



Briefing Sheet: **Volcano Team**

Make an erupting volcano with Baking Soda

This demonstration is suitable to be carried out by a team of 4 to 6 students. The volcano is constructed from homemade playdough around a small plastic bottle.

The equipment you will need:

Part 1

- small drink bottle.
- 600 g of flour,
- 300 g of salt,
- 3 tablespoons of cooking oil,
- 370 ml cups of water
- brown, or green food colouring
- large mixing bowl

Part 2

- 60 ml water.
- 1 tablespoon baking soda.
- 60 ml vinegar
- orange food colouring
- few drops of dishwashing detergent
- funnel
- small jug
- small square of tissue

Steps:

Part 1

- a. Mix the flour, salt, cooking oil, brown or green food colouring and water in a large bowl.
- b. Using your hands mix the ingredients until smooth and firm. Add more water mixture if necessary.
- c. Build up the mixture around the plastic bottle to create the volcano. The neck of the bottle is the top of the volcano and should be left open and clear.
- d. Lava channels and vegetation can be built around the volcano.

Optional

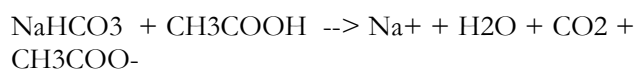
If the volcanoes are left out for a few days they will eventually go hard. You can bake your volcanoes in the oven for 1 hour at 150 degrees Celsius or until the dough is dry and hard.

Part 2

- a. Once the Volcano is ready place it in a tray to catch the overflow from the eruption.
- b. In the jug mix together the water, vinegar, a few drops of washing-up liquid and the orange food colouring.
- c. Using the funnel carefully pour the liquid into the top of the bottle.
- d. Fold the Baking Soda in the small piece of tissue and drop it into the top of the bottle.
- e. The gas created from the reaction mean that your volcano should now erupt

Description

The chemical reaction taking place between the Sodium Bicarbonate in the Baking Soda and the water releases Carbon Dioxide with a fizz.



Ideas to link your eruption to the e-Mission Operation Montserrat

Some classes have tried to recreate the topography of the southern part of Montserrat around the Soufriere Hills Volcano.

The eruption could help the students to predict the events during their mission.