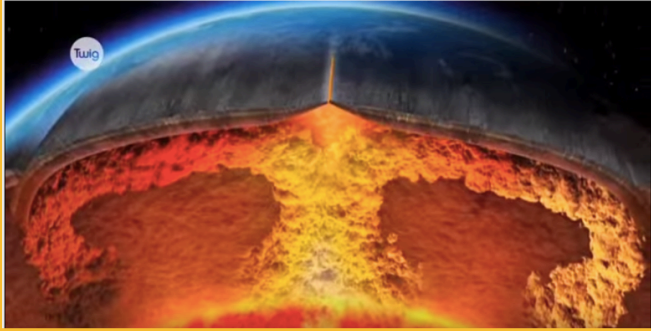
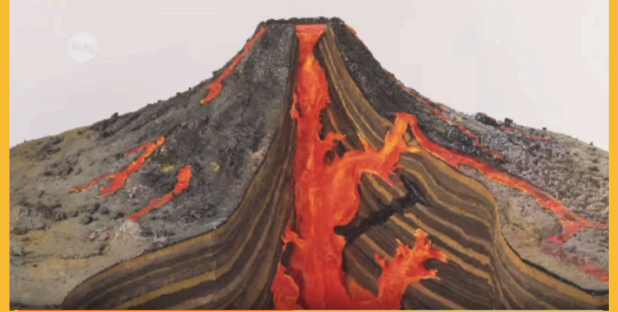


Volcanoes

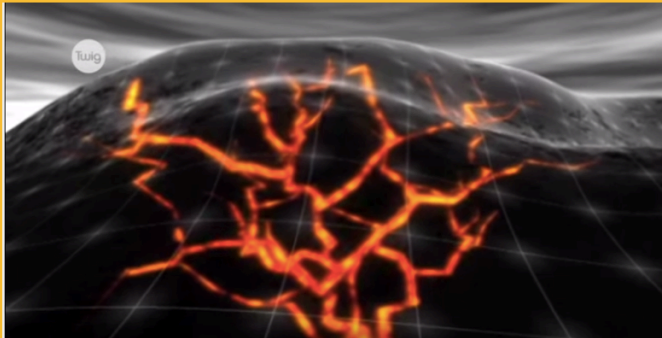
This is how volcanoes are formed:



A volcano is an opening in the earth's crust through which magma, ash and gas erupt.



Rock under the earth's surface is so hot that it melts. This melted rock is called magma. Heat rises so the magma moves towards the earth's crust.



Sometimes it finds a crack or a hole in the earth's crust and bursts through. This is when the pressure builds up under the surface causing a volcanic eruption.



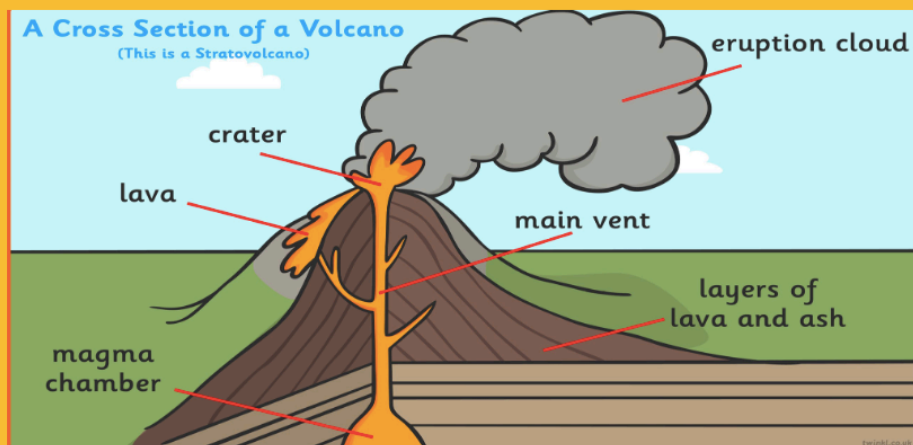
At the surface it erupts to form lava flows and ash deposits.
Erupting magma is called lava.



- Volcanoes become bigger every time they erupt as the lava cools and makes a new layer of rock.

Challenge

You are now a volcanologist (a person who studies volcanoes) can you write a paragraph, tell a family member or create a video to describe in your own words how a volcano is formed?



Can you draw your own cross-section of a volcano and label the different parts of the volcano?

-Crater: This is the circular impression in the ground which is caused by volcanic activity.

-Eruptions cloud: A cloud of gases formed by an erupting volcano.

-Lava: Is molten rock (melted rocks)

-Main vent: Is the weak point in the Earth's crust where the hot magma has been able to rise from the magma chamber.

-Magma chamber: Is a large pool of liquid rock found beneath the surface of the Earth.

Make Your Own Volcano Science Activity

You will need:

1. Washing up liquid
2. Vinegar
3. Plastic cup
4. Bicarbonate of soda
5. Red food colouring



You could build a paper mache volcano and put the cup inside it for extra effect!

Method:

1. Fill your cup just over half full with water, add 3 teaspoons of bicarbonate of soda and give it a good stir until most of the bicarbonate of soda dissolves.
2. Add two drops of red food colouring and a good squirt of washing up liquid into the cup and once again give it a stir.
3. Make sure your volcano is in the kitchen or outside (or somewhere you don't mind making a mess).
4. Quickly pour in just under a quarter of a cup of vinegar and enjoy your very own volcanic eruption!

The science behind it:

You just made a chemical reaction! By mixing the acid (vinegar) and the alkali (bicarbonate of soda), bubbles of carbon dioxide (CO_2) were released like in a pyroclastic flow. A pyroclastic flow moves very fast and is extremely dangerous, whilst lava flows move slowly and aren't much of a threat.