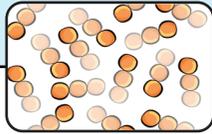


# States of Matter Knowledge Organiser

All materials are one of the three states of matter.

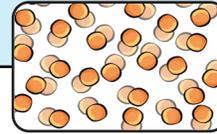
## Gas



- 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**.



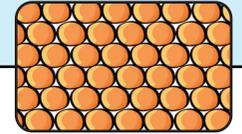
## Liquid



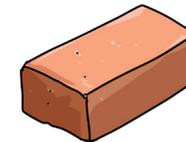
- Liquids can flow or be **poured** easily. They are not easy to hold.
- Liquids **change their shape** depending on the container they are in.
- Even when liquids change their shape, they always take up the **same amount of space**. Their volume stays the same.



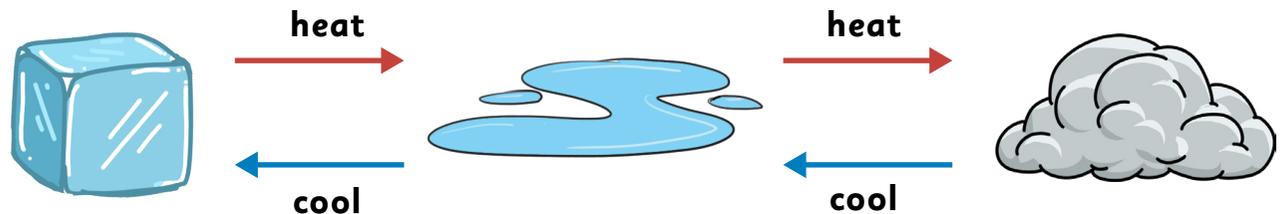
## Solid



- 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**.



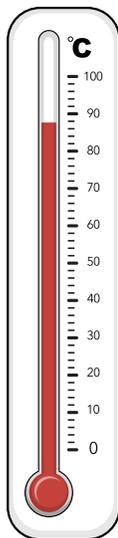
Materials can **change** from one state of matter to another when **heated** or **cooled**.



## 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

