

## Volcanoes and Earthquakes Home School Learning Lesson 2 (Week 9)

To explain how volcanoes are formed.

Task 1

Resources

2 pieces of paper

<https://www.theguardian.com/world/video/2010/mar/25/iceland-volcano-eruption>

Work through the PowerPoint- Volcanoes and Earthquakes Lesson 2 PowerPoint PDF

- Have a go at moving two pieces of paper together like tectonic plates

[http://www.bbc.co.uk/worldservice/science/2009/09/090930\\_volcanoes\\_guide.shtml](http://www.bbc.co.uk/worldservice/science/2009/09/090930_volcanoes_guide.shtml) - This website is a bit technical but it clearly shows how Volcanoes are formed.

Then complete the sheet below, either copy or print out and stick into your exercise book. (Answer sheet can be found under it)

Task 2

**Make your own volcano!!**

Can you become a geologist having found a new volcano that has begun to erupt? Can you learn the new technical vocabulary you have learnt to describe what is happening to your volcano!! (crust, mantle, inner core, outer core, ash, lava, crater, conduit, eruption, magma) Could you film it?? (Please send it in if you do)

**Make your own Volcano**

Washing up liquid, vinegar, plastic cup, baking soda, red food colouring.

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

1. Fill your glass just over halfway full of water. Add 3 teaspoons of baking soda and give it a good stir until most of the baking soda dissolves.
2. Add 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 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. These move very fast and are extremely dangerous, whilst lava flows more slowly and isn't that much of a threat.

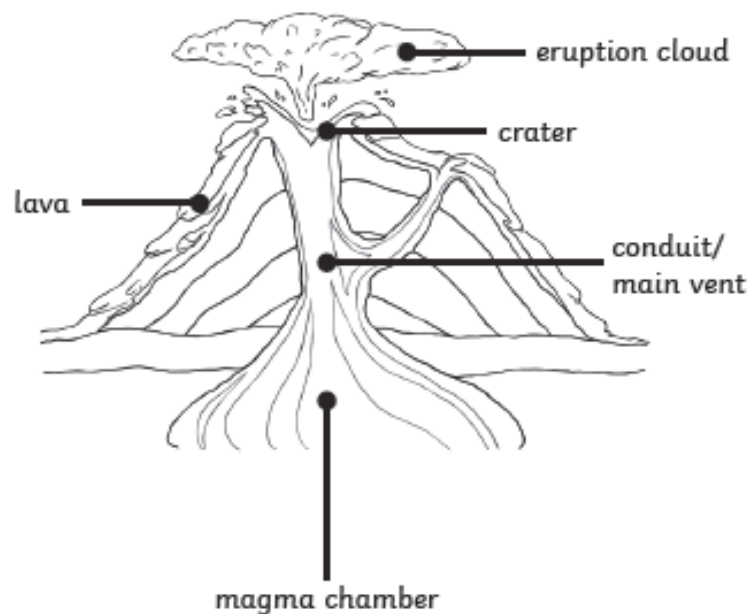


To explain how volcanoes are formed.

1

P\_\_\_\_\_ builds up inside  
the E\_\_\_\_\_

Complete the sentences describing a volcano's life.



2

This then affects the Earth's  
c\_\_\_\_\_, so that  
m\_\_\_\_\_ can sometimes  
e\_\_\_\_\_ through it.

3

The l\_\_\_\_\_ and a\_\_\_\_\_  
that are e\_\_\_\_\_ through  
the crust build up to form the  
classic volcano c\_\_\_\_\_ shape  
over time.

4

This process is happening  
all the time!

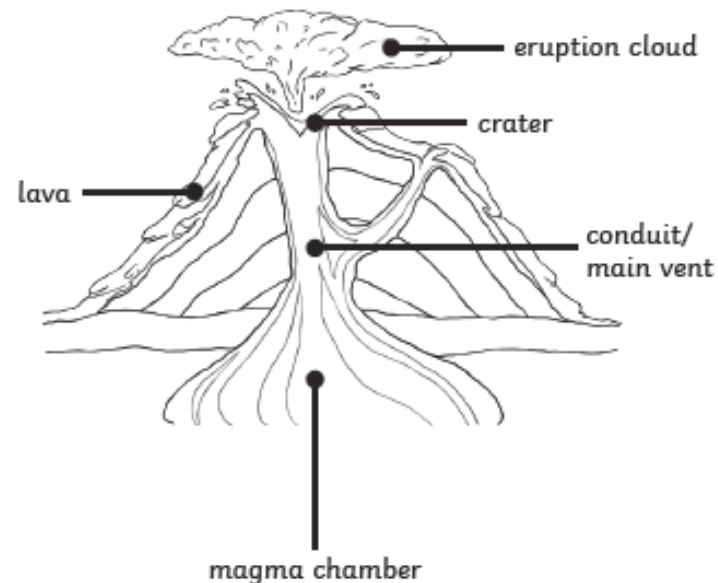
# How a Volcano Is Made **Answers**

1

*Pressure builds up inside the Earth.*

3

*The lava and ash that have erupted through the crust build up to form the classic volcano cone shape over time.*



2

*This then affects the Earth's crust, so that magma can sometimes erupt through it.*

4

*This process is happening all the time!*