



Year 4- Geography

Interconnected world

Misty mountain, winding river

Locational knowledge	Place knowledge	Human and physical geography	Geographical skills and fieldwork
<p>The Tropic of Cancer is 23 degrees north of the equator and Tropic of Capricorn is 23 degrees south of the equator. (IW)</p> <p>The North American continent includes the countries of the USA, Canada and Mexico as well as the Central American countries of Guatemala, Honduras, Nicaragua, Costa Rica and Panama.</p> <p>The South American continent includes the countries of Brazil, Argentina, Chile, Colombia, Peru, Venezuela, Uruguay, Ecuador, Bolivia and Paraguay. (IW)</p> <p>Land uses include agricultural, recreational, housing and industry. Water systems are used for transport, industry, leisure and power. (Both)</p>	<p>Countries nearer the equator are hotter and countries further from the equator are colder. Some countries have contrasting climate zones. (IW)</p> <p>Cultural studies of a country include the language, religion and values of the people who originate from, or live in, a particular place. (IW)</p> <p>Altitudinal zonation describes the different climates and types of wildlife at different altitudes on mountains. (MMWR)</p>	<p>Physical features, such as mountains and rainforests, can affect the climate. (IW)</p> <p>Significant rivers of the UK include the Thames, Severn, Trent, Dee, Tyne, Ouse and Lagan. Significant mountains and mountain ranges include Ben Nevis, Snowdon, Helvellyn, Pen y Fan, the Scottish Highlands and the Pennines. (IW)</p> <p>Significant physical features of the UK include mountains, rivers, islands, lakes and forests. (IW)</p> <p>The environment produces natural resources. Humans use some natural resources to make energy. Some natural resources cannot be replaced, like coal or oil. They are non-renewable. Some, like wind or flowing water, are renewable sources of energy. (IW)</p> <p>Renewable energy includes solar power, wind power, hydropower, geothermal energy and bioenergy. (IW)</p>	<p>The four cardinal directions are north (N), east (E), south (S) and west (W), which are at 90° angles on the compass rose. The four intercardinal (or ordinal) directions are halfway between the cardinal directions: north-east (NE), south-east (SE), south-west (SW) and north-west (NW). (IW)</p> <p>A six-figure grid reference contains six numbers and is more precise than a four-figure grid reference. The first three figures are called the easting and are found along the top and bottom of a map. The second three figures are called the northing and are found up both sides of a map. Six-figure grid references give detailed information about locations on a map. (IW)</p> <p>An atlas is a collection of maps and information that shows geographical features, topography, boundaries, climatic, social and economic statistics of an area. (Both)</p> <p>Atlases often contain additional data about countries, such as their population and land height. (IW)</p>

Topography is the arrangement of the natural and artificial physical features of an area. (MMWR)

A contour line is a line on a map that joins areas of equal height and shows the elevation of features in the landscape. (MMWR)

Human features can be interconnected by function, type and transport links. (IW)

The canals in Britain are man-made waterways that were created during the Industrial Revolution to transport raw materials and goods around the country. Locks, tunnels and aqueducts are all features of canals. Canals declined when railways and roads developed but were conserved after the Second World War and are used for recreation and leisure today. (IW)

A physical feature is one that forms naturally and can change over time due to physical processes, such as erosion and weathering. Physical features include rivers, forests, hills, mountains and cliffs. An aspect of a physical feature might be the type of mountain, such as dome or volcanic, or the type of forest, such as coniferous or broad-leaved. (MMWR)

A river is a body of water that flows downhill, usually to the sea. The place where a river starts is called the source. Tributaries are small rivers or streams that flow into larger rivers or lakes. Meanders are bends in rivers. The place where a river flows into the sea is called the mouth. (MMWR)

Rivers, and the landscape that surrounds them, have different characteristics. The upper course of a river is typically steep, narrow and rocky. The water is fast-flowing and turbulent. The middle course of a river is wider, deeper and curves in meanders. The water flows more slowly. The lower course of a river is flat and wide. The water runs into estuaries or creates deltas. (MMWR)

Fieldwork techniques, such as sketch maps, data collection and digital technologies, can provide evidence to support and answer a geographical hypothesis. (IW)

A hypothesis is a statement that is then proved or disproved by gathering and interpreting evidence. (IW)

Secondary data includes information gathered by geographical reports, surveys, maps, research, books and the internet. (MMWR)

The River Trent is the third longest river in the UK. The river has a range of physical and human features along its course. (MMWR)

Rivers transport materials in four ways. Solution is when minerals are dissolved and carried in the water. Suspension is when fine, light material is carried. Saltation is when small pebbles and stones are carried along the riverbed. Traction is when large boulders and rocks are rolled along the riverbed. (MMWR)

Significant rivers include the Mississippi, Nile, Thames, Amazon, Volga, Zambezi, Mekong, Ganges, Danube and Yangtze. (MMWR)

A mountain is a natural elevation of the Earth's surface, rising to a summit. Mountains have an elevation greater than that of a hill, usually greater than 610m. (MMWR)

Mountains form over millions of years. They are made when the Earth's tectonic plates push together or move apart. Mountains are also formed when magma underneath the Earth's crust pushes large areas of land upwards. There are five types of mountain: fold, fault-block, volcanic, dome and plateau. (MMWR)

There are four mountain ranges in the UK that are home to each country's highest mountain: Ben Nevis, in the Grampian Mountains, Scotland; Scafell Pike, in the Cumbrian Mountains, England; Snowdon, in the Snowdonia Mountains,

Wales; and Slieve Donard, in the Mourne Mountains, Northern Ireland. (MMWR)

Significant mountain ranges include the Himalayas, Urals, Andes, Alps, Atlas, Pyrenees, Apennines, Balkans and Sierra Nevada. Significant rivers include the Mississippi, Nile, Thames, Amazon, Volga, Zambezi, Mekong, Ganges, Danube and Yangtze. (MMWR)

Flooding can happen for a wide variety of natural and human reasons including excessive rainfall, lack of river dredging, land use and the topography of the land. (MMWR)

Skills

- Use the eight points of a compass, four and six-figure grid references, symbols and a key to locate and plot geographical places and features on a map. (IW)
- Use four or six-figure grid references and keys to describe the location of objects and places on a map. (IW)
- Identify the location of the Tropics of Cancer and Capricorn on a world map. (IW)
- Locate the countries and major cities of North, Central and South America on a world map, atlas or globe. (IW)
- Explain climatic variations of a country or continent. (IW)
- Create a detailed study of geographical features including hills, mountains, coasts and rivers of the UK. (Both)
- Describe how natural resources can be harnessed to create sustainable energy. (IW)
- Describe a range of human features and their location and explain how they are interconnected. (IW)
- Explain ways that settlements, land use or water systems are used in the UK and other parts of the world. (IW)
- Investigate a geographical hypothesis using a range of fieldwork techniques. (IW)
- Study and draw conclusions about places and geographical features using a range of geographical resources, including maps, atlases, globes and digital mapping. (MMWR)
- Explain how the physical processes of a river, sea or ocean have changed a landscape over time. (MMWR)
- Name, locate and explain the importance of significant mountains or rivers. (MMWR)
- Describe and compare aspects of physical features. (MMWR)
- Identify, describe and explain the formation of different mountain types. (MMWR)
- Identify the topography of an area of the UK using contour lines on a map. (MMWR)
- Use specific geographical vocabulary and diagrams to explain the water cycle. (MMWR)
- Describe altitudinal zonation on mountains. (MMWR)
- Collect and analyse primary and secondary data, identifying and analysing patterns and suggesting reasons for them. (MMWR)