



Things to make and do

The magic egg

Can you squeeze an egg through the neck of a bottle without touching it?

DID YOU KNOW?

Chickens produce around 1.2 trillion eggs for eating every year worldwide.

What you need

- Hard-boiled egg
- Glass bottle, beaker or jar with a neck slightly narrower than an egg
- Matchbox and at least two matches

How does it work?

This experiment is all about air pressure. The flame from the matches heats the air inside the glass beaker. When heated, air expands to take up more space, so some air escapes the beaker. Watch the egg closely and you might see it jiggling as the air pushes out. Now there is less air inside the beaker than there is outside it, so the pressure outside the glass is greater than it is inside. The air outside the beaker pushes down on the egg hard enough to force the egg inside the glass.

WARNING!

This experiment involves matches. DO NOT attempt it without the help of an adult.



TOP TIP

To get the egg back out of the bottle, turn the bottle upside down, then run hot water over it. This will heat up the air inside the bottle causing it to expand and force the egg out.



1 Ask an adult to help you hard boil an egg, then leave the egg to cool. When it has cooled, carefully peel off the shell.



2 Ask an adult to light two matches. Drop the lit matches into the bottle then quickly place the egg on top of the bottle with its narrow end pointing down.



3 Stand back and marvel as the hard-boiled egg is sucked down the neck and into the bottle, and the matches go out.