Y3 – Mountains, volcanoes and earthquakes

Inspiration
Culture – the characteristics of the UK

Partnership with parents
Place and belong – tolerance

Key Questions
- What is like Mount Everest like?
- What is a mountain?
- How is a mountain formed?
- What is a volcano?
- Why do people live near volcanoes?
- Why do earthquakes happen?

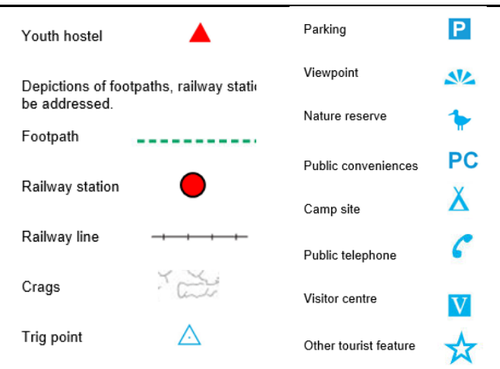
Concepts
- Hazard, Change, Place

Also covered in:
Y4 – The Mediterranean

Skill Development M2 Basic
- There are some good examples of geographical questions about the characteristics of a location.
- When prompted, views about a location are generated with some use of geographical vocabulary to explain them.
- Some fieldwork techniques are applied when investigating the local area.
- There is an awareness of the range of resources that can be used to investigate a place and identify its characteristics.
- With some support from the teacher, knowledge of the countries and cities of the UK is revised and built upon and some of the key features of its regions are explored.
- With support of a teacher, some of the names of the countries in Europe and some of their characteristics are identified.
- There is some awareness of the terms that can be used to describe geographical patterns.
- With support from a teacher, similarities and differences between countries are identified.
- With support of a teacher, some of the changes to the locality of the school over time are identified and described using geographical language.
- With guidance from a teacher, some terminology is used to describe locations geographically
- With guidance from a teacher, position and direction is described using some detail and reference to the UK

By the end of this Unit, children will be able to:
- Describe the physical geography of a mountain including its landscape, topography and weather
- Name the highest peaks in the UK
- Use keys, contour lines, four figure and six figure grid references, grid squares, distance, scale and direction
- Describe how mountains are formed using geographical vocabulary
- Describe extinct, dormant and active volcanoes
- Describe how humans interact with volcanoes
- Explain using geographical terms, why earthquakes occur

Knowledge see www.rgs.org Mountains, volcanoes and earthquakes (see fact sheets for each lesson)
- Mount Everest is the highest mountain on Earth. It rises to 8849 metres above sea level (29028 feet). It is just one of 30 peaks of the Himalaya range. The name Himalaya is an old Sanskrit word meaning 'abode of snow'.
- In comparison the highest peak in the UK is Ben Nevis at 1344 metres in the Grampians, Scotland; Snowdon 1085 metres, Snowdonia, Wales; Scafell Pike 978 metres, Lake District, England, Slieve Donard, 850 metres, Northern Ireland.
- Temperatures near the top of Everest drop as low as minus 60˚C. In July, the warmest month, the average temperature is minus 18˚C.
- The air is very thin on the mountain.
- **What is a mountain?** Definitions vary. One convention, often used in the UK, is a peak above 3000 feet.
- **The Main Mountain Ranges:** Himalayas, Asia; Alps, Europe; Rocky Mountains, North America; Andes, South America
- In the last lesson pupils understood that volcanoes are primarily (but not exclusively) located on the boundary between two tectonic plates.
- In its simplest terms a volcano is formed when magma penetrates the Earth's crust. This magma then cools and hardens to form solid rock, creating a mountain. Volcanoes can be active, having erupted in recent history, or in some cases erupting on a continual basis. Others can be dormant or extinct.
- The landscape surrounding Mount Etna and Mount Vesuvius has very rich fertile soils supporting agriculture
- Geo means 'of the earth' and 'thermal' means heat. Geothermal energy is therefore the heat that naturally occurs underground in volcanic areas. In many cases this geothermal energy is evident in the form of hot springs and geysers (fountains of hot water that shoot out intermittently from the spring). In other cases this hot water is stored deep underground.
- The Richter scale was devised by Charles F. Richter, an American seismologist, in 1935. It measures the magnitude of an earthquake.



Topic Specific Vocabulary
Mountain, volcano, earthquake, Mount Everest, extinct, dormant, active, eruption, tectonic, range, crust, erosion, boundary, core, mantle, crust, molten rock, viscous, magma, plates, convection currents, faults/lines, converge, anticlines, synclines, erosion/weathering, rock strata, dormant volcano, extinct volcano, active volcano, focus, epicentre, constructive plate boundary, destructive plate boundary, transform plate boundary, seismic waves, magnitude, Richter scale, seismologists, seismographs

NC Subject content
- Describe and understand key aspects of physical geography, including mountains, volcanoes and earthquakes.
- Describe and understand 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

Subject Specific/Academic Vocabulary
This vocabulary should be explicitly taught in context. Other tier 2 words should also be explored as they are encountered.

Year 3	Year 4	Year 5	Year 6
Area, cultural, economic, features, identified, impact, income, physical, region, source	consequences, labour, significant, survey, resident	Analyse, considerable, distribution, export, locate,	Affect, constant, factors, policy, proportion

We are geographers
Non chronological report on earthquakes and volcanoes