

Medium Term Plan: Supporting Implementation of LTP/Progression Grid

Subject: Geography – LKS2 Unit 3

Mountains, Earthquakes, Volcanoes

Enquiry Question – Why do people choose to live near earthquake/volcanic sites?

NC/PoS:

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.

Prior Learning (what pupils already know and can do)

Children know the world continents and oceans. Children can name some mountains in the UK - Scarfell Pike in The Lake District, Ben Nevis in Scotland, Mount Snowdon in Wales, Slieve Donard in Northern Ireland.

End Points (what pupils MUST know and remember)

Know that most mountains are formed at plate boundaries.

Know that there are different types of mountains – fold mountains, block mountains and dome mountains.

Name and locate some of the highest mountains in the 7 continents -

Asia – Everest, Himalayas

South America – Aconcagua in Argentina

North America – Denali in Alaska

Africa – Kilimanjaro in Tanzania

Europe – Elbrus in Russia

Antartica – Vinson in Antartica

Oceania – Puncak Jaya in Indonesia

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And also Machu Picchu in South America.

Know that earthquakes occur because of the sudden release of energy stored in the earth's crust leading to seismic waves caused by the movement of tectonic plates.

Identify the world's largest and most significant earthquakes -

Sumatra (Indonesia) – Dec 26th 2004

Nepal (Asia) – April 25th 2015

Peru (South America) – May 1970

Turkey/Syria (Asia) - Feb 6th 2023

Know that volcanoes erupt when magma rises to the surface due to pressure under the earth's crust.

Locate the world's largest volcanic eruptions -

Mount Etna – Sicily – Europe

Mount Vesuvius – Italy – Europe

Volcan de Feugo – Guatemala – Central America.

Know why people choose to live in volcanic/earthquake zones?

Key Vocabulary

summit, altitude, crusts, gorges, magma, lava, tectonic plate, contour lines, topography, eruption, magma, main vent, crater, seismic wave, magma chamber, epicentre, shock wave, magnitude, Rickter, Mercalli, geothermal energy, fossil fuels, tourism, mining, farming

Session 1:

What is a mountain?

Explore different types of mountains e.g. fold mountain, block mountain, dome mountain.

Using a range of maps identify highest mountains in 7 continents and their countries.

Explore mountain biome.

Asia – Everest, Himalayas

South America – Aconcagua 6,961m in Argentina

North America – Denali, 6,194m in Alaska

Africa – Kilimanjaro, 5,895m in Tanzania

Europe – Elbrus, 5,642m in Russia

Antartica – Vinson, 4,892m in Antartica

Oceania – Puncak Jaya, 4,884m in Indonesia.

Vocabulary: summit, altitude, crusts, gorges, magma, lava, tectonic plate, contour lines, topography.

Session 2:

Fieldwork

Mountains- visit to nearest location on OS map / **Digimaps** with contour lines.

Field sketches.

Scavenger hunt for nearby OS symbols.

Plot locations using 4 figure grid references.

Session 2:

Mountains

Explore Machu Picchu – Peru – South America

In the mountains of south-central Peru stands Machu Picchu, a deserted city of the Inca people. The name Machu Picchu means "old peak" in Quechua, the language of the Inca.

The dwellings at the site were probably built and occupied from the mid-1400s to the early or mid-1500s. Machu Picchu is one of the few American Indian sites dating from that long ago to be found nearly intact. Machu Picchu is located about 50 miles (80 kilometers) northwest of the city of Cuzco, which was the capital of the Inca Empire. It lies between

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two sharp peaks in the eastern Andes Mountains, at a height of 7,710 feet (2,350 meters). Mountain forest surrounds the site. Machu Picchu is divided into two sections, one farming and one urban. The farming section is made up of steplike fields called terraces. The Inca used the terraces for growing crops such as corn and sweet potatoes. The urban section has plazas, temples, houses, and a cemetery. They are connected by walkways and thousands of stone steps.

Vocabulary: eruption, magma, main vent, crater, magma chamber

Session 3: Earthquakes

What are earthquakes and why do they happen? Explore the key aspects that happen on land or sea. Caused by the friction created as 2 plates move, which causes them to interlock stopping movement and when the tectonic pressure is finally released a huge wave of energy moves through the plates.

Use maps to locate earthquakes around the world;

Sumatra – Dec 26th 2004

Nepal – April 25th 2015

Peru – May 1970

Turkey/Syria - Feb 6th 2023

Ring of Fire

Vocabulary: earthquake, land, sea, plates, friction, wave, energy, locate

Session 4 Earthquakes

Valdivia – Chile – South America 1960 – Largest earthquake recorded in history. Magnitude 9.5. The event was named after the city most effected by the quake. The Valdivia earthquake left two million people homeless, injured at least 3,000, and killed approximately 1,655. The economic damage totalled more than \$4.8 billion. (Adjusted for 2020 inflation). The Valdivia earthquake triggered a massive tsunami that raced across the Pacific. Waves wracked coastal communities as far away as New Zealand, Japan, and the Philippines. In Hawai'i, the tsunami devastated the coastal town of Hilo, killing 61 people.

Session 4: Volcanoes

What are volcanoes and why do they happen? Explore the key aspects that happen on land or sea. Understand how volcanos are formed. They are mainly located in the tectonic plate where the mountains are mainly located within the body of a tectonic plate. In its simplest terms volcanos are formed when the magma penetrates the earth's crust. This

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then cools and hardens to form solid rock to create a mountain. There are two types of volcanos (Shield & composite). Composite is the most common

Shield; runny lava, with a sticky texture (Viscose)

Composite; Lava is thick this contributes to explosion/eruptions because it traps the gases.

Mount Etna – Sicily – Europe – last eruption Nov 22

Mount Vesuvius – Italy – Europe -

Ring of Fire - A chain of volcanoes surrounds the Pacific Ocean. Because the volcanoes frequently erupt in fiery explosions, the region is known as the Ring of Fire. Many earthquakes occur in the region as well.

Guatemala – Central America - Guatemala's Volcán de Fuego, or Volcano of Fire, is one of the most active volcanos in the world.

Compare impact of eruptions and the location in the world (A physical action, but with human geography impact) Why do people choose to live near volcanic sites?

Vocabulary: mountains, volcano, earthquake

Session 5:

Fieldwork

Volcanoes and earthquakes- use Google expeditions to do a virtual visit and complete a field sketch, tick list for physical and human features at virtual location.

Future learning this content supports:

This content will support future learning on North and South America and when describing the geography of locations around the world.