



Candle Experiment

You will need:

Small candle, saucer, food colouring, measuring jug, water, modelling clay, glass or jar



What to do:

1. Place the candle on the saucer – make a base with the modelling clay
1. Measure 50ml of water into the jug and add a few drops of food colour
2. Carefully add to the saucer and light the candle.
3. Make as many observations as you can about the burning candle
4. Now place the jar over the top of the candle -watch carefully, what happens?

Take it further:

Come up with as many observations as you can about the burning candle, look carefully at the flame, the wax, the candle wick The famous scientist Michael Faraday came up with 56 separate observations!

The Science:

When the jar is placed over the candle it goes out because burning uses up the oxygen in the jar and also makes carbon dioxide, both of which contribute to putting out the flame. Why does the water rise? Heat from the candle flame causes air inside the jar to expand; it then cools when the flame goes out and contracts or takes up less space. That contraction causes a partial vacuum, the pressure inside the jar is less than pressure outside – this forces water inside until the pressures are balanced.