

## A Geography Curriculum for England 2011

### Introduction

Geography is the study of the variation of physical and human phenomena across the surface of the world. This 'surface' includes the Earth's crust, the landscape, vegetation, the atmosphere, people, human culture and activities, the built environment and political territories. The term geography derives from two Greek words *geo* meaning Earth and *graphia* meaning describing or depicting. In modern times, the subject has evolved as a science, but can also be viewed as part of the humanities. In the words of the great American geographer Edward Ackerman '*The goal of Geography is nothing less than an understanding of the vast interacting system comprising all humanity and its natural environment on the surface of the Earth.*'

Geography begins with the question *where?* In order to understand physical and human phenomena we need to know where they are located. Then we can begin to examine what is around them and how they are *related* to surrounding phenomena. We need to understand the *processes* that shape the physical and human worlds, how they *interact* and *why* things are located where they are, as well as how spatial arrangements and places *change* with time. Finally, geographers seek to understand humans in their environment.

Geography's foundational concepts include: **Location** – where things are, **Place** or conditions at a given place which give it meaning, **Links** or connections between locations and **Region** – a territory sharing some homogenous geographical characteristics.

The knowledge and skills included in this geography curriculum are divided into four sections:

- **Mapping** – knowledge and skills that enable pupils to construct, use and interpret maps, including geospatial skills.
- **Human geography** – the study of the distribution of people and their activities, including: population and migration, settlements and urbanization, economic geography, political geography, cultural geography.
- **Physical geography** – the study of the characteristics, forms and processes on the Earth's surface and atmosphere, including: weather and climate, ecosystems, landforms and plate tectonics.
- **Regional geography** – the study of places and regions at different scales, including the local area, the UK and Europe. Pupils should be introduced to the human and physical geography all of the major world realms including: Europe, Russia, North America, Central and South America, Africa, Southwest Asia (Middle East), South Asia, East Asia, Southeast Asia, Australasia and the Pacific. Each region should be introduced with an overview of the key physical and human characteristics. This can be followed by case studies that focus on one or more country or sub-region.

### Rationale

This curriculum includes the knowledge and skills pupils need to learn in order to be able to construct, interpret and analyse maps, to comprehend human culture and physical landscapes and recognise how these vary across the surface of the Earth. How this content is delivered is the prerogative of the classroom teacher, but the curriculum has been written such that the knowledge and skills of mapping, human geography and physical geography may be integrated in a regional context. This regional context begins with the local and familiar and expands in scope to the more distant and unfamiliar. The curriculum includes most, but not all, of the major world regions. These were matched to the content at each key stage. Teachers may well find that parts of the curriculum are best taught as discrete geographical topics and other parts that are best taught through a regional approach. In particular, at Key Stage Three, there are a lot of key geographical concepts and language to be learnt, which may encourage a topical approach. As pupils progress towards Key Stage Four, they are learning to integrate different strands of human and physical geography such that they are introduced to the complexity of landscape and culture, which provide for distinctive regional qualities.

### Overview

**Key Stage One:** Familiarity with the local environment. Introduce basic geographical concepts and ideas. Introduce spatial language and concepts.

**Key Stage Two:** The local community/the UK in Europe/a non-European region. Identify the physical and human characteristics of the UK. Make comparisons between the local community and a non-European region. Make comparisons between the UK and other European countries. Constructing and using basic maps.

**Key Stage Three:** Europe/Africa/Southwest Asia. Introduce the concepts and topics used by geographers to understand the world: population, settlement, culture, political territory, economics, development, climates, ecosystems and geomorphology. Work with OS maps and GIS/GPS.

**Key Stage Four:** East & Southeast Asia/North America/South America: developed and newly industrializing. Use concepts introduced in KS3 to study the complexity of geographical phenomena in their location. Identify how different geographical phenomena are related.

**Key Stage One: Years 1 & 2**

**Mapping**

Introduce pupils to an aerial perspective. For example, draw objects from the side and above and discuss the differences.

Draw plans (aerial view) of objects arranged on a desk, a classroom or another area.

Use a plan of the classroom to locate objects and to describe where things are located in the classroom in relation to other objects using terms like next to, far from, behind, under and so forth.

Give directions (left, right, forwards, backwards), including distance, to find objects located in the classroom and different parts of the school.

**Human Geography**

The built environment and human activities including local services (bank, post office, shops, garage) and land use types (park, housing, industry, roads, farms).

**Physical Geography**

The natural environment: local features including rivers, coast, hills, vegetation, and the weather (including the four seasons).

**Regional Geography**

Physical and human geography in **the local environment**.

Introduce pupils to a map of the UK.

Introduce pupils to the globe.

Introduce pupils to other countries in the world. This might be countries that some of the pupils have lived in or visited. Discuss how things are similar and different in these countries. Locate them on a map and globe.

**Key Stage Two: Years 3 & 4**

**Mapping**

Draw more detailed plans and maps including the classroom, the school and the child's journey to school. Include symbols to represent objects. Add simplified keys to maps, including buildings and different land use types.

Use the four points of the compass to give and follow directions

Study aerial photographs of the school and the local area. Compare aerial photographs with maps of the school and local area. Discuss why things are located where they are, where things are in relation to other objects and patterns of spatial arrangements.

Use a simple coordinate grid to describe the location of objects on a map.

**Human Geography**

Study the local community in more detail and at a greater scope: people, jobs, modes of transportation, types of housing, cultural institutions/beliefs (and their origins), land use, including different types of building, public spaces and/or agricultural types.

Discuss the ways in which the local community is affected by the physical environment and how people modify the environment for different purposes (e.g. reservoirs, agriculture).

**Physical Geography**

Identify and describe local landforms: hills, valleys, rivers, coastline, and lakes.

Locate and describe a local ecosystem.

Keep a daily-record of the weather including temperature, precipitation, wind speed, wind direction. Discuss how the weather varies according to wind direction and season.

The position of the Earth relative to the sun and how this relates to seasons.

**Regional Geography**

Study the human and physical geography (as above) of **the local area** in which you live.

Identify local settlements on a map of England.

The seven continents and major oceans.

Study the human and physical geography of a **non-European region** (e.g. South Asia): its climate, ecosystems, landscape, culture and people. Compare to the geography of your local area.

### Key Stage Two: Years 5 & 6

#### Mapping

Draw more detailed maps, at the regional scale, using points, lines, and polygons (areas) to represent objects in the real world as well as human-imposed boundaries.

Introduce scale. Measure distances on a map. Discuss how distance on the ground can be represented on the map.

Use the eight points of the compass to give and follow directions.

Identify changes to a locality over time, sequence of change, and spread or growth. For example, study aerial photographs taken in different years.

Study how objects are spatially arranged on maps, for example services and public amenities. Discuss why things are located where they are and optimal locations.

#### Human Geography

At the regional and national scale, study: population distribution, settlement types (hamlet, village, town, city), economic activity: agriculture/industry/services (what is produced and where?), natural resources (what is found where, how is it used), political and regional boundaries, different cultural influences and their origins, different religious beliefs, ethnicity, transportation and communication networks and areas of conservation.

How and why does human geography vary across the regions of the UK? Discuss the ways in which human activities are influenced by the physical environment and relative location.

Identify and describe some of the natural hazards encountered in the UK and other parts of the world.

#### Physical Geography

At the regional and national scale, study: climate, ecosystems, bodies of water and landscape. How and why does this physical geography vary across the UK?

Introduce pupils to the idea of landscape change and the processes responsible for this change, including the weather, rivers, ice, the sea and tectonic forces.

Introduce plate tectonics: the Earth's crust, plate boundaries and movement, volcanoes and earthquakes.

**Regional Geography** Know that regions are areas of unifying geographic characteristics.

Study the human and physical geography of the **English region** in which you live (as above).

The major physical and human features of the **UK** including: mountains, bodies of water, major valleys, islands, cities, ports, transportation networks, national parks and conservation areas.

Study the location of the UK in Europe. Identify the major countries (Germany, Italy, France, Poland, Spain, Netherlands, Ireland etc.) on a **map of Europe** and learn about their distinguishing geographical characteristics. Where possible, connections should be made with foreign language study.

**Key Stage Three: Years 7, 8 & 9**

**Mapping**

Study how physical and human features are represented on a on a 1:25,000 OS map.

Use four and six figure grid references to locate objects on an OS map.

Use latitude and longitude to locate places on maps and the globe.

Use the sixteen points of the compass to give and follow directions

Use maps of different scale and measure distances on a map.

Study how elevation is represented on maps.

Construct and interpret weather maps.

Use Geographical Information Systems to construct and interpret maps.

Use a Global Positioning System device to collect and view geographical data.

**Human Geography**

**Population and Migration**

The components of population: birth rate, death rate, migration, natural increase.

Population growth and the expansion of resources in the modern era.

Population structure: use and interpret age-sex population pyramids.

Patterns of population distribution and density. Discuss how these are related to physical and human factors.

Migration types and push/pull factors association with them.

**Settlements**

Patterns of rural settlement: dispersed, linear and nucleated.

Physical and human factors that influence the site and patterns of settlements, including models such as Christaller's Central Place Theory.

Identify a broader hierarchy of settlement types: hamlet, village, small town, large town and conurbation. Examine the sphere of influence of different settlements.

Categories and location of land use in towns and cities: central business district, residential, industrial and recreational.

Consider some of the different functions of settlements.

Study how settlements grow and change over time and the reasons for these changes.

### **Economic Activity and Resources**

Categories of economic activity: primary, secondary, tertiary, quaternary. Examine the proportion of citizens working in each sector.

**Primary resources:** Where are they found? How do we access them? Where are they needed? How do they get there?

**Energy:** what different sources are available? Where are they located? How are they accessed? Where are they needed? How do they get there? What are the benefits and problems for people and the environment associated with different energy sources?

**Water:** different ways in which it is used: agricultural, domestic and industrial. From where do we get our water? How is it transported? What happens to the water after it has been used?

**The agricultural system:** inputs, processes and outputs.

What food is grown in different regions? Why is it grown there? Where is the market for this food?

Different types of farming: monocrop, arable, intensive, ranching, nomadic, genetically modified.

**The industrial system:** inputs, processes and outputs.

Examples of commodities that are manufactured. Why are they made there? Where is the market area?

Factors affecting the location of manufacturing plants including: resources, power, labour, market, government subsidies. How have these factors changed over time?

What is a trade block (e.g. the European Union)? How does it affect the movement of goods and people?

**Services:** categorise services by type. Where are different services located and why?

### **Development and Human Welfare**

What is development? How can it be measured? How is it advanced?

Introduce terms such as standard of living and quality of life and discuss how they can be compared from one country to the next. How does this help to identify levels of development?

Examine some problems of underdevelopment and subsistence economies: malnutrition, ill-health, low technology, illiteracy, low standard of living, subsistence farming and land management.

What are the ways in which different countries approach development (e.g. sustainable development, industrialization)? Discuss the benefits and problems associated with each.

How is aid provided to low income countries? What effects does it have?

### **Physical Geography    River Landforms and Processes**

The features and forms of a river system including: spring, channel, bank, bed, levee, valley, waterfall, mouth, drainage basin, meander, ox bow lake, watershed, floodplain, and delta.

The hydrological cycle including precipitation, evaporation, run off, infiltration, interception, transpiration, evapo-transpiration, condensation and groundwater flow.

The work of a river: eroding, transporting and depositing. Where in a river's course deposition takes place and why?

Processes of erosion: hydraulic action, corrosion, corrosion (solution) and attrition.

Processes of transportation: traction, saltation, suspension and solution.

What are the different ways in which people use rivers?

### **Marine Processes and Landforms**

Components of waves: swash and backwash.

Processes of wave erosion: corrosion, hydraulic action, corrosion and attrition.

How material is transported along a coastline (longshore drift)?

Study the landforms associated with these processes including: cliffs, wave-cut platforms, caves, arches, stacks, bay and headland coastlines, beaches, spits and bars, coastal sand dunes and marsh.

### **Rocks, Landforms and Weathering.**

Introduce different types of rock and learn about how they were formed.

How do differences in rock type affect landscape and landforms e.g. coastlines, landforms associated with limestone?

Weathering of rock.

Soil formation and introduce difference in soil type.

### **Glaciation**

How are glaciers and ice sheets made and where are they found?

Introduce glacial cycles and identify the extent of ice sheets during the last ice age.

Freeze-thaw weathering of *in situ* rock.

Processes of glacial erosion e.g. plucking, abrasion.

Glacial transportation and deposition.

Landforms associated with glacial processes including: cirques, U-shaped valleys, truncated spurs, arêtes, pyramidal peaks, moraine, drumlins, erratic, ribbon lakes, fjords, truncated spurs, hanging valleys.

### **Weather, Climate and Ecosystems**

Use instruments to record and monitor changes to **weather** including: rain gauge, maximum/minimum thermometers, wet and dry bulb thermometers, barometer, anemometer, wind vane, cloud cover.

Precipitation: different forms and cause of precipitation (frontal, orographic, convectional).

What is air pressure? Weather associated with high and low air pressure.

Introduce anti-cyclones and depressions.

Identify relationships between different weather variables, such as wind & temperature, air pressure and precipitation.

Cloud types and cloud cover.

The factors affecting climate including: latitude, pressure systems, wind direction, distance from the sea, altitude and ocean currents.

How does the weather affect people in different places?

### **Temperate and Arctic Climates and Ecosystems**

What is an ecosystem? Refer to the biological concepts of food chain, nutrient cycle and biome.

Characteristics and location of temperate and arctic climates and ecosystems. Pupils should become familiar with climate graphs for different localities.

Hazards associated with temperate and arctic climates including flooding, freezing/thaw, snow accumulation, permafrost.

### **Tropical Climates and Ecosystems**

Describe the characteristics of humid equatorial, arid and semi-arid climates and ecosystems and identify where they can be found on the globe.

Learn about the hazards of arid climates including drought, soil erosion, and desertification.

## **Regional Geography      Europe, the European Union and Russia**

Major physical features and bodies of water. How does landscape vary across Europe and Russia?

Temperate and arctic climates and ecosystems (as above).

Variations in population density, settlement, and economic activity.

The cultural origins of Europe and Russia. Cultural differences found in these regions.

The economic and political origins of the EU.

Membership and geographical extent of the EU and the Eurozone.

Benefits and problems of EU membership.

### **Africa and Southwest Asia**

Tropical climates and ecosystems (as above).

Landscape features: deserts, mountain ranges, plateaus, basins.

Cultural pattern, practices and beliefs, e.g. tribal cultures, Persian culture, Arabic culture, Turkish culture, Islam.

Patterns of population, settlement, economic activity (especially subsistence and fossil fuel economies), and levels of development.

Colonial legacy, political boundaries and cultural/political conflict (e.g. Sudan or Israel).

### **Key Stage Four: Years 10 & 11**

#### **Mapping**

Identify land features and patterns of relief/drainage associated with contour patterns.

Use an OS map to draw cross-sections and sketch maps of physical features (e.g. valleys, bays).

Identify different types of land use and housing on an OS map.

Identify how different objects and activities on maps are spatially related to each other (e.g. the location of housing relative to a river or ribbon development).

Use GIS/GPS/satellite images to construct and interpret maps, and also to analyse geographical data.

#### **Human Geography**

##### **Population Growth & Migration**

Introduce new demographic measures such as fertility rate, infant mortality, life expectancy. Discuss why these vary from country to country and the significance of each.

How and why do population structures vary between countries? What significance does this have? When is population growth/decline an advantage/disadvantage?

The demographic transition model: how does this help us to understand demographic change with development?

How have governments tried to limit or promote population growth? How successful have they been?

Which countries/regions are attracting migrants? Why? What are the effects of migration upon the destination/place of origin?

How have governments tried to limit or promote immigration? How successful have they been?

##### **Settlement and Urban Development**

Study the physical and human factors that influence the size, shape, growth and functions of settlements.

Urbanization: why does this take place? What are the main differences between urbanization in developed and less developed countries? Problems and benefits associated with urban growth, including pollution, ghettos, and shanty settlements.

Different patterns of urban growth: sprawl, conurbations, edge-cities, exurbs.

Models of urban growth, e.g. Burgess, Hoyt, Ford and Griffin.

Government and urban planning: urban renewal, social programmes, new towns.

Transportation networks and patterns associated with urban growth. Planning for transportation.

### **Economic Activity, Resources and Development**

Contrasting **agricultural systems**: commercial, plantation, subsistence.

How are countries with rising populations increasing their production of food? What effects is this having?

What is land redistribution? What challenges does it bring?

**Manufacturing and Services.** Study examples of commodities being manufactured in newly industrialized countries, including the path of one or more simple commodity chain. What services are also be outsourced to newly industrialized countries? What comparative advantages do these countries have?

What are the main features of international trade today? What are transnational corporations? Where are they investing and why? How do trade and investment build interconnections between countries?

How have the location factors for manufacturing and services changed with high technology (e.g. the Internet), containerisation and the liberalisation of trade barriers?

What are governments doing to promote industrial growth (including special economic zones)? What are the social, economic and environmental effects of rapid economic growth? How are they being managed?

What is the informal economy? How does it operate? (e.g. in a Brazilian *favela*)

Study changes to the economic structure and the nature of economic activity in a more advanced economy (e.g. Japan/USA). E.g. expansion of services and specialization in manufacturing.

**Energy:** production and consumption. Renewable and non-renewable energy sources. Primary and secondary sources of energy. Consider the advantages and disadvantages of different sources of energy. How are energy supply and economic development related?

**Water:** Supply, management of water resources and consumption. Where and when is water supply plentiful/scarce?

Other social, cultural, political, economic and environmental challenges associated with rapid industrialization (e.g. changing lifestyle in conflict with tradition/inequality).

**Tourism and Recreation:** Study places of natural and human-made attraction. Where are they located? From where do people travel to visit them? How are these resources managed and conserved? What are the advantages and disadvantages of tourism and/or recreation? Study different types and examples of tourism.

### **Cultural Patterns and Practices**

Identify cultural practices, ideas, values, institutions, language, beliefs, religions and technology in different locations. Examine how these vary in space.

Diffusion of cultural ideas and practices.

Cultural and political conflict between neighbouring people or at a given location: causes, effects and possibilities for resolution.

### **Political Geography**

What is a state? What is a nation? What is a nation state?

Why is the world divided into states? When did this happen? How were different borders determined?

Why are borders sometimes disputed? How can this be resolved?

What is a supranational institution (e.g. the European Union)? What is its relationship to states?

## **Physical Geography**

### **River Systems**

Study the forms of river valleys: long profile and cross-sections. How do the cross-section and landforms change at different stages of the river?

Introduce hydrographs to show how rivers respond to different precipitation events. Show how hydrographs can be used to manage rivers and predict flooding.

Study the problems caused by river flooding: how is the flow of rivers managed and what can be done to reduce the risk of flooding? (e.g. USA or China)

Examine the ways in which rivers are used as well as their cultural significance.

### **Weather and Climate**

Study the atmospheric conditions that give rise to different weather patterns, including depressions and anticyclones.

Extreme weather events, such as hurricanes and tornadoes. Where do these occur and why? What effects do they have? What can be done to mitigate damage caused?

Climate change: long term (glacial and interglacial cycles) and short term patterns. Effects of climate change e.g. sea level change, shifting precipitation patterns, expansion and contraction of ice sheets and glaciers.

The greenhouse effect and the human activities which have increased levels of greenhouse gases in the atmosphere.

### **Plate Tectonics**

The internal structure and the crust of the Earth.

The distribution of plates, plate boundaries, earthquakes and volcanoes.

The process of plate movement, types of plate boundary and the effects of this movement (earthquakes, volcanoes, uplifting, faults, rift valleys).

How are earthquakes measured? How do we calculate their magnitude?

What is a tsunami? How is it generated? How far does it travel?

Study examples of hazards caused by tsunamis, volcanoes and/or earthquakes. What were the effects? What can be done to limit these effects?

### **Regional Geography East/Southeast Asia**

Cultural patterns, practices and beliefs.

Climate patterns (including monsoon climates), ecosystems and landscape.

Population and settlement patterns, economic activity, development, political territories,

Industrialization and economic growth in e.g. China. Social change associated with rapid growth.

Population control, e.g. China.

The cultural significance of rivers.

**North America**

Major landscape features and climate types. Weather and extreme events.

Cultural patterns, practices and beliefs.

Population and settlement patterns, urbanization, economic activity, political territories, and levels of development.

Immigration patterns and controls in e.g. USA.

**South America**

Major landscape features, climate types and ecosystems.

Cultural patterns, practices and beliefs.

Population and settlement patterns, economic activity, political territories, and levels of development.

Urbanization in a South American city e.g. Rio de Janeiro.

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