



Respect, Believe, Achieve

Year 3 Volcanoes and Earthquakes

- *The features of volcanoes and why they erupt
- *Why earthquakes occur
- *The interaction between humans and volcanoes/ earthquakes

As a Geographer, what do I already know?




- ♦ In our previous unit in Year 3, we located countries in Europe in atlases. We also learnt about the term 'landforms', which a volcano is.

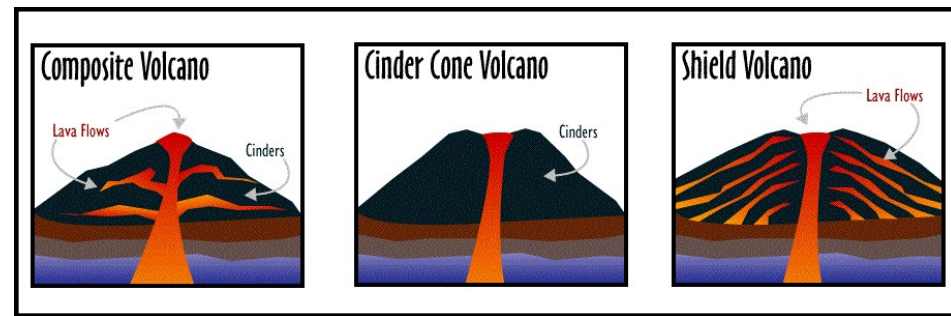


Mount Etna, Italy — One of the tallest active volcanoes in Europe.

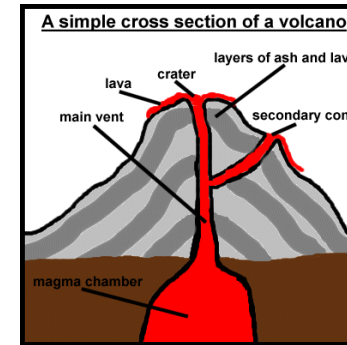
Key Words

Magma	Molten, or hot liquefied, rock located deep below the Earth's surface.
Tectonic plates	Earth's outer layer is made up of large, moving pieces called plates. All of Earth's land and water sit on these plates. The plates are made of solid rock. Under the plates is a weaker layer of partially melted rock. The plates are constantly moving over this weaker layer.
Crater	The area around the opening of a volcano or geyser that is shaped like a bowl.
Landforms	A landform is a feature on the Earth's surface that is part of the terrain. Mountains, hills, plateaus, and plains are the four major types of landforms. Minor landforms include canyons, valleys, and basins.
Ash	When volcanoes erupt explosively, with big black clouds, they can produce a very fine material called ash. Ash looks and feels similar to flour that you might use to bake bread or cakes. Sometimes ash can be black in colour.
Fertile	Able to produce farm crops or other plant life.

	Key Skills
	<u>Knowledge Location</u>
	<u>Understanding Place</u> I can describe and understand some of the processes associated with volcanoes and earthquakes. I can begin to understand the interaction between physical and human processes by describing how some physical processes can cause hazards to people (volcanoes and earthquakes). I can recognise that there are advantages to living near volcanoes.
	<u>Enquiry and Skills</u> I can use a map (scaled 1:2500) or atlas to locate some countries and volcanoes in Europe (also use aerial images to recap Y2).



Key information—What do I need to know?
<ul style="list-style-type: none"> ♦ The main features of a volcano (see diagram below). ♦ Why volcanoes erupt: The rock inside the planet we live on can melt to form molten rock called magma. This magma is lighter than the rocks around it and so it rises upwards. Where the magma eventually reaches the surface we get an eruption and volcanoes form. ♦ The top part of the Earth is made up of a number of hard pieces called tectonic plates. Magma and volcanoes often form where the plates are pulled apart or pushed together but we also find some volcanoes in the middle of tectonic plates. ♦ Volcanoes have many different shapes and sizes, some look like steep mountains (stratovolcanoes), others look like bumps (shield volcanoes) and some are flat with a hole (a crater or caldera) in the centre that is often filled with water. ♦ Why earthquakes occur: The tectonic plates are constantly moving but sometimes they get stuck. When they get stuck, pressure builds up and the plates will suddenly move. This causes an earthquake! ♦ Advantages to living near volcanoes: volcanic rock and ash provide fertile land which results in a higher crop yield for farmers. tourists are attracted to the volcano, which increases money to the local economy. minerals are contained in lava, eg diamonds - these can be mined to make money.



As a Geographer, here's the knowledge, skills and understanding I will have by the end of the unit:

1. I will be able to independently make a working model of a volcano, label it with the features of a volcano.
2. I will be able to describe how, and offer reasons why, it erupts, and relate this to one or more examples of volcanoes around the world.
3. I will be able to use a map to locate some volcanoes in Europe and the countries in which they are located.
4. I can begin to understand why earthquakes occur.
5. I will be able to talk about how volcanoes and earthquakes can be a danger to people.
6. I will be able to recognise that there are advantages to living near volcanoes.