

Geography-KS4

Teachers: Shaun Birch

Geography helps us to explore and understand space and place – recognising the great differences in cultures, political systems, economies, landscapes and environments across the world, and exploring the links between them. It is intended by the end of KS3 or KS4 that all pupils will have the basic geographical skills such as map reading, basic direction and navigation, a broad sense of the unique landscapes in the UK and the wider world to help them understand places, cultures and environments. It is also intended through geography for pupils to critically think about the local and global environment that they live in and what impact they may be having in their community. Pupils can opt to study either Geography or History in Key Stage 4.

Geography Progression – Learning Intention and Knowledge

Position:

Position - Use compass points and grid references to interpret maps, including Ordnance Survey maps, with accuracy. Compass points can be used to describe the relationship of features to each other or describe the direction of travel. Accurate grid references identify the position of key physical and human features.

Maps - Identify elevated areas, depressions and river basins on a relief map. The geographical term 'relief' describes the difference between the highest and lowest elevations of an area. Relief maps show the contours of land based on shape and height. Contour lines show the elevation of the land, joining places of the same height above sea level. They are usually an orange or brown colour. Contour lines that are close together represent ground that is steep. Contour lines that are far apart show ground that is gently sloping or flat. Use grid references, lines of latitude and longitude, contour lines and symbols in maps and on globes to understand and record the geography of an area. A geographical area can be understood by using grid references and lines of latitude and longitude to identify position, contour lines to identify height above sea level and map symbols to identify physical and human features.

UK - Identify the topography of an area of the UK using contour lines on a map. Topography is the arrangement of the natural and artificial physical features of an area.

Place

World - Name, locate and describe major world cities. Major cities around the world. Explain interconnections between two areas of the world. Geographical interconnections are the ways in which people and things are connected.

UK - Describe the relative location of a place or geographical feature in the UK in relation to another place or geographical feature. Relative location is where something is found in comparison with other features.

Position - Identify the position and explain the significance of latitude, longitude, equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night). The Northern Hemisphere is the part of Earth that is to the north of the equator. The Southern Hemisphere is the part of Earth that is to the south of the equator. The Prime Meridian is the imaginary line from the North Pole to the South Pole that passes through Greenwich in England and marks 0° longitude, from which all other longitudes are measured.

Investigation:

Geographical resources - Analyse and compare a place or places using aerial photographs, atlases and maps. Aerial photography is used in cartography, land-use planning and environmental studies. It can be used alongside maps to find out detailed information about a place or places. Use satellite imaging and maps of different scales to find out geographical information about a place. Satellite images are photographs of Earth taken by imaging satellites.

Data analysis - Collect and analyse data from primary and secondary sources, identifying and analysing patterns and suggesting reasons for them. Secondary data includes information gathered by geographical reports, surveys, maps, research, books and the internet. Summarise geographical data to draw conclusions. Analyse and present increasingly complex data, comparing data from different sources and suggesting why data may vary. Data helps us to understand patterns and trends but sometimes there can be variations due to numerous factors (human error, incorrect equipment, different time frames, different sites, environmental conditions and unexplained anomalies).

Nature:

Physical features - Identify and describe some key physical features and environmental regions, along with the climate zones and soil types, can affect land use. Know the six major biomes: tundra, coniferous forest, grasslands (prairie), deciduous forest, desert and tropical rainforest. Due to its extreme geographic variation, South America has a vast variety of biomes, including desert, alpine, rainforest and grasslands.

Environmental - Name and locate the world's biomes and climate zones and explain their common characteristics. The Earth has five climate zones: desert, equatorial, polar, temperate and tropical. A biome is a large ecological area on the Earth's surface, such as desert, forest, grassland, tundra and aquatic. Biomes are often defined by a range of factors, such as temperature, climate, relief, geology, soils and vegetation. Explain how global warming affects climate zones and biomes across the world. Research indicates that global warming is caused by human activity (burning fossil fuels, deforestation, pollution and methane producing livestock) and causes changes to the world's weather; the melting of polar ice caps; rising sea levels; destruction of coral reefs and the shifting of the seasons.

Mankind: Human features and landmarks - Explain how humans function in the place they live. The distribution of and access to natural resources, cultural influences and economic activity are significant factors in community life in a settlement

Material: natural and manmade materials - Explain how the presence of ice make the polar oceans different to other oceans on Earth. The polar oceans are significantly colder than other world oceans. This influences the presence of sea ice, glaciers and icebergs

Significance: Identify some of the problems of farming in a developing country and report on ways in which these can be supported. Farming challenges for developing countries include poor soil, disease, drought and lack of markets. Education, fair trade and technology are ways in which these challenges can be reduced

Geographical Change: Describe how the characteristic of a settlement changes as it gets bigger (settlement hierarchy). Settlements come in many different sizes and these can be ranked according to their population and the level of services available. A settlement hierarchy includes hamlet, village, town, city and large cit

Syllabus materials KS4:

[AQA | Geography | GCSE | Geography](#)

Careers in Geography:

[1438_My Learning My Future_Geography_FINAL.pdf \(careersandenterprise.co.uk\)](#)

Schemes of work:

Year 10 - In Year 10 Pupils will look at physical processes and systems and how they change and how people will interact with them on a range of scales. Pupils will start on the AQA GCSE, looking at paper 1, 2, and 3. Paper 1 is physical (90mins), Paper 2 is Human (90mins) and Paper 3 is Geographical skills and Fieldwork (1hour15mins). Exam style questions and Geographical skills will be fed into each topic as and when appropriate to help acclimatise the pupils and prepare them for their exams at the end of year 11.

Autumn One – Physical Paper 1	Autumn Two – Physical Paper 1	Spring One – Human Paper 2	Spring Two – Human Paper 2	Summer One – Physical Paper 1	Summer Two – Physical Paper 1
<u>The challenge of weather hazards</u> Pupils will look at global atmospheric circulations and how this influences the creation of weather hazards, and features such as tropical storms. They will use named examples to look at the Primary and Secondary effects of Tropical storms. Pupils will also study extreme weather events in the UK and how their intensity and frequency is changing over time. - General atmospheric circulation model: pressure belts and surface winds. - The Hadley, Ferrel and Polar Cells - Tropical storms (hurricanes, cyclones, typhoons) - 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.	<u>The challenge of weather hazards continued</u> - Tropical storms have significant effects on people and environments. - The primary and secondary effects of tropical storms and the immediate and long-term responses. - Use of a named example of tropical storm to show its effect and responses. - How monitoring, prediction, protection and planning can reduce the effects of tropical storms. <u>The UK is affected by a number of weather hazards.</u> - Types of weather hazard experienced in the UK. - Extreme weather events in the UK have impacts on human activity - Example: Boscastle Floods - North Yorkshire Floods <u>Climate change</u> - Climate change is the result of natural and human factors, and has a range of effects. - 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)	<u>Challenges of resource management</u> Pupils will look at the UK distribution and management of water, food and energy, and then look more in depth at one of these resources on a global level. - The changing demand and provision of resources in the UK create opportunities and challenges <u>Food:</u> - Growing demand for high value food exports from LIC. - Carbon footprints and ‘food miles’ - The trend towards agribusiness - The Impacts of all year round food. - Sustainability – agribusiness <u>Water:</u> - The changing demand for water. - Water quality and pollution management - Areas of deficit and surplus - The need for transfer to maintain supplies. - Conflicts over water <u>Energy:</u> - The changing energy mix (UK) - Reduced supplies of coal, gas and oil - Exploitation of energy sources - Fossil fuel impacts - Economic and environmental issues of fracking and shale gas? - Areas of surplus (security) and deficit (insecurity) - Reasons for increasing energy consumption. - Factors affecting energy supply. - Impacts of energy - insecurity: energy supply problems. - Different strategies can be used to increase energy supply. - Renewable and non- renewable sources of energy - How a non-renewable resource has both advantages and disadvantages when used to generate electricity. - Individual energy use and carbon footprints. Energy conservation	<u>Urban Issues and challenges</u> Pupils will look at how a growing percentage of the global population is living in urban areas. They will look at the reasons for this change and the different challenges it presents to MEDCs and LEDCs, including a case study. - Global patterns of urban change - Urban trends in different parts of the world - Factors affecting the rates of urbanisation e.g. push/pull factors and migration - Case study of a major city in a LIC or NEE to look: at the location and importance of the city, regionally, nationally and internationally; causes of growth; how urban growth has created both opportunities and challenges - An example of urban planning and how this 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. - Case study of a major UK city - Example of an urban regeneration project - Urban sustainability and the need for management of resources and transport.	<u>River and Glacial landscapes in the UK</u> Pupils will build on previous knowledge of River landscapes from KS3. They will look at erosional, transportation and deposition processes and the fluvial landscapes and features created by them. They will study a UK example of a river valley to look at erosional and depositional features. - 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: - Erosion – hydraulic action, abrasion, attrition, solution, vertical and lateral erosion - transportation – traction, saltation, suspension and solution - Deposition – why rivers deposit sediment. <u>Distinctive fluvial landforms result from different physical processes.</u> - River landforms - 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	<u>River and Glacial landscapes in the UK continued</u> - Different management strategies can be used to protect river landscapes from the effects of - flooding. - How physical and human factors affect the flood risk <u>Factors affecting flood risks</u> - Precipitation, geology, relief and land use. - The use of hydrographs to show the relationship between precipitation and discharge. <u>River management</u> - The costs and benefits of hard engineering – dams and reservoirs, straightening, embankments, flood relief channels - soft engineering – flood warnings and preparation, flood plain zoning, planting trees and river restoration. - Examples of flood management scheme in the UK to show: - why the scheme was required - the management strategy - the social, economic and environmental issues. <u>Glacial landscapes</u> - Glacial processes: Freeze-thaw weathering, erosion, movement and transportation, deposition. - Distinctive erosional and depositional features - Specific UK example of a glaciated area used for tourism to show: the attraction for tourists, social economic and environmental impacts of tourism, and strategies used to manage the impact of tourism.

Year 11

We will continue to look at the AQA GCSE and complete the topics, while continually feeding in paper 3 – geographical skills where possible into each topic. In the Summer term, full focus will be dedicated to preparing for exams, and revising previous topics.

Autumn One - Physical Paper 1	Autumn Two - Physical Paper 1	Spring One - Human Paper 2	Spring Two - Human Paper 2	Summer One	Summer Two
<u>The Living World – Ecosystems</u> Pupils will build on their previous knowledge of Ecosystems, and look in detail at Rainforests and Hot deserts. They will look at the concept of interrelationships within a natural system and see how these examples compare with previously studied UK examples. They will also look at the wider environmental impacts on rainforest deforestation and desertification at a global level and how these are influenced by, and influence climate change. 4. Small scale ecosystems UK Examples. 5. Inter-relationships within a natural system. 6. An understanding of producers, consumers, decomposers, food chain, food web and nutrient cycling 7. The balance between components. 1. The impact of changing one component on the ecosystem. 2. Biome distribution 3. Biotic and abiotic components <u>Case study: Rainforests</u> 4. The physical characteristics of tropical rainforests with a named examples. 5. How plants and animals adapt to physical conditions/ Issues related to biodiversity. 6. Deforestation and forest management. 7. Causes of deforestation 8. Impacts and issues resulting from deforestation 9. The value of tropical rainforests to people and the environment.	10. Rainforest sustainability 11. Ecotourism and international agreements 12. Governmental methods to reduce or stop logging activity and replace this with other sustainable methods. <u>Case Study: Hot deserts</u> 1. The physical characteristics of a hot desert. 2. How plants and animals adapt to the physical conditions. 3. Case study of a hot desert: Abu Dhabi, Dubai 4. Development opportunities in hot desert environments. 5. Challenges of developing hot desert environments. 6. Causes of desertification. 7. What are the challenges of living in climatic extremes? 8. Strategies used to reduce the risk of desertification.	<u>The changing economic world</u> Pupils will look at global variations in economic development and quality of life. They will look at different economic and social measures of development and see how these vary around the world. They will look at how countries develop and change and the consequences of uneven development. 1. Know that there are global variations in economic development and quality of life. 2. Various strategies exist for reducing the global development gap. 3. Some LICs or NEEs are experiencing rapid economic development which leads to significant social and cultural change. 4. A case study of one LIC or NEE to illustrate: The location and importance of the country, regionally and globally, the wider political, social, cultural and environmental context within which the country is placed. 5. The changing industrial structure. 6. The role of transnational corporations (TNCs) 7. The changing political and trading relationships with the wider world 8. International aid: types of aid, impacts of aid on the receiving country 9. The environmental impacts of economic development. 10. How economic development is improving the quality of life for the population.	<u>The changing economic world continued ..</u> 1. Some LICs or NEEs are experiencing rapid economic development which leads to significant social and cultural change. 2. Major changes in the economy of the UK have affected and will continue to affect employment patterns and regional growth. 3. Economic futures in the UK: 1. Causes of economic change: globalization and government policies, de-industrialisation and decline of traditional industrial base 2. Moving towards a post-industrial economy: 3. Impacts of industry on the physical environment. 4. Social and economic changes in the rural landscape in one area of population growth and one area of population decline. 5. Improvements and new developments in road and rail infrastructure, port and airport capacity. 6. The North–South divide 7. The place of the UK in the wider world. 8. The European Union (EU) and Commonwealth. 9. Link between the stages of the Demographic Transition Model and the level of development. 10. Consequences of uneven development.	<u>Revision lessons</u> Although exam style questions will be drip fed throughout all topics for years 10 and 11, there will be a particular focus on exam style questions during this time. We will revisit previous topics, and fill in knowledge gaps to prepare the pupils for their exams.	<u>Revision Lessons</u>