# Curriculum Intent KS4

## Curriculum vision

The Geography curriculum aims to develop curious, informed and responsible global citizens who understand the dynamic relationships between people, places and environments. Through the study of both physical and human geography, students gain a deeper understanding of the world at local, national and global scales, exploring how natural and human processes shape places and influence lives. Students are encouraged to think critically about contemporary issues such as climate change, sustainability, urbanisation, resource management and global development, while considering different viewpoints, values and attitudes. The curriculum promotes an awareness of students' roles within society and the wider world, fostering empathy, resilience and environmental stewardship.
A strong emphasis is placed on geographical enquiry, fieldwork and the application of knowledge to real-world contexts. Students develop essential skills in investigation, data analysis, map interpretation, critical thinking and evidence-based decision-making, enabling them to analyse complex issues and propose.

## Curriculum Design

The AQA Geography GCSE Geography syllabus significantly builds upon the declarative, procedural knowledge and the disciplinary knowledge gained at key stage 3 by deepening understanding of physical and human environments and the processes, opportunities and challenges that occur in these environments.

## Year 10 Overview

| Topic Title | The Living World |
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| **Pupils will know:**<br><br>**(Declarative knowledge)** | Ecosystems including a UK ecosystem example: UK small scale ecosystem<br>● Outline the role of producers, consumers and decomposers.<br>● State the difference between food chains and food webs in an ecosystem.<br>● Outline how nutrient cycling works in an ecosystem.<br>● Identify and suggest how changing one component of a food web causes change and impacts on food chains.<br>● State and outline the distribution and characteristics of global ecosystems including Tundra and Polar Environments<br><br>Tropical rainforests (TRF) including place knowledge on the Amazon Rainforest, a Tropical rainforest case study.<br><br>● Outline the characteristics of the four layers of the TRF structure.<br>● State the characteristics of rainforest soils.<br>● Outline the interdependence of climate, water, soils, plants, animals and people.<br>● Outline and explain how plants adapt to the physical conditions, especially the climate.<br>● Outline and explain how animals adapt to the physical conditions, especially the structure and climate of the TRF.<br>● Suggest why the TRF has high biodiversity.<br>● State, outline, explain and show the extent of causes of deforestation including:<br>○ Logging Commercial farming and subsistence farming |

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| | ● Road building<br>○ Mineral extraction<br>○ Energy development<br>○ Settlement<br>○ Population growth<br>● Outline, explain and show the extent of impacts of deforestation both economic and environmental including:<br>○ Economic development<br>○ Soil erosion<br>○ Contribution to climate change<br>● Outline and explain the value of the tropical rainforests to people and the environment such as medical research, resources and carbon sinks.<br>● Outline, explain and show the extent of strategies used to manage the rainforest, including how they operate and the benefits to local people and the environment and why they are sustainable. This includes:<br>○ Selective logging and replanting<br>○ Conservation and education<br>○ Ecotourism<br>○ International agreements on hardwood<br>○ Debt reduction.<br>● Cold environments including place knowledge of Iceland, a cold environment case study.<br>○ State and outline the physical characteristics including permafrost and Tundra landscape.<br>○ State the characteristics of permafrost soils.<br>○ Outline the interdependence of climate, permafrost, soils, plants, animals and people.<br>○ Outline and explain how plants have adapted to the climate and permafrost. - Outline and explain how animals have adapted to the climate and physical conditions.<br>○ Outline why cold environments have low biodiversity.<br>○ Outline, explain and show the extent that cold environments create opportunities for development including:<br>○ Mineral extraction<br>○ Energy<br>○ Fishing<br>○ Tourism.<br>● Outline, explain and show the extent of the challenges of developing cold environments including:<br>○ Extreme temperatures<br>○ Inaccessibility<br>○ The provision of buildings and infrastructure<br>● Outline, explain, show the extent of strategies used to balance economic development and conservation including:<br>○ International agreements<br>○ The role of governments<br>○ The use of technology<br>○ Conservation groups. |
| **Procedural Knowledge**<br><br>**Students will know how to:** | ● Draw a food chain example from a UK ecosystem.<br>● Calculate percentages e.g. of biomass in an ecosystem.<br>● Interpret globes to show distribution of TRF, Cold Environments and other global ecosystems.<br>● Analysis and describe changing rates of deforestation from line graphs, bar charts and histograms.<br>● Complete a pie chart to show proportion of deforestation. |

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| | ● Use central tendency (mean, median, mode), spread and cumulative frequency to show patterns of deforestation. |
| **Core knowledge** | ● State what producers, consumers and decomposers are.<br>● State the difference between a food chain and food web.<br>● State the climate of Tropical Rainforests (TRFs).<br>● State the location/distribution of the Tropical Rainforests.<br>● Name and outline features of plant adaptations in the rainforest.<br>● Name the causes of deforestation.<br>● Name the impacts of deforestation.<br>● State the location/distribution of cold environments.<br>● State the climate of cold environments.<br>● Name and outline features of plant and animal adaptations to cold environments.<br>● Name the opportunities in cold environments like Iceland<br>● Name the challenges in cold environments like Iceland |
| **Prior knowledge** | Year 8<br>Pupils will know the causes of deforestation (cattle ranching, palm oil, logging)<br>Pupils will know the positive effects of deforestation (money, income, secure jobs)<br>Pupils will know the negative effects of deforestation (habitat loss, climate change, soil erosion).<br>Pupils will know examples of major global biomes<br>Pupils will know characteristics of major biomes<br>Pupils will know the characteristics of rainforests - soil, structure, ecosystem.<br>Pupils will be able to describe and explain adaptations of animals and plants in the rainforest<br>Pupils will be able to recognise the value of tropical rainforests, including from the perspective of jungle tribes.<br>Pupils will recognise the link between consumption and rainforest deforestation<br>Pupils will name and explain rainforest management strategies including education, ecotourism and selective logging<br><br>The definition of an extreme environment<br>The opportunities (mining, research, tourism) in cold environments and the challenges (extreme cold, weather, inaccessibility).<br>The opportunities (mining, tourism) in hot environments and the challenges (extreme heat, shelter, inaccessibility).<br>How humans have impacted upon both cold and hot environments, including through fast fashion, plastic pollution and climate change<br>How humans have adapted to extreme environments<br>Push and pull factors |
| **Future knowledge** | A level<br>● Carbon cycle changes- physical variations include wildfires and volcanic activity - Carbon cycle changes – human variations include farming practices and deforestation.<br>● Tropical rainforest context to show changes to the water cycle and carbon cycles. |
| **Key vocabulary** | Biodiversity,<br>Climate,<br>Deforestation,<br>Social, |

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| | Economic,<br>Environmental Sustainable/Sustainability,<br>Impacts,<br>Opportunities,<br>Challenges. |

| Topic Title | Urban Issues and Challenges |
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| **Pupils will know:**<br><br>**(Declarative knowledge)** | Global patterns of urban change.<br>● Outline the patterns of and suggest reasons for urban change in HICs, LICs and NEEs<br>● Define urbanisation, rural-urban migration and natural increase. - State and outline how push and pull factors cause and affect the rate of migration.<br>● Define megacities and suggest why growth occurs in NEEs/LICS in Asia and Africa.<br>● A case study of a major Newly Emerging Economy (NEE) or Lower Income Country (LIC) city:Rio de Janiero, Brazil .<br>● State the location of Rio de Janeiro in Brazil<br>● Outline the regional, national and international importance of Rio<br>● Outline the causes of growth in Rio through natural increase and migration.<br>● Outline, suggest how and show the extent/assess that urban growth creates social opportunities including:<br>○ Access to services like health and education<br>○ Access to resources like water supply and energy.<br>● Outline, suggest how and show the extent/assess that urban growth creates economic opportunities by urban industrial areas being a stimulus for economic development.<br>● Outline, suggest how and show the extent that urban growth has created challenges including:<br>○ Managing urban growth of slums/squatter settlements<br>○ Providing clean water, sanitation systems<br>○ Energy<br>○ Provide access to services of health and education<br>○ Reduce unemployment and crime<br>○ Manage the environmental issues of waste disposal, air pollution, water pollution and traffic congestion.<br>○ Suggest how an example of urban planning is improving the quality of life for the urban poor – The Favela Bairro Project.<br>● Urban Change in UK cities: A case study of a major UK city, Leeds.<br>● State the population distribution of UK and the location of major UK cities.<br>● State the location of Leeds in the UK.<br>● Outline the importance of Leeds in the UK and the wider world. - Outline the impacts of national and international migration on the growth and character of Leeds.<br>● Outline, suggest how and show the extent that urban change has created social, economic and environmental opportunities in UK cities like Leeds including:<br>○ Cultural Mix<br>○ Recreation and Entertainment<br>○ Employment<br>○ Integrated Transport System<br>○ Urban Greening<br>● Outline, suggest how and show the extent that urban change has created |

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| | social, economic and environmental challenges in UK cities like Leeds including:<br>○ Urban deprivation<br>○ Inequalities in housing, education, health and employment<br>○ Urban dereliction<br>○ Building on brownfield and greenfield sites<br>○ Waste disposal<br>○ The impact of urban sprawl on the rural-urban fringe<br>○ The growth of commuter settlements<br>● Outline, suggest how and show the extent of regeneration in a named example of an urban regeneration project, including:<br>○ The reasons why the area needed regeneration<br>○ The main features of the project<br>○ The urban problems it solves<br>○ Urban Sustainability<br>● Outline, suggest how and show the extent that sustainable urban living creates urban sustainability including:<br>○ Water conservation<br>○ Energy conservation<br>○ Waste recycling<br>○ Creating green space<br>○ Outline and suggest how urban transport strategies are used to reduce traffic congestion. |
| **Procedural Knowledge**<br><br>**Students will know how to:** | ● Analyse bar, pie and line charts to outline patterns of urbanisation.<br>● Identify the location of Rio on a national scale map.<br>● Calculate and apply mean, median and mode to identify patterns in megacities.<br>● Identify patterns of megacities and future megacities on global and continental level maps.<br>● Analyse photographs to identify opportunities and challenges.<br>● Identify using choropleth maps the population distribution of the UK.<br>● Identify the location of UK cities using national scale maps, and apply and manipulate data to show inequalities.<br>● Analyse aerial and portrait style photos to identify evidence of opportunities and challenges.<br>● Apply OS map skills to show location and place, including using 4 and 6 figure grid references, measuring straight line distances, and using map symbols to identify locational features of UK cities. |
| **Core knowledge** | ● State push and pull factors for rural-urban migration.<br>● State what a Megacity is.<br>● State the location of Rio.<br>● State the importance of an NEE city e.g.Rio.<br>● State the names of opportunities and challenges in an NEE city.<br>● State the characteristics of squatter settlements.<br>● State the location of a UK city, Leeds<br>● State the importance of a UK city, Leeds<br>● Names of opportunities and challenges in a UK city.<br>● State the name of features of sustainable urban living e.g. creating green space. |
| **Prior knowledge** | Year 7<br>What the difference is between urban and rural<br>What the rural urban fringe is<br>What urbanisation and counterurbanisation are |

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| | What push and pull factors are, including examples<br>What challenges and opportunities exist in megacities in LICs<br>What bollywood is<br>What the opportunities and challenges are in HICs<br>What megacities are<br>Complete a map of an urban area<br>Integrate different aspects of sustainability. |
| **Future knowledge** | ● 'Contemporary urban environments'- optional unit<br>● Urbanisation- how urban growth can be managed to ensure social cohesion and environmental sustainability.<br>● Links between urban growth and the physical environment, including urban climates, urban drainage and urban pollution.<br>● 'Population and the environment' – optional unit<br>● The environmental constraints on population growth and the pressure of population on resources.<br>● Models of population change and their application to countries at different stages of development are considered.<br>● Alternative approaches to management of global population change are evaluated. |
| **Key vocabulary** | Urban change,<br>Urbanisation,<br>Population,<br>Quality of Life,<br>Opportunities and Challenges. |

| **Topic Title** | **Physical Landscapes of the UK: Coastal and River Landscapes in the UK** |
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| **Pupils will know:**<br><br>**(Declarative knowledge)** | Identify areas of upland, lowland and river systems in the UK.<br><br>Coastal Landscapes in the UK<br>● Outline the characteristics of destructive and constructive waves. - State, outline and explain how coastal physical processes shape the coast including:<br>○ Chemical weathering and mechanical weathering<br>○ Mass movement including sliding, slumping and rock falls<br>○ Erosion including hydraulic power, abrasion and attrition<br>○ Transportation by Longshore drift<br>○ Deposition<br>● Outline how geological structure and rock type influence coastal landforms.<br>○ Identify, outline, describe and explain the characteristics of landforms resulting from erosion including:<br>○ Headlands and Bays<br>○ Cliffs and Wave cut platforms<br>○ Caves, arches and stacks<br>○ Identify, outline, describe and explain the characteristics of landforms resulting from deposition including:<br>○ Beaches<br>○ Sand dunes<br>○ Spits and bars<br>○ Use an example of a section of UK coastline, The Holderness coast in East Yorkshire to describe its major landforms of erosion and deposition.<br>● Describe, explain how hard engineering strategies protect the coastline |

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| | from physical processes including:<br>○ Sea wall<br>○ Rock armour<br>○ Gabions<br>○ Groynes.<br>● Explain and assess the costs and benefits of hard engineering strategies on coastal landscapes.<br>● Describe and explain how soft engineering strategies protect the coastline from erosion including:<br>○ Beach nourishment and reprofiling<br>○ Dune regeneration.<br>● Explain and assess the costs and benefits of soft engineering strategies.<br>● Describe and explain how managed retreat through coastal realignment protects the coastline from physical processes.<br>● Explain and assess the costs and benefits of managed retreat.<br>● Use an example of a coastal management scheme in the UK, Mappleton, Holderness, to show and explain the:<br>○ Reasons for management<br>○ The management strategy<br>○ The resulting effects and conflicts<br><br>River Landscapes of the UK<br>● State and describe how the shape of the long profile and cross profile of a river and its valley changes downstream.<br>● State, outline and explain how fluvial processes change rivers as they flow downstream including:<br>● Erosion including hydraulic action, abrasion, attrition, solution, vertical and lateral<br>● Transportation by traction, saltation, suspension and solution - Deposition<br>● Identify, outline, describe and explain the characteristics of landforms resulting from erosion including:<br>○ Interlocking Spurs<br>○ Waterfalls and gorges<br>○ Identify, outline, describe and explain the characteristics of landforms resulting from erosion and deposition including:<br>○ Meanders and Oxbow lakes<br>● Identify, outline, describe and explain the characteristics of landforms resulting from deposition including:<br>○ Levees and floodplains<br>○ Estuaries<br>○ Use an example of a river valley in the UK, The River Tees, to describe its major landforms of erosion and deposition.<br>● Outline and explain how physical and human factors affect the flood risk including: precipitation, relief and land use.<br>● Outline, interpret and complete hydrographs to show the relationship between precipitation and discharge.<br>● Describe, explain how hard engineering strategies protect river landscapes from the effects of flooding including:<br>○ Dams and reservoirs<br>○ Channel Straightening<br>○ Embankments |
| **Procedural Knowledge**<br><br>**Students will know** | ● Analysis of relief and river systems using topographic maps.<br>● Calculate using measures of central tendency to show coastal process rates e.g. erosion. |

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| **how to:** | ● Draw and annotate a sketch of longshore drift to explain how the process works.<br>● Draw, label, and annotate sketches/diagrams of landforms of erosion and deposition to show characteristics and explain their formation in coastal and river environments.<br>● Analyse photographs to identify the characteristics of landforms of erosion and deposition.<br>● Analyse diagrams to explain changes in coastlines, such as sand dune succession.<br>● Analyse photographs to demonstrate how coastal management strategies function and protect coastlines.<br>● Analyse and complete scatter graphs to identify and show trends in data, such as changes in sediment size.<br>● Apply Ordnance Survey (OS) map skills—including using four- and six-figure grid references, measuring straight-line and curved distances, calculating area, interpreting relief and contours, and using map symbols—to identify physical landforms and human land uses. |
| **Core knowledge** | ● How Chemical and Mechanical Weathering and work.<br>● Names of and how types of mass movement: sliding, slumping, rockfalls work.<br>● Names of and how erosion processes of hydraulic action/power, abrasion, attrition and solution work.<br>● Names of and how transport processes of longshore drift, traction, saltation, suspension and solution work.<br>● Names of and how hard engineering strategies work on coastal landscapes.<br>● Names of and how soft engineering strategies work on coastal landscapes.<br>● Names of and how hard engineering strategies work on river landscapes.<br>● Names of and how soft engineering strategies work on river landscapes.<br>● Names and how Physical and Human factors that affect flood risk. |
| **Prior knowledge** | Year 7<br>What the water cycle is<br>What the concepts / meaning of infiltration, interception and surface permeability are<br>What the processes of erosion are<br>The formation of waterfalls and river cliffs/slip off slopes and meanders.<br>What the causes of flooding are<br>What the consequences of flooding are<br>An example of flooding (York 2015) including impacts and management.<br>What hard and soft engineering is<br>What the advantages and disadvantages of hard and soft engineering are<br>How different strategies reduce flood risk |
| **Future knowledge** | ● ‘Coastal Systems and Landscapes’ an optional unit, at a global rather than UK perspective at GCSE.<br>● Coasts as natural systems, with inputs, stores and outputs.<br>● Coasts are subdivided into high and low energy coastal landscapes, and into coasts of submergence and emergence.<br>● Traditional and sustainable approaches to coastal management are compared and case studies serve to illustrate themes of coastal process, landscape outcomes, human occupation and management.<br>● The geomorphology of rivers and their valleys is not studied at A-level, but students examine the hydrological cycle:<br>● Stores and transfers, and changes to the water cycle over time. - Drainage basins as open systems and factors affecting flood |

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| | hydrographs are themes that are developed from GCSE level.<br>● Case study that focuses on a river catchment at a local scale, with links to sustainability and flooding. |
| **Key vocabulary** | Erosion,<br>Transport,<br>Deposition,<br>Management,<br>Flooding. |

| **Topic title** | **The Challenge of Resource Management** |
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| **Declarative knowledge** | ● Outline the causes and management of water quality and water pollution in the UK.<br>● State areas of the UK that have water surplus and water deficit. - Outline the supply and demand of water in the UK.<br>● Outline the need to transfer water to maintain supplies.<br>● Energy<br>● Outline how the UK energy mix has changed from a reliance on fossil fuels to growing significance of renewables.<br>● Suggest why the UK has reduced supplies of coal, oil and gas.<br>● Suggest economic and environmental issues associated with the exploitation of the UK's energy sources.<br>● Food<br>● State areas of the world with food surplus (food security) and areas of food deficit (food insecurity) for calorie intake and food supply.<br>● Outline reasons for increasing food consumption including economic development and rising population.<br>● Outline and suggest how physical and human factors affect food supply including:<br>○ Physical: Climate, Water stress and Pests and diseases.<br>○ Human: Technology, Conflict and Poverty.<br>● Outline and suggest how food insecurity creates impacts including: - Social: Famine, Undernutrition, social unrest.<br>● Economic: Rising prices.<br>● Environmental: Soil erosion.<br>● Outline and suggest the extent that a range of strategies can increase food supply including:<br>○ Irrigation, Aeroponics and Hydroponics.<br>○ The New green revolution and the use of Biotechnology.<br>○ Appropriate technology.<br>○ Suggest how an example of a large-scale agricultural development has both advantages and disadvantages. Example of Agribusiness, Brazil.<br>● Outline, suggest and show the extent that there is potential for sustain food supplies including:<br>○ Organic farming and permaculture<br>○ Urban farming<br>○ Fish and meat from sustainable sources<br>○ Seasonal food consumption<br>○ Reduced waste and losses<br>● Suggest how an example of a local scheme in an LIC/NEE can increase sustainable food supplies eg Urban Farming in Cape Town, South Africa |

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| **Procedural Knowledge**<br><br>***Students will know how to.*** | ● Calculate percentage increase and decrease for energy resources in the UK.<br>● Analyse choropleth maps to show patterns of food surplus and food deficit.<br>● Complete a range of maps, including proportional symbols and choropleth maps, to show patterns or impacts of food insecurity.<br>● Calculate the interquartile range for food, energy, or water data.<br>● Determine the mean, median, mode, totals, and differences for a range of data relating to resources. |
| **Core knowledge** | ● State what seasonal food and organic food are.<br>● State what food miles and carbon footprint are.<br>● State what water surplus and water deficit are.<br>● State what renewable, non-renewable and fossil fuels are.<br>● Name factors that affect food supply/cause food insecurity e.g. pests and diseases.<br>● Name Impacts of food insecurity e.g. famine.<br>● Name strategies to increase food supply e.g. hydroponics.<br>● Name strategies to create sustainable food supplies e.g. organic farming. |
| **Prior knowledge** | Year 7<br>At least one strategy on how to create urban sustainability in terms of:<br>Waste (recycling)<br>Energy (Renewables)<br>Water (Recycling Grey water)<br>Green spaces (Using urban greening)<br>Transport (electric buses, park and ride).<br><br>Year 9<br>Know the significance of food, water and energy to economic and social well-being.<br>Know that resources are spread unevenly<br>Know the economic and environmental effects of growing demand for high-value food exports from low income countries<br>Know the definition and impact of all-year demand for seasonal food and organic produce<br>Know that larger carbon footprints are due to the increasing number of 'food miles' travelled<br>Know the importance of moves towards local sourcing of food<br>Know the trend towards agribusiness.<br>Know the changing demand for water<br>Know the issues regarding water quality and pollution management<br>Knowing how water is unevenly distributed in the UK.<br>Know how to match supply and demand – areas of deficit and surplus including the need for transfer to maintain supplies.<br><br>Know the changing UK energy mix – reliance on fossil fuels, growing significance of renewables<br>Know that there are reduced domestic supplies of coal, gas and oil<br>Know the economic and environmental issues associated with exploitation of energy sources. |

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| **Future knowledge** | 'Resource Security' optional unit<br>● The need to manage access to vital resources in a world facing increasing demand and environmental pressures.<br>● Resource availability and the geopolitics of resource distribution.<br>● 'Issues of water security' section<br>● Water supply and water transfer are revisited by studying the unsustainable use of water and the threat of water supplied due to climate change.<br>● Unsustainable use and the threat of climate change<br>● Management strategies to ensure supply range from large scale dam/reservoir projects to sustainable schemes involving recycling and water conservation. |
| **Key vocabulary** | Resource/s, Carbon Footprint, Renewable energy, Food Insecurity. |

| **Topic title** | **The Challenge of Natural Hazards** |
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| **Declarative knowledge** | Natural Hazards<br>● Define a natural hazard and state types of natural hazards.<br>● Outline how factors affect hazard risk.<br>● Tectonic Hazards<br>● Outline, describe and explain the physical processes of plate tectonics that led to the formation of earthquakes and volcanoes at destructive and constructive plate margins.<br>● Outline, describe and explain the physical processes of plate tectonics that led to the formation of earthquakes at conservative plate margins.<br>● State and identify the global distribution of volcanoes and earthquakes at plate margins.<br>● State and identify primary and secondary effects to a tectonic hazard especially an earthquake.<br>● State and identify immediate and long-term responses to a tectonic earthquake especially an earthquake.<br>● Suggest, show the extent and give place specific information using two named examples, one from a HIC and one from an LIC, to show how the effects and responses to a tectonic hazard (earthquake) vary between areas of contrasting levels of wealth. Examples of Chile 2010 and Nepal 2015.<br>● State and suggest reasons for why people live in areas at risk from a tectonic hazard.<br>● Suggest how the risks and effects of a tectonic hazard e.g. earthquake can be reduced by monitoring, prediction, protection and planning.<br>● Weather Hazards<br>● Suggest how General Atmospheric Circulation (GAC) determines weather and climate patterns, due to pressure belts and surface winds.<br>● State the distribution of tropical storms.<br>● State the conditions needed for a tropical storm to form.<br>● State and describe the structure and features of a tropical storm.<br>● Outline how tropical storm formation is influenced by GAC<br>● Outline how climate change will affect the distribution, frequency and intensity of tropical storms.<br>● State primary and secondary effects of tropical storms.<br>● State immediate and long-term responses to tropical storms.<br>● Use a named example of a tropical storm, Typhoon Haiyan, to show the |

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| | extent of its effects and responses on people and the environment.<br>● Suggest how the effects of a tropical storm can be reduced by monitoring, prediction, protection and planning.<br>● State different types of UK extreme weather e.g. Beast from the East and 2022 Summer Heatwave<br>● Identify and suggest how extreme weather in the UK has social and economic impacts.<br>● Use an example of a UK extreme weather event e.g. Storm Desmond 2015, to show:<br>○ Causes<br>○ Social, Economic and Environmental Impacts<br>○ How management strategies can reduce risk.<br>● Outline and explain evidence that shows weather in the UK is becoming more extreme.<br>● Climate Change<br>● State evidence that shows climate change from the beginning of the quaternary period to the present day.<br>● State how scientists collect evidence to monitor climate change.<br>● Outline the physical causes of climate change including:<br>○ Orbital changes<br>○ Volcanic activity<br>○ Solar output<br>● Outline the human causes of climate change including:<br>○ Fossil fuels<br>○ Agriculture<br>○ Deforestation<br>● Name and outline the effects of climate change on people and the environment.<br>● Outline how managing climate change involves mitigation (reducing the causes) of climate change including:<br>○ Alternative energy production<br>○ Carbon capture<br>○ Planting trees<br>○ International Agreements<br>● Outline how managing climate change involves adaptation (responding to change) including:<br>○ Change in agricultural systems<br>○ Managing Water Supply<br>○ Reducing risk from rising sea levels. |
| **Procedural Knowledge**<br><br>***Students will know how to.*** | ● Analyse dot maps to identify and describe the distribution of earthquakes and volcanoes at plate margins.<br>● Use topographical maps to identify the type of plate margin on a global and continental scale.<br>● Analyse aerial and landscape scale photographs to identify effects of a hazard e.g. earthquake.<br>● Analyse the Global Atmospheric Circulation Model to show pressure belts and surface winds.<br>● Use continental scale maps to identify the distribution of tropical storms and analyse satellite images to identify the structure and features of a tropical storm.<br>● Analyse GIS maps showing the track of hurricanes to describe hurricane movement.<br>● Analyse photographs, divided bar charts, and other charts to examine the effects, frequency, and intensity of tropical storms. |

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| | ● Analyse historical data charts to identify evidence of UK weather becoming more extreme.<br>● Analyse historic climate graphs and line graphs to identify evidence of climate change.<br>● Analyse line graphs and pie charts to identify evidence of climate change e.g. CO2 emissions. |
| **Core knowledge** | ● State the movement of plates at destructive, constructive and conservative plate margins.<br>● State the distribution/location of tectonic hazards.<br>● Name effects of hazards like earthquakes and tropical storms<br>● Name responses of hazards like earthquakes and tropical storms.<br>● Name conditions needed for a tropical storm to form.<br>● Name features/characteristics of the structure of tropical storms.<br>● Name physical and human causes of climate change.<br>● Name impacts/effects of climate change.<br>● Name methods of mitigation and adaptation for climate change. |
| **Prior knowledge** | Year 7<br>● What are weather and climate?<br>● Name and outline the types of rain in the UK climate.<br>● What are high and low pressure?<br>● Name the types of plate margins.<br>● Outline how volcanos form at constructive margins<br>● What are the 3Ps?<br>● What is climate change?<br>● Name causes of climate change and name effects of climate change.<br>● Name evidence used to show climate change.<br><br>Year 8<br>● What is a tropical storm?<br>● Name the features of a tropical storm's structure e.g. eye, eyewall<br>● Outline how earthquakes form at a conservative margin.<br>● Outline the responses to earthquakes in a HIC.<br>● Outline the impacts of climate change in India and the Maldives.<br>● How can planting trees and renewable energy help reduce climate change?<br><br>Year 9<br>● Outline how earthquakes form at destructive margins.<br>● Outline how earthquakes form at collision margins.<br>● Outline how tectonic hazard areas are used for tourism.<br>● Outline how effects differ in areas of low income and high income. |

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| **Future knowledge** | ● ‘ Hazards’ optional unit including volcanic, seismic, storm and fires. - Processes of vulcanicity and seismicity at different plate margins in greater detail.<br>● Risk management by mitigation and adaptation of natural hazards often in the context of multi-hazardous environments and understanding of how different hazards interact and are managed.<br>● Plate tectonics includes crustal evolution e.g. gravitational sliding. - Landforms: young fold mountains, rift valleys, ocean ridges, deep sea trenches and island arcs, volcanoes.<br>● Climate change: The ‘water cycle’ and ‘carbon cycle’ in the atmosphere - Impacts of climate change in hot desert environments including desertification, Coastal systems and the impact of coastal flooding. Cold environments and ecosystems under stress.<br>● The threats caused by climate change are also linked to the theme of Global governance when examining the threats to Antarctica. |
| **Key vocabulary** | Natural Hazard,<br>Effects,<br>Responses,<br>Tropical storms,<br>Climate change,<br>Global Warming. |

| **Topic title** | **The Challenge of Natural Hazards** |
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| **Declarative knowledge** | ● How successful is the management of the River Ouse in York?<br>● How successful is the regeneration of York city centre?<br><br>Enquiry Strand 1:<br>● Outline the factors that must be considered when selecting suitable questions/hypotheses<br>● Outline the geographical theory underpinning the enquiry.<br>● Suggest how the locations of the fieldwork enquiries are appropriate.<br>● Identify risks and identify how the risks can be reduced.<br>● Outline the need for a risk assessment before collecting data.<br>● Enquiry Strand 2: Selecting, measuring and recording data<br>● Define primary data and outline the benefits of primary data.<br>● Define secondary data and outline the benefits of secondary data.<br>● Identify physical and human data to be collected.<br>● Define random, stratified and systematic sampling.<br>● Describe and justify the data collection methods used.<br>● Explain and evaluate the effectiveness of data collection methods.<br><br>Enquiry 3: Selecting appropriate ways of processing and presenting data<br><br>● Name types of data presentation.<br>● Outline and explain the effectiveness of data presentation techniques/methods.<br><br>Enquiry 4: Describing, analysing and explaining fieldwork data.<br>● Describe and explain the results of fieldwork data.<br><br>Strand 5: Reaching Conclusions |

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| | ● Create evidenced conclusions in relation to the original aims and hypothesis of the enquiry.<br><br>Strand 6: Evaluation of geographical enquiry<br>● Identify problems of the data collection methods.<br>● Identify the limitations (the accuracy and reliability) of the data collected.<br>● Suggest improvements and other data that might be useful.<br>● Show the extent that the conclusions were valid and reliable.<br><br>Unseen Fieldwork<br>● Suggest questions for questionnaires to collect data.<br>● Suggest why questions are asked in questionnaires.<br>● Outline how an Environmental quality survey is used and suggest the advantages and disadvantages of this technique.<br>● Suggest patterns of data from unseen data |
| **Procedural Knowledge**<br><br>***Students will know how to.*** | ● Collect primary data: Bipolar survey, EQS, pedestrian counts, fieldsketches, questionnaires<br>● Collect data using different sampling methods that are stratified and<br>● Present data by creating Pie Charts, Land use map and Dispersion Diagrams.<br>● Analysis of data to show patterns<br>● Identify anomalies in data<br>● Manipulate data to create conclusions<br>● Calculate statistical skills including mean, median, mode, range, frequency<br>● Suggest patterns of data from unseen data.<br>● Suggest conclusions from unseen data.<br>● Complete data sets for unseen maps and graphs including line, pie and bar charts and choropleth maps. |
| **Core knowledge** | ● State a risk of data collection in the fieldwork enquiries.<br>● Name the types of primary data collection method used in the fieldwork enquiries.<br>● Name the data presentation techniques used in the fieldwork enquiries.<br>● State a limitation of their fieldwork enquiries.<br>● State an improvement needed to their fieldwork enquiries. |
| **Prior knowledge** | Year 7: Infiltration experiments<br>Year 8: Clone Town survey<br>Year 8: Coast trip (Flamborough Head and Bridlington)<br>Year 9: Food as a resource and climate change |

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| **Future knowledge** | NEA Key stage 5<br>● Independent Geography Fieldwork Investigation 3000-4000 words. - Students define a question, collect and analyse data and produce a written report of 3000-4000 words.<br>● Unusual and innovative ways of collecting data and information are encouraged at A-level, where students can justify their choice of methods and are prepared to be critical and reflect on their success or otherwise.<br>● This investigation demands a much higher level of independent research, analytical, and evaluative skills. |
| **Key vocabulary** | Hypothesis,<br>Data collection method,<br>Primary data,<br>Secondary data,<br>Conclusion,<br>Evaluation. |

| **Topic title** | **The Challenge of Natural Hazards** |
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| **Declarative knowledge** | Natural Hazards<br>● Define a natural hazard and state types of natural hazards.<br>● Outline how factors affect hazard risk.<br>● Tectonic Hazards<br>● Outline, describe and explain the physical processes of plate tectonics that led to the formation of earthquakes and volcanoes at destructive and constructive plate margins.<br>● Outline, describe and explain the physical processes of plate tectonics that led to the formation of earthquakes at conservative plate margins.<br>● State and identify the global distribution of volcanoes and earthquakes at plate margins.<br>● State and identify primary and secondary effects to a tectonic hazard especially an earthquake.<br>● State and identify immediate and long-term responses to a tectonic earthquake especially an earthquake.<br>● Suggest, show the extent and give place specific information using two named examples, one from a HIC and one from an LIC, to show how the effects and responses to a tectonic hazard (earthquake) vary between areas of contrasting levels of wealth. Examples of Chile 2010 and Nepal 2015.<br>● State and suggest reasons for why people live in areas at risk from a tectonic hazard.<br>● Suggest how the risks and effects of a tectonic hazard e.g. earthquake can be reduced by monitoring, prediction, protection and planning.<br>● Weather Hazards<br>● Suggest how General Atmospheric Circulation (GAC) determines weather and climate patterns, due to pressure belts and surface winds.<br>● State the distribution of tropical storms.<br>● State the conditions needed for a tropical storm to form.<br>● State and describe the structure and features of a tropical storm.<br>● Outline how tropical storm formation is influenced by GAC |

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| | ● Outline how climate change will affect the distribution, frequency and intensity of tropical storms.<br>● State primary and secondary effects of tropical storms.<br>● State immediate and long-term responses to tropical storms.<br>● Use a named example of a tropical storm, Typhoon Haiyan, to show the extent of its effects and responses on people and the environment.<br>● Suggest how the effects of a tropical storm can be reduced by monitoring, prediction, protection and planning.<br>● State different types of UK extreme weather e.g. Beast from the East and 2022 Summer Heatwave<br>● Identify and suggest how extreme weather in the UK has social and economic impacts.<br>● Use an example of a UK extreme weather event e.g. Storm Desmond 2015, to show:<br>○ Causes<br>○ Social, Economic and Environmental Impacts<br>○ How management strategies can reduce risk.<br>● Outline and explain evidence that shows weather in the UK is becoming more extreme.<br>● Climate Change<br>● State evidence that shows climate change from the beginning of the quaternary period to the present day.<br>● State how scientists collect evidence to monitor climate change.<br>● Outline the physical causes of climate change including:<br>○ Orbital changes<br>○ Volcanic activity<br>○ Solar output<br>● Outline the human causes of climate change including:<br>○ Fossil fuels<br>○ Agriculture<br>○ Deforestation<br>● Name and outline the effects of climate change on people and the environment.<br>● Outline how managing climate change involves mitigation (reducing the causes) of climate change including:<br>○ Alternative energy production<br>○ Carbon capture<br>○ Planting trees<br>○ International Agreements<br>● Outline how managing climate change involves adaptation (responding to change) including:<br>○ Change in agricultural systems<br>○ Managing Water Supply<br>○ Reducing risk from rising sea levels. |
| **Procedural Knowledge**<br><br>***Students will know how to.*** | ● Analyse dot maps to identify and describe the distribution of earthquakes and volcanoes at plate margins.<br>● Use topographical maps to identify the type of plate margin on a global and continental scale.<br>● Analyse aerial and landscape scale photographs to identify effects of a hazard e.g. earthquake.<br>● Analyse the Global Atmospheric Circulation Model to show pressure belts and surface winds.<br>● Use continental scale maps to identify the distribution of tropical storms and analyse satellite images to identify the structure and features of a tropical storm. |

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| | ● Analyse GIS maps showing the track of hurricanes to describe hurricane movement.<br>● Analyse photographs, divided bar charts, and other charts to examine the effects, frequency, and intensity of tropical storms.<br>● Analyse historical data charts to identify evidence of UK weather becoming more extreme.<br>● Analyse historic climate graphs and line graphs to identify evidence of climate change.<br>● Analyse line graphs and pie charts to identify evidence of climate change e.g. CO2 emissions. |
| **Core knowledge** | ● State the movement of plates at destructive, constructive and conservative plate margins.<br>● State the distribution/location of tectonic hazards.<br>● Name effects of hazards like earthquakes and tropical storms<br>● Name responses of hazards like earthquakes and tropical storms.<br>● Name conditions needed for a tropical storm to form.<br>● Name features/characteristics of the structure of tropical storms.<br>● Name physical and human causes of climate change.<br>● Name impacts/effects of climate change.<br>● Name methods of mitigation and adaptation for climate change. |
| **Prior knowledge** | Year 7<br>● What are weather and climate?<br>● Name and outline the types of rain in the UK climate.<br>● What are high and low pressure?<br>● Name the types of plate margins.<br>● Outline how volcanos form at constructive margins<br>● What are the 3Ps?<br>● What is climate change?<br>● Name causes of climate change and name effects of climate change.<br>● Name evidence used to show climate change.<br><br>Year 8<br>● What is a tropical storm?<br>● Name the features of a tropical storm's structure e.g. eye, eyewall<br>● Outline how earthquakes form at a conservative margin.<br>● Outline the responses to earthquakes in a HIC.<br>● Outline the impacts of climate change in India and the Maldives.<br>● How can planting trees and renewable energy help reduce climate change?<br><br>Year 9<br>● Outline how earthquakes form at destructive margins.<br>● Outline how earthquakes form at collision margins.<br>● Outline how tectonic hazard areas are used for tourism.<br>● Outline how effects differ in areas of low income and high income. |

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| **Future knowledge** | ● ‘ Hazards’ optional unit including volcanic, seismic, storm and fires. - Processes of vulcanicity and seismicity at different plate margins in greater detail.<br>● Risk management by mitigation and adaptation of natural hazards often in the context of multi-hazardous environments and understanding of how different hazards interact and are managed.<br>● Plate tectonics includes crustal evolution e.g. gravitational sliding. - Landforms: young fold mountains, rift valleys, ocean ridges, deep sea trenches and island arcs, volcanoes.<br>● Climate change: The ‘water cycle’ and ‘carbon cycle’ in the atmosphere - Impacts of climate change in hot desert environments including desertification, Coastal systems and the impact of coastal flooding. Cold environments and ecosystems under stress.<br>● The threats caused by climate change are also linked to the theme of Global governance when examining the threats to Antarctica. |
| **Key vocabulary** | Natural Hazard,<br>Effects,<br>Responses,<br>Tropical storms,<br>Climate change,<br>Global Warming. |

| **Topic title** | **The Changing Economic World** |
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| **Declarative knowledge** | Economic Development<br>● Outline how the countries and regions of the world are classified using HIC, NEE and LIC.<br>● Outline how economic and social measures/indicators of development work including:<br>○ Economic: Gross National Income (GNI)<br>○ Social: Birth and Death rates, Infant mortality rate (IMR), Life expectancy, People per doctor, Literacy rates, Access to safe water, Human<br>○ Development Index.<br>● Outline the limitations of economic and social measures.<br>● Outline the link between stages of the Demographic Transition Model and the level of development.<br>● Outline the causes of uneven development including physical, economic and historical.<br>● Outline and explain the consequences of uneven development including disparities in wealth and health and international migration.<br>● Outline and explain the strategies used to reduce the development gap including:<br>○ Financial: Investment, Micro-finance Loans, Debt relief, Industrial development.<br>○ Socio-economic: Tourism, Aid, Intermediate Technology, Fairtrade. - Outline how the growth of tourism in an LIC/NEE helps to reduce the development gap. NEE example of the Gambia.<br>NEE Case Study: Nigeria<br>● State the location of Nigeria.<br>● Outline the importance of Nigeria regionally and globally.<br>● Outline the wider political, social, cultural and environmental context |

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| | of Nigeria.<br>● Outline the changing industrial structure showing the move to a tertiary economy.<br>● Outline how the manufacturing industry can stimulate economic development.<br>● Outline the role of Transnational Corporations (TNCs)<br>● Outline the advantages and disadvantages of TNCs in Nigeria<br>● Outline the changing political and trading relationship of Nigeria with the wider world.<br>● Outline the types of international Aid in Nigeria and the impacts of receiving this Aid.<br>● Outline the environmental impacts of economic development. - Outline and show the extent of the effects of economic development on quality of life for the population.<br><br>Economic Futures in the UK<br>● Outline the causes of economic change in the UK including:<br>● De-industrialisation and decline of traditional industry base<br>● Globalisation<br>● Government Policies.<br>● Outline and explain how the UK is moving to a post-industrial economy including:<br>○ The development of Information Technology<br>○ Service Industries<br>○ Finance<br>○ Research<br>○ Science and Business Parks<br>● Outline the impacts of industry on the physical environment.<br>● Outline how a modern industrial development can be more environmentally sustainable. Example: Hope Valley Cement Works<br>● Outline the social and economic changes in the rural landscape in an area with population growth e.g. South Cambridgeshire and one area of population decline e.g. Outer Hebrides.<br>● Outline and explain the improvements and new developments in UK transport including:<br>○ Road and rail infrastructure<br>○ Port and Airport capacity.<br>○ Define the North-South Divide<br>● Outline and explain and show the extent that regional strategies can attempt to resolve regional differences.<br>● Outline and explain the place of the UK in the wider world including: - Links through trade, culture, transport and electronic communication - Economic and political links: The European Union (EU) and Commonwealth. |
| **Procedural Knowledge**<br><br>***Students will know how to.*** | ● Conduct comparative data analysis on measures of development to understand the difference between HICs and LICs.<br>● Calculate mean, median, mode, range, total sum, subtraction and interquartile range on development measures data.<br>● Analyse and complete choropleth maps and proportional symbol maps showing patterns of development.<br>● Interpret global and national scale geopolitical and topographical maps of Nigeria to understand its location and context.<br>● Analyse population pyramids using the Demographic Transition Model to show different levels of development.<br>● Apply OS map skills to science and business parks, including using grid references, identifying land use patterns, and calculating area. |

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| | ● Examine aerial and ground photos to identify evidence of UK economic change, such as transport infrastructure and rural landscapes experiencing population growth or decline. |
| **Core knowledge** | ● Name development measures e.g. birth rate, death rate, life expectancy, infant mortality rate, Gross National Income and Human Development Index (HDI).<br>● State how birth rate, death rate and life expectancy work.<br>● State limitations of development indicators.<br>● Name the causes of uneven development such as landlocked countries, debt, climate etc.<br>● Name a consequence of uneven development.<br>● Name strategies to reduce the Development gap such as Aid, Tourism, Fairtrade and Debt relief.<br>● State the location of Nigeria.<br>● State and outline the importance Nigeria.<br>● State an advantage and a disadvantage of Trans-National Corporations (TNCs)<br>● Name a cause of economic change in the UK.<br>● State one way the UK is moving to a post-industrial economy. |
| **Prior knowledge** | Year 8<br>● The definition of globalisation<br>● The impacts of globalisation upon NEEs/LICs, including income, money, tax, environmental degradation, climate change, exploitation<br>● The impacts of globalisation upon HICs, including deindustrialisation, unemployment, negative multiplier effect.<br>● Examples that illustrate globalisation and its effects including fast fashion and the Rana Plaza collapse<br>● Indicators of development<br>● Sense of place (chosen location)<br>● Causes of a lack of development: Colonialism, war, climate<br>● Solutions to a development gap: Fair trade, Tourism, Debt relief<br>● The limitations and improvements that can be made to a fieldwork investigation<br><br>Year 9<br>● Know what an NEE is<br>● Know the meaning of development indicators such as %living in slums, literacy rate, GDP.<br>● Know the location of Nigeria<br>● Know the physical geography of Nigeria in terms of ecosystems<br>● Know the challenges and opportunities of life in Nigeria with a focus upon Lagos<br>● Know what globalisation is and the rise of TNCs<br>● Know what a TNC is and its impact upon an NEE<br>● Know the effects of economic development upon the environment and quality of life in an NEE |

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| **Future knowledge** | Global Systems and Global Governance unit includes:<br>● Complex interconnections of global trade, finance, and migration. - The role of international organisations and agreements in managing global challenges.<br>● Theoretical understanding of how the world is interconnected.<br>● Globalisation in International trade and access to markets:<br>● Factors and dimensions of globalisation<br>● Benefits and costs of globalisation, including the effects on the international labour market.<br>● The nature and role of TNCs.<br>● Features of world trade.<br>● Strategies for resolving globalisation problems.<br>● Strategies to increase energy supply in a globalising world. |
| **Key vocabulary** | Economic development,<br>Development Gap,<br>Quality of Life |

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| **Topic title** | **Geographical Application: Issue Evaluation**<br>**The Issue Evaluation section of Paper 3 is a critical thinking assessment where students will demonstrate geographical skills and applied knowledge. The pre-release resource booklet is released to students and departmental staff 12 weeks before the exam.**<br>**All declarative and procedural knowledge will be decide and planned before teaching.**<br>**The Geographical Issues in previous exam series include:**<br>**- The Morecambe Bay and Duddon Estuary Tidal Barrage - England's housing challenge: The proposed Tudeley Village Development - The Cayman Islands Port development** |
| **Students will know**<br><br>**(Declarative knowledge)** | To be decided in the March of the academic year of that exam series. |
| **Students will know how to:**<br><br>**Procedural knowledge** | To be decided in the March of the academic year of that exam series. |
| **Core knowledge** | To be decided in the March of the academic year of that exam series. |
| **Prior knowledge** | To be decided in the March of the academic year of that exam series. |

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| **Future knowledge** | The A level syllabus does not include a stand alone issue investigation style unit of study. However, throughout the A level, the following are developed and encouraged:<br>Analytical and Evaluative Thinking: A-Level questions move beyond factual recall to require more in-depth analysis, evaluation, and the ability to construct well reasoned arguments. Students are expected to apply geographical knowledge and understanding to new scenarios and critically assess different perspectives.<br><br>Synopticity: The A-Level syllabus explicitly encourages synoptic thinking, where students draw connections and integrate knowledge from different parts of the specification to address broader geographical issues |
| **Key vocabulary** | To be decided in the March of the academic year of that exam series. |