# Mountains and Volcanoes

Geography Year 3

## Mountains and Volcanoes: Why do people choose to live near volcanoes?

### Very Important Vocabulary:

**Formation:** Formation means how something is made or built over time. Mountains and volcanoes have different formations depending on how they were created by the Earth.

**Mountains:** Mountains are tall landforms that rise high above the land around them. They are usually made when parts of the Earth push upwards.

**Earth's Crust:** The Earth's crust is the thin, hard layer on the outside of our planet. It's like the skin of the Earth and is broken into large pieces.

**Tectonic Plates:** Tectonic plates are big, moving pieces of the Earth's crust. They move very slowly and can crash into each other, slide past, or move apart—this can cause earthquakes, mountains, and volcanoes.

**Tourism:** Tourism means people travelling to visit different places for fun, learning, or relaxation. People visit mountains and volcanoes to go hiking, skiing, or to see amazing views.

**Mid-Atlantic Ridge:** The Mid-Atlantic Ridge is a huge mountain range under the ocean. It's where tectonic plates are moving apart, and new crust is being made. It runs down the middle of the Atlantic Ocean.

### Yr Wyddfa

Yr Wyddfa (also called Snowdon) is the highest mountain in Wales. It is 1,085 metres tall and is part of the Snowdonia National Park. The mountain was shaped by glaciers during the Ice Age, which formed steep ridges and deep, curved valleys.

### The three main types of volcano:

There are three different types of volcano: shield, composite, and cinder cone.

Shield volcanoes are wide with gentle slopes, like Mauna Loa in Hawaii. They erupt often with runny lava that spreads far.

Composite volcanoes have steeper sides and are made of layers of lava and ash. They can have powerful explosions, like Mount Fuji in Japan.

### Eyjafjallajökull

In 2010, a volcano in Iceland called Eyjafjallajökull erupted. It sent a huge cloud of ash into the sky that stopped flights across Europe for days. Melting ice caused floods, and ash covered farms. But the eruption also made people more interested in Iceland's volcanoes, bringing more tourists later on.

### Why do people live near volcanoes?

The land is often very good for farming, and geothermal energy can be used to heat homes and make electricity. Some people also have cultural and family ties to the area - making it harder to move.

### Mountains:

Mountains are formed when the Earth's plates move and push together. These plates are huge pieces of the Earth's crust that slowly move. When they crash into each other, the land can be forced upwards to create mountains. This is how big mountain ranges like the Himalayas were made.

Over time, mountains change because of wind, rain, and ice. These natural forces break down the rock in a process called weathering. Water, wind, and glaciers also move this broken rock away, which is called erosion. Glaciers (huge rivers of ice) can shape the land by carving deep valleys and sharp ridges.

Fold moutnains are often not very wide and have a pointy top. Mount Everest is an example of a fold mountain. Fold mountains are formed when tectonic plates move towards eachother, the ground is pushed upwards, lifting and folding it.

Fault-block mountains are often quite block like. The Santa Catalina Mountains, in Arizona USA are fault-block mountains. As tectonic plates converge, the Earth's crust can break along lines of weakness. When this happens, the crust breaks into blocks, these are then pushed up and create fault-block mountains.

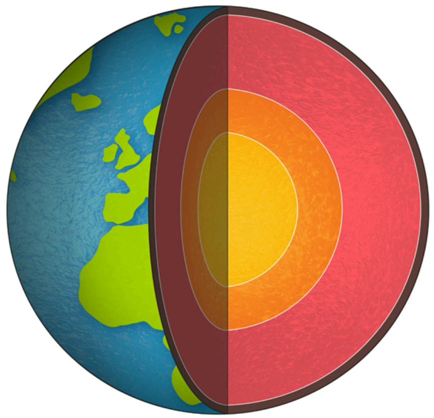
### Earth's Structure:

The inner core is the centre of Earth. It is thought to be a solid ball of iron with a temperature of 5,500°C.

The outer core is a liquid, composed of iron and nickel, and has a similar temperature to the inner core.

The mantle is the thickest layer at 2,900 km. It is mostly semi-molten lava and is between 1000 and 3700°C!

At 0-65 km, the crust is the thinnest layer. This is where our continents and oceans are situated and is the layer on which we live.



### Tectonic Plates:

The tectonic plates are constantly moving as they sit on top of the Earth's mantle.

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