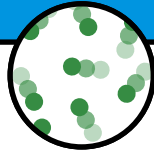


States of Matter Knowledge Organiser

All materials are one of the three states of matter.

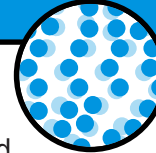
Gas



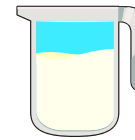
- Gases are often invisible.
- Gases do not keep their shape or always take up the same amount of space. They spread out and change their shape and volume to fill up whatever container they are in.
- Gases can be squashed.



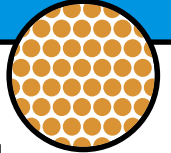
Liquid



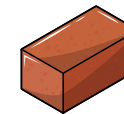
- Liquids can flow or be poured easily. They are not easy to hold.
- Liquids change their shape depending on the container they are in.
- Even when liquids change their shape, they always take up the same amount of space. Their volume stays the same.



Solid



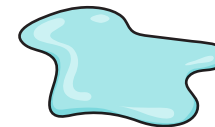
- Solids stay in one place and you can hold them in your hand.
- Solids keep their shape. They do not flow like liquids.
- Solids always take up the same amount of space. They do not spread out like gases.
- Solids can be cut or shaped.



Materials can change from one state of matter to another when heated or cooled.



heat



cool

heat

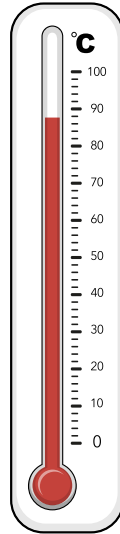


cool

How to measure temperature using a thermometer.

- 1) Place the thermometer in the liquid.
- 2) Wait for the coloured centre to stop moving.
- 3) Read the scale precisely to find the temperature.
Ask an adult for help if you are struggling.

Remember: We usually measure temperature in degrees Celsius which can be shortened to °C.



Key Vocabulary

change – to make different

collection – when water flows back into rivers, streams and lakes and gets carried back to sea

condensation – when water vapour cools and turns back into water

evaporation – when water is heated and turns into water vapour

freeze – when something is put at a very low temperature

gas – a state of matter that has no defined shape or volume

heat – when something is put at a hot temperature

liquid – a state of matter that flows freely but keeps the same volume

precipitation – when water falls from the clouds in the sky

property – a characteristic

solid – a state of matter that is firm and stable

temperature – how hot or cold something is

thermometer – an instrument used for measuring temperature

The Water Cycle

