

Year 3/4 – Cycle A – Geography (One Planet, Our World)

National Curriculum Objectives	Sticky Knowledge	Vocabulary
<ul style="list-style-type: none"> Services include banks, post offices, hospitals, public transport and garages. Land use types include leisure, housing, industry, transport and agriculture. <i>Describe the type, purpose and use of different buildings, monuments, services and land, and identify reasons for their location.</i> 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. <i>Describe the type and characteristics of settlement or land use in an area or region.</i> Excessive precipitation includes thunderstorms, downbursts, tornadoes, waterspouts, tropical cyclones, extratropical cyclones, blizzards and ice storms. <i>Explain how the weather affects the use of urban and rural environments.</i> Maps, globes and digital mapping tools can help to locate and describe significant geographical features. <i>Analyse maps, atlases and globes, including digital mapping, to locate countries and describe features studied.</i> Primary data includes information gathered by observation and investigation. <i>Analyse primary data, identifying any patterns observed.</i> The term geographical evidence relates to facts, information and numerical data. <i>Gather evidence to answer a geographical question or enquiry.</i> 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 	<ul style="list-style-type: none"> The countries of the UK are divided into counties and they are governed by local governments and have unique physical and human characteristics. There are five main types of land use and these are: agricultural, commercial, recreational, residential and transportation. There are five major climate zones: polar, temperate, Mediterranean, desert and tropical. The Earth is made up of four layers: the crust, mantle, outer core and inner core. The Earth's crust is made of tectonic plates, which move slowly over the mantle forming different physical features such as mountains. 	<p>Climate, county, fault, molten, plate boundary, tectonic plate.</p> <hr/> <p>I can statements:</p> <ul style="list-style-type: none"> I can explain that the countries of the UK are divided into counties and they are governed by local governments and have unique physical and human characteristics. I can identify that there are five main types of land use and these are: agricultural, commercial, recreational, residential and transportation. I can identify that there are five major climate zones: polar, temperate, Mediterranean, desert and tropical. I can identify that the Earth is made up of four layers: the crust, mantle, outer core and inner core. I can describe that the Earth's crust is made of tectonic plates, which move slowly over the mantle forming different physical features such as mountains.

magma collects in an underground magma chamber. The magma pushes through a crack called a vent and bursts out 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.

- 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.*
- The Earth has five climate zones: desert, Mediterranean, polar, temperate and tropical. *Identify the five major climate zones on Earth.*
- 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.*
- Countries in Europe include France, Greece and Italy. Russia is part of both Europe and Asia. *Locate countries and major cities in Europe (including Russia) on a world map.*
- Counties of the United Kingdom include Yorkshire, Suffolk, Pembrokeshire, Inverness-shire and County Armagh. Major cities of the United Kingdom include Edinburgh, Belfast, St Davids and Birmingham. *Name, locate and describe some major counties and cities in the UK.*

- 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.*
- 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.*
- 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.*
- 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.*
- 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.*
- 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 apart or slide against each other. These movements can create mountains, volcanoes and earthquakes. *Describe the activity of plate tectonics*

<p><i>and how this has changed the Earth's surface over time (continental drift).</i></p>		
<p>Prior Learning</p>	<p>Key Question(s):</p>	<p>Future Learning</p>
<ul style="list-style-type: none"> • Human features are man-made and include castles, towers, schools, hospitals, bridges, shops, tunnels, monuments, airports and roads. People use human features in different ways. For example, an airport can be used for work or leisure and a harbour can be used for industry or travel. • Industries are businesses that make things, sell things and help people live their everyday lives. Land can be used for recreational, transport, agricultural, residential and commercial purposes, or a mixture of these. • A weather pattern is a type of weather that is repeated. Describe simple weather patterns of hot and cold places. • An aerial photograph can be vertical (an image taken directly from above) or oblique (an image taken from above and to the side). • Data can be recorded in different ways, including tables, charts and pictograms. • Fieldwork can help to answer questions about the local environment and can include observing or measuring, identifying or classifying and recording. • A physical feature is one that forms naturally, and can change over time due to weather and other forces. • Conservation is the protection of living things and the environment from damage caused by human activity. Conservation activities include reducing, reusing and 	<ul style="list-style-type: none"> • What are the countries of the UK divided into? • What are five main types of land use? • What are five major climate zones? • What is the Earth made up of? • What is the Earth's crust made up of? What do they do? 	<ul style="list-style-type: none"> • 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. • Land uses include agricultural, recreational, housing and industry. Water systems are used for transport, industry, leisure and power. • Climatic variation describes the changes in weather patterns or the average weather conditions of a country or continent. • An atlas is a collection of maps and information that shows geographical features, topography, boundaries, climatic, social and economic statistics of an area. • Secondary data includes information gathered by geographical reports, surveys, maps, research, books and the internet. • Fieldwork techniques, such as sketch maps, data collection and digital technologies, can provide evidence to support and answer a geographical hypothesis. • 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. • 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. • 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

recycling, composting, saving water and saving energy. Conservation activities protect the environment for people in the future.

- An ocean is a large sea. There are five oceans on our planet called the Arctic, Atlantic, Indian, Pacific and Southern Oceans. Seas include the Black, Red and Caspian Seas. The United Kingdom is an island surrounded by the Atlantic Ocean, English Channel, Irish Sea and North Sea. The world's seven continents are Africa, Antarctica, Asia, Australia, Europe, North America and South America.
- The characteristics of countries include their size, landscape, capital city, language, currency and key landmarks. England is the biggest country in the United Kingdom.
- The equator is an imaginary line that divides the world into the Northern and Southern Hemispheres. The North Pole is the most northern point on Earth. The South Pole is the most southern point on Earth.
- The four cardinal points on a compass are north, south, east and west. A route is a set of directions that can be used to get from one place to another.
- A map is a picture or drawing of an area of land or sea that can show human and physical features. Maps use symbols and a key. A key is the information needed to read a map and a symbol is a picture or icon used to show a geographical feature.
- A non-European country is a country outside the continent of Europe. For example, the USA, Australia, China and Egypt are non-European countries. European countries include the United Kingdom, Germany, France and Spain.
- An environment or place can change over time due to a geographical process, such

countries of Brazil, Argentina, Chile, Colombia, Peru, Venezuela, Uruguay, Ecuador, Bolivia and Paraguay.

- 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.
- Topography is the arrangement of the natural and artificial physical features of an area.
- The Tropic of Cancer is 23 degrees north of the equator and Tropic of Capricorn is 23 degrees south of the equator.
- 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).
- 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.
- 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.
- Rivers, seas and oceans can transform a landscape through erosion, deposition and transportation.

as erosion, or human activity, such as housebuilding.

Teaching Ideas

Year 3/4 – Cycle A – Geography (Rocks, Relics and Rumbles)

National Curriculum Objectives	Sticky Knowledge	Vocabulary
<ul style="list-style-type: none"> • 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. <i>Explain the physical processes that cause earthquakes.</i> • Maps, globes and digital mapping tools can help to locate and describe significant geographical features. <i>Analyse maps, atlases and globes, including digital mapping, to locate countries and describe features studied.</i> • The term geographical evidence relates to facts, information and numerical data. <i>Gather evidence to answer a geographical question or enquiry.</i> • 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. <i>Name and describe the types, appearance and properties of rocks.</i> • 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 	<ul style="list-style-type: none"> • The Structure of the Earth is made up of four layers – the crust, the mantle, the outer core and the inner core. • There are three main types of rock in the Earth's crust- sedimentary, igneous and metamorphic. • Fossils are the remains or traces of once-living things preserved as rock. • Mary Anning was an English fossil collector who lived in Lyme Regis, Dorset. • Movement at plate boundaries can cause volcanic eruptions, earthquakes and tsunamis. 	<p>Erode, impermeable, lava, liquid, magma, molten, organic matter, Ring of Fire, solid, tectonic plate, vent, volcanic eruption.</p> <p>I can statements:</p> <ul style="list-style-type: none"> • I can identify that the Structure of the Earth is made up of four layers – the crust, the mantle, the outer core and the inner core. • I can explain there are three main types of rock in the Earth's crust- sedimentary, igneous and metamorphic. • I can describe fossils as being the remains or traces of once-living things preserved as rock. • I can explain that Mary Anning was an English fossil collector who lived in Lyme Regis, Dorset. • I can describe movement at plate boundaries as being able to cause volcanic eruptions, earthquakes and tsunamis.

magma collects in an underground magma chamber. The magma pushes through a crack called a vent and bursts out 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.

- 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.*
- 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.*
- 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.*
- 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.*
- 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

<p>converge. Over three-quarters of the world's earthquakes and volcanic eruptions happen along the Ring of Fire. <i>Name and locate significant volcanoes and plate boundaries and explain why they are important.</i></p> <ul style="list-style-type: none"> • 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. <i>Describe how a significant geographical activity has changed a landscape in the short or long term.</i> • 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 apart or slide against each other. These movements can create mountains, volcanoes and earthquakes. <i>Describe the activity of plate tectonics and how this has changed the Earth's surface over time (continental drift).</i> 		
Prior Learning	Key Question(s):	Future Learning
<ul style="list-style-type: none"> • Erosion is a physical process that involves the weathering and movement of natural materials, such as rock, sand and soil. Erosion is caused by wind and water, including waves, floods, rivers and rainfall. • An aerial photograph can be vertical (an image taken directly from above) or oblique (an image taken from above and to the side). • Fieldwork can help to answer questions about the local environment and can include observing or measuring, identifying or classifying and recording. • Materials found in the environment can be natural (rock, stone, water, sand, soil, water and clay) and man-made (brick, glass, plastic and concrete). Natural and 	<ul style="list-style-type: none"> • What is the Structure of the Earth made up of? • What are the three main types of rock? • What are fossils? • Who was Mary Anning? • What can movement at plate boundaries cause? 	<ul style="list-style-type: none"> • 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. • An atlas is a collection of maps and information that shows geographical features, topography, boundaries, climatic, social and economic statistics of an area. • Fieldwork techniques, such as sketch maps, data collection and digital technologies, can provide evidence to support and answer a geographical hypothesis. • 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. • Different types of soil include clay, sandy, silty and loamy. • Mountains form over millions of years. They are made when the Earth's tectonic plates push together or move apart.

<p>man-made materials are used to make human features.</p> <ul style="list-style-type: none"> • A physical feature is one that forms naturally, and can change over time due to weather and other forces. • The equator is an imaginary line that divides the world into the Northern and Southern Hemispheres. The North Pole is the most northern point on Earth. The South Pole is the most southern point on Earth. • The four cardinal points on a compass are north, south, east and west. A route is a set of directions that can be used to get from one place to another. • A non-European country is a country outside the continent of Europe. For example, the USA, Australia, China and Egypt are non-European countries. European countries include the United Kingdom, Germany, France and Spain. • A significant place is a location that is important to a community or society. Places can also be significant because of religious or historic events that may have happened in the past near the location. Significant places can also include monuments, such as the Eiffel Tower, or natural landscapes, such as the Great Barrier Reef. • An environment or place can change over time due to a geographical process, such as erosion, or human activity, such as housebuilding. 		<p>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.</p> <ul style="list-style-type: none"> • The Tropic of Cancer is 23 degrees north of the equator and Tropic of Capricorn is 23 degrees south of the equator. • 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). • 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. • 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. • Rivers, seas and oceans can transform a landscape through erosion, deposition and transportation.
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Teaching Ideas



Year 3/4 – Cycle B – Geography (Interconnected World)

National Curriculum Objectives	Sticky Knowledge	Vocabulary
<ul style="list-style-type: none"> Human features can be interconnected by function, type and transport links. <i>Describe a range of human features and their location and explain how they are interconnected.</i> Land uses include agricultural, recreational, housing and industry. Water systems are used for transport, industry, leisure and power. <i>Explain ways that settlements, land use or water systems are used in the UK and other parts of the world.</i> Climatic variation describes the changes in weather patterns or the average weather conditions of a country or continent. <i>Explain climatic variations of a country or continent.</i> An atlas is a collection of maps and information that shows geographical features, topography, boundaries, climatic, social and economic statistics of an area. <i>Study and draw conclusions about places and geographical features using a range of geographical resources, including maps, atlases, globes and digital mapping.</i> Fieldwork techniques, such as sketch maps, data collection and digital technologies, can provide evidence to support and answer a geographical hypothesis. <i>Investigate a geographical hypothesis using a range of fieldwork techniques.</i> 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. <i>Describe how natural</i> 	<ul style="list-style-type: none"> There are eight points on a compass. There are four cardinal points: north, south, east and west. There are also four intercardinal points: north-east, north-west, south-east and south-west. The tropics is an area between two imaginary lines of latitude, the Tropics of Cancer and Capricorn, which lie either side of the equator (23°N/S). A six figure grid reference locates an exact position of a human and physical feature within a grid square on a map (found with a four-figure grid reference). Some countries have contrasting climate zones, which means that the typical weather conditions can be very different. Significant features of the United Kingdom include forests, mountains, rivers, lakes and islands. 	<p>Colonisation, immigration, line of latitude, mangrove forest, originate, principal, terminate</p> <hr/> <p>I can statements:</p> <ul style="list-style-type: none"> I can identify the eight points on a compass. There are four cardinal points: north, south, east and west. There are also four intercardinal points: north-east, north-west, south-east and south-west. I can describe the tropics as being an area between two imaginary lines of latitude, the Tropics of Cancer and Capricorn, which lie either side of the equator (23°N/S). I can explain that a six figure grid reference locates an exact position of a human and physical feature within a grid square on a map (found with a four-figure grid reference). I can describe some countries having contrasting climate zones, which means that the typical weather conditions can be very different. I can identify significant features of the United Kingdom to include forests, mountains, rivers, lakes and islands.

resources can be harnessed to create sustainable energy.

- 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.*
- 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.*
- 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.*
- 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.*
- 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.*

Prior Learning	Key Question(s):	Future Learning
<ul style="list-style-type: none"> • Services include banks, post offices, hospitals, public transport and garages. Land use types include leisure, housing, industry, transport and agriculture. • 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. • Excessive precipitation includes thunderstorms, downbursts, tornadoes, waterspouts, tropical cyclones, extratropical cyclones, blizzards and ice storms. • Maps, globes and digital mapping tools can help to locate and describe significant geographical features. • The term geographical evidence relates to facts, information and numerical data. • 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. • Countries in Europe include France, Greece and Italy. Russia is part of both Europe and Asia. • Counties of the United Kingdom include Yorkshire, Suffolk, Pembrokeshire, Inverness-shire and County Armagh. Major cities of the United Kingdom include Edinburgh, Belfast, St Davids and Birmingham. • Latitude is the distance north or south of the equator and longitude is the distance east or west of the Prime Meridian. • The eight points of a compass are north, south, east, west, north-east, north-west, south-east and south-west. • A four-figure grid reference contains four numbers. The first two numbers are called the easting and are found along 	<ul style="list-style-type: none"> • What are the eight points on a compass? • What are the tropics? • What does a six figure grid reference tell you? • Do countries have the same climate zone? • What are the significant features of the United Kingdom? 	<ul style="list-style-type: none"> • 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. • 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. • 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. • 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. • 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. • 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. • 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. • Relative location is where something is found in comparison with other features. • 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

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.

another hour earlier than GMT. Each time zone 15 degrees to the east is another hour later.

- 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.
- 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.

Teaching Ideas

Year 3/4 – Cycle B – Geography (Misty Mountain, Winding River)

National Curriculum Objectives	Sticky Knowledge	Vocabulary
<ul style="list-style-type: none"> Human features can be interconnected by function, type and transport links. <i>Describe a range of human features and their location and explain how they are interconnected.</i> Land uses include agricultural, recreational, housing and industry. Water systems are used for transport, industry, leisure and power. <i>Explain ways that settlements, land use or water systems are used in the UK and other parts of the world.</i> 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. <i>Use specific geographical vocabulary and diagrams to explain the water cycle.</i> An atlas is a collection of maps and information that shows geographical features, topography, boundaries, climatic, social and economic statistics of an area. <i>Study and draw conclusions about places and geographical features using a range of geographical resources, including maps, atlases, globes and digital mapping.</i> Secondary data includes information gathered by geographical reports, surveys, maps, research, books and the internet. <i>Collect and analyse primary and secondary data, identifying and analysing patterns and suggesting reasons for them.</i> 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. 	<ul style="list-style-type: none"> A river is a body of water that flows downhill, usually to the sea. Rivers start in mountains or upland areas and flow downstream, collecting water from water sources on the way to the sea. Rivers, seas and oceans transform a landscape through erosion, deposition and transportation. The water cycle is the journey water takes as it travels from rivers, lakes, seas and oceans into the sky and then goes back down to the ground through evaporation, condensation, precipitation and collection. A mountain is a large, raised part of the Earth’s surface. A mountain’s highest point is called its peak or summit and they are at least 610m in height. Mountains can be classified according to what they look like and how they were formed: fold, volcanic, fault-block, dome and plateau mountains. 	<p>Altitude, altitudinal zone, collection, condensation, contaminate, dredge, evaporation, plate boundary, ridge, sediment, topography.</p> <p>I can statements:</p> <ul style="list-style-type: none"> I can explain a river is a body of water that flows downhill, usually to the sea. Rivers start in mountains or upland areas and flow downstream, collecting water from water sources on the way to the sea. I can identify that rivers, seas and oceans transform a landscape through erosion, deposition and transportation. I can explain the water cycle as the journey water takes as it travels from rivers, lakes, seas and oceans into the sky and then goes back down to the ground through evaporation, condensation, precipitation and collection. I can identify that a mountain is a large, raised part of the Earth’s surface. A mountain’s highest point is called its peak or summit and they are at least 610m in height. I can identify that Mountains can be classified according to what they look like and how they were formed: fold, volcanic, fault-block, dome and plateau mountains.

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.*

- Different types of soil include clay, sandy, silty and loamy. *Describe the properties of different types of soil.*
- 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 and explain the formation of different mountain types.*
- 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.*
- 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 on a world map, atlas or globe.*

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- 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.*
- 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.*
- 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.*
- 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

<p>of a map. Six-figure grid references give detailed information about locations on a map. <i>Use four or six-figure grid references and keys to describe the location of objects and places on a map.</i></p> <ul style="list-style-type: none"> • 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. <i>Describe and compare aspects of physical features.</i> • 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. <i>Name, locate and explain the importance of significant mountains or rivers.</i> • Rivers, seas and oceans can transform a landscape through erosion, deposition and transportation. <i>Explain how the physical processes of a river, sea or ocean have changed a landscape over time.</i> 		
<p style="text-align: center;">Prior Learning</p>	<p style="text-align: center;">Key Question(s):</p>	<p style="text-align: center;">Future Learning</p>
<ul style="list-style-type: none"> • Services include banks, post offices, hospitals, public transport and garages. Land use types include leisure, housing, industry, transport and agriculture. • 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. • Volcanic eruptions and earthquakes happen when two tectonic plates push into each other, pull apart from one another or slide alongside each other. 	<ul style="list-style-type: none"> • What is a river? • What do rivers, seas and oceans do to a landscape? • What is the water cycle? • What is a mountain? • How would you classify a mountain? 	<ul style="list-style-type: none"> • 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. • 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

The centre of an earthquake is called the epicentre.

- Maps, globes and digital mapping tools can help to locate and describe significant geographical features.
- Primary data includes information gathered by observation and investigation.
- 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.
- 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 onto the Earth's surface. Lava, hot ash and mudslides from volcanic eruptions can cause severe damage.
- 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

variety of livestock are reared on farms in the UK, such as sheep, dairy cattle, beef cattle, poultry and pigs.

- Soil fertility, drainage and climate influence the placement and success of agricultural land. Describe how soil fertility, drainage and climate affect agricultural land use.
- 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.
- Geographical data, such as demographics or economic statistics, can be used as evidence to support conclusions.
- 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.
- 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.
- 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.
- 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.
- Relative location is where something is found in comparison with other features.
- 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.
- 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.

pieces move very slowly across the mantle.

- The Earth has five climate zones: desert, Mediterranean, polar, temperate and tropical.
- Countries in Europe include France, Greece and Italy. Russia is part of both Europe and Asia.
- Counties of the United Kingdom include Yorkshire, Suffolk, Pembrokeshire, Inverness-shire and County Armagh. Major cities of the United Kingdom include Edinburgh, Belfast, St Davids and Birmingham.
- The eight points of a compass are north, south, east, west, north-east, north-west, south-east and south-west.
- 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.
- 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.
- 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.
- Significant geographical activity includes earthquakes and volcanic eruptions.

- The seven continents (Africa, Antarctica, Asia, Australia, Europe, North America and South America) vary in size, shape, location, population and climate.
- 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.
- 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.

These are known as natural disasters because they are created by nature, affect many people and cause widespread damage.

- 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 apart or slide against each other. These movements can create mountains, volcanoes and earthquakes.

Teaching Ideas