

VOLCANOES

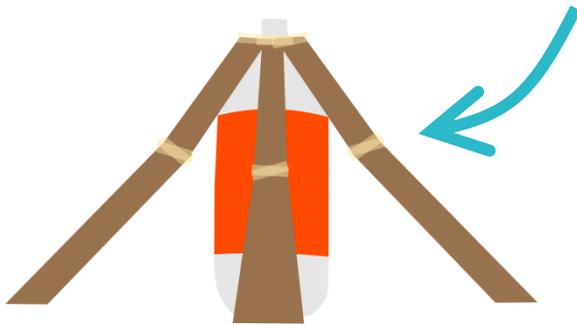
ACTIVITY SHEET

2017
YEAR OF RISK

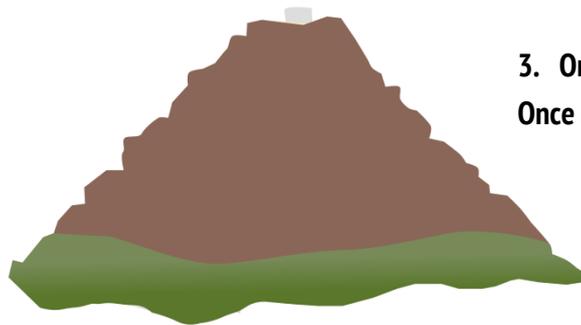
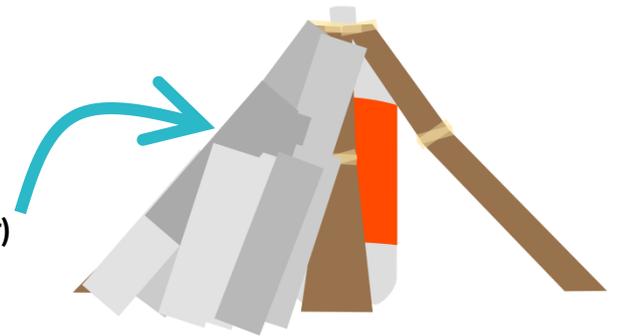
Did you know that gases play an important part in volcanic eruptions? Volcanic eruptions are caused when the pressure is released above a magma chamber (the region below a volcano where hot liquid magma builds up). When this happens, dissolved gas expands and forces magma up through cracks in the Earth's crust to erupt as lava and/or ash on the surface.

MAKE YOUR OWN VOLCANO!

1. Stick cardboard strips to your plastic drinks bottle to provide some support.



2. Mix together your PVA glue and water (2 parts glue to 1 part water) to make an adhesive paste. Dip strips of newspaper into the paste and build up your papier mâché volcano.



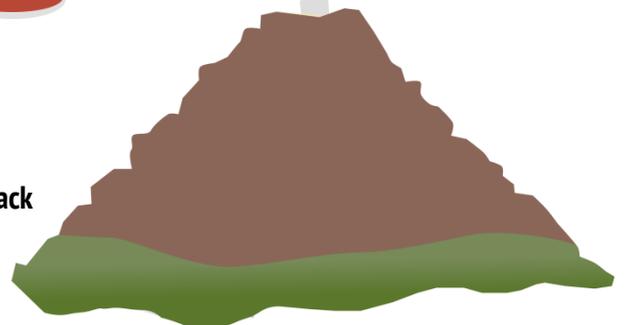
3. Once you have made your volcano let it dry for at least 4 hours. Once dry you can paint your volcano to make it look more realistic.

4. Mix water, bicarbonate of soda, a squeeze of washing up liquid and food colouring in a beaker and then pour this into the bottle inside your volcano.



MAKE SURE YOUR VOLCANO IS OUTSIDE OR SOMEWHERE YOU DON'T MIND GETTING MESSY!

5. Pour in $\frac{1}{4}$ beaker of vinegar into the top your volcano. Stand back and watch it erupt!



YOU WILL NEED:

- Newspaper
- Cardboard
- PVA Glue + water mix (2 parts glue to 1 part water)
- Brown/grey paint
- Water
- Washing up liquid
- Bicarbonate of soda 3 teaspoons
- Vinegar
- Orange /red food colouring
- Drinks bottle 1.5/2litres

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Draw a labelled diagram of what happened to your volcano when you added the vinegar into the bicarbonate of soda, water and washing up liquid mixture.



Explain why the 'lava' comes out of the volcano when the vinegar is added to the mixture? Make sure to use the words 'gas' and 'pressure' in your answer.

What do you think would happen if the mixture was made with syrup rather than water?

What do you think would happen if you put the cap back on the bottle after you had added the vinegar?
