



Ask your parents permission to conduct any experiments at home.

Do not touch and be extra careful when experimenting with boiling water, steam, ice or very cold water.

Vocabulary

air	is the invisible gaseous substance surrounding the earth, a mixture mainly of oxygen and nitrogen
oxygen	is a non-metal element that is a gas at room temperature .
temperature	is a degree of hotness or coldness that can be measured using a thermometer .
Degrees Celsius	is a temperature scale . It is used to tell how hot or cold something is
melting point	is the temperature at which a substance goes from the solid state to the liquid one .
boiling point	is the temperature at which a liquid boils and turns to vapour . (Changing state from liquid to gas.)

When do evaporation and condensation happen in the water cycle?

The **water cycle** is the journey water takes, from **land** to the **sky** and back again. The cycle consists of **evaporation**, **condensation**, **precipitation** and **collection**.

Precipitation is the **release of water from the sky**, it can be liquid or solid, for e.g. rain, sleet, hail and snow.



State of Matter—Natural Disas-

Applying Past Knowledge

This links to the work in Year 1 and 2 'Everyday Materials' and builds on what you learnt about the water cycle in Year 3.

Lin Lanying was a Chinese electrical engineer, materials **scientist**, **physicist**, and politician .



How does water change state?

How are ice, water and vapour linked?

Substances can change state, usually when they are heated or cooled. For example, liquid water turns into steam when it is heated enough, and it turns into ice when it is cooled enough.

Vocabulary:

Water a liquid that covers over two thirds of the Earth.

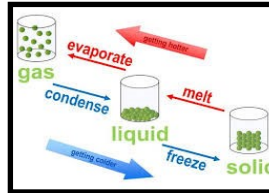
Ice is the common name for frozen water. Water becomes ice when it is very cold.

Steam is a vapour arising from a heated substance.

Melt is if ice (solid) is heated, it changes to water (liquid)

Freeze is the process when a liquid turns into a solid.

Solidify is also known as freezing which is a phase change of matter that results in the production of a solid.



What happens to the mirror in a bathroom when you have a shower?

Condensation is the process when hot gas meets a cold surface. This causes gas to change state into liquid.

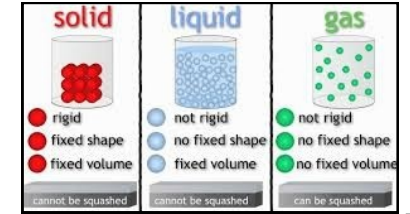


What state of matter are you?

Solid is the state in which matter maintains a fixed volume and shape.

Liquid is the state in which matter adapts to the shape of its container.

Gas is the state in which matter expands to occupy the volume and shape of its container.



Can I change the state of this?

Different materials change state at different temperatures.



How does heat affect the rate of evaporation?

How can I make my washing dry quicker on a washing line?

Evaporation is when a liquid becomes a gas without forming bubbles inside the liquid volume.

