

Dr Kayla Iacovino: Volcanologist

Volcanologists are scientists who study volcanos and the rocks which come from them. This is a really varied and important science. Understanding volcanoes can help us discover the history of our planet as well as protect communities who live close to volcanos.

Kayla is a petrologist, which means she studies the chemicals inside the rocks and uses this to tell the story of what is happening deep underground in the belly of the volcano. This means that she has visited many amazing volcanos to collect samples including Mount Erbus in Antarctica, Mount Peaktu in North Korea and Mount Nyiragongo in the Democratic Republic of Congo which has the largest open magma chamber in the world.



Lava Lake of Mount Nyiragongo in DR Congo



Mount Erbus



Kayla now works for NASA where she uses her knowledge of volcanos on earth to understand volcanos on other planets and moons in the solar system. Like Olympus Mons on Mars which is the biggest volcano we have ever found.

Olympus Mons, Photo Credit: NASA



Why Kayla studies volcanos?

"Geology moves at a pretty slow pace, but volcanoes are this explosive, exciting thing, and the surface expressions of so many processes going on beneath Earth's surface. Studying volcanoes is like understanding Earth's most active expression."

Want to know more?

To find out more about Kayla and what she does check out [this video!](#)



What is a volcano?

A volcano is a crack in the Earth's surface where hot molten (melted) rocks from deep inside the earth can rise to the surface. There are about 1,500 active volcanos in the world and many of them are under the sea!

Make your own volcano

If you want to become a volcanologist just like Kayla then follow the simple instructions on the next page to make your own volcano.

What you need:

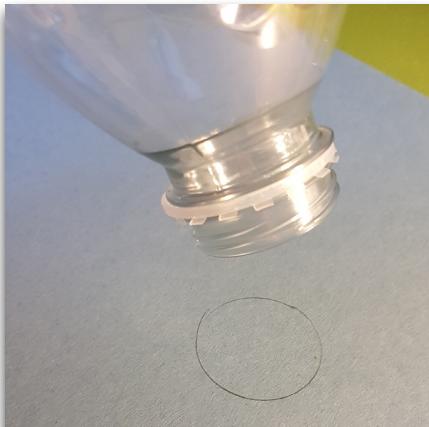
- Sheet of card
- Small bottle
- Vinegar
- Bicarbonate of Soda
- Red food colouring
- Washing up liquid
- Water
- Tray or washing up bowl for catching the mess (optional)

- Small bowl
- Spoon
- Jug or mug
- Tape
- Scissors
- Pencil
- Coloured pencils, crayons or pens (optional)





What to do:



1. In the centre of the card draw around the top of the bottle. Cut a straight line from the edge of the card to the circle and then cut out the circle.



2. Place the card over the bottle and slide one side of the card over the other to make a cone and tape in place. (Optional) Colour in your volcano to make it look like a real volcano.



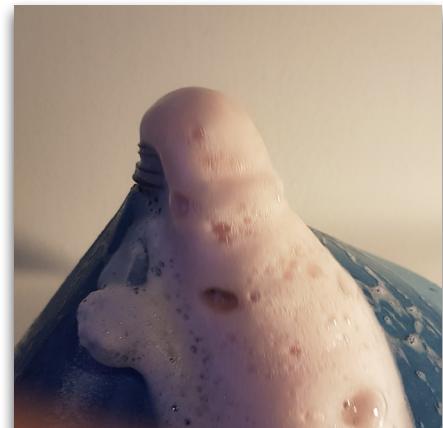
3. In a small bowl mix together a table spoonful bicarbonate of soda, a small squirt of washing up liquid and a splash of water (just enough to make a thick liquid). Pour this into your empty bottle.



4. Place your volcano on your tray or in your washing up bowl or place on a surface which can get messy. In a jug or cup mix together some vinegar with a couple of drops of food colouring.



5. Pour the vinegar into your volcano and stand back to watch the eruption!



6. Try different amounts of the ingredients to make the best eruption!

