



Year 4 Geography Step up 2022-23

Aspect	Year 3	Year 4	Year 5
Human features and landmarks	<p>Services include banks, post offices, hospitals, public transport and garages. Land use types include leisure, housing, industry, transport and agriculture. Describe the type, purpose and use of different buildings, monuments, services and land, and identify reasons for their location.</p> <p>covered x 4 optional</p>	<p>Human features can be interconnected by function, type and transport links. Describe a range of human features and their location and explain how they are interconnected. (G1)</p> <p>covered optional</p>	<p>Transport networks can be tangible, such as rails, roads or canals, or intangible, such as air and sea corridors. These networks link places together and allow for the movement of people and goods. Transport networks are usually built where there is a high demand for the movement of people or goods. They run between places where journeys start or finish, such as airports, bus stations, ferry terminals or railway stations. Describe and explain the location, purpose and use of transport networks across the UK and other parts of the world.</p> <p>covered x 3</p>
Settlements and land use	<p>Different types of settlement include rural, urban, hamlet, town, village, city and suburban areas. A city is a large settlement where many people live and work. Residential areas surrounding cities are called suburbs. Describe the type and characteristics of settlement or land use in an area or region.</p> <p>covered x 2</p>	<p>Land uses include agricultural, recreational, housing and industry. Water systems are used for transport, industry, leisure and power. Explain ways that settlements, land use or water systems are used in the UK and other parts of the world. (G2)</p> <p>covered x 3 optional</p>	<p>Agricultural land use in the UK can be divided into three main types, arable (growing crops), pastoral (livestock) and mixed (arable and pastoral). An allotment is a small piece of land used to grow fruit, vegetables and flowers. A wide variety of crops are farmed in the UK, such as wheat, barley, oats, potatoes, other vegetables, fruits and oilseed rape. A wide variety of livestock are reared on farms in the UK, such as sheep, dairy cattle, beef cattle, poultry and pigs. Describe in detail the different types of agricultural land use in the UK.</p> <p>covered</p>
Climate and weather	<p>Excessive precipitation includes thunderstorms, downbursts, tornadoes, waterspouts, tropical cyclones, extratropical cyclones, blizzards and ice storms. Explain how the weather affects the use of urban and rural environments.</p> <p>covered</p>	<p>Climatic variation describes the changes in weather patterns or the average weather conditions of a country or continent. Explain climatic variations of a country or continent. (G3)</p> <p>covered</p>	<p>Changes to the weather and climate (temperature, weather patterns and precipitation) can affect land use. Farmers living in different countries adapt their farming practices to suit their local climate and landscape. Explain how the climate affects land use.</p> <p>covered</p>
Physical processes	<p>Volcanic eruptions and earthquakes happen when two tectonic plates push into each other, pull apart from one another or slide alongside each other. The centre of an earthquake is called the epicentre. Explain the physical processes that cause earthquakes and volcanic eruptions.</p> <p>covered x 4 optional x 2</p>	<p>Water cannot be made. It is constantly recycled through a process called the water cycle. The four stages of the water cycle are evaporation, condensation, precipitation and collection. During the water cycle, water changes state due to heating and cooling. Use specific geographical vocabulary and diagrams to explain the water cycle. (G4)</p> <p>covered</p>	<p>Soil fertility, drainage and climate influence the placement and success of agricultural land. Describe how soil fertility, drainage and climate affect agricultural land use.</p> <p>covered x 3</p>
Geographical resources	<p>Maps, globes and digital mapping tools can help to locate and describe significant geographical features. Analyse maps, atlases and globes, including digital</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.</p>	<p>Aerial photography is used in cartography, land-use planning and environmental studies. It can be used alongside maps to find out detailed information about</p>



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	<p>mapping, to locate countries and describe features studied.</p> <p>covered optional x 3</p>	<p>Study and draw conclusions about places and geographical features using a range of geographical resources, including maps, atlases, globes and digital mapping. (G5)</p> <p>covered x 5</p>	<p>a place, or places. Analyse and compare a place, or places, using aerial photographs, atlases and maps.</p> <p>covered x 3 optional</p>
Data analysis	<p>Primary data includes information gathered by observation and investigation. Analyse primary data, identifying any patterns observed.</p> <p>covered x 2</p>	<p>Secondary data includes information gathered by geographical reports, surveys, maps, research, books and the internet. Collect and analyse primary and secondary data, identifying and analysing patterns and suggesting reasons for them. (G6)</p> <p>covered optional x 2</p>	<p>Geographical data, such as demographics or economic statistics, can be used as evidence to support conclusions. Summarise geographical data to draw conclusions.</p> <p>covered optional x 4</p>
Fieldwork	<p>The term geographical evidence relates to facts, information and numerical data. Gather evidence to answer a geographical question or enquiry.</p> <p>covered optional</p>	<p>Fieldwork techniques, such as sketch maps, data collection and digital technologies, can provide evidence to support and answer a geographical hypothesis. Investigate a geographical hypothesis using a range of fieldwork techniques. (G7)</p> <p>covered</p>	<p>A geographical enquiry can help us to understand the physical geography (rivers, coasts, weather and rocks) or human geography (population changes, migration, land use, changes to inner city, urbanisation, developments and tourism) of an area and the impacts on the surrounding environment. Construct or carry out a geographical enquiry by gathering and analysing a range of sources.</p> <p>covered x 2 optional</p>
Natural and man-made materials	<p>There are three main types of rock found in the Earth's crust. They are sedimentary, igneous and metamorphic. Sedimentary rocks are made from sediment that settles in water and becomes squashed over a long time to form rock. They are often soft, permeable, have layers and may contain fossils. Igneous rocks are made from cooled magma or lava. They are usually hard, shiny and contain visible crystals. Metamorphic rocks are formed when existing rocks are heated by the magma under the Earth's crust or squashed by the movement of the Earth's tectonic plates. They are usually very hard and often shiny. Name and describe the types, appearance and properties of rocks.</p> <p>covered x 3 optional</p>	<p>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. Describe and explain the transportation of materials by rivers. (G8)</p> <p>covered optional</p> <p>Different types of soil include clay, sandy, silty and loamy. Describe the properties of different types of soil. (G9)</p> <p>covered</p>	<p>The topography of an area intended for agricultural purposes is an important consideration. In particular, the topographical slope or gradient plays a large part in controlling hydrology (water) and potential soil erosion. Explain how the topography and soil type affect the location of different agricultural regions.</p> <p>covered</p>
Physical features	<p>A volcano is an opening in the Earth's surface from which gas, hot magma and ash can escape. They are usually found at meeting points of the Earth's tectonic plates. When a volcano erupts, liquid magma collects in an underground magma chamber. The magma pushes through a crack called a vent and bursts out</p>	<p>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. Identify, describe</p>	<p>North America is broadly categorised into six major biomes: tundra, coniferous forest, grasslands (prairie), deciduous forest, desert and tropical rainforest. South America has a vast variety of biomes, including desert, alpine, rainforest and grasslands. Identify and describe some key physical features and environmental regions</p>



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	<p>onto the Earth's surface. Lava, hot ash and mudslides from volcanic eruptions can cause severe damage. Describe the parts of a volcano or earthquake. covered x 3</p> <p>☐ The Earth is made of four different layers. The inner core is made mostly of hot, solid iron and nickel, and the outer core is made of liquid iron and nickel. The mantle is made of solid rock and molten rock called magma. The crust is a thin layer of solid rock that is broken into large pieces called tectonic plates. These pieces move very slowly across the mantle. Name and describe properties of the Earth's four layers. covered x 2</p>	<p>and explain the formation of different mountain types. (G10) covered optional</p>	<p>of North and South America and explain how these, along with the climate zones and soil types, can affect land use. covered optional x 2</p>
Environment	<p>The Earth has five climate zones: desert, Mediterranean, polar, temperate and tropical. Identify the five major climate zones on Earth. covered</p>	<p>Altitudinal zonation describes the different climates and types of wildlife at different altitudes on mountains. Examples include forests that grow at low altitudes and support a wide variety of plants and animals, tundra that is found at higher altitudes and supports plants and animals that are adapted to harsher environments, and the summits of mountains, which are usually covered in ice and snow and don't support any life. Describe altitudinal zonation on mountains. (G11) covered</p>	<p>The Earth has five climate zones: desert, Mediterranean, polar, temperate and tropical. Mountains have variable climates depending on altitude. 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. Name and locate the world's biomes, climate zones and vegetation belts and explain their common characteristics. covered x 4</p>
Sustainability	<p>A person's carbon footprint is the amount of carbon dioxide released into the atmosphere from their activities. People can reduce their carbon footprint by driving less, eating less meat, flying less and wasting less food and products. Describe the meaning of the term 'carbon footprint' and explain some of the ways this can be reduced to protect the environment. covered</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. Describe how natural resources can be harnessed to create sustainable energy. (G12) covered x 2</p>	<p>Industries can make their manufacturing processes more sustainable and better for the environment by using renewable energy sources, reducing, reusing and recycling and sharing resources. Identify and explain ways that people can improve the production of products without compromising the needs of future generations. covered</p>
World	<p>Countries in Europe include the United Kingdom, France, Spain, Germany, Italy and Belgium. Russia is part of both Europe and Asia. Locate countries and major cities in Europe (including Russia) on a world map. covered</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. The South American continent includes the countries of Brazil, Argentina, Chile, Colombia, Peru, Venezuela, Uruguay, Ecuador, Bolivia and Paraguay. Locate the countries and major cities of North, Central and South America</p>	<p>Major cities around the world include London in the UK, New York in the USA, Shanghai in China, Istanbul in Turkey, Moscow in Russia, Manila in the Philippines, Lagos in Nigeria, Nairobi in Kenya, Baghdad in Iraq, Damascus in Syria and Mecca in Saudi Arabia. Name, locate and describe major world cities. covered</p>



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		<p>on a world map, atlas or globe. (G13)</p> <p>covered x 3 optional</p>	
UK	<p>Counties of the United Kingdom include Derbyshire, Sussex and Warwickshire. Major cities of the United Kingdom include London, Birmingham, Edinburgh, Cardiff, Manchester and Newcastle. Name, locate and describe some major counties and cities in the UK.</p> <p>covered x 2</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. Create a detailed study of geographical features including hills, mountains, coasts and rivers of the UK. (G14)</p> <p>covered x 2 optional</p> <p>Topography is the arrangement of the natural and artificial physical features of an area. Identify the topography of an area of the UK using contour lines on a map. (G15)</p> <p>covered x 2</p>	<p>Relative location is where something is found in comparison with other features. Describe the relative location of cities, counties or geographical features in the UK in relation to other places or geographical features.</p> <p>covered optional x 2</p>
Location	<p>Latitude is the distance north or south of the equator and longitude is the distance east or west of the Prime Meridian. Locate significant places using latitude and longitude.</p> <p>covered x 3</p>	<p>The Tropic of Cancer is 23 degrees north of the equator and Tropic of Capricorn is 23 degrees south of the equator. Identify the location of the Tropics of Cancer and Capricorn on a world map. (G16)</p> <p>covered</p>	<p>The Prime (or Greenwich) Meridian is an imaginary line that divides the Earth into eastern and western hemispheres. The time at Greenwich is called Greenwich Mean Time (GMT). Each time zone that is 15 degrees to the west of Greenwich is another hour earlier than GMT. Each time zone 15 degrees to the east is another hour later. Identify the location and explain the function of the Prime (or Greenwich) Meridian and different time zones (including day and night).</p> <p>covered</p>
Position	<p>The eight points of a compass are north, south, east, west, north-east, north-west, south-east and south-west. Use the eight points of a compass to locate a geographical feature or place on a map.</p> <p>covered x 2</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). 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. (G17)</p> <p>covered optional</p>	<p>Compass points can be used to describe the relationship of features to each other, or to describe the direction of travel. Accurate grid references identify the position of key physical and human features. Use compass points, grid references and scale to interpret maps, including Ordnance Survey maps, with accuracy.</p> <p>covered x 4 optional</p>



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<p>Maps</p>	<p>A four-figure grid reference contains four numbers. The first two numbers are called the easting and are found along the top and bottom of a map. The second two numbers are called the northing and are found up both sides of a map. Four-figure grid references give specific information about locations on a map. Use four-figure grid references to describe the location of objects and places on a simple map. covered</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. Use four or six-figure grid references and keys to describe the location of objects and places on a map. (G18) covered x 5</p>	<p>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. Identify elevated areas, depressions and river basins on a relief map. covered</p>
<p>Compare and contrast</p>	<p>Geographical features created by nature are called physical features. Physical features include beaches, cliffs and mountains. Geographical features created by humans are called human features. Human features include houses, factories and train stations. Classify, compare and contrast different types of geographical feature. covered x 2 optional</p>	<p>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. Describe and compare aspects of physical features. (G19) covered x 2 optional x 3</p>	<p>The seven continents (Africa, Antarctica, Asia, Australia, Europe, North America and South America) vary in size, shape, location, population and climate. Identify and describe the similarities and differences in physical and human geography between continents. covered optional</p>
<p>Significant places</p>	<p>Significant volcanoes include Mount Vesuvius in Italy, Laki in Iceland and Krakatoa in Indonesia. Significant earthquake-prone areas include the San Andreas Fault in North America and the Ring of Fire, which runs around the edge of the Pacific Ocean and is where many plate boundaries in the Earth's crust converge. Over three-quarters of the world's earthquakes and volcanic eruptions happen along the Ring of Fire. Name and locate significant volcanoes and plate boundaries and explain why they are important. covered x 2 optional x 4</p>	<p>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. Name, locate and explain the importance of significant mountains or rivers. (G20) covered x 2 optional x 2</p>	<p>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. Identify some of the problems of farming in a developing country and report on ways in which these can be supported. covered</p>
<p>Geographical change</p>	<p>Significant geographical activity includes earthquakes and volcanic eruptions. These are known as natural disasters because they are created by nature, affect many people and cause widespread damage. Describe how a significant geographical activity has changed a landscape in the short or long term. covered x 3 optional x 2</p> <p>The crust of the Earth is divided into tectonic plates that move. The place where plates meet is called a plate boundary. Plates can push into each other, pull</p>	<p>Rivers, seas and oceans can transform a landscape through erosion, deposition and transportation. Explain how the physical processes of a river, sea or ocean have changed a landscape over time. (G21) covered x 2 optional</p>	<p>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 city. Describe how the characteristic of a settlement changes as it gets bigger (settlement hierarchy). covered x 2</p>



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apart or slide against each other. These movements can create mountains, volcanoes and earthquakes. Describe the activity of plate tectonics and how this has changed the Earth's surface over time (continental drift).

covered x 2