causes, effects, and responses to Hurricane Irma • Tsunami formation • The causes, effects and responses to the Sulawesi tsunami • Yellowstone supervolcano • Wildfires	**Geography of the UK** • The location of the UK • Features between Land's End and John O'Groats • Climate of the UK • Population of the UK • Migration to the UK • Jobs in the UK • UK economy • UK in the wider world • The UK demographic transition model • Temperate deciduous forests **Extreme Environments** • The physical geography of Antarctica • Human life in Antarctica • How animals adapt to the conditions of Antarctica • Antarctica's importance and the Antarctic treaty • The physical geography of tropical rainforests • Rainforest tribes and threats • Tropical rainforest importance • The physical geography of mountain ranges • Mount Everest decision making exercise • The physical characteristics of avalanches, the causes and effects • The physical geography of hot deserts • Animal adaptations in hot deserts	**Asia** • The physical geography of Asia • India monsoon • Tourism in China • Hong Kong homes • The opportunities and challenges of tourism in Thailand • The hazardous environment of Indonesia • Fashion in Asia • Population demographics in Cambodia (the Khmer Rouge) • Technology in Japan • The Rohingya crisis • Hazards in the Philippines • Singapore's economy • Contrasting environments – North Korea and South Korea **Weather and Climate** • Weather and climate and the effects on human activities • Forecasting the weather • Rain and cloud formation • Microclimates of Wolfreton • Weather across the world • Extreme weather across the world • Extreme weather in the UK • Tornado formation, the global distribution of tornadoes and tornadoes in North America (Tornado Alley) • Tornado impacts, monitoring, preparing, and planning

			• The opportunities provided by tornado - storm chasers • The causes and effects of drought • The causes and effects of the 2018 heatwave
Skills – links to the disciplinary concepts	• **Read and interpret a range of graphs, maps and images** • **Understand how to apply these skills:** to be able to use and interpret a range of resources and apply their knowledge to a range of commands.	• **Examine information to be able to explain and evaluate contemporary issues.** • **Understand how to apply these skills:** to being able to use and interpret a range of resources and apply their knowledge to a range of commands.	• **Examine information to be able to explain and evaluate contemporary issues.** • **Understand how to apply these skills:** to be able to use and interpret a range of resources and apply their knowledge to a range of commands.
Tier 3 Vocabulary	**Map Skills** • human geography • physical geography • environmental geography • lines of latitude • scale • distance • cross section **Hazards** • natural hazard • tectonic hazard • conservative • constructive • collision • destructive • atmospheric hazard • hazard risk • HIC / LIC • Urbanisation • distribution • focus • seismic waves • epicentre • subsistence farmers • caldera • glacier • tropical storm • tsunami • wave shoaling • super volcano • fissures • geothermal • geyser • hot spot	**Geography of the UK** • physical geography • human geography • relief • climate • population density • migration • immigrant • emigrant • refugee • economic migrant • internal migrant • primary sector • secondary sector • tertiary sector • quaternary sector • economic distribution • poverty **Extreme Environments** • precipitation • climate • katabatic winds • elevation • adaptation • physical changes • behavioural changes • indigenous • biodiversity • avalanche • powder • slab • distribution	**Asia** • monsoon • tourism • ethical tourism • population pyramid • civil war • communism • superpower • multi-hazardous environment • development **Weather and Climate** • weather • climate • air pressure • convectional rainfall • relief rainfall • frontal rainfall • cirrus • cumulus • stratus • nimbus • cloud seeding • prevailing winds • aspect • altitude • latitude • microclimate • extreme weather • drought • heatwave • tornado • hurricane
Assessment	**Two-part assessment:** • Section A – prior learning (multiple choice) • Section B – GCSE style questions based on topic (Map Skills) **Two-part assessment:** • Section A – prior learning (multiple choice) • Section B – GCSE style questions based on topic (Hazards)	**Two-part assessment:** • Section A – prior learning (multiple choice) • Section B – GCSE style questions based on topic (Geography of the UK) **Two-part assessment:** • Section A – prior learning (multiple choice) • Section B – GCSE style questions based on topic (Extreme Environments)	**Two-part assessment:** • Section A – prior learning (multiple choice) • Section B – GCSE style questions based on topic (Asia) **Two-part assessment:** • Section A – prior learning (multiple choice) • Section B – GCSE style questions based on topics taught this year (End of Year Exam)

Key Stage 3: Year 8 – Long Term Planning

	Autumn term	Spring term	Summer term
Knowledge	**Russia** • Introduction to Russia • Russia with Simon Reeve • Climate in Russia • Animal adaptations • Population decrease • Yakutia migration • Russia World Cup • Chernobyl • The Nenets • Threats to the Taiga Forest • Russia and conflict • Russia's natural resources • Tourism in Russia • The Space Race **Geography of the Environment** • Introduction to environmental geography • Climate change • Australia bushfires • Carbon future • Wind farms • Oceans and plastic pollution • Sustainable tourism • Wilderness areas under threat • Landmines • The Mariana Trench • Climate change in Bangladesh • Dharavi slums (waste pollution) • Pollution in China	**The Middle East** • Location of the Middle East • Perceptions of the Middle East • The Syrian Refugee crisis • Oil in the Middle East • Wealth in the Middle East • Poverty in Dubai • Qatar World Cup • Afghanistan • Afghanistan. Then and now • Israel and Palestine conflict • Is Dubai a sustainable city? • Population distribution in the Middle East **Glaciation** • What are glaciers? • Glacial erosion • Glacial deposition • Living in a glacial environment • People and glacial landforms • Lake District tourism • Norwegian fjords • Glaciers and climate change • Tundra (adaptations) • Alaska • Geographical Information Systems (GIS) – glaciation past and present	**Global Development** • Introduction to development • World development • Population • Causes of poverty in Sierra Leone • Squatter settlements • Mexico migration • Poverty in a HIC (Las Vegas) • Reducing the development gap • Windrush migration • Colonialism in Haiti and India • Globalisation • Tesco as a TNC • Globalisation and Nike • Fast fashion **Plastic Pollution** • The Great Pacific Garbage Patch • Plastic pollution • Kenya tourism and plastic • Dealing with plastic waste • UK plastic waste management • Planning plastics fieldwork • Plastics fieldwork in school • Plastics fieldwork – fieldtrip • Plastics DME • Drowning in plastic • Plastic pollution in Vietnam • Henderson Island
Skills – links to the	• **Examine information to be able to explain and evaluate contemporary issues.**	• **Examine information to be able to explain and evaluate contemporary issues.**	• **Examine information to be able to explain and evaluate contemporary issues.**

disciplinary concepts	• **Understand how to apply these skills:** to be able to use and interpret a range of resources and apply their knowledge to a range of commands.	• **Understand how to apply these skills:** to be able to use and interpret a range of resources and apply their knowledge to a range of commands.	• **Understand how to apply these skills:** to be able to use and interpret a range of resources and apply their knowledge to a range of commands.
Tier 3 Vocabulary	**Russia** • biome • adaptation • population density • population pyramid • migration • push factor • pull factor • taiga forest • natural resource **Geography of the Environment** • environmental geography • climate change • global warming • primary impacts • secondary impacts • bushfires • carbon footprint • renewable • turbine • sustainable tourism • wilderness	**The Middle East** • Glaciation • ice age • glacial period • interglacial period • Pleistocene • glacier • glaciation • accumulation • ablation • glacial budget • system • erosion • plucking • abrasion • freeze thaw • corrie • tarn • pyramidal peak • aretes • transportation • bulldozing • deposition • till • erratic • moraine • drumlin	**Global Development** • absolute poverty • relative poverty • Human Development Index (HDI) • population • population distribution • squatter settlement • migration • immigrant • emigrant • forced migration • refugee • development gap • aid • colonialism • colonies • imperialist • reparations • globalisation • interdependence • Transnational Corporation (TNC) • trade • culture • communication **Plastic Pollution** • pollution • sustainable • micro plastics
Assessment	**Two-part assessment:** • Section A – prior learning (multiple choice) • Section B – GCSE style questions based on topic (Russia) **Two-part assessment:** • Section A – prior learning (multiple choice) • Section B – GCSE style questions based on topic (Geography of the Environment)	**Two-part assessment:** • Section A – prior learning (multiple choice) • Section B – GCSE style questions based on topic (The Middle East) **Two-part assessment:** • Section A – prior learning (multiple choice) • Section B – GCSE style questions based on topic (Glaciation)	**Two-part assessment:** • Section A – prior learning (multiple choice) • Section B – GCSE style questions based on topic (Global Development) **Two-part assessment:** • Section A – prior learning (multiple choice) • Section B – GCSE style questions based on topics taught this year (End of Year Exam)

Key Stage 3: Year 9 – Long Term Planning

	Autumn term	Spring term	Summer term (starting GCSE)
Knowledge	**Natural resources** • What is a natural resource? • Water as a resource • Food as a resource – where does our food come from? • Energy as a resource • What is renewable energy? • Fracking – The Future? • Sustainable schools – Eco-friendly Education? • Renewable cities – Copenhagen • Conflict in the South China Sea • Water conflict in Bolivia • Water conflict in The Aral Sea • Beef - farming. Should we be vegetarian? • Food insecurity in Somalia • Is shrimp farming sustainable? **The Tropics** • Introduction and the Great Barrier Reef • Borneo and endangered animals • The Citarum River • The Maldives • Bolivia • Somalia pirates • Equator from the air • India • Jamaica tourism • Middle East • The geography of cruise ships	**Africa** • Introduction to Africa • Africa population • African countries development • Climates and biomes of Africa • The Sahel • Poverty in Ghana • Urbanisation in Ethiopia • Trade between China and Africa • Semi-arid grasslands • Drought in the Horn of Africa • Maasai tribe • Mount Nyiragongo eruption • Rwanda genocide **Issue Evaluation Decision Making Exercise (DME)** Students will use analytical skills to complete a decision making exercised based on tourism in Bridlington. • Bridlington tourism • Positives of Bridlington tourism • Negatives of Bridlington tourism • DME Bridlington tourism	**Coasts** • Students will understand that the UK has a range of diverse landscapes. • Students will investigate the physical processes shaping the coast • They will understand coastal landforms are the result of rock type, structure, and physical processes • They will find out about different management strategies can be used to protect coastlines from the effects of physical processes – Holderness Coast example **Rivers** • Students investigate how the shape of river valleys change as rivers flow downstream. • Students will explore the range of different physical processes which create river landforms. • They will evaluate a variety of management strategies which can be used to protect river landscapes from the effects of flooding – York example
Skills – links to the disciplinary concepts	• **Examine information to be able to explain and evaluate contemporary issues.**	• **Examine information to be able to explain and evaluate contemporary issues.**	• **Examine information to be able to explain and evaluate contemporary issues.**

	• **Understand how to apply these skills:** to be able to use and interpret a range of resources and apply their knowledge to a range of commands.	• **Understand how to apply these skills:** to be able to use and interpret a range of resources and apply their knowledge to a range of commands.	• **Understand how to apply these skills:** to be able to use and interpret a range of resources and apply their knowledge to a range of commands.
Tier 3 Vocabulary	**Natural Resources** • natural resources • renewable • non-renewable • water surplus • water deficit • imports • exports • food miles • carbon footprint • fracking • sustainable • food insecurity **Exploring the Tropics** • coral reef • coral • coastal protection • coral bleaching • biodiversity • pollution • atoll • globalisation • interdependence • megacity • mitigation • adaptation • hotspot • plume	**Africa** • colonies • imperialist • Human Development Index (HDI) • biome • hot desert • savanna • rainforest • deciduous woodland • Sahel • desertification • poverty • urbanisation **Issue Evaluation** • tourism • the multiplier effect • social • economic • environmental • demographics • stakeholders	**Coasts** • fetch • swash • backwash • constructive wave • destructive wave • weathering • mass movement • erosion • transportation • deposition • coastal management • hard engineering • soft engineering • conflict **Rivers** • erosion • transportation • deposition • meander • oxbow lake • flood plain • levee • estuary • flood risk • infiltration • surface runoff • flood risk
Assessment	**Two-part assessment:** • Section A – prior learning (multiple choice) • Section B – GCSE style questions based on topic (Natural Resources) **Two-part assessment:** • Section A – prior learning (multiple choice) • Section B – GCSE style questions based on topic (Tropics)	**Two-part assessment:** • Section A – prior learning (multiple choice) • Section B – GCSE style questions based on topic (Africa)	**Two-part assessment:** • Section A – prior learning (multiple choice) • Section B – GCSE style questions based on topic (Coasts) **Two-part assessment:** • Section A – prior learning (multiple choice) • Section B – GCSE style questions based on topics taught this year (End of Year Exam)

Key Stage 4 Year 10 – Long Term Planning - AQA GCSE Geography

	Autumn term	Spring term	Summer term
Knowledge	**Natural Hazards** • Natural hazards pose risks to people and property. **Tectonic hazards** • Physical processes that lead to earthquakes and volcanic eruptions • Effects and responses to earthquakes in a LIC (Haiti) and a HIC (New Zealand) • Management strategies to reduce the effects of tectonic hazards **Weather hazards** • Global atmospheric circulation determines weather patterns and climate • Tropical storms develop as a result of specific physical conditions • Tropical storms have significant effects on people and environments – Typhoon Haiyan example • The UK is affected by a number of weather hazards • Extreme weather events in the UK have impacts on human activity – Storm Jorje example **Climate change** • Climate change is the result of human and physical factors and has a range of effects • Managing climate change involves both mitigation and adaptation	**Living World** • Ecosystems exist at a range of scales and involve interaction between living and non-living components. **Tropical rainforests** • Tropical rainforests have distinctive environmental characteristics • Deforestation has economic and environmental impacts – Amazon example • Tropical rainforests need to be managed to be sustainable **Hot deserts** • Hot deserts have distinctive environmental characteristics • Development of hot deserts creates opportunities and challenges – Thar Desert example • Areas on the fringe of hot deserts are at the risk of desertification – Sahel example	**Urban issues and challenges** **The urban world** • A growing percentage of the world's population live in urban areas • Urban growth creates opportunities and challenges for LIC and NEE countries – Rio de Janeiro, Brazil example **Urban change in the UK** • Urban change in UK cities leads to a range of social, economic and environmental opportunities and challenges – London example **Sustainable urban development** • Urban sustainability requires management of resources and transport **Paper 3 Fieldwork** • Theoretical fieldwork techniques and purpose

Skills – links to the disciplinary concepts	• Use of qualitative and quantitative data from both primary and secondary sources to obtain, illustrate, communicate, interpret, analyse and evaluate geographical information. • Applying cartographic (atlas and OS maps) and graphical skills to recognise and describe distributions and patterns.	• Use of qualitative and quantitative data from both primary and secondary sources to obtain, illustrate, communicate, interpret, analyse and evaluate geographical information. • Applying graphical skills to recognise and describe distributions and patterns through a variety of graphs and maps.	• Use of qualitative and quantitative data from both primary and secondary sources to obtain, illustrate, communicate, interpret, analyse and evaluate geographical information. • Applying graphical skills to recognise and describe distributions and patterns through a variety of graphs and maps. • Applying numerical skills to collect, analyse and draw conclusions from data.
Vocabulary	See Appendix – Key Stage 4 Vocabulary and Key Terms		
Assessment	Two-part assessment: • Section A – GCSE past exam questions based on previous topic (Rivers) • Section B – GCSE past exam questions based on current topic (Tectonic Hazards) Two-part assessment: • Section A – GCSE past exam questions based on previous topic (Coasts) • Section B – GCSE past exam questions based on current topic (Weather and Climate)	Two-part assessment: • Section A – GCSE past exam questions based on previous topic (Hazards) • Section B – GCSE past exam questions based on current topic (Ecosystems and Tropical Rainforests) Two-part assessment: • Section A – GCSE past exam questions based on previous topic (Weather and Climate) • Section B – GCSE past exam questions based on current topic (Hot Deserts)	Two-part assessment: • Section A – GCSE past exam questions based on previous topic (Hot Deserts) • Section B – GCSE past exam questions based on current topic (Urbanisation and Rio de Janeiro) Two-part assessment: • Section A – GCSE past exam questions based on previous topic (Urbanisation and Rio de Janeiro) • Section B – GCSE past exam questions based on current topic (London and Freiburg) • End of Year Exam (Full Paper 1)

Key Stage 4: Year 11 – Long Term Planning

	Autumn term	Spring term	Summer term
Knowledge	**Changing Economic World** **The development gap** • Global variations in economic development and quality of life • A range of strategies exist for reducing the global development gap **Case study: Nigeria, an NEE** • Nigeria is experiencing rapid economic development which leads to social, environmental and cultural change **The changing UK economy** • Major changes in the UK economy have affected employment patterns and regional growth and will continue to do so in the future	**Resource Management** **Resource management** • Food, water and energy are fundamental to human development • The changing demand and provision of resources in the UK creates opportunities and challenges **Energy management** • Demand for energy resources is rising globally but supplies can be insecure, creating conflict • Different strategies can be used to increase energy supply – Amazon gas and Tung-Kabri, Kenya examples	**UK Physical Landscapes (recap from Y9)** The UK has a range of diverse landscapes. **UK coastal landscapes** • The coast is shaped by physical processes • Coastal landforms are the result of rock type, structure and physical processes • Different management strategies can be used to protect coastlines from the effects of physical processes – Holderness Coast example **UK river landscapes** • The shape of river valleys changes as rivers flow downstream • River landforms are the result of different physical processes • Different management strategies can be used to protect river landscapes from the effects of flooding – York example **Paper 3 Fieldwork and pre-release material** • Theoretical fieldwork techniques and purpose • Preparation for the synoptic decision-making exercise (DME)
Skills – links to the disciplinary concepts	• Use of qualitative and quantitative data from both primary and secondary sources to obtain, illustrate, communicate, interpret, analyse and evaluate geographical information.	• Use of qualitative and quantitative data from both primary and secondary sources to obtain, illustrate, communicate, interpret, analyse and evaluate geographical information.	• Use of qualitative and quantitative data from both primary and secondary sources to obtain, illustrate, communicate, interpret, analyse and evaluate geographical information.

	• Applying graphical skills to recognise and describe distributions and patterns through a variety of graphs and maps.	• Applying graphical skills to recognise and describe distributions and patterns through a variety of graphs and maps.	• Applying cartographic (atlas and OS maps) and graphical skills to recognise and describe distributions and patterns. • Applying graphical skills to recognise and describe distributions and patterns through a variety of graphs and maps.
Vocabulary	See Appendix – Key Stage 4 Vocabulary and Key Terms		
Assessment	Two-part assessment: • Section A – GCSE past exam questions based on previous topic (Urbanisation) • Section B – GCSE past exam questions based on current topic (The Development Gap and Nigeria) Two-part assessment: • Section A – GCSE past exam questions based on previous topic (The Development Gap and Nigeria) • Section B – GCSE past exam questions based on current topic (The UK Economy)	Two-part assessment: • Section A – GCSE past exam questions based on previous topic (The UK Economy) • Section B – GCSE past exam questions based on current topic (Resource Management) Two-part assessment: • Section A – GCSE past exam questions based on previous topic (Resource Management) • Section B – GCSE past exam questions based on current topic (Energy) • Full Paper 2 Exam.	Two-part assessment: • Section A – GCSE past exam questions based on previous topic (Energy) • Section B – GCSE past exam questions based on current topic (Coasts) Two-part assessment: • Section A – GCSE past exam questions based on previous topic (Coasts) • Section B – GCSE past exam questions based on current topic (Rivers) • Full Paper 3 Exam after the DME is released.

Appendix – Key Stage 4 Vocabulary and Key Terms - Definitions

Natural Hazards

- **Hazard risk** - The probability or chance that a natural hazard may take place.
- **Natural hazard** - A natural event (for example an earthquake, volcanic eruption, tropical storm, flood) that threatens people or has the potential to cause damage, destruction and death.

Tectonic Hazards

- **Conservative plate margin** - Tectonic plate margin where two tectonic plates slide past each other.
- **Constructive plate margin** - Tectonic plate margin where rising magma adds new material to plates that are diverging or moving apart.
- **Destructive plate margin** -Tectonic plate margin where two plates are converging or coming together and oceanic plate is subducted. It can be associated with violent earthquakes and explosive volcanoes.
- **Earthquake** - A sudden or violent movement within the Earth's crust followed by a series of shocks.
- **Immediate responses** - The reaction of people as the disaster happens and in the immediate aftermath.
- **Long-term responses** - Later reactions that occur in the weeks, months and years after the event.
- **Monitoring** - Recording physical changes, such as earthquake tremors around a volcano, to help forecast when and where a natural hazard might strike.
- **Plate margin** - The margin (or boundary) between two tectonic plates.
- **Planning** - Actions taken to enable communities to respond to, and recover from, natural disasters, through measures such as emergency evacuation plans, information management, communications and warning systems.
- **Prediction** - Attempts to forecast when and where a natural hazard will strike, based on current knowledge. This can be done to some extent for volcanic eruptions (and tropical storms), but less reliably for earthquakes.
- **Primary effects** - The initial impact of a natural event on people and property, caused directly by it, for instance the ground buildings collapsing following an earthquake.
- **Protection** - Actions taken before a hazard strikes to reduce its impact, such as educating people or improving building design.
- **Secondary effects** - The after-effects that occur as indirect impacts of a natural event, sometimes on a longer timescale, for instance fires due to ruptured gas mains resulting from the ground shaking.
- **Tectonic hazard** - A natural hazard caused by movement of tectonic plates (including volcanoes and earthquakes).
- **Tectonic plate** - A rigid segment of the Earth's crust which moves across the heavier, semi-molten rock below. Continental crust is less dense, but thicker than oceanic crust.
- **Volcano** - An opening in the Earth's crust from which lava, ash and gases erupt.

Weather Hazards

- Economic impact - The effect of an event on the wealth of an area or community.
- Environmental impact - The effect of an event on the landscape and ecology of the surrounding area.
- Extreme weather - When a weather event is significantly different from the average or usual weather pattern, and is especially severe or unseasonal. This may take place over one day or a period of time. A severe snow blizzard or heatwave are two examples of extreme weather in the UK.
- Global atmospheric circulation - The worldwide system of winds, which transports heat from tropical to polar latitudes. In each hemisphere, air also circulates through the entire depth of the troposphere which extends up to 15 km from the Earth's surface.
- Immediate responses - The reaction of people as the disaster happens and in the immediate aftermath.
- Long-term responses - Later reactions that occur in the weeks, months and years after the event.
- Management strategies - Techniques of controlling, responding to, or dealing with an event.
- Monitoring - Recording physical changes, such as tracking a tropical storm by satellite, to help forecast when and where a natural hazard might strike.
- Planning - Actions taken to enable communities to respond to, and recover from, natural disasters, through measures such as emergency evacuation plans, information management, communications and warning systems.
- Prediction - Attempts to forecast when and where a natural hazard will strike, based on current knowledge. This can be done to some extent for tropical storms.
- Primary effects - The initial impact of a natural event on people and property, caused directly by it, for instance buildings being partially or wholly destroyed by a tropical storm.
- Protection - Actions taken before a hazard strikes to reduce its impact, such as educating people or improving building design.
- Secondary effects - The after-effects that occur as indirect impacts of a natural event, sometimes on a longer timescale, for instance impact on access to potable water can lead to spread of disease.
- Social impact - The effect of an event on the lives of people or community. Tropical storm (hurricane, cyclone, typhoon) - An area of low pressure with winds moving in a spiral around the calm central point called the eye of the storm. Winds are powerful and rainfall is heavy.

Climate Change

- Adaptation - Actions taken to adjust to natural events such as climate change, to reduce potential damage, limit the impacts, take advantage of opportunities, or cope with the consequences.
- Climate change - A long-term change in the Earth's average temperature and weather patterns.
- Mitigation - Action taken to reduce or eliminate the long-term risk to human life and property from natural hazards, such as building earthquake-proof buildings or making international agreements about carbon reduction targets.
- Orbital changes - Changes in the pathway of the Earth around the Sun.
- Quaternary period - The period of geological time from about 2.6 million years ago to the present. It is characterised by the appearance and development of humans and includes the Pleistocene and Holocene Epochs.

Ecosystems

- **Abiotic** - Relating to non-living parts of an ecosystem.
- **Biotic** - Relating to living parts of an ecosystem.
- **Consumer** - An animal that eats animals and/or plant matter.
- **Decomposer** - An organism such as a bacterium or fungus, that breaks down dead tissue, which is then recycled to the environment
- **Ecosystem** - A community of plants and animals that interact with each other and their physical environment.
- **Food chain** - The connections between different organisms (plants and animals) that rely on one another as their source of food.
- **Food web** - A complex interconnection of all the food chains in an ecosystem.
- **Nutrient cycling** - A set of processes whereby organisms extract minerals necessary for growth from soil or water, before passing them on through the food chain - and ultimately back to the soil and water
- **Global ecosystem** - A very large ecological area on the earth's surface, with fauna and flora (animals and plants) adapting to their environment. Examples include tropical rainforest and hot desert.
- **Producer** - An organism that is able to absorb energy from the sun through photosynthesis.

Tropical Rainforest

- **Biodiversity** - The variety of life in the world or a particular habitat.
- **Commercial farming** - Farming to sell produce for a profit to retailers or food processing companies.
- **Debt reduction** - A political agreement where countries are relieved of some of their debt in return for protecting their rainforests.
- **Deforestation** - The chopping down and removal of trees to clear an area of forest.
- **Ecotourism** - A type of tourism that involves responsible travel to natural areas that helps to conserve the environment, sustain the wellbeing of the local people, and may involve education. It is usually carried out in small groups and has minimal impact on the local ecosystem.
- **Logging** - The business of cutting down trees and transporting the logs to sawmills.
- **Mineral extraction** - The removal of solid mineral resources from the earth. These resources include ores, which contain commercially valuable amounts of metals (eg iron and aluminium), precious stones (eg diamonds), building stones (eg granite), and solid fuels (eg coal and oil shale).
- **Selective logging** - The cutting out of trees which are mature or inferior, to encourage the growth of the remaining trees in a forest or wood.
- **Soil erosion** - Removal of topsoil faster than it can be replaced, due to natural (water and wind action), animal, and human activity. Topsoil is the top layer of soil and is the most fertile because it contains the most organic, nutrient-rich materials.
- **Subsistence farming** - A type of agriculture producing food and materials for the benefit only of the farmer and his family.
- **Sustainability** - Actions and forms of progress that meet the needs of the present without reducing the ability of future generations to meet their needs.

Hot Deserts

- **Appropriate technology (or intermediate technology)** - Technology that is suited to the needs, skills, resources, knowledge and wealth of local people in the environment in which they live.
- **Biodiversity** - The variety of life in the world or a particular habitat.
- **Desertification** - The process by which land becomes drier and degraded, as a result of climate change or human activities, or both.
- **Hot desert** - An ecosystem that is characterised by high average temperatures and very low precipitation.
- **Mineral extraction** - The removal of solid mineral resources from the earth. These resources include ores, which contain commercially valuable amounts of metals (eg iron and aluminium), precious stones (eg diamonds), building stones (eg granite), and solid fuels (eg coal and oil shale).
- **Over-cultivation** - Exhausting the soil by over-cropping the land.
- **Overgrazing** - Grazing too many livestock for too long on the land, so vegetation cover is depleted and is unable to recover.

Urban Issues and Challenges

- **Brownfield site** - Land that has been used, abandoned and now awaits some new use. Commonly found across urban areas, particularly in the inner city.
- **Dereliction** - Abandoned buildings and wasteland.
- **Economic opportunities** - Chances for people to improve their standard of living through employment.
- **Greenfield site** - A plot of land, often in a rural or on the edge of an urban area that has not yet been subject to any building development.
- **Inequalities** - Differences between poverty and wealth, as well as in peoples' wellbeing and access to things like jobs, housing and education. Inequalities may occur in housing provision, access to services, access to open land, safety and security.
- **Integrated transport system** - When different transport methods connect together, making journeys smoother and therefore public transport more appealing. Better integration should result in more demand for public transport and should see people switching from private car use to public modes of transport, which should be more sustainable. It may also lead to a fall in congestion due to less road users.
- **Mega-cities** - An urban area with a total population in excess of ten million people.
- **Migration** - When people move from one area to another with the intention of settling there.
- **Natural increase** - The birth rate minus the death rate of a population.
- **Pollution** - The presence of chemicals, noise, dirt or other substances which have harmful or poisonous effects on an environment.
- **Rural-urban fringe** - A zone of transition between the built-up area and the countryside, where there is often competition for land use. It is a zone of mixed land uses, from out-of-town shopping centres and golf courses to farmland and motorways.
- **Sanitation** - Measures designed to protect public health, including the provision of clean water and the disposal of sewage and waste.
- **Social deprivation** - The degree to which an individual or an area is not able to access services, decent housing, adequate income and local employment.
- **Social opportunities** - Chances for people to improve their quality of life, for instance access to education and health care.
- **Squatter settlement** - An area of poor-quality housing, at times lacking in amenities such as water supply, sewerage and electricity, which often develops spontaneously on land not owned by the occupants.

- **Sustainable urban living** - A sustainable city is one in which there is minimal damage to the environment, the economic base is sound with resources allocated fairly and jobs secure, and there is a strong sense of community, with local people involved in decisions made. Sustainable urban living includes several aims including the use of renewable resources, energy efficiency, use of public transport, accessible resources and services.
- **Traffic congestion** - Occurs when there is too great a volume of traffic for roads to cope with, so traffic jams form and traffic slows to a crawl.
- **Urban greening** - The process of increasing and preserving open space such as public parks and gardens in urban areas.
- **Urbanisation** - The process by which an increasing percentage of a country's population comes to live in towns and cities. Rapid urbanisation occurs in many LICs and NEEs.
- **Urban regeneration** - The revival of old parts of the built up area by either installing modern facilities in old buildings (known as renewal) or opting for redevelopment (i.e. demolishing existing buildings and starting afresh).
- **Urban sprawl** -The unplanned growth of urban areas into the surrounding rural areas.
- **Waste recycling** - The process of extracting and reusing useful substances found in waste.

The Changing Economic World

- **Birth rate** - The number of births in a year per 1000 of the total population.
- **Commonwealth** - The Commonwealth is a voluntary association of 56 independent and equal sovereign states, which were mostly territories of the former British Empire. It is home to 2.5 billion citizens. Member states have no legal obligation to one another. Instead, they are united by language, history, culture, and their shared values of democracy, human rights, and the rule of law.
- **Death rate** - The number of deaths in a year per 1000 of the total population.
- **De-industrialisation** - The decline of a country's traditional manufacturing industry due to exhaustion of raw materials, loss of markets and increasing competition from NEEs.
- **Demographic Transition Model** - A model showing how populations change over time in terms of their birth rates, death rates and total population size.
- **Development** - The progress of a country in terms of economic growth, the use of technology and human welfare.
- **Development gap** - The widening difference in standards of living and wellbeing between the world's economically richest and poorest countries (between HICs and LICs).
- **European union** - An international organisation of 27 European countries, formed to reduce trade barriers and increase cooperation among its members. Seventeen of these countries also share the same type of money: the euro. A person who is a citizen of a European Union country can live and work in any of the other 26 member countries without needing a work permit or visa. The UK formally left the EU in 2020.
- **Fairtrade** - Is a system that ensures producers in LICs and NEEs are given a fairer price for the goods they produce. Often this is from farm products like cocoa, coffee or cotton. The increased price improves income, workers' rights and working conditions, and reduces exploitation.
- **Globalisation** - The process which has created a more connected world, with increases in the movements of goods (trade) and people (migration and tourism) worldwide.

- Gross National Income (GNI) - A measurement of economic activity that is calculated by dividing the gross (total) national income by the size of the population. GNI takes into account not just the value of goods and services, but also the income earned from investments overseas.
- Human Development Index (HDI) - A method of measuring development which combines GDP per capita, life expectancy and adult literacy to give an overview. This combined measure of development uses economic and social indicators to produce an index figure that allows comparison between countries.
- Industrial structure - The relative proportion of the workforce employed in different sectors of the economy (primary, secondary, tertiary and quaternary).
- Infant mortality - The average number of deaths of children under 1 year of age, per 1000 live births, per year.
- Information technologies - Computer, internet, mobile phone and satellite technologies – especially those that speed up communication and the flow of information.
- Intermediate technology - Technology that is suited to the needs, skills, resources, knowledge and wealth of local people in the environment in which they live. In LICs it is often simple, easily learned and easily maintained technology.
- International aid - Money, goods and services given by the government of one country or a multilateral institution such as the World Bank or International Monetary Fund to help the quality of life and economy of another country.
- Life expectancy - The average number of years a person might be expected to live.
- Literacy rate - The percentage of people who have basic reading and writing skills.
- Microfinance loans - Very small loans which are given to people in the LICs to help them start a small business.
- North-south divide (UK) - Economic and cultural differences between Southern England (the South-East, Greater London, the South-West and parts of the East) and Northern England (the North-East, West and Yorkshire and the Humber). There are clear differences in health conditions, house prices, earnings, and political influence.
- Post-industrial economy - The economy of many economically developed countries where most employment is now in service (tertiary) industries.
- Science and business parks - Business Parks are purpose built areas of offices and warehouses, often at the edge of a city and on a main road. Science parks are often located near university sites, and high-tech industries are established. Scientific research and commercial development may be carried out in co-operation with the university.
- Service industries (tertiary industries) - The economic activities that provide various services - commercial (shops and banks), professional (solicitors and dentists), social (schools and hospitals), entertainment (restaurants and cinemas) and personal (hairdressers and fitness trainers).
- Trade - The buying and selling of goods and services between countries.
- Transnational Corporation (TNC) - A company that has operations (factories, offices, research and development, shops) in more than one country. Many TNCs are large and have well-known brands.

Resource Management

- Agribusiness - Application of business skills to agriculture.
- Carbon footprint - A measurement of all the greenhouse gases we individually produce, through burning fossil fuels for electricity, transport etc, expressed as tonnes (or kg) of carbon-dioxide equivalent.
- Energy mix - The range of energy sources of a region or country, both renewable and non-renewable.

- **Food miles** - The distance food is transported from the producer to consumers.
- **Fossil fuel** - A natural fuel such as coal or gas, formed in the geological past from the remains of living organisms.
- **Local food sourcing** - A method of food production and distribution that is local, rather than national and/or international. Food is grown (or raised) and harvested close to consumers' homes, then distributed over much shorter distances.
- **Organic produce** - Food which is produced using environmentally and animal friendly farming methods on organic farms. Artificial fertilisers are banned and farmers develop fertile soil by rotating crops and using compost, manure and clover. It must be free of synthetic additives like pesticides and dyes.
- **Resource management** - The control and monitoring of resources so that they do not become depleted or exhausted.

Energy

- **Biomass** - Renewable organic materials, such as wood, agricultural crops or wastes, especially when used as a source of fuel or energy. Biomass can be burned directly or processed into biofuels such as ethanol and methane.
- **Energy conservation** - Reducing energy consumption through using less energy and becoming more efficient in using existing energy sources.
- **Energy exploitation** - Developing and using energy resources to the greatest possible advantage, usually for profit.
- **Energy security** - Uninterrupted availability of energy sources at an affordable price.
- **Fossil fuel** - A natural fuel formed in the geological past from the remains of living organisms, such as coal or natural gas.
- **Geothermal energy** - Energy generated by heat stored deep in the Earth.
- **Hydro(electric) power** - Electricity generated by turbines that are driven by moving water.
- **Nuclear power** - The energy released by a nuclear reaction, especially by fission or fusion. Nuclear energy uses fuel made from mined and processed uranium to make steam and generate electricity.
- **Renewable energy sources** - A resource which is not diminished when it is used; it recurs and cannot be exhausted, such as wind and tidal energy.
- **Solar energy** - The Sun's energy exploited by solar panels, collectors or cells to heat water or air or to generate electricity.
- **Sustainable development** - Development that meets the needs of the present without limiting the ability of future generations to meet their own needs.
- **Sustainable energy supply** - Energy that can potentially be used well into the future without harming future generations. Sustainable energy is the combination of energy savings, energy efficiency measures and technologies, as well as the use of renewable energy sources.
- **Wind energy** - Electrical energy obtained from harnessing the wind with windmills or wind turbines.

Coasts

- **Abrasion** - The wearing away of cliffs by sediment flung by breaking waves.
- **Arch** - A wave-eroded passage through a small headland. This begins as a cave formed in the headland, which is gradually widened and deepened until it cuts through.
- **Attrition** - Erosion caused when rocks and boulders transported by waves bump into each other and break up into smaller pieces.
- **Bar** - Where a spit grows across a bay, a bay bar can eventually enclose the bay to create a lagoon. Bars can also form offshore due to the action of breaking waves.

- Beach - The zone of deposited material that extends from the low water line to the limit of storm waves. The beach or shore can be divided in the foreshore and the backshore.
- Beach nourishment - The addition of new material to a beach artificially, through the dumping of large amounts of sand or shingle.
- Beach reprofiling - Changing the profile or shape of the beach. It usually refers to the direct transfer of material from the lower to the upper beach or, occasionally, the transfer of sand down the dune face from crest to toe.
- Cave - A large hole in the cliff caused by waves forcing their way into cracks in the cliff face.
- Chemical weathering - The decomposition (or breakdown) of rock caused by a chemical change within that rock; sea water can cause chemical weathering of cliffs.
- Cliff - A steep high rock face formed by weathering and erosion along the coastline.
- Deposition - Occurs when material being transported by the sea is dropped due to the sea losing energy.
- Dune regeneration - Action taken to build up dunes and increase vegetation to strengthen the dunes and prevent excessive coastal retreat. This includes the re-planting of marram grass to stabilise the dunes, as well as planting trees and providing boardwalks.
- Erosion - The wearing away and removal of material by a moving force, such as a breaking wave.
- Gabion - Steel wire mesh filled with boulders used in coastal defences.
- Groyne - A wooden barrier built out into the sea to stop the longshore drift of sand and shingle, and so cause the beach to grow. It is used to build beaches to protect against cliff erosion and provide an important tourist amenity. However, by trapping sediment it deprives another area, down-drift, of new beach material.
- Hard engineering - The use of concrete and large artificial structures by civil engineers to defend land against natural erosion processes.
- Headlands and bays - A rocky coastal promontory made of rock that is resistant to erosion; headlands lie between bays of less resistant rock where the land has been eroded back by the sea.
- Hydraulic power - The process by which breaking waves compress pockets of air in cracks in a cliff. The pressure may cause the crack to widen, breaking off rock.
- Longshore drift - The zigzag movement of sediment along a shore caused by waves going up the beach at an oblique angle (wash) and returning at right angles (backwash). This results in the gradual movement of beach materials along the coast.
- Managed retreat - Allowing cliff erosion to occur as nature taking its course: erosion in some areas, deposition in others. Benefits include less money spent and the creation of natural environments. It may involve setting back or realigning the shoreline and allowing the sea to flood areas that were previously protected by embankments and seawalls.
- Mass movement - The downhill movement of weathered material under the force of gravity. The speed can vary considerably.
- Mechanical weathering - Weathering processes that cause physical disintegration or break up of exposed rock without any change in the chemical composition of the rock, for instance freeze thaw.
- Rock armour - Large boulders dumped on the beach as part of the coastal defences.
- Sand dune - Coastal sand hill above the high tide mark, shaped by wind action, covered with grasses and shrubs.
- Sea wall - A concrete wall which aims to prevent erosion of the coast by providing a barrier which reflects wave energy.
- Sliding - Occurs after periods of heavy rain when loose surface material becomes saturated and the extra weight causes the material to become unstable and move rapidly downhill, sometimes in an almost fluid state.
- Slumping - Rapid mass movement which involves a whole segment of the cliff moving down-slope along a saturated shear-plane or line of weakness.
- Soft engineering - Managing erosion by working with natural processes to help restore beaches and coastal ecosystems.

- Spit - A depositional landform formed when a finger of sediment extends from the shore out to sea, often at a river mouth. It usually has a curved end because of opposing winds and currents.
- Stack - An isolated pillar of rock left when the top of an arch has collapsed. Over time further erosion reduces the stack to a smaller, lower stump.
- Transportation - The movement of eroded material.
- Wave cut platform - A rocky, level shelf at or around sea level representing the base of old, retreated cliffs.
- Waves - Ripples in the sea caused by the transfer of energy from the wind blowing over the surface of the sea. The largest waves are formed when winds are very strong, blow for lengthy periods and cross large expanses of water.

Rivers

- Abrasion - Rocks carried along by the river wear down the river bed and banks.
- Attrition - Rocks being carried by the river smash together and break into smaller, smoother and rounder particles.
- Cross profile - The side-to-side cross-section of a river channel and/or valley.
- Dam and reservoir - A barrier (made on earth, concrete or stone) built across a valley to interrupt river flow and create a human-made lake (reservoir) which stores water and controls the discharge of the river.
- Discharge - The quantity of water that passes a given point on a stream or riverbank within a given period of time.
- Embankments - Raised banks constructed along the river; they effectively make the river deeper so it can hold more water. They are expensive and do not look natural, but they do protect the land around them.
- Estuary - The tidal mouth of a river where it meets the sea; wide banks of deposited mud are exposed at low tide.
- Flood - Occurs when river discharge exceeds river channel capacity and water spills out of the channel onto the floodplain and other areas.
- Flood plain - The relatively flat area forming the valley floor on either side of a river channel, which is sometimes flooded.
- Flood plain zoning - This attempts to organise the flood defences in such a way that land that is near the river and often floods is not built on. This could be used for pastoral farming, playing fields etc. The areas that rarely get flooded would therefore be used for houses, transport and industry.
- Flood relief channels - Building new artificial channels which are used when a river is close to maximum discharge. They take the pressure off the main channels when floods are likely, therefore reducing flood risk.
- Flood risk - The predicted frequency of floods in an area.
- Flood warning - Providing reliable advance information about possible flooding. Flood warning systems give people time to remove possessions and evacuate areas.
- Fluvial processes - Processes relating to erosion, transport and deposition by a river.
- Gorge - A narrow, steep sided valley, often formed as a waterfall retreats upstream.
- Hard engineering - Involves the building of entirely artificial structures using various materials such as rock, concrete and steel to reduce, disrupt or stop the impact of river processes.
- Hydraulic action - The force of the river against the banks can cause air to be trapped in cracks and crevices. The pressure weakens the banks and gradually wears it away.

- Hydrograph - A graph which shows the discharge of a river, related to rainfall, over a period of time.
- Interlocking spurs - A series of ridges projecting out on alternate sides of a valley and around which a river winds its course.
- Lateral erosion - Sideways erosion by a river on the outside of a meander channel. It eventually leads to the widening of the valley and contributes to the formation of the flood plain.
- Levees - Embankment of sediment along the bank of a river. It may be formed naturally by regular flooding or be built up by people to protect the area against flooding.
- Long profile - The gradient of a river, from its source to its mouth.
- Meander - A pronounced bend in a river.
- Ox-bow lake - An arc-shaped lake which has been cut off from a meandering river.
- Precipitation - Moisture falling from the atmosphere - as rain, hail, sleet or snow.
- Saltation - Particles bouncing down the river bed.
- Soft engineering - Involves the use of the natural environment surrounding a river, using schemes that work with the river's natural processes. Soft engineering is usually much cheaper and offers a more sustainable option as it does not interfere directly with the river's flow.
- Solution - Soluble particles are dissolved into the river.
- (Channel) straightening - Removing meanders from a river to make the river straighter. Straightening the river (also called channelising) allows it to carry more water quickly downstream, so it doesn't build up and is less likely to flood.
- Suspension - Fine solid material held in the water while the water is moving.
- Traction - The rolling of boulders and pebbles along the river bed.
- Vertical erosion - Downward erosion of a river bed.
- Waterfall - Sudden descent of a river or stream over a vertical or very steep slope in its bed. It often forms where the river meets a band of softer rock after flowing over an area of more resistant material.