





Year 3/4 Geography: Volcanoes and Earthquakes

Key enquiry questions

<p>What is the Earth made of?</p>		<p>How does an earthquake occur? What happens when an earthquake occurs?</p>	
<p>How are volcanoes formed? What happens when a volcano erupts?</p>		<p>How do people protect themselves from volcanoes and earthquakes?</p>	

Key vocabulary

volcano	An opening in the Earth's crust through which lava, ash, and gases erupt.
earthquake	An intense shaking of the ground caused by movement in the Earth's crust.
crust	The outermost layer of our planet, made of solid rock and broken into tectonic plates.
mantle	The largest layer of the Earth, made of hot molten rock called magma.
inner core	The innermost layer of the Earth, made of hot, solid metal.
outer core	A layer of the Earth, made of hot, liquid metal.
epicentre	The part of the Earth's surface directly above the starting point of an earthquake.
tectonic plates	The different pieces of the Earth's crust, that fit together like a jigsaw puzzle.
magma chamber	Where the molten rock is stored beneath a volcano.
crater	Found at the top of a volcano, where the magma erupts from.
Richter scale	Used to measure the size and strength of an earthquake.
lava	Liquid magma.

Stem sentences

Practise saying these sentences out loud with the right phrases in the gaps.

- A occurs/forms when...
- When a occurs/erupts...
- The Earth is made up of layers. They are called...

For the website, to accompany:

Contextual information. You do not need to remember all this information but it might help you to understand your learning.

*Planet Earth is made up of four main layers. The **inner core** is at the very centre of the Earth and it is made of solid iron and nickel. The inner core is surrounded by the **outer core**, which is made of liquid iron and nickel. The **mantle** is between the outer core and the crust. It is made of molten rock called magma. Finally, the **crust** (the surface of the Earth) is made of solid rock. This layer is broken into **tectonic plates** which move around in different directions. The tectonic plates are constantly moving, but so slowly that we do not notice until there is an **earthquake!***

Earthquakes occur when tectonic plates bump and grind against each other. As they rub together, the friction causes energy to build up. When this energy is released, it creates a shockwave. Volcanoes are formed when the mantle mixes and moves, creating pressure underneath the crust. The magma then leaks out onto the surface of the Earth.

Earthquakes and volcanoes can have disastrous consequences. They can destroy cities, killing and injuring thousands of people. Experts are still working on predicting when earthquakes may occur or when volcanoes may erupt. In the meantime, people who live near volcanoes or the plate boundaries, have to take steps to protect themselves from these natural disasters.