

## Extension ideas

### Blow up your own volcano!

*From 'Rocks', Countryside Explorer series,  
Countryside Council for Wales*

You will need:

200ml plastic bottle  
20ml bicarbonate of soda  
70ml vinegar  
30ml water  
5ml wallpaper paste granules  
5ml washing-up liquid  
few drops red colouring  
sand or soil

- Pour the following into the bottle:- bicarbonate of soda, water, colouring, dry wallpaper paste and washing-up liquid. Shake gently until mixed. Leave for 5 minutes to allow the paste to thicken.
- Stand the bottle on a tray or on the ground, (where a bit of mess will not matter).
- Build sand or soil up around the bottle to make a cone-shaped 'volcano'. Do not allow the sand or soil to fall into the bottle. Build low walls around the neck of the bottle to make a small crater.
- Add the vinegar to the bottle and wait for the eruption!
- Watch the 'lava' as it flows down the outside of your volcano. The flow is slightly irregular and you may see later flows pile up on top of earlier ones. This is how some types of volcanic cones are created and is why many volcanic rocks have a series of layers.

**Note:** In a real volcano, magma and gases rise from the depths of the Earth until they burst through the surface and erupt. In our model volcano, gas (carbon dioxide) is produced when acidic vinegar is mixed with alkaline bicarbonate of soda. The frothy mixture bubbles up until it erupts out of the neck of the bottle.