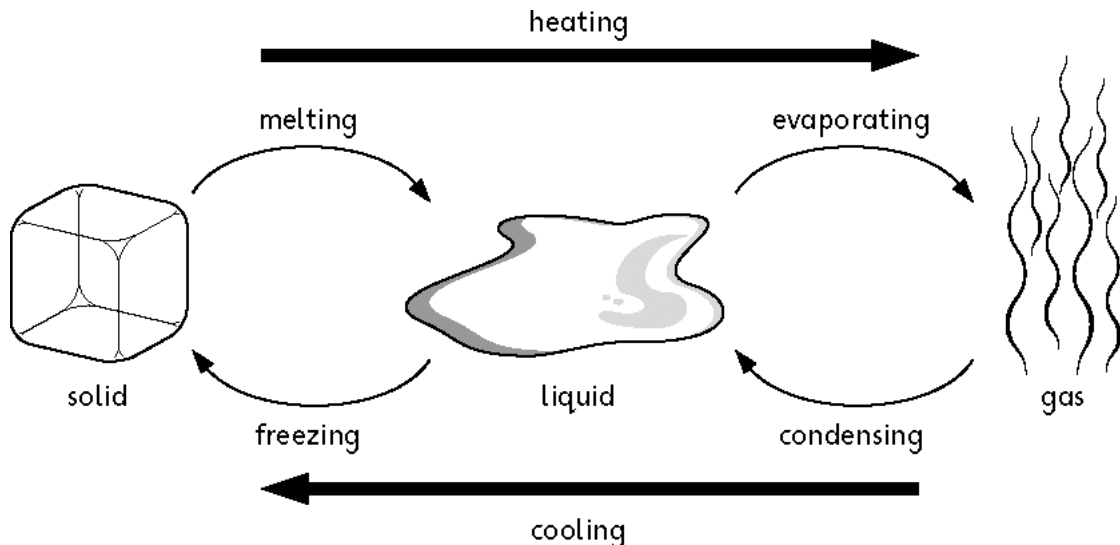


Reversible Changes

Changing state

Materials can be **solids**, **liquids** or **gases**. These are called **states**.

Materials can be changed from one state to another by **heating** or **cooling** them.



Melting describes a solid turning into a liquid. When ice (solid water) is heated it begins to melt at **0 °C**.

Freezing describes a liquid turning into a solid. When liquid water is cooled it begins to freeze at **0 °C**.

Evaporation describes a liquid becoming a gas. It can happen at any temperature, but you can speed up evaporation by:

- heating the water
- having a large surface area for water to evaporate from
- blowing air over the water, so that water vapour moves away.

If you heat water it eventually starts to **boil**. Boiling is when water is evaporating so fast that bubbles of **water vapour** (a gas) form inside the liquid. The temperature of the water stays at **100 °C** while the water is boiling.

Condensation describes a gas turning into a liquid. Water vapour in the air **condenses** on the surface of a mirror when it touches the cold surface and cools down.

Science Investigations

We use a **THERMOMETER** to measure the **TEMPERATURE** of materials.

A **variable** is something which can change the results of an investigation.

We only **change one variable** when carrying out a **fair test**. If we change more than one variable when carrying out a fair test, we do not know which variable had an effect.

A **conclusion** uses the results of an investigation to describe what was found out.