

# 2 Make a puking pumpkin

Add some "yuck" to your Halloween pumpkin and have it spew out foaming liquid.

## What you need

- Pumpkin
- Knife
- Spoon
- Paper cup
- Scissors
- Warm water
- 100ml vinegar
- Green food colouring
- Washing-up liquid
- 5 tbsp bicarbonate of soda
- Measuring jug



## How does it work?

In this experiment, you have created a reaction between two opposite kinds of substances called acids and bases. The vinegar is an acid, while the bicarbonate of soda is a base. When acids and bases are mixed together, a chemical reaction occurs. This releases bubbles of a gas called carbon dioxide, which makes the mixture fizz. Bicarbonate of soda is often used in baking because the escaping gas helps your cakes to rise. The washing-up liquid slows the reaction down, makes the bubbles longer-lasting and the mixture more foamy, while the green food colouring makes the mixture look spookier.



**1** Ask an adult to help you hollow out and carve a pumpkin. Try to create the spookiest face you can imagine, but make sure that the mouth is wide enough for the foamy mixture to spill out.



**3** Now, measure out and add the bicarbonate of soda to the cup. Stir well to dissolve it and when it starts to froth, place the cup back in the pumpkin, making sure that it is well seated.



**2** Check your paper cup fits snugly inside the pumpkin (you may need to snip off the top). Take it out and half-fill the cup with warm water. Add food colouring and washing-up liquid.



**4** Measure 100ml of vinegar into a jug and pour it into the cup. Then, quickly pop the pumpkin lid back on top. Watch as the spooky chemical reaction begins...