

Exploding chocolate drops

Equipment

- bar of chocolate (milk, dark or white)
- greaseproof paper
- popping candy
- teaspoon
- heatproof bowl
- microwave

Method

- 1 Break the chocolate into pieces and put them into the heatproof bowl.
- 2 Put the chocolate in the microwave and heat for 20 seconds. Stir the chocolate and heat again until fully melted.
- 3 Using the teaspoon, place drops of the melted chocolate, approximately the size of a 1p coin, onto the greaseproof paper.
- 4 With dry and clean hands, sprinkle popping candy onto the chocolate drops before the chocolate cools and sets.
- 5 Leave to cool.

Scientific explanation

To make popping candy, sugar is melted at a high temperature to make a syrup. Carbon dioxide gas is added to the syrup at high pressure and, as it cools and hardens, the gas becomes trapped as bubbles. When the popping candy is placed in your mouth, the pressurised bubbles of gas are released, giving the characteristic pops and crackles!

Edible slime

Equipment

- small can of sweetened condensed milk
- 1 tbsp of cornflour
- food colouring and flavouring
- saucepan
- access to a hob

Method

- 1 Add the condensed milk and cornflour to the saucepan. Place over a low heat and stir until the mixture thickens. This could take 20–30 minutes.
- 2 Remove from the heat.
- 3 Stir in the food colouring and flavouring.
- 4 Leave to cool.
- 5 Scoop out the edible slime and enjoy the oozy, gloopy mixture!

Scientific explanation

Cornflour contains starch. As the starch is heated with the condensed milk, the starch particles start to break down and form new bonds with water in the milk. New bonds continue to form while the mixture is heated, creating a thick, slimy substance.

Bouncy eggs

Equipment

- egg
- white vinegar
- glass jar

Method

- 1 Carefully place the egg in the jar.
- 2 Pour the vinegar over the egg until it is completely covered.
- 3 Watch as the eggshell starts to bubble.
- 4 Check on your egg regularly and record how it is changing.
- 5 After 24–48 hours, gently remove the egg from the vinegar and rinse it with water.
- 6 Compare how the egg feels and looks to an intact egg.

Scientific explanation

Eggshell is made from calcium carbonate (chalk) which is an alkali. Acetic acid (vinegar) is a weak acid. When acids and alkalis are mixed, a chemical reaction occurs. The acetic acid reacts with the calcium carbonate, dissolving it and forming new products, including carbon dioxide gas. When all the eggshell has been dissolved, only the egg's inner membrane is left, leaving a rubbery, wobbly egg.