Medium Term Plan: Supporting Implementation of LTP/Progression Grid

Subject: Geography – LKS2 Unit 4 Year 4
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.

End Points (what pupils MUST know and remember)
Know how mountains are formed
Know that there are different types of mountains and how they are formed – fold mountain, block mountain, dome mountain
Name and locate the highest mountains in the world.
Know why earthquakes occur
Identify the world's largest and most significant earthquakes
Know how volcanoes are formed and why volcanoes erupt
Locate the world's largest volcanic eruptions
Know why people choose to live in volcanic/earthquake zones? Is location and severity changing? Why?

Key Vocabulary

summit, altitude, crusts, gorges, magma, lava, tectonic plate, contour lines, topography, eruption, magma, main vent, crater, 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 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 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 – Chilie – 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 then cools and hardens to form solid rock to create a mountain. There are two types of volcanos (Sheild & composite). Composite is the most common

Sheild; 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.

Guatamala – 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.