

Geography Year A

'Then God made the earth and divided parts of it into oceans and seas and other parts into big pieces of land. God made all the plants and trees and made them grow on the land.' Genesis 1

Where in the World? Volcanoes

Autumn Term LKS2	Key Knowledge - Bold is on knowledge mat	Key Vocabulary
<p>NC Objectives</p> <p>Pupils should be taught:</p> <p>To locate the world's countries using maps to focus on Europe and North and South America, focusing on key physical and human characteristics.</p> <p>To describe and understand key aspects of physical geography, including: Climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle.</p>	<p><u>What is a volcano?</u></p> <ul style="list-style-type: none"> • A volcano is an opening in the Earth's crust where red-hot rocks and gas break to the surface from underground. • Volcanoes can cause terrible destruction and be responsible for thousands of deaths. • Volcanoes are believed to have played a major part in creating the atmosphere we have today. <p><u>Where are they in the world and why?</u></p> <ul style="list-style-type: none"> • Volcanoes occur on weak spots on the Earth's surface where magma can break through. • Often these are near places where tectonic plates meet or part. • Some plates are moving slowly towards each other (convergent), some are moving away (divergent) and some are scraping past each other. • These incredibly slow movements over millions of years are responsible for the shape of the Earth's surface as we know it today. • Most volcanoes and earthquakes occur at plate boundaries. • There is a particularly high concentration of volcanoes around the Pacific plate and this is known as the 'Ring of Fire'. <p><u>How are volcanoes formed?</u></p> <ul style="list-style-type: none"> • Magma rises through weaknesses in the Earth's crust and pressure builds beneath the surface. • The collection of magma beneath the Earth's surface is called a magma chamber. • Where the surface is weak and there are gaps through the tectonic plates that cover the Earth, magma explodes causing a volcanic eruption. The main outlet is called the 'main vent'. Sometimes other outlets are found too and these are called secondary vents. • The lava cools to form a new crust and over time, as this process is repeated, a volcano is formed. The crater is formed when an eruption blows off the top of a volcano. • Where this happens under the ocean, it can produce new land. Surtsey, a new island in Iceland, was formed in this way in the 1960s. <p><u>What is life like living near a volcano?</u></p> <ul style="list-style-type: none"> • Mount Etna is the most active volcano in Southern Europe and one of the largest volcanoes on earth. • It is located on the east coast of Sicily in Italy. • More than one quarter of the population of Sicily live around Mount Etna • There is an early warning monitor centre on Mount Etna that alerts people to any sign of danger. • Clues of imminent eruption include: raised temperature around the top of the mountain, increased gases and small earthquakes nearby. 	<p>Eruption - An explosion of steam or lava from a volcano.</p> <p>Magma - Hot fluid or semi-fluid rock below the Earth's crust.</p> <p>Lava - Hot, molten or semi-fluid rock erupted from a volcano or solid rock and has cooled down.</p> <p>Dormant - A dormant volcano is still active but has not erupted in the past 10,000 years.</p> <p>Active - An active volcano is a volcano that has erupted in the past 10,000 years.</p> <p>Extinct - A volcano that has not erupted in the past 10,000 years and is not likely to erupt ever again.</p> <p>Tectonic plates - The Earth's outer shell is made up of huge slabs of moving rock called tectonic plates.</p> <p>Core - The very hot, very dense centre of planet Earth it has a solid inner layer and a liquid outer layer.</p> <p>Mantle - The mantle is the thick layer of hot, solid rock between the Earth's crust and the molten iron core.</p> <p>Crust - The Earth's hard, outer layer or shell made up of solid rock.</p> <p>Vent - An opening in Earth's surface which volcanic materials escape from.</p> <p>Conduit - An underground passage that magma travels through.</p> <p>Magma chamber - A large underground pool of magma ash cloud - Broken-down rock, steam and gas thrown out by the volcano.</p> <p>Crater - The bowl-shaped basin in the top of the volcano.</p> <p>Convergent - where the tectonic plates are moving towards each other.</p> <p>Divergent - Where tectonic plates move apart from one another.</p> <p>Ring of Fire - A ring of volcanoes and earthquake sites, around the edges of the Pacific Ocean.</p>

What on Earth? Rainforests

Spring LKS2	Key Knowledge - Bold is on the knowledge mat	Key Vocabulary
<p>NC Objectives</p> <p>Pupils should be taught:</p> <p>To locate the world's countries, using maps to focus on Europe ... and North and South America</p> <p>To identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere...</p> <p>To understand geographical similarities and differences through the study of human and physical geography... of a region within North or South America</p> <p>To describe and understand key aspects of: physical geography and human geography...</p> <p>To use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.</p>	<ul style="list-style-type: none"> • Know that a rainforest is a very dense, hot forest. They are called 'rainforests' because of the high level of rainfall they get each year. • Be able to identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn. • Know that rainforests are located between the tropic of Cancer and tropic of Capricorn, and around the equator. • Know that climate means the weather conditions in an area in general or over a long period. • Know that there are different types of climates including: tropical, temperate, polar, dry and continental. • Know where South America is on a map. • Be able to locate countries in South America on a map. • Know that the rainforest is made up of different layers of vegetation: the emergent layer, the canopy, the under storey and the forest floor. • Know that each layer (strata) has different temperatures, humidity levels and amount of sunshine and different types of animals who live there. • Know that the rainforest is full of thousands of different species of plants that are home to thousands of species of animals. • Know that there are lots of tribes of people who live in the rainforest and who continue to live a traditional way of life. These are people who understand the rainforest and live in harmony with it. • Know about the Yanomami tribe and how they live. • Know what it is like to live in the rainforest and compare this to life in the UK. • Know that more than half of the world's plant and animal species live in rainforests but that rainforests are under threat. • Know that rainforests used to cover around 14% of the Earth's surface but now they only cover around 6%. Over half the world's rainforests have been lost. • Know reasons why deforestation is happening such as trees being cut down for timber and paper, to clear space for farm land or cattle grazing and mining. 	<p>Andes - The Andes are the world's longest continental mountain range. They lie as a continuous chain of highland along the western coast of South America.</p> <p>Inhabitants - Is a person or animal that is a permanent resident of a particular place or region.</p> <p>Continent - any of the world's main continuous expanses of land (Europe, Asia, Africa, North and South America, Australia, Antarctica)</p> <p>Canopy - The canopy, which may be over 30 m above the ground, is made up of the overlapping branches and leaves of rainforest trees.</p> <p>Emergent layer - The emergent layer is the name given to the tops of trees that poke up above the rainforest canopy.</p> <p>Understory - The understory layer is a tangle of shrubs, young trees, saplings, palms and vines. It is hot and damp here and the air is very still.</p> <p>Deforestation - When forests are cut down and the area is permanently cleared for another use.</p> <p>Endangered - An endangered species is a species which has been categorized as very likely to become extinct.</p> <p>Indigenous - Indigenous people or things belong to the country in which they are found</p> <p>Biomes - Biomes are distinct biological communities that have formed in response to a shared physical climate.</p> <p>Temperate - Relating to or denoting a region or climate characterised by mild</p>

	<ul style="list-style-type: none">• Know that deforestation has implications for the environment. It puts the lives of animals and species at risk.• Know some of the things that can be done to stop deforestation.• Be able to locate South America and its countries on a map and to use vocabulary such as: latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere and the Tropics of Cancer and Capricorn.• Be able to explain what the word 'climate' means and describe different types of climates on Earth, including tropical climates.• Be able to describe the different layers of vegetation in a rainforest.• Be able to describe and compare geographical similarities and differences between a region in a South America and a region in the UK.• Be able to describe the ways in which the South American tropical rainforest is under threat from human actions and climate change.	<p>temperatures.</p> <p>Extinction - The extinction of a species of animal or plant is the death of all its remaining living members.</p> <p>Destruction - The act of destroying something.</p> <p>Biodiversity - Variety of plant and animal life in a particular habitat, a high level of which is usually considered to be important and desirable.</p>
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What is at the bottom of the garden? Rivers

Summer Term LKS2	Key Knowledge - Bold is on knowledge mat	Key Vocabulary
<p>NC Objectives</p> <p>Pupils should be taught:</p> <p>To describe and understand key aspects of physical geography, including: rivers, mountains and the water cycle.</p> <p>To use maps, atlases and globes and digital/computer mapping to locate countries and describe features studied.</p>	<ul style="list-style-type: none"> The earth's surface is subject to continual long-term change Knowledge of how mountains and volcanoes are formed begins to explain how rivers are formed. Erosion wears the land away in multiple ways: Rivers cut back into mountain and upland areas, glaciers grind away at rocks to gouge deep mountain valleys, <i>wind blasts exposed surfaces. Changes in temperature cause rocks to crack, exposing them to erosion from ice, wind and water. Some rock strata are also vulnerable to chemical processes... Limestone, for example, dissolves slowly as it reacts with rainwater resulting in dramatic landscapes with cliffs, gorges and caves (recap from Science).</i> Major towns and cities are often on the banks of rivers. Water flows from the mountains towards the sea. Agriculture and industry both benefit from ample supplies of river water but floods represent a continual risk. River features include: tributary, delta, gorge, oxbow lake, floodplain, source, current, basin, bank, estuary, meander, mouth, riverbed, stream, rapids (see opposite) . Note on vocabulary (<i>source/sauce, current/currant</i>) - potential misconceptions/misunderstandings <p>I will learn and explore:</p> <ul style="list-style-type: none"> Where are rivers found in our local area, the UK and in the wider world? Physical changes in the land are made by natural forces... Mountains are made as the land builds up but erosion forms rivers. Where do rivers start and end? What are the features of a river? How do rivers erode, transport and deposit materials? What is the water cycle and why is this important when learning about rivers? Why are rivers important to many towns and cities? How is a river in the UK similar and different to a river somewhere else in the world? Planning and carrying out an investigation into our local river and presenting our findings in a graph. 	<p>Rivers: a large natural stream of water flowing in a channel to the sea, a lake, or another river.</p> <p>Water cycle: the cycle of processes by which water circulates between the earth's oceans, atmosphere and land.</p> <p>Erosion: the process of eroding or being eroded by wind, water, or other natural agents.</p> <p>Waterfall: a cascade of water from a height.</p> <p>Tributary: a river or stream flowing into a larger river or lake.</p> <p>Delta: a landform created with sediment from a passing river.</p> <p>Gorge: a narrow valley between hills or mountains, typically with steep rocky walls and a stream running through it.</p> <p>Lake: a large area of water surrounded by land.</p> <p>Floodplain: an area of low-lying land which is flooded in wet seasons or at high tide, and typically remains waterlogged at all times.</p> <p>Source: the place something (river) starts from.</p> <p>Current: a body of water moving in one direction.</p> <p>Other vocabulary important to unit: basin, bank, estuary, mouth, meander, oxbow lake, riverbed, stream, rapids.</p>