Humanities Curriculum at TEC

At TEC, Humanities aims to guide students to understand the complexity of the world around them. Our Curriculum endeavours to push the limits of all students in order to achieve and exceed their potential. We believe in the mastery vision of providing an engaging experience, which readies our students for the challenges of the local, national and wider world. We aim to provide them with the tools that will make them a better 'Human', allowing them to explore themselves spiritually, morally and culturally, to be brave and ask questions about our multicultural world. We aim for them to be critical thinkers, be prepared to ask big questions and explore real life. We want students to learn from the past and understand the present, live the present but prepare for the future.

Geography Curriculum at TEC

Geography Rationale:

A high-quality geography education should inspire in pupils a curiosity and fascination about the world and its people that will remain with them for the rest of their lives. Teaching should equip pupils 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 pupils 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.

Intent:

The Geography department strives to give students a range of learning experiences through human and physical Geography. We aim to develop in students the skills, enthusiasm and understanding necessary to become life-long learners, and to foster an open-mindedness towards other people and cultures, as well as a sense of responsibility to the world around us.

Principles:

The curriculum for Geography aims to ensure that all pupils:

- Have a contextual world knowledge of locations, places and geographical features
- Understand the conditions, processes and interactions that explain features and distributions, patterns and changes over time and space
- Can apply this knowledge and understanding to interpret, analyse and evaluate geographical information and make judgements

- Have a competence in geographical enquiry and the application of skills in observing, collecting, analysing, mapping and communicating geographical information.
- These four aspects of student achievement link to strands of progression in the subject - aspects of the subject young people should get better at over time. A set of strands of progression is shown below:
- Increasing breadth and depth of content and context
- Extending from the familiar and concrete to the unfamiliar and abstract
- Organising and connecting information about people, places, processes and environments
- Working with more complex information about the world, including the relevance of people's attitudes, values and beliefs.
- Increasing the range and accuracy of students' investigative skills and their ability to select and apply these skills to work independently.

Curriculum Design

Intent:

Geography is essentially about understanding the world we live in. It helps to provoke and provide answers to questions about the natural and human aspects of the world. At TEC, students are encouraged to develop a greater understanding and knowledge of the world, as well as their place in it. The geography curriculum enables children to develop knowledge and skills that are transferable to other curriculum areas. Geography is an investigative subject, which develops an understanding of concepts, knowledge and skills. Our intent, when teaching geography, is to inspire in children a curiosity and fascination about the world and people within it; to promote students' interest and understanding of diverse places, people, resources and natural and human environments, together with a deep understanding of the Earth's key physical and human processes.

The Geography Curriculum has been built in collaboration with ARK, one of the top-performing MATs in the UK. The secondary geography subject excellence programme is a partnership designed to ignite positive change and foster continuous growth.It takes into account what pupils should know by the end of Year KS3. This knowledge falls within the National Curriculum and is supplemented with knowledge chosen by individual schools. The curriculum is the product of our collective discussions, and it will continue to reflect the collaboration across the trust and within the school and department.

The specification as a starting point for what we teach. It specifies core content that should be taught, but the way lessons are shaped and delivered is very much up to our discretion, as we know our students best.

Overview

Implementation

Our whole curriculum is shaped by our school and trust vision which aims to enable all children, regardless of background, ability, additional needs, to flourish and to achieve their very best and find what makes them remarkable.

We teach the National Curriculum, supported by a clear skills and knowledge progression. This ensures that skills and knowledge are built on year by year and sequenced appropriately to maximise learning for all children. Existing knowledge is checked at the start of each new topic. This ensures that teaching is informed by the students' starting points. Lesson content and tasks are designed to provide appropriate challenges to all learners, in line with our commitment to inclusion.

It is important that children develop the skills of a geographer by fully immersing them in all areas of the subject. The local area is fully utilised to achieve desired outcomes, with opportunities for learning outside the classroom. School trips and fieldwork are provided to give first-hand experiences, which enhance children's understanding of the world beyond their locality. The Lift Geography curriculum includes a combination of Substantive Knowledge (the topic-specific knowledge required to be able to utilise higher order skills) and Disciplinary Knowledge (the concepts and abilities necessary to be able to apply critical thinking).

Geography is a horizontal discipline with topics that overlap. Geographical concepts can act as unifying threads for these themes and enable students to see and make links between lessons, topics and see the curriculum develop over the time they are in school.

Mastery Learning

Mastery learning was originally developed in the 1960s. According to the early definition of mastery learning, learning outcomes are kept constant but the time needed for pupils to become proficient or competent at these objectives is varied.

Seeing the impact of this and to support non-specialists who were delivering Geography TEC has bought in the ARK Mastery Curriculum. This was seen to have success in Maths and Science and has been successfully delivered this year. Geography Mastery provides us with a clear, well-thought-through

'Curriculum Overview'. It even includes a comprehensive narrative explaining the key themes students will study each year.

ARK Curriculum

ARK provides the school with a range of resources to support in the delivery of a strong curriculum, this includes a teacher handbook with model answers. There are Mastery Booklets which are broken down into worksheets for individual lessons and PowerPoints for each lesson.

The lessons break down into key parts with a basic knowledge to start, followed by developed knowledge before pupils then apply this in independent learning. Each part of the lesson is separated by knowledge checks to ensure students have understood. There is also the use of dual coding so that pupils know what they are doing in each lesson.

Fieldwork

The national curriculum requires fieldwork to be taught at Key Stage 3, yet many schools do not fulfil this due to lack of fieldwork expertise, or cost and logistics.

Geography Mastery helps by providing step-by-step fieldwork guidance to give teachers of all levels of experience the skills and confidence to deliver great fieldwork. Examples and exposition show teachers what to say and what their classes should be aiming for. And the materials are designed for use off-site or on the school grounds, depending on your needs.

The programme integrates multiple fieldwork opportunities, above and beyond national curriculum requirements. Fieldwork becomes more complex throughout the course, incorporating virtual fieldwork techniques, GIS, onsite data gathering, and sophisticated write-ups.

GIS

GIS (Geographical Information Systems) is another area of the national curriculum teachers can find challenging to deliver. To address this, the easy-to-use platform Digimap for Schools is built into several Geography Mastery units. Crystal clear instructions in the student and teacher materials enable fantastic GIS lessons that students love.

Ark is being brought in over the coming years with Y7 having completed it this year being the first to follow ARK Mastery for Geography. We will have a 3-year ARK Curriculum by the start of 2025-26 academic year.

Substantive Knowledge

Substantive knowledge is the full range of contextual and specific knowledge of the world around us (sometimes called world knowledge). This includes

locational knowledge of tangible features such as rivers, mountains, cities, countries and landscapes and also more abstract features such as economic systems and community beliefs. Substantive knowledge lies behind and supports all disciplinary knowledge

A minimum entitlement of substantive knowledge is provided by the National curriculum. The substantive knowledge outlined below can be enhanced by the selection of further content made by those delivering the curriculum.

Disciplinary Knowledge

Disciplinary knowledge encompasses features of the discipline of geography. It can be divided into three subsections:

1. Geographical key concepts 'Knowing that' How geographers think and know – thinking like a geographer Includes learning how key concepts and conceptual frameworks help us make sense of the world and allow us to generate new ideas; clarifying the distinctiveness of geographical thought Place, Space, Earth Systems, Environment Time, Scale, Diversity, Interconnection, Interpretation
2. Geographical practice 'Knowing how' How geographers find out – working like a geographer. Includes undertaking the skills, methods and approaches of geographical enquiry; the argumentation/analysis involved in confirming how we know what we know; recognition of the values and moral/ethical dimensions involved in any enquiry and development of one's own moral and ethical stance Qualitative and quantitative enquiry in classroom and field; personal development
3. Geographical application 'Knowing how to apply' How geographers apply knowledge – making use of geography Applying knowledge, understanding and skills to real-world challenges and issues – living peacefully and productively with others and ensuring our future on the planet Learning about application and young people learning to apply for themselves

Assessment

Marking and Feedback

At TEC we have a six-week cycle for assessment. Within the cycle, all pupils in all subject's complete regular diagnostic knowledge tests. The data gathered from these tests allows teachers to adapt their lessons to ensure that key concepts are understood, and common misconceptions are addressed promptly.

Students also receive personalised feedback in every subject when the teacher circulates the room. This feedback sets personal targets to ensure students are clear on where they can make further progress.

Spelling, punctuation and grammar are also addressed as part of the six-week cycle; books are marked for SPAG while pupils sit their assessments in class.

Whole class feedback is gathered regularly and a dedicated ‘fix it’ lesson is given to pupils so they can respond to feedback and amend their work in green pen.

Lift Schools

Lift Tamworth

KS3 Topic Progression – Y7 Ark Curriculum

	Annual Question	Aut 1	Aut 2	Spr 1	Spr 2	Sum 1	Sum 2
Y 7	**'What are the key physical and human processes on our planet?'**	**Geography and me** • My location • UK geography (physical • and human) • OS maps • Personal geography	**Our planet** • Earth's physical geography (continents, oceans, layers, atmosphere, water cycle) • Earth's human geography (population, wealth distribution)	**Resources and trade** • Raw materials • Manufacturing • Trade • Supply chains • Industrial change	**Brilliant Biomes** • Ecosystems and biomes • Latitude and biome • formation • Deciduous forest biome	**Fantastic UK Landscapes** • Landscape layers • Geology and the rock cycle • 3 unique UK landforms	**UK Coasts** • Erosion & deposition • Coastal geology • Beaches, cliffs, headlands, • bays
				Introducing 2024-25			
Y 8	**'Does humanity live sustainably with the environment?'**	**River Rivals** • River features and • landforms • Floodplain formation • The Grand Ethiopian • Renaissance Dam	**Food and Famine** • Importance of food • Factors affecting food security • Strategies to reduce food • insecurity	**Endless Energy?** • Rising global energy demand • Fossil fuels • Renewables • Decision making solar panel site	**Climate Change** • Natural climate change • Enhanced greenhouse • effect • Unequal impacts • Strategies	**Polar Environments** • Causes of extreme cold • (Earth's tilt, latitude) • Plant and animal • adaptations • Life on the Yamal • Peninsula – indigenous • Nenets	**The Middle East** • Concept of the 'Middle East' • Wealth, industry, cultures • High air pressure, aridity • Changing borders and conflict
				Introducing 2025-26			
Y 9	**'How globally connected is the world?'**	**Global Oceans** • Ocean tectonics • 2011 Tōhoku tsunami • Layers of the ocean • Ocean currents • Carbon sink	**Ocean Ecosystems & Governance** Coral reefs Great Pacific Garbage Patch The Law of the Seas Illegal foreign fishing in Somali waters	**The Global Economy** What is 'the economy'? Industrialisation and deindustrialisation HICs, MICs, LICs Globalisation TNCs	**Development Disparity** 'Development' is contested Development indicators Factors affecting development (India) Development strategies	**Glacial Landforms & Processes** Glacier distribution Glacier formation and retreat Corries, arêtes, pyramidal peaks, U-shaped valleys	**UK Regions Fieldwork Investigation** Revision: geology, and coastal, river, and glacial landscapes Lake District fieldwork (virtual) Your UK region fieldwork

Road Maps and Big Pictures

To help pupils track their learning we have developed road maps to help pupils see how they will 'journey' through History in KS3.

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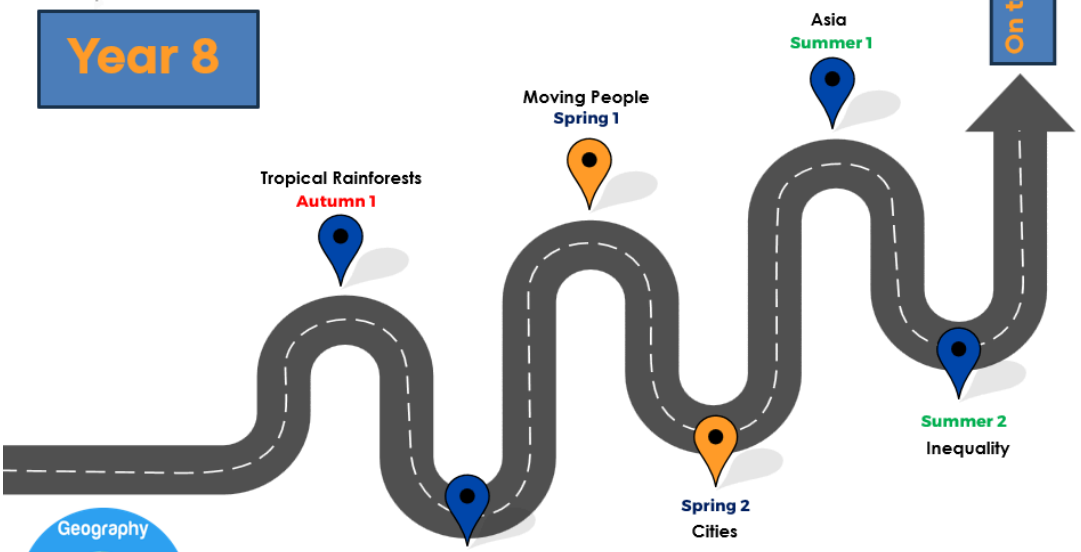
Year 8

Tropical Rainforests	Desert Environments	Moving People	Cities	Asia	Inequality

On to Year 9



Geography

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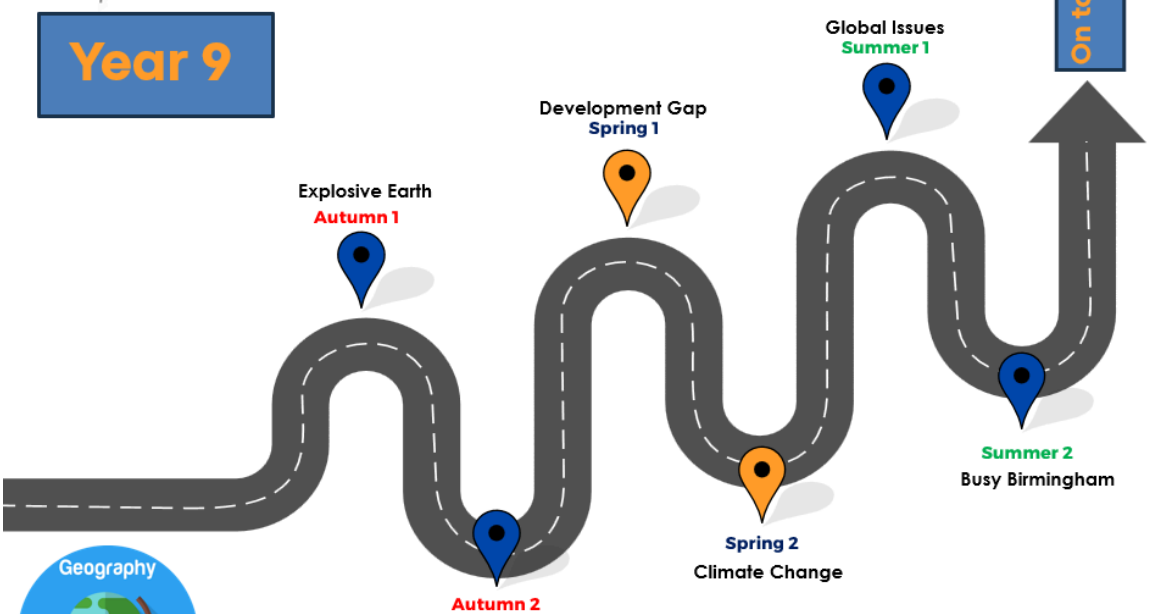
Year 9

Explosive Earth	Extreme Weather	Development Gap	Climate Change	Global Issues	Busy Birmingham

On to Year 10



Geography

Big Pictures allow students to track what they are covering in each individual section of the road map. We are again reviewing these to update their look and make them an effective tool to support learning.

All about Asia...

8. What is a TNC?

7. What is the Middle East like?

6. What is Russia like?

5. How does Japan treat its environment?

4. What is the one-child policy?

3. How has China changed socially, economically and environmentally?

2. How has Asia developed?

1. Where is Asia?

Department

The Geography department is made up of 2 teaching staff:

Dan Vaughan – Assistant Head: Raising Achievement (10 years teaching experience)

Jake Freeman –ECT 1 has taken on teaching Geography and is being coached, looking to undertake a bridging course to enhance subject knowledge and develop this as a specialism.

Non-specialists have also been delivering Geography this year. To help support they have had regular drop-ins to help coach with lessons. They have been offered the opportunity to speak to history teachers for advice and guidance. After discussions notes and detailed explanations were attached with PowerPoints to give staff a script to help enhance their knowledge and develop what they were sharing with students. Model answers were also added to help staff know what to expect from students to reach their potential.

Although we have had a member of staff out this year on maternity leave, we have continued to deliver the curriculum. Lesson resources were adapted to give the information for students and then using developed tasks that are listed on the information sheets. This has helped us support cover staff to deliver the lessons and ensure students follow the same curriculum.

However, they are due to return at the end of this academic year and we have recruited another member of the Humanities team to start in September who has taught Geography as part of their training.

Impact of Geography Curriculum

By the time students leave TEC they will:

- Have an excellent knowledge of where places are and what they are like.
- Have an excellent understanding of the ways in which places are interdependent and interconnected and how much human and physical environments are interrelated.
- Have an extensive base of geographical knowledge and vocabulary.
- Be fluent in complex geographical enquiry and the ability to apply questioning skills and use effective analytical and presentational techniques.
- Have the ability to reach clear conclusions and develop reasoned arguments to explain findings.
- Have significant levels of originality, imagination or creativity as shown in interpretations and representations of subject matter.

- Have highly developed and frequently utilised fieldwork and other geographical skills and techniques.
- Have a passion for and commitment to the subject, and a real sense of curiosity to find out about the world and the people who live there.
- Have the ability to express well-balanced opinions, rooted in very good knowledge and understanding about current and contemporary issues in society and the environment.

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TEC Geography Curriculum 23-25

Geography Curriculum KS4

KS4 Curriculum

At Key Stage 4 we deliver the AQA Geography GCSE (9-1) specification and deliver the following options from this:

Paper 1: Living with the physical environment

Written examination: 1 hour and 30 minutes

35%* of the qualification

88 marks (including 3 marks for SPaG)

Assessment overview

This unit is concerned with the dynamic nature of physical processes and systems, and human interaction with them in a variety of places and at a range of scales.

The aims of this unit are to develop an understanding of the tectonic, geomorphological, biological and meteorological processes and features in different environments, and the need for management strategies governed by sustainability and consideration of the direct and indirect effects of human interaction with the Earth and the atmosphere.

Paper 2: Challenges in the human environment
Written examination: 1 hour and 30 minutes

35%* of the qualification

88 marks (including 3 marks for SPaG)

Assessment overview

This unit is concerned with human processes, systems and outcomes and how these change both spatially and temporally. They are studied in a variety of places and at a range of scales and must include places in various states of development, such as higher income countries (HICs), lower income countries (LICs) and newly emerging economies (NEEs).

The aims of this unit are to develop an understanding of the factors that produce a diverse variety of human environments; the dynamic nature of these environments that change over time and place; the need for sustainable management; and the areas of current and future challenge and opportunity for these environments.

Paper 3: Geographical applications
Written examination: 1 hour and 30 minutes

30%* of the qualification

76 marks (including 6 marks for SPaG)

Pre-Release booklets made available 12 weeks before Paper 3 Exam

The Geographical applications unit is designed to be synoptic in that students will be required to draw together knowledge, understanding and skills from the full course of study. It is an opportunity for students to show their breadth of understanding and an evaluative appreciation of the interrelationships between different aspects of geographical study.

Students need to undertake two geographical enquiries, each of which must include the use of primary data, collected as part of a fieldwork exercise. There should be a clear link between the subject content and geographical enquiries, and the enquiries can be based on any part of the content addressed in units 3.1 - Living with the physical environment and 3.2 - Challenges in the human environment.

Fieldwork must take place outside the classroom and school grounds on **at least two occasions**. The two enquiries must be carried out in contrasting environments and show an understanding of both physical and human geography. In at least one of the enquiries students are expected to show an understanding about the interaction between physical and human geography.

Aims and objectives

Courses based on this specification should encourage students to:

- develop and extend their knowledge of locations, places, environments and processes, and of different scales including global; and of social, political and cultural contexts (know geographical material)
- gain understanding of the interactions between people and environments, change in places and processes over space and time, and the inter-relationship between geographical phenomena at different scales and in different contexts (think like a geographer)
- develop and extend their competence in a range of skills including those used in fieldwork, in using maps and GIS and in researching secondary evidence, including digital sources; and develop their competence in applying sound enquiry and investigative approaches to questions and hypotheses (study like a geographer)
- apply geographical knowledge, understanding, skills and approaches appropriately and creatively to real world contexts, including fieldwork, and to contemporary situations and issues; and develop well-evidenced arguments drawing on their geographical knowledge and understanding (applying geography).

Planned Teaching

Y10

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Content	The Challenge of natural Hazards (Paper 1 Question 1 - 33 marks	The Challenge of natural Hazards (Paper 1 Question 1 - 33 marks Fieldwork 1: Human opportunity (Paper 3 Section B - 39 marks)	The Challenge of Urban Environments in an NEE (Paper 2 Question 1 - 33 marks)	The Challenge of resource management (Paper 2 Question 3 compulsory, Question 4, 5 or 6	Physical Landscapes in the UK- Coasts (Paper 1 Question 4 - 15 marks)	Physical Landscapes in the UK- Rivers (Paper 1 Question 4 - 15 marks)

Y11

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Content	The Living Word (Paper 1 Question 2 – 25 marks)	The Living Word (Paper 1 Question 2 – 25 marks)	The Changing Economic World (Paper 2 Question 2 – 30 marks)	The Changing Economic World (Paper 2 Question 2 – 30 marks)	Pre release booklet preparation and Revision – (Paper 3 Section A – 37 marks)	EXAM SEASON

AQA Specification: GCSE Specification

3.2.1 Section A: Urban issues and challenges	
Key Idea	**Specification Content**
A growing percentage of the world's population lives in urban areas.	• The global pattern of urban change. • Urban trends in different parts of the world including HICs and LICs. • Factors affecting the rate of urbanisation – migration (push–pull theory), natural increase. • The emergence of megacities.
Urban growth creates opportunities and challenges for cities in LICs and NEEs.	• A case study of a major city in an LIC or NEE to illustrate: o the location and importance of the city, regionally, nationally and internationally o causes of growth: natural increase and migration o how urban growth has created opportunities: o social: access to services – health and education; access to resources – water supply, energy o economic: how urban industrial areas can be a stimulus for economic development o how urban growth has created challenges: o managing urban growth – slums, squatter settlements o providing clean water, sanitation systems and energy o providing access to services – health and education o reducing unemployment and crime o managing environmental issues – waste disposal, air and water pollution, traffic congestion. • An example of how urban planning is improving the quality of life for the urban poor.
Urban change in cities in the UK leads to a variety of social, economic and environmental opportunities and challenges	• Overview of the distribution of population and the major cities in the UK. o A case study of a major city in the UK to illustrate: o the location and importance of the city in the UK and the wider world o impacts of national and international migration on the growth and character of the city o how urban change has created opportunities: o social and economic: cultural mix, recreation and entertainment, employment, integrated transport systems o environmental: urban greening o how urban change has created challenges: o social and economic: urban deprivation, inequalities in housing, education, health and employment

	○ environmental: dereliction, building on brownfield and greenfield sites, waste disposal ○ the impact of urban sprawl on the rural–urban fringe, and the growth of commuter settlements. • An example of an urban regeneration project to show: ○ reasons why the area needed regeneration ○ the main features of the project.
Urban sustainability requires management of resources and transport.	• Features of sustainable urban living: ○ water and energy conservation ○ waste recycling ○ creating green space. • How urban transport strategies are used to reduce traffic congestion.

3.3.2 Section B: Fieldwork	
Geographical enquiry strand	**Application of knowledge and understanding, and skills**
Suitable question for geographical enquiry	• The factors that need to be considered when selecting suitable questions/hypotheses for geographical enquiry. • The geographical theory/concept underpinning the enquiry. • Appropriate sources of primary and secondary evidence, including locations for fieldwork. • The potential risks of both human and physical fieldwork and how these risks might be reduced.
Selecting, measuring and recording data appropriate to the chosen enquiry	• Difference between primary and secondary data. • Identification and selection of appropriate physical and human data. • Measuring and recording data using different sampling methods. • Description and justification of data collection methods.
Selecting appropriate ways of processing and presenting fieldwork data	• Appreciation that a range of visual, graphical and cartographic methods is available. • Selection and accurate use of appropriate presentation methods. • Description, explanation and adaptation of presentation methods
Describing, analysing and explaining fieldwork data	• Description, analysis and explanation of the results of fieldwork data. • Establish links between data sets. • Use appropriate statistical techniques. • Identification of anomalies in fieldwork data

Reaching conclusions	• Draw evidenced conclusions in relation to original aims of the enquiry.
Evaluation of geographical enquiry	• Identification of problems of data collection methods. • Identification of limitations of data collected. • Suggestions for other data that might be useful. • Extent to which conclusions were reliable.

3.1.1.1 Natural hazards	
Key Idea	**Specification Content**
Natural hazards pose major risks to people and property.	• Definition of a natural hazard. • Types of natural hazard. • Factors affecting hazard risk.
3.1.1.2 Tectonic hazards	
Key Idea	**Specification Content**
Earthquakes and volcanic eruptions are the result of physical processes.	• Plate tectonics theory. • Global distribution of earthquakes and volcanic eruptions and their relationship to plate margins. • Physical processes taking place at different types of plate margin (constructive, destructive and conservative) that lead to earthquakes and volcanic activity.
The effects of, and responses to, a tectonic hazard vary between areas of contrasting levels of wealth.	• Primary and secondary effects of a tectonic hazard. • Immediate and long-term responses to a tectonic hazard. • Use named examples to show how the effects and responses to a tectonic hazard vary between two areas of contrasting levels of wealth.
Management can reduce the effects of a tectonic hazard.	• Reasons why people continue to live in areas at risk from a tectonic hazard. • How monitoring, prediction, protection and planning can reduce the risks from a tectonic hazard.
3.1.1.3 Weather hazards	
Key Idea	**Specification Content**
Global atmospheric circulation helps to determine patterns of weather and climate.	• General atmospheric circulation model: pressure belts and surface winds
Tropical storms (hurricanes, cyclones, typhoons) develop as a result of particular physical conditions.	• Global distribution of tropical storms (hurricanes, cyclones, typhoons). • An understanding of the relationship between tropical storms and general atmospheric circulation. • Causes of tropical storms and the sequence of their formation and development. • The structure and features of a tropical storm.

	• How climate change might affect the distribution, frequency and intensity of tropical storms.
Tropical storms have significant effects on people and the environment.	• Primary and secondary effects of tropical storms. • Immediate and long-term responses to tropical storms. • Use a named example of a tropical storm to show its effects and responses. • How monitoring, prediction, protection and planning can reduce the effects of tropical storms.
The UK is affected by a number of weather hazards.	• An overview of types of weather hazard experienced in the UK.
Extreme weather events in the UK have impacts on human activity.	• An example of a recent extreme weather event • in the UK to illustrate: o causes o social, economic and environmental o impacts o how management strategies can reduce risk. • Evidence that weather is becoming more extreme in the UK.
3.1.1.4 Climate change	
Key Idea	**Specification Content**
Climate change is the result of natural and human factors and has a range of effects.	• Evidence for climate change from the beginning of the Quaternary period to the present day. • Possible causes of climate change: o natural factors – orbital changes, volcanic activity and solar output o human factors – use of fossil fuels, agriculture and deforestation. • Overview of the effects of climate change on people and the environment.
Managing climate change involves both mitigation (reducing causes) and adaptation (responding to change).	• Managing climate change: o mitigation – alternative energy production, carbon capture, planting trees, international agreements o adaptation – change in agricultural systems, managing water supply, reducing risk from rising sea levels.

3.2.3 Section C: The challenge of resource management	
Key Idea	**Specification Content**
Food, water and energy are fundamental to human development.	• The significance of food, water and energy to • economic and social well-being. • An overview of global inequalities in the supply and consumption of resources.
3.2.3.1 Resource management	
Key Idea	**Specification Content**

The changing demand and provision of resources in the UK create opportunities and challenges.	• An overview of resources in relation to the UK. • Food: o the growing demand for high-value food exports from low income countries and all-year demand for seasonal food and organic produce o larger carbon footprints due to the increasing number of 'food miles' travelled, and moves towards local sourcing of food o the trend towards agribusiness. • Water: o the changing demand for water o water quality and pollution management o matching supply and demand – areas of deficit and surplus o the need for transfer to maintain supplies. • Energy: o the changing energy mix – reliance on fossil fuels, growing significance of renewables o reduced domestic supplies of coal, gas and oil o economic and environmental issues associated with exploitation of energy sources.
3.2.3.2 Food	
Key Idea	**Specification Content**
Demand for food resources is rising globally but supply can be insecure, which may lead to conflict.	• Areas of surplus (security) and deficit • (insecurity): o global patterns of calorie intake and food o supply o reasons for increasing food consumption: economic development, rising population o factors affecting food supply: climate, technology, pests and disease, water stress, conflict, poverty. • Impacts of food insecurity – famine, undernutrition, soil erosion, rising prices, social unrest.
Different strategies can be used to increase food supply	• Overview of strategies to increase food supply: o irrigation, aeroponics and hydroponics, the new green revolution and use of biotechnology, appropriate technology o an example of a large scale agricultural development to show how it has both advantages and disadvantages. • Moving towards a sustainable resource future: o the potential for sustainable food supplies: organic farming, permaculture, urban farming initiatives, fish and meat from sustainable sources, seasonal food consumption, reduced waste and losses o an example of a local scheme in an LIC or NEE to increase sustainable supplies of food.

3.2.3.3 Water	
Key Idea	**Specification Content**
Demand for water resources is rising globally but supply can be insecure, which may lead to conflict.	• Areas of surplus (security) and deficit • (insecurity): • global patterns of water surplus anddeficit o reasons for increasing water consumption: economic development, rising population o factors affecting water availability: climate, geology, pollution of supply, overabstraction, limited infrastructure, poverty. • Impacts of water insecurity – waterborne disease and water pollution, food production, industrial output, potential for conflict where demand exceeds supply
Different strategies can be used to increase water supply.	• Overview of strategies to increase water supply: o diverting supplies and increasing storage, dams and reservoirs, water transfers and desalination o an example of a large-scale water transfer scheme to show how its development has both advantages and disadvantages. • Moving towards a sustainable resource future: o water conservation, groundwater management, recycling, 'grey' water o an example of a local scheme in an LIC or NEE to increase sustainable supplies of water.
3.2.3.4 Energy	
Key Idea	**Specification Content**
Demand for energy resources is rising globally but supply can be insecure, which may lead to conflict.	• Areas of surplus (security) and deficit (insecurity): o global distribution of energy consumption and supply o reasons for increasing energy consumption: economic development, rising population, technology o factors affecting energy supply: physical factors, cost of exploitation and production, technology and political factors. • Impacts of energy insecurity – exploration of difficult and environmentally sensitive areas, economic and environmental costs, food production, industrial output, potential for conflict where demand exceeds supply.
Different strategies can be used to increase energy supply.	• Overview of strategies to increase energy supply: o renewable (biomass, wind, hydro, tidal, geothermal, wave and solar) and nonrenewable (fossil fuels and nuclear power) sources of energy o an example to show how the extraction of a fossil fuel has both advantages and disadvantages.

	• Moving towards a sustainable resource future: o individual energy use and carbon footprints. Energy conservation: designing homes, workplaces and transport for sustainability, demand reduction, use of technology to increase efficiency in the use of fossil fuels o an example of a local renewable energy scheme in an LIC or NEE to provide sustainable supplies of energy.

3.1.3 Section C: Physical landscapes in the UK	
Key Idea	**Specification Content**
The UK has a range of diverse landscapes	• An overview of the location of major upland/ • lowland areas and river systems.
3.1.3.2 Coastal landscapes in the UK	
Key Idea	**Specification Content**
The coast is shaped by a number of physical processes.	• Wave types and characteristics. • Coastal processes: o weathering processes – mechanical, chemical o mass movement – sliding, slumping and rock falls o erosion – hydraulic power, abrasion and attrition o transportation – longshore drift o deposition – why sediment is deposited in coastal areas.
Different strategies can be used to increase food supply	• How geological structure and rock type influence coastal forms. • Characteristics and formation of landforms resulting from erosion – headlands and bays, cliffs and wave cut platforms, caves, arches and stacks. • Characteristics and formation of landforms resulting from deposition – beaches, sand dunes, spits and bars. • An example of a section of coastline in the UK to identify its major landforms of erosion and deposition.
Different management strategies can be used to protect coastlines from the effects of physical processes.	• The costs and benefits of the following management strategies: o hard engineering – sea walls, rock armour, gabions and groynes o soft engineering – beach nourishment and reprofiling, dune regeneration o managed retreat – coastal realignment. • An example of a coastal management scheme in the UK to show: o the reasons for management o the management strategy

	o the resulting effects and conflicts.

3.3.2 Section B: Fieldwork	
Geographical enquiry strand	**Application of knowledge and understanding, and skills**

3.1.3 Section C: Physical landscapes in the UK	
Key Idea	**Specification Content**
The UK has a range of diverse landscapes	• An overview of the location of major upland/ • lowland areas and river systems.
3.1.3.3 River landscapes in the UK	
Key Idea	**Specification Content**
The shape of river valleys changes as rivers flow downstream.	• The long profile and changing cross profile of a river and its valley. • Fluvial processes: o erosion – hydraulic action, abrasion, attrition, solution, vertical and lateral erosion o transportation – traction, saltation, suspension and solution o deposition – why rivers deposit sediment.
Distinctive fluvial landforms result from different physical processes.	• Characteristics and formation of landforms resulting from erosion – interlocking spurs, waterfalls and gorges. • Characteristics and formation of landforms resulting from erosion and deposition – meanders and ox-bow lakes. • Characteristics and formation of landforms resulting from deposition – levées, flood plains and estuaries. • An example of a river valley in the UK to identify its major landforms of erosion and deposition.
Different management strategies can be used to protect river landscapes from the effects of flooding.	• How physical and human factors affect the flood risk – precipitation, geology, relief and land use. • The use of hydrographs to show the relationship between precipitation and discharge. • The costs and benefits of the following management strategies: o hard engineering – dams and reservoirs, straightening, embankments, flood relief channels o soft engineering – flood warnings and preparation, flood plain zoning, planting trees and river restoration. • An example of a flood management scheme in the UK to show: o why the scheme was required o the management strategy

	o the social, economic and environmental issues.
3.1.2 Section B: The living world	
3.1.2.1 Ecosystems	
Key Idea	**Specification Content**
Ecosystems exist at a range of scales and involve the interaction between biotic and abiotic components.	• An example of a small scale UK ecosystem to illustrate the concept of interrelationships within a natural system, an understanding of producers, consumers, decomposers, food chain, food web and nutrient cycling. • The balance between components. The impact on the ecosystem of changing one component. • An overview of the distribution and characteristics of large scale natural global ecosystems.
3.1.2.2 Tropical rainforests	
Key Idea	**Specification Content**
Tropical rainforest ecosystems have a range of distinctive characteristics.	• The physical characteristics of a tropical rainforest. • The interdependence of climate, water, soils, plants, animals and people. • How plants and animals adapt to the physical conditions. • Issues related to biodiversity.
Deforestation has economic and environmental impacts.	• Changing rates of deforestation. • A case study of a tropical rainforest to illustrate: o causes of deforestation – subsistence and commercial farming, logging, road building, mineral extraction, energy development, settlement, population growth o impacts of deforestation – economic development, soil erosion, contribution to climate change.
Tropical rainforests need to be managed to be sustainable.	• Value of tropical rainforests to people and the environment. • Strategies used to manage the rainforest sustainably – selective logging and replanting, conservation and education, ecotourism and international agreements about the use of tropical hardwoods, debt reduction.
3.1.2.3 Hot deserts	
Key Idea	**Specification Content**
Hot desert ecosystems have a range of distinctive characteristics.	• The physical characteristics of a hot desert. • The interdependence of climate, water, soils, plants, animals and people. • How plants and animals adapt to the physical • conditions. • Issues related to biodiversity.

Development of hot desert environments creates opportunities and challenges.	• A case study of a hot desert to illustrate: o development opportunities in hot desert environments: mineral extraction, energy, farming, tourism o challenges of developing hot desert environments: extreme temperatures, water supply, inaccessibility.
Development of hot desert environments creates opportunities and challenges.	• Causes of desertification – climate change, population growth, removal of fuel wood, overgrazing, over-cultivation and soil erosion. • Strategies used to reduce the risk of desertification – water and soil management, tree planting and use of appropriate technology.
3.1.2.4 Cold environments	
Key Idea	**Specification Content**
Cold environments (polar and tundra) have a range of distinctive characteristics.	• The physical characteristics of a cold environment. • The interdependence of climate, permafrost, soils, plants, animals and people. • How plants and animals adapt to the physical conditions. • Issues related to biodiversity.
Development of cold environments creates opportunities and challenges.	• A case study of a cold environment to illustrate: o development opportunities in cold environments: mineral extraction, energy, fishing and tourism o challenges of developing cold environments: extreme temperature, inaccessibility, provision of buildings and infrastructure.
Cold environments are at risk from economic development.	• The value of cold environments as wilderness areas and why these fragile environments should be protected. • Strategies used to balance the needs of economic development and conservation in cold environments – use of technology, role of governments, international agreements and conservation groups.

3.2.2 Section B: The changing economic world	
Key Idea	**Specification Content**
There are global variations in economic development and quality of life	• Different ways of classifying parts of the world according to their level of economic development and quality of life. • Different economic and social measures of development: gross national income (GNI) per head, birth and death rates, infant mortality, life expectancy, people per doctor, literacy rates, access to safe water, Human Development Index (HDI). • Limitations of economic and social measures.

	• Link between stages of the Demographic Transition Model and the level of development. • Causes of uneven development: physical, economic and historical. • Consequences of uneven development: disparities in wealth and health, international migration.
Various strategies exist for reducing the global development gap.	• An overview of the strategies used to reduce the development gap: investment, industrial development and tourism, aid, using intermediate technology, fairtrade, debt relief, microfinance loans. • An example of how the growth of tourism in an LIC or NEE helps to reduce the development gap.
Some LICs and NEEs are experiencing rapid economic development which leads to significant social, environmental and cultural change.	• A case study of one LIC or NEE to illustrate: o the location and importance of the country, regionally and globally o the wider political, social, cultural and environmental context within which the country is placed o the changing industrial structure. The balance between different sectors of the economy. How manufacturing industry can stimulate economic development o the role of transnational corporations (TNCs) in relation to industrial development. Advantages and disadvantages of TNC(s) to the host country o the changing political and trading relationships with the wider world o international aid: types of aid, impacts of aid on the receiving country o the environmental impacts of economic development o the effects of economic development on quality of life for the population.
Major changes in the economy of the UK have affected, and will continue to affect, employment patterns and regional growth.	• Economic futures in the UK: o causes of economic change: deindustrialisation and decline of traditional industrial base, globalisation and government policies o moving towards a post-industrial economy: develop ent of information technology, service industries, finance, research, science and business parks o impacts of industry on the physical environment. An example of how modern industrial development can be more environmentally sustainable o social and economic changes in the rural landscape in one area of population growth and one area of population decline

	o improvements and new developments in road and rail infrastructure, port and airport capacity o the north–south divide. Strategies used in an attempt to resolve regional differences • the place of the UK in the wider world. Links through trade, culture, transport, and electronic communication. Economic and political links: the European Union (EU) and Commonwealth.