# Air pressure

Find out about the strength of the air and how this changes at different temperatures.

## 104 Defy gravity

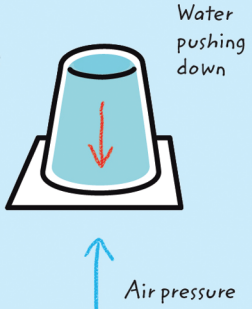
1. Fill a glass with water, all the way to the top.


2. Place a piece of thin cardboard on top of the glass and press it down firmly.

3. Hold the cardboard firmly in place, and turn over the glass. Slowly let go of the cardboard.

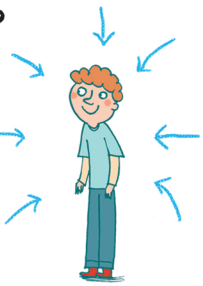

You should find that the cardboard remains in place and the water stays in the glass.

This is because of air pressure pushing up from below. The air pressure is great enough to balance the weight of the water inside the glass.




### What is air pressure?

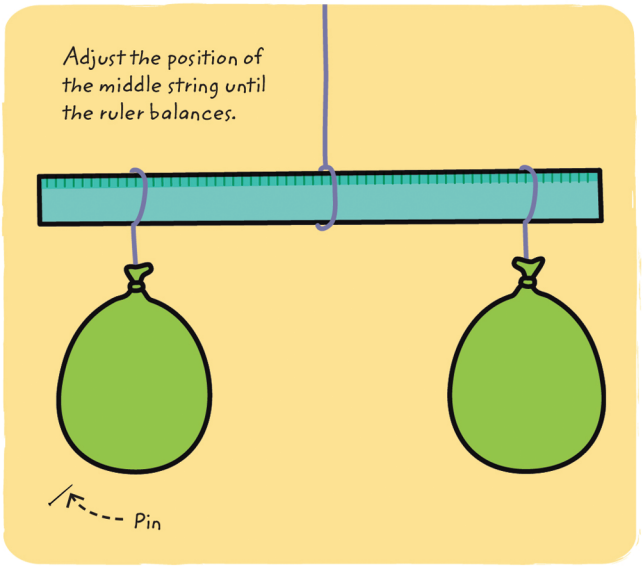
Air is made up of tiny particles, which bounce around and push against things – creating air pressure. The air is constantly pushing on us, too, but we're so used to it that we don't notice it's there.



## 105 Does air have weight?

1. Blow up two balloons to the same size. Tie one balloon to each side of a ruler using string.

2. Tie another piece of string to the middle of the ruler and hang it up.




3. Burst one of the balloons with a pin. What happens?

The ruler tips up at the end with the burst balloon, showing that the inflated balloon is heavier than the burst balloon. This is because air *does* have weight.