Building Geography Sticky Knowledge

Building Geography Knowledge							
		Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
		Changes All About Me – Playtime rhymes Where is my Classroom - Bear Hunt Forest & Woodland – Gruffallo Autumn	Light & Dark Bonfire Night – Senses poetry Light & Dark Festivals and Celebrations – Elmer's Christmas journey	New Beginnings Toys – past and present Winter (Polar Regions) Farm – three Billy Goats Gruff People who help us – Safety week	Come Outside Spring – seasons Plants Oliver's Veg, How to plant a seed Easter STEM - minibeasts – Hungry Cat	Ticket to Ride Vehicles and transport Space Summer Health Week	Fun at the Seaside Seaside then and now Pirates Under the Sea
EYFS Geography Curriculum	**Knowledge Progression: Learning Experience**	Navigating around our classroom and outdoor areas. A map is a diagram showing where places are located and their features. Birds eye view is a view from above. Aerial view is a view from above as a photograph. An aerial plan is a drawing that shows a small area or a building. A plan perspective- a drawing of an indoor area usually from above. Messy maps are maps created by using lots of different materials.	Use world maps to show children where some stories are based. Use the Jolly Postman to draw information from a map and begin to understand why maps are so important to postmen. Share different cultural festivals. Diwali, Hannakah, Rama and Sita Sorting Day and Night Stranger danger - Talking about occupations and how to identify strangers that can help them when they are in need.	Listen to children describing and commenting on things they have seen whilst outside, including plants and animals. After close observation, draw pictures of the natural world, including animals and plants Use images, video clips, shared texts and other resources to bring the wider world into the classroom. Listen to what children say about what they see Ash Wednesday / Shrove Tuesday St David's Day	Trip to our local park (to link with seasons); discuss what we will see on our journey to the park and how we will get there. Introduce the children to recycling and how it can take care of our world. Look at what rubbish can do to our environment and animals. Create opportunities to discuss how we care for the natural world around us. Can children make comments on the weather, culture, clothing, housing. Change in living things – Changes in the leaves, weather, seasons, Explore the world around us and see how it changes as we enter Summer. Provide opportunities for children to note and record the weather. Building a 'Bug Hotel'	Discuss how they got to school and what mode of transport they used. Introduce the children to a range of transport and where they can be found. Look at the difference between transport in this country and one other country. Encourage the children to make simple comparisons. Use bee-bots on simple maps. Encourage the children to use navigational language. Can children talk about their homes and what there is to do near their homes? Look out for children drawing/painting or constructing their homes. Encourage them to comment on what their home is like. Show photos of the children's homes and	Share non-fiction texts that offer an insight into contrasting environments. Listen to how children communicate their understanding of their own environment and contrasting environments through conversation and in play. Children learn about Water Pollution and what we can do to help our environment. Summer Solstice

		Create treasure hunts to find places/ objects within our learning environment. Children will know where their classroom is in the school. They will explore the school grounds and create messy maps of the school and classroom. They will understand who works in the school. Children will learn to use simple fieldwork and observational skills to answer geographical questions about their school grounds. Children will learn about human and physical features and use basic geographical vocabulary to describe them. Children will learn about how to collect data, present and analyse their findings.			Draw children's attention to the immediate environment, introducing and modelling new vocabulary where appropriate. Encourage interactions with the outdoors to foster curiosity and give children freedom to touch, smell and hear the natural world around them during hands-on experiences. Look for children incorporating their understanding of the seasons and weather in their play. Use the BeeBots Palm Sunday Passover Easter Start of Ramadan	encourage them to draw comparisons. Environments – Features of local environment Maps of local area Comparing places on Google Earth – how are they similar/different? Can children differentiate between land and water. Take children to places of worship and places of local importance to the community. Take children on a Steam Railway Trip Eid Shavuot	
	Language	School, building, classroom, hall, office, staff, library, staff room, toilets, hall, nest, playground, adventure playground, secret garden, field, gates, corridor, shed, road, house Plants are living things that grow, usually on the Earth. Plants differ from animals because they cannot move from one place to another.	Diwali, Hannakah, Rama and Sita, School classroom map birds eye view aerial view plan perspective stranger, morning, night, evening, breakfast, dinner,	Tree, plants, flowers, spiders, slugs, snails, birds, worms, sun, clouds,	Autumn, Summer, Spring, Winter, weather sun, rain, wind, snow, cloud, fog, directions, up, down, forwards, backwards, sense, taste, touch, hear, smell, feel, rubbish, recycle, journey, road, pavement, traffic lights, cars. High street, crossing, junction, celebration, Ramadan, culture, church, alter, pews Earth, grass, environment, landscape, refuse, landfill, recycle, pollution, plastic	Car, plane, train, bike, bus, boat, up,down, turn, backwards, forwards, beside, in front, under, over, flat, house, bungalow, road, park, shops, school, church	City, town, country, busy quiet Water, plastic, pollution, warm weather, long days

	Texts	Gruffalo (Defeat the monster) We are going on a bear hunt (Journey) Poetry – Playtime rhymes by Sally Gardener	The Ginger Man (Cumulative Tale) Performance poetry: Bonfire Night Senses – shared write Elmer's Christmas (Journey)	The Very Hungry Caterpillar (Journey) The Three Billy Goats Gruff (Defeating the monster)	The Three Little Pigs (Defeating the monster tale) Oliver's Vegetables- (Cumulative) Instructions: How to plant a seed.	Whatever Next! (Cumulative) Oi! Get off my train (Cumulative)	Big Blue Whale (Information Text) The Fish who could Wish (Wishing tale) Pirates Love Underpants (Quest)
Early Learning Goals EYFS	Talk about the lives of the people around them and their roles in society. Describe their immediate environment using knowledge from observation, discussion, stories, non-fiction texts and maps. Explain some similarities and differences between life in this country and life in other countries, drawing on knowledge from stories, non-fiction texts and – when appropriate – maps. Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. Understand some important processes and changes in the natural world around them - the seasons.						

Building Geography Knowledge				
National curriculum requirements KS1	**Locational knowledge** Name and locate the world's seven continents and five oceans. Name, locate and identify characteristics of the four countries and capital cities of the United Kingdom and its surrounding seas.	**Place knowledge** Understand geographical similarities and differences through studying the human and physical geography of a small area of the United Kingdom, and a small area in a contrasting non-European country.	**Human and physical geography** Identify seasonal and daily weather patterns in the United Kingdom and the location of hot and cold areas of the world in relation to the Equator and the North and South Poles. Use basic geographical vocabulary to refer to: Key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season, and weather. Key human feature, including: city, town, village, factory, farm, house, office, port, harbour and shop.	**Geographical skills and fieldwork** Use world maps, atlases and globes to identify the United Kingdom and its countries, as well as the countries, continents and oceans studied at this key stage. Use simple compass directions (North, South, East and West) and locational and directional language [for example, near and far, left and right], to describe the location of features and routes on a map. Use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features; devise a simple map; and use and construct basic symbols in a key.

Key Stage 2	**Locational knowledge:** ✓ locate the world's countries, using maps to focus on Europe (including the location of ✓ Russia) and North and South America, concentrating on their environmental regions, ✓ key physical and human characteristics, countries, and major cities ✓ name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time ✓ identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night)	**Place knowledge** understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region within North or South America	**Human and physical geography** ✓ describe and understand key aspects of: physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water	**Geographical skills and fieldwork** ✓ use maps, atlases, globes and digital/computer mapping to locate countries and ✓ describe features studied ✓ use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies.

Year 1		
The World and my School	**Uncovering the UK**	**Fieldwork: Investigating Weather and Climate**
✓ Physical features like seas, mountains and rivers are natural. They would be here even if there were no people around. ✓ Human features are things like houses, roads and bridges. People have built them. ✓ Settlements are places where people live and sometimes work. They can be small or large depending on how many people live and work there. ✓ There are three types of settlements: villages, towns and cities. ✓ Most maps are smaller drawings of a real place. They don't always have space to include everything. To help us find important places on a map, we use symbols. This can help to make maps clearer and easier to read. It has symbols to represent different places. ✓ A key is used on maps to help you understand the	✓ The United Kingdom is made up of four different countries: England, Scotland, Wales and Northern Ireland. It is sometimes referred to as Great Britain. ✓ Each country has a capital city where a country's government is located. It is usually the largest city. • London is England's capital city. • Belfast is Northern Ireland's capital city. • Edinburgh is Scotland's capital city. • Cardiff is Wales' capital city. ✓ Four seas border the UK: • English Channel • North Sea • Irish Sea	✓ The climate is the normal weather over time. The climate is like the weather but over a long time. ✓ There are four seasons: Spring, Summer, Autumn & Winter ✓ The weather includes changes in temperature, the wind, the rain and much more. The weather can change daily. ✓ Some places have warm climates, neither too hot nor too cold. ✓ In a hot climate: Hot weather can mean there is little or no rain all year. These hot, dry places are called deserts. ✓ It can rain a lot in some hot places. These places are called tropical, and rainforests are often in these areas. ✓ The closer a place is to a pole, the colder it is. ✓ Rain: drizzle, showers, rain, downpour ✓ Snow: hail, sleet, snow, snowflake ✓ Temperature: hot, warm, cool, cold, freezing

✓ symbols. ✓ Observational sketches can be used to record features. ✓ A sketch map is a drawing that shows the important things in a place, like a park or a classroom. It helps us remember where things are located and how to find them. We use simple shapes and lines to show different things when we draw a sketch map. For example, we can draw a square to represent a building, a circle for a tree, or a line for a path.	• Atlantic Ocean Key physical features, including: beach, cliff, coast, forest, hill, sea, river Key human features, including: village, farm, house, office, port, harbour and shop A map is a diagram showing where places are located and their features. Directions are a path that someone takes to reach a place- forwards, downwards, right, left A compass is a tool used to help people with directions. It has a needle that spins and always point North. It shows you which way you're facing – North, east, South or West. 'Never Eat Silly Worms' Messy maps are maps created by using lots of different materials.	✓ Clouds: cloudy, gloomy, foggy, overcast, clear ✓ Wind: breeze, blustery, windy gale ✓ Other weather words: forecast, drought, lightning, thunder, rainbow ✓ We can measure weather by using: thermometer measures temperature, a weathervane measures wind direction, a rain gauge measures precipitation and an okta card measures cloud cover. ✓ A weather forecast is an informed prediction about what the weather will be like today, tomorrow, this week or next.

Year 2	
Fieldwork: Our Local Park	**Taunton, UK and Tulum, Mexico**
Routes: A route is a way to travel from one place to another. We can call your starting place 'Point A' and your finishing place 'Point B'**.** A **compass** is a tool used to help find directions. It has a needle that spins, and the needle always points north. The four directions on a compass are called cardinal points. N – north E – east S – south W – west We can use our senses: sight, hearing, smell, touch **Direction language:** forward, right, downward, left **Fieldwork is when you go outside and discover things about a place. Fieldwork includes investigating both human and physical features.** When conducting fieldwork, we must ask the following questions before we carry it out: •What is the fieldwork you will carry out? •Where and how will you carry it out? •Why will you be doing it?	✓ Mexico is a country in North America. ✓ The Pacific Ocean is to the left, and the Atlantic Ocean is to the right! The capital city of Mexico is Mexico City. ✓ Mexico has mountains, beaches, rainforests, canyons, volcanoes, deserts and many large cities. ✓ The climate varies from tropical to desert. Tropical climates are generally hot and rainy. Desert climates are usually hot and dry. ✓ Tulum is located in Quintana Roo, Mexico, and is considered a tropical savanna climate. This means it is hot all year round, with a rainy season from May to October and a cooler, dry season from November to April. ✓ The physical features of Tulum: Cliff top location above the Caribbean Sea. It has rainforests, Mesoamerican coral reef system, Tulum lagoons, Sian Ka'an, Gran Cenote and a coastline. ✓ Human Features: Famous for its Maya ruins. Other features include beach huts, boats, shops and restaurants, hotels and homes and beach stairs. ✓ Taunton is located in Somerset, UK and has four seasons. It is in Europe.

Maps include simple pictures or symbols to represent the local environment – classroom, school, village or town. Follow road safety rules: Remember to take your activity 1 worksheet when you visit your local park. A clipboard might be helpful. •plan the safest route •if you need to cross a road, wait until it's safe •watch and listen for any oncoming traffic •be observant •be polite All the data collection methods can help gather information. We will use more than one method to collect our data: observational sketches of geographical feature; digital photographs are taken to observe geographical features; questionnaires asking questions to local people; tally charts counting geographical features. Pictograms can be used to present data. Here is one I have already completed for another park.	✓ The Atlantic Ocean is next to the UK. ✓ The capital city of the UK is London. ✓ Physical Features: River Tone; Blackdown Hills and Quantock Hills ✓ Human Features: Grand Western Canal; Vivary Park; Train station; Shops and restaurants; Hospital; Schools; Churches; Brewhouse theatre; Cinema; Hollywood Bowl, Taunton Castle ✓ The Earth's equator is the imaginary line that runs around the globe's centre. It divides the world in half. ✓ The weather on the equator is hot all year round. ✓ The North Pole is the northernmost point on Earth. There is no land at the North Pole, only ice. The North Pole is not in any country. In summer, the Sun never sets. ✓ The South Pole is the southernmost place on Earth. It is located on land topped by solid ice. The South Pole is much colder than the North Pole.

Year 3		
The United Kingdom: What are the key geographical features of the United Kingdom and South West region?	**Local study: Bristol**	**Fieldwork: Land use, economic activity and travel.**
England is split up into smaller sections called region- there are nine regions in total Counties are areas of land made up of countryside and different settlements – there are 48 counties in England. Urban areas are towns or cities where many people live and work. There are more houses, buildings, roads and other human-made features. Rural areas are places where there are more natural spaces and fewer people. You would find more farmland, forests and open land. Physical features of the UK	Bristol is a county in the South West region of the UK. The UK is in Europe Europe is in the Northern Hemisphere Physical: River Avon, Avon Gorge, Leigh Woods, The Downs Human: Clifton Suspension Bridge, Temple Meads Train Station, houses, Bristol Cathedral, Bristol Jamia Mosque, roads Land use – the function of the land and what it is used for There are different types of land use: urban, residential, commercial, industrial, recreational/open spaces & transport Sketch maps are simple maps people use to show places, give directions, explore, or learn. They're not as detailed as other maps, but they help us get around or share ideas.	Land can have many different uses: farmland, leisure, industrial, housing and business. Land use and facilities: Agriculture is land used for farming Leisure is land used for recreation/entertainment Industry is where things are made or designed Housing is where people live Business is where people work, offices and shops Settlements: Hamlet has a tiny population- only a few buildings. A village is large than a hamlet. A town is larger than a village. They have multiple services. A city usually has a large population and many services. Most cities have a cathedral.

The landscape of the UK is very varied. Physical features would be here even if there were no people around (e.g mountains, seas, rivers).
The Giant's Causeway – rock formation on a coastline; The Northern Highlands and the Grampian Mountains in Scotland; Snowdonia National Park, Cambrian Mountains & the White Cliffs of Dover, Kent, England.
elevation– the height of the land
Generally, anything higher than 600m is considered to be a mountain.
The highest mountain in England is Scafell Pike.
The highest mountain in Scotland is Ben Nevis.
The highest mountain in Wales is Snowdon (Yr Wyddfa).

Human Features
A human landmark is a human made feature of a landscape or town that is recognizable from a distance.
Glenfinnan Viaduct- Inverness shire, Scotland; Wales Millennium Centre, Cardiff, Wales; Titanic Belfast, Belfast Ireland, Stonehenge, Wiltshire, England.

The county we live in Somerset and it is in the South West region of the UK.

South West is the largest region in England.
The land is mainly rural, but there are some urban areas too.
There are some areas of high moorland, and it has the longest coastline of any region.
Physical feature South West: Cheddar Gorge • Deep and narrow ravine • Somerset
Human feature: Over five million people live in the South West region; Bristol has the highest population
Famous landmark: Stonehenge • Prehistoric monument • Wiltshire
AONB stands for an 'area of outstanding natural beauty

A compass is a magnetic instrument used for finding directions. The four directions on a compass are called cardinal directions. They are north, east, south and west.

Four-figure grid references are four numbers used to pinpoint a particular location on a map. Numbered lines called eastings and northings are used to pinpoint a square section on a map.

Types of housing
Urban: flats/tower blocks
Suburban: semi-detached, detached, apartments and flats, terraced houses
Rural: detached farmhouses, mobile homes

Settlement requirements
Essential: shelter, food, water, fuel, safety, materials & power supply.
Desirable: farmland, transport links, entertainment, green space, neighbours, shops, education & healthcare.

Data Collection Methods
We can record data from our fieldwork in many ways, including:
•completing field sketches of the location
•taking photographs
•recording the location and information collected in the form of tables or tally charts
•collecting the views of people we might meet during the fieldwork, such as local shopkeepers, office workers or people who might be in the local area.

There are several different methods of presenting fieldwork data, including using different graphs.
Line graphs can be used to represent data to show changes over time. It is plotted as individual points
connected by lines.
Bar charts allow us to organise information using bars of different lengths. The length of these bars represents the size of the information collected by comparing one bar
to another.
When you **analyse your findings**, you should:
•look at all of them carefully
•try to understand the information the data is showing
It's like solving a puzzle by figuring out how the pieces fit together!
When you **present your findings** to others, you should:
•add graphs to make it easier to understand
•explain what you found out
When you evaluate your findings, you should:
•think about how well you carried out your investigation
•think about what you could improve next time

Year 4		
What are the similarities and differences between London, Greater London and Campania, Italy?	**Coastal Erosion** **What are coasts and how does coastal erosion affect them?**	**Fieldwork: Investigating weather and climate**
✓ Italy is located south of Europe and north of the Mediterranean Sea. Italy is a peninsula which means it is surrounded by water and only connected to land at one end. ✓ The capital city of Italy is Rome, and some other famous cities are Milan, Venice, Naples and Florence. ✓ The equator separates both hemispheres and areas closest are often the wettest climates ✓ Human features of Campania -Positano is a settlement in the Campania region. It is famous for its pastel-coloured houses built on cliffs down to the sea. ✓ Another famous settlement in Campania is the town of Amalfi. Amalfi is the largest town in the middle of the Amalfi Coast. Amalfi has landmarks such as beautiful medieval buildings, including a famous cathedral ✓ To some of the Physical features of Campania- Apennine Mountains, Mount Vesuvius, Amalfi Coast, Island of Ischia famous for hot springs ✓ Plate tectonics - Alfred Wegener believed the continents and ocean floors "float" on moving rock plates and have been drifting for millions of years. This theory is called plate tectonics. The plates move about 1 to 10cm every year. Plates can move towards each other, away from each other or rub alongside each other. ✓ There are three types of major plate boundary movements: • Transform- where plates slide past each other • Convergent- where plates come together • Divergent- where plates are pulled apart from each other ✓ Volcanoes - A volcano is an opening in the Earth's crust from which molten lava, rock fragments, ash, dust and gases are ejected from below the Earth's surface. A volcanic eruption happens when magma below the surface rises to the top of the mountain, causing gas and bubbles to appear. Pressure from this gas can build so much that a volcano explodes ✓ Earthquakes- An earthquake (or quake, tremor) shakes the Earth's surface and is caused by sudden movement in the	A **coast is the place where the land meets the sea** or an ocean. **Erosion:** The sea is always moving, so the coast is always changing. Parts of the coastline get worn down and moved by natural forces such as water and wind. This is a physical process called erosion. **Deposition:** Landforms can be created by sediment left behind by the waves. This is a physical process called deposition. **Physical features of coasts** A **cave** is a hollowed space in s cliff or rock formation along a shoreline. A coastal **sand dune** is a hill of sand near the beach, formed by wind, where plants often grow and animals can shelter, A **rockpool** is a small shallow pool of seawater found on rocky shores, created when the tide goes out and often filled with fascinating sea creatures and plants. A **coastal bay** is a wide, curved area along the shore where the land curves inwards. It may be sandy or have pebbles. A cove is a small bay. A **headland** is a rugged, rocky peninsula that extends out into the ocean, forming a distinct feature along the shoreline. **Stacks** are tall, pillar like rocks in the sea near a coast, creating by eroding cliffs, while stumps are shorter, flat rocks that are the remains of eroded rocks. A **spit** is a sandy peninsula extending from the mainland into the ocean. It is usually a narrow sandy strip of land. **Cliffs** are tall, steep rock faces usually found by the sea. An arch Is like a giant doorway made by the sea. **The coast has so many physical features because:** **Rocks and soils** The land along the coast has different rocks like limestone, sandstone, and granite. Different types of rock cause different features to form. **Sea level changes** The sea level goes up and down a lot over a long time, and this makes the land near the sea change. **Waves and tides**	The difference between weather and climate is: The climate is the usual weather over a long period. The weather is the daily changes in the conditions outside. The weather can change significantly, often different in different seasons and places worldwide. These are some of the main climate zones: •tropical climate zone – hot and wet all year •arid (desert) climate zone – low rainfall and generally high temperatures •temperate climate zone – generally warm summers and cool winters with moderate rainfall •continental climate zone – generally cool summers and very cold winters •polar climate zone – very cold temperatures all year There are different climatic zones because: The Earth is round and tilted at an angle, so the Sun's rays don't fall evenly on the land and oceans. Places on the equator are the hottest places on Earth. They are the closest to the Sun and get the most direct sunshine. The Sun shines less directly on the North and South Poles because they are further from the Sun, so they are the coldest places on Earth. Measuring the weather A weathervane measures wind direction. An okta card measures cloud cover. An anemometer measures how fast the wind is blowing. A rain gauge measures precipitation. A thermometer measures temperature. Weather instrument placement •Rain gauges should be placed in the open and not covered by a roof or branches •Rain gauges should be placed in a cylinder or on a stake to stop them from falling over.

Earth's crust. They can be extremely violent. The rock gets stretched or squeezed as the plates move until it splits. This squeezing and stretching are what cause the ground to tremble and move. The movements create seismic waves. The UK has nine regions, Greater London is a region within the UK and is in Europe. It is made up of a number of 32 boroughs. It is the most populated city. It is the capital city of the UK Physical features: River Thames (longest river in England)- flows into the North Sea. It is mostly lowlands and the further you move out there are the North Downs and Epping Forest. Human features: The Shard (tallest building), The London Eye, Trafalgar Square, Tower Bridge, the O2.	Different parts of the sea, create different-sized waves along the UK coast. The shape of the land and how windy it is also make the tides and waves change in each place. **Weather** Rain and wind can wear down the land, making it change shape over many years. **Glaciers and tectonic movement** Long, long ago, big ice sheets called glaciers moved over the UK land, making valleys and hills near the coast. **Humans** People building structures like houses and roads, or other activity like mining or quarrying can change how the coast looks. Coastal defences: The erosion of the coastline causes local habitats to be destroyed. The changing coastline can often mean homes, businesses, roads and other buildings are at risk. We cannot stop coastal erosion. However, we can try to slow it down, this is called coastal management or coastal protection: sea walls, groynes, revetment, rock armour, dune nourishment and beach nourishment. It is also important to remember that erosion is a natural process, that only needs management if there is a risk of damage to life or property. Holderness: Holderness is a coastline in the east of England. It has the fastest eroding coastline in the whole of Europe. This is because of the type of rock the coast is made up of. Approximately 3 miles of land have been lost since Roman times, including 23 towns/villages.	•Thermometers should be placed in a sheltered spot that is not in direct sunlight but not too shady •Anemometers should be placed in an open area outside. •Weathervanes should be secured on a pole or a stand so that they can move freely.

Year 5	
Fieldwork: Rivers	**What are the similarities and differences between the North West region of England and the Western United States?**
A river is a moving body of water that drains the land. It flows from its source on high ground, across land and into another body of water such as a lake, the sea, an ocean or even another river. A river flows along a channel with banks on both sides and a bed at the bottom. A river at different points in its journey: upper, middle and lower course. A river can take on different characteristics at each course. upper course – source, spring, valleys, waterfalls, rapids, streams, shallow water, narrow channel, boulders, rocks, steep banks middle course – meanders, bends, oxbow lakes, tributaries, deeper water, wider channel, confluence, flatter land lower course – floodplains, levees, estuaries, mouth, delta, brackish water, sea, flat land There are hundreds of rivers in the UK. These are the longest rivers in England in length order: The River Severn , River Thames, River Trent, River Wye, River Great Ouse The River Derwent rises at Sprinkling Tarn Mouth: Workington-Irish Sea The fieldwork techniques that can be used to study a river are: river depth, speed and width. Complete annotated drawings, field sketches and record observations, take digital photographs- label and captions & collect quantitative data (numerical) You analyse findings by look at all the data and try to understand the information. You can present your findings by explaining things clearly, add graphs to make it easier to understand, clearly label maps, sketches and photographs and explain what you have found. You can evaluate your findings by thinking about how well you carried out your investigation and what you could improve next time.	The USA is one of the 23 countries which make up the continent of North America. The country is divided into four regions: the West, the Midwest, the Northeast and the South. The Western region of the USA consists of **13 states** UK is comprised of 4 countries and 9 regions. In the North West region there are 5 counties: Cumbria, Lancashire, Cheshire, Merseyside & Greater Manchester. To the west is the Irish Sea and to the East are the Pennines. **Biomes** A biome is a large area on the Earth's surface defined by the types of animals and plants living there. We can also consider these "life zones" ("bio" means life). **The Western United States** includes tropical rainforest, desert and tundra biomes, to name a few. The Western United States extends across a wide range of vegetation belts, including the following: tundra, coniferous forest, desert and dry shrub, Mediterranean shrub and temperate grassland. **North West UK:** Temperate Deciduous forests. **Physical Geography** **Mountains** are areas of land much higher than the land surrounding them. They are higher and usually steeper than a hill. They are normally over 600 metres high. They are usually found in a group called a mountain range. Lines of ranges form mountain belts. Key features of mountains are: summit, outcrop, valley, slope, plateau, snowline, treeline, ridge, foot & face. One of **the large tectonic plates is the North American Plate**. The edges of the North American Plate exhibit all three of the major plate boundary type of movements. California, Oregon and Washington have earthquakes and even volcanoes! Hawaii also has many active volcanoes, and extinct volcanoes can be found throughout the Western United States. An **example of the volcanic zones in the Western United States is the Cascade Range** which is formed by thousands of small volcanoes. Rising above this volcanic platform are a **few large volcanoes, like Mount Saint Helens,** which dominates the landscape. A river is a naturally moving body of water. It flows from its source on high ground, across the land, and then into another body of water. This could be a lake, the sea, an ocean or even another river. A river system can include all or most of the following: source, tributy, confluence, river, meander, oxbow lake, levee, channel, mouth, estuary, delta **Physical features of North West**

	Cumbria: Lake Windermere, Scafell Pike, The Lake District Saddleworth, Peak District- Greater Manchester Morecambe Bay, Cheshire Plain River Mersey is a major river in the North West The Derwent is a famous river in the county of Cumbria in the north of England **Economy:** how much money a country creates by making and selling goods and services. A region's economic activity means which industries create the most money in that area. Western United States: oil and gas extraction, selling homes, manufacturing and technology. North West UK: A mix of tourism, manufacturing, health and life sciences, financial services, science and technology industries.

Year 6	
UK Depth Study: What is the economic activity of the UK and how sustainable is it?	**Fieldwork: Biomes and Ecosystems**
Trade means buying and selling goods and services. It is essential for countries to make money and has continued worldwide for hundreds of years. The UK imports and exports goods and services to and from other countries. The UK's main trading partners are the USA, Germany, Ireland, the Netherlands and France. Globalisation is the process which has created a more connected world, with increases in the movements of goods (trade) and people (moving abroad and travelling) worldwide. This has had a significant impact on how the UK's economy works. Economy relates to how much money a country generates by making and selling goods and services. It determines how much people will pay for goods and how much money they will pay in taxes. Know that there are **3 types of economic sectors** in the UK • Primary- extracts and uses natural resources of the Earth • Secondary -manufactures goods using the raw materials provided by the primary sector • Tertiary-provides services to consumers and other sectors of industry • Most jobs in the UK are in the tertiary sector **Agriculture** In the UK, agriculture can be carried out 'intensively' or 'extensively.' Intensive farming involves small areas of land used for large crop and animal production. Usually, animals are kept in smaller spaces for this to be possible. **Energy Generation**	Biomes are areas across the world which have a similar environment. This means they have similar climates, landscapes, animals and plants. The UK has a temperate forest biome. Temperate means 'not to extremes' or 'in moderation.' In this case, temperate refers to the temperature in the UK. Temperate Forest Biome: It often rains (but not too much). This is called precipitation. The average yearly rainfall in the UK is 108cm. This means plants get the water they need to grow. Most of the trees are deciduous, meaning they lose their leaves in the winter, but there are many evergreens here too. Rotted leaves and other decaying matter provide rich, deep, fertile soil for trees to grow strong roots. There are four distinct seasons: winter, spring, summer, and autumn. Each season is about the same length of time. Temperate Forest Biome Animals Various animals live here, including badgers, foxes, deer, squirrels, rabbits, bats, adders, frogs, newts, and toads. The UK is also home to many species of invertebrates, such as spiders, insects, moths and butterflies, and many birds and fish. Some animals, like birds, migrate to a warmer place for the winter. Some other species migrate to the UK for the winter as it is warmer than their homes further north. Some animals (such as hedgehogs) hibernate or rest during the winter.

Energy can be generated and captured from multiple different sources. These sources can be sorted into two categories: renewable and non-renewable. Renewable energy sources are naturally occurring and replenished in the environment. These could be used indefinitely without running out: solar, wind, hydro, wave, tidal
Non-renewable energy sources are found on Earth in a finite supply, meaning a specific amount that will eventually run out: nuclear, coal, gas, oil

Water Use
Water is one of the most important resources on Earth; we all need it to survive. Unfortunately, water is a finite resource, so there is only a certain amount that remains on Earth which is going through the water cycle. 'Virtual water' is water used to produce different products; when the UK uses these products, they 'use' the water used in their production.

Waste Management
The UK has developed a waste management hierarchy for dealing with waste produced in the country. Waste prevention is the key element of the hierarchy; refusing single-use plastics and using reusable products is the first step to reducing our environmental impact. Limiting our reliance on landfills is very important.

Automation
Automation is the technology of completing a task using machinery with as little human assistance as possible. AI (artificial intelligence) is a form of automation which uses computers that are programmed with the ability to 'think' and learn.

Rare Earth Elements
Rare earth elements' are seventeen elements used in many high-tech devices, e.g. smartphones and game consoles. A few countries, including China and the USA, produce most of these REEs.
Creating mines to extract REEs is difficult as they are found thinly and evenly across the Earth's surface rather than in large amounts.

Vegetation Belt: Like a biome, a vegetation belt is an area with the same type of plant life (or vegetation).
Whereas a biome refers to all living things, a vegetation belt is only the trees and plants that grow there.

What is a deciduous forest vegetation belt?

In the UK, we live in a deciduous forest vegetation belt. A deciduous forest vegetation belt is where most trees and plants are deciduous, although some are evergreen trees.
This means they lose their leaves or flora in autumn and winter, and fresh growth grows in spring and summer. They do this to save energy, like how some animals hibernate.

Eco-system

An ecosystem is all living things in a given area interacting with each other and their non-living environments.

What ecosystems are found in the UK?
- farmland
- wetlands
- urban areas – towns, cities
- floodplains
- mountains
- woodland and forests
- moorland
- grassland
- heathland
- coastline
- freshwater – rivers, ponds, lakes

The New Forest is an area in the South of England in the county of Hampshire. It is a large area of woodland, open grassland, heathland, rivers, villages and coastal areas.
What ecosystems are found in the New Forest?

The New Forest has parkland, rivers, coastal areas, open land, forests and villages.
The different ecosystems that can be found in the New Forest include:
Coastal, beach, river, heathland, woodland, trees, gardens, towns, parks

There are 8 points of a compass: North, North-East, East, South-East, South, South-West, West and North-West.

Animals native to the New Forest: Other animals found in the New Forest include ponies, donkeys, horses, cows, pigs, deer, sheep, rabbits, foxes, hares, badgers, hedgehogs, squirrels, pine martins, mice, voles, otters, bats, birds, reptiles, amphibians, fish and invertebrates.

What trees and plants are native to the ecosystem in the New Forest?

	There are many species of tree found in the New Forest. The most common are the beech, silver birch, elm, oak and ash. There is abundant plant life in the New Forest: ferns, moss, gorse, grasses and woodland flowers.