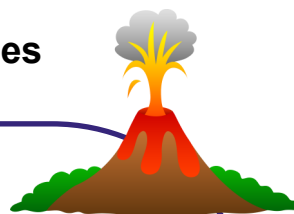


# Geography

All children – regardless of gender, starting point or background – will have the opportunity to engage with a high-quality geography education. They will be equipped with the knowledge, skills and vocabulary to understand about diverse places, people, resources and natural and human environments. Together with a deep understanding of the earth's key physical and human processes, we will provide children with explanations of how the earth's features are shaped over time. We intend to inspire a sense of enjoyment and curiosity about geography.

## World Study - Earthquakes & Volcanoes



Autumn 1

### New Knowledge:

- The earth is split into four major layers: the crust, the mantle, the outer core and the inner core.
- The inner core is the centre and the hottest layer of the Earth. The inner core is solid and made up of iron and nickel with temperature up to 5,500oC.
- The outer core is located around 1800 miles under the crust and approximately 1400 miles thick. It is composed of metals such as iron and nickel. The outer core surrounds the inner core.
- The mantle, the largest layer of the Earth, is made up of iron, aluminium, calcium, magnesium, silicone, and oxygen. The mantle consists of very hot and dense rock.
- The crust is the outer layer where we live. The thickness is around 0-60 km. It's a solid rock layer divided into two types: continental crust covers the land and oceanic crust covers water.
- The crust consists of only one percent of the Earth's mass.
- The earth's crust is made up of tectonic plates that fit together – they are made up of rock resting on the mantle of the earth (moving rock).
- The tectonic plates are constantly moving and when two plates are sliding alongside each other, it can lead to rocks breaking underground. When this happens, it causes a fault. The sudden release of energy causes a seismic wave, which makes the ground shake (earthquake).
- The epicentre is the point on the earth's surface vertically above the focus of an earthquake.
- A volcano is formed when magma from the earth's mantle makes its way to the surface and lava erupts
- Magma is below the earth's surface, lava is above.
- Plate tectonics cause earthquakes and volcanoes. The point where two plates meet is called a plate boundary. Earthquakes and volcanoes are most likely to occur either on or near plate boundaries.
- The eruption of Krakatoa, or Krakatau, in August 1883 was one of the most deadly volcanic eruptions of modern history. Tsunamis followed the collapse of the volcano below sea level. The eruption also affected the climate and caused temperatures to drop all over the world.
- Volcanic eruptions continue to cause devastation e.g. the most recent eruption of Mount Merapi, Indonesia on 9th August.2021.
- The Ring of Fire is a region around much of the rim of the Pacific Ocean where many volcanic eruptions and earthquakes occur.
- Countries that are located in the 'Ring of Fire' region have adapted in order to live as safely as possible. e.g. earthquake resistant building, earthquake emergency phone alert system, earthquake survival kits, water discharge tunnels.
- A natural disaster is a natural event such as a flood, earthquake, volcanic eruption or hurricane that causes great damage or loss of life.

### Key Vocabulary:

- Layers
- Crust
- Mantle
- Outer core
- Inner core
- Tectonic plates
- Fault
- Fault lines
- Volcano
- Volcanic eruption
- Earthquake
- Natural disaster
- Magma
- Lava
- Plate boundary
- Ring of Fire
- Epicentre

