

Task: Exploding a Volcano

Demonstrate the volcanic eruption process.



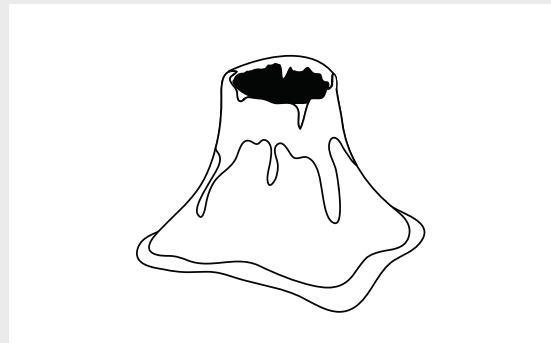
Tip: You can learn more about volcanoes using Britannica School. Find information on how and why volcanoes erupt in the Britannica School "Explode a Volcano" resource pack.

Practical Activity

Follow the steps below to complete an investigation demonstrating the volcanic eruption process

Materials:

- Mound of Dirt
- Small Jar/Container (size of a baby food jar or similar)
- Red and Yellow Food Colouring
- Vinegar
- Baking Soda
- Dishwashing Liquid
- Tablespoon
- Measuring Cup



Steps:

1. Create a mound of dirt in the shape of a volcano, you may have to use some water to mold the dirt into place.
2. Press the small jar/container into the top of the mound and replace the dirt around it.
3. Add 2 tablespoons of baking soda into the container.
4. Add 1 tablespoon of dishwashing liquid.
5. Add about 5 drops of the red and yellow food colouring.
6. Add about 28mL of vinegar into the container and watch your volcano come alive!

Questions:

- Does the temperature of the vinegar affect how fast the volcano erupts? Which temperature causes faster eruptions, hot or cold?
- If you change the shape of the mound of dirt, does it affect the direction the eruption flows? Explain.
- What substance could you add to the mixture to slow it down, so it looks more like real lava?
- Alter the amounts of vinegar and baking soda to determine which combination creates the biggest eruption.