



Australian Government

Geoscience Australia

# Volcano!

NAME: \_\_\_\_\_

## BEFORE YOU START

There are many different types of volcanoes.

Some explode very violently and do not make much lava.

Others rarely have really big explosions and produce heaps of lava. Some grow into huge cone shaped, steep sided mountains, others spread out over big areas and do not have steep sides. ALL involve the eruption onto the surface of **MOLTEN** rock. We cannot make molten rock safely but we can still have fun making a model that erupts like a volcano.

□ Make sure you have the following equipment and materials:

- |                 |                       |                |
|-----------------|-----------------------|----------------|
| ➤ Scissors      | ➤ Tea bag             | ➤ Molten Magma |
| ➤ 2 Foam cups   | ➤ Bicarbonate of Soda | Vinegar        |
| ➤ Jug           | (with plastic         | Detergent      |
| ➤ Wooden spoon  | spoon)                | Food dye       |
| ➤ Pencil        | ➤ Bendy straw         | Magma injector |
| ➤ Gloves        | ➤ Plaster             |                |
| ➤ Plastic plate | ➤ Water               |                |
|                 | ➤ Volcanic ash        |                |

## WHAT TO DO NOW

1. Place your plastic plate on your lava field (the table)
2. Cut both foam cups in half to form two very small cups.
3. Cut the teabag off at the staple and empty out the contents of the teabag.
4. Use a teaspoon to place ~4 spoons of Bicarbonate of Soda into the middle of the empty teabag tube.
5. Fold the teabag so that the open ends come together and twist them together so that you make a Bicarb Bag.
6. Put the Bicarb Bag into one of your small cups and press the other cup right down over it like a lid.

7. Use the pencil to push a hole through the side of the cups right through to the Bicarb Bag.
8. Remove the pencil from the hole and replace it with the bendy straw.
9. Now push the pencil into the top cup to make another hole and leave it there.
10. PUT ON YOUR GLOVES now, this can get messy!
11. Pour the 600ml of plaster into a jug containing 250ml of water.
12. Stir and mix well with the wooden spoon. It should be really stiff now. The spoon should stand up in the mixture by itself.
13. If it is still a little runny add small amounts of plaster while stirring until it is nice and thick, and if too thick (can't stir at all) add a few drops of water....
14. Place the cups with straw attached on the middle of the plate.
15. Now build a volcano shape over the cup and straw with the plaster mixture. TAKE CARE not to squash the straw flat. Once you are happy with your volcano's shape you can decorate it by pouring some volcanic ash over it.
16. TAKE A SHORT BREAK. DO NOT touch your volcano until it is quite well set.
17. Remove the pencil slowly by twisting it gently. Your volcano now has a central vent.
18. NOW..... carefully inject molten lava into your volcano through the straw and watch it erupt!

#### IN CONCLUSION

- Your volcano will become dormant after the eruption but can re-erupt as soon as it is recharged with Bicarbonate of Soda (you will have to drop it in through the central vent this time) and more molten lava is injected into the near surface magma chamber.

☺ Please clean up your area before you leave.