

Science: States of Matter



Solid	Materials that keep their shape unless a force is applied to them and will always take up the same amount of space (volume).	Gas	Gases can spread out to fill the container or room they are in. They have no fixed shape. They do have a mass.
Liquid	Liquids take the shape of their container. They can flow or be poured.	Condense	When a gas changes into a liquid. Small drops of water from when water vapour/steam touches a cold surface.
Evaporate	When a liquid changes into a gas. Passes away in the form of a vapour.	State Change	When a material changes to a solid, liquid or gas.
Melt	When a solid changes to a liquid.	Temperature	The measure of the heat of a material, usually measured using a thermometer and measure in degrees Celsius (°C).
Freeze	When a liquid changes into a solid using the freezing process.	Celsius	A scale of temperature on which water freezes at 0 degrees and boils at 100 degrees.
Boiling Point	The temperature that a material first begins to boil at.	Water Vapour	This is water that takes the form of a gas. When water is boiled, it evaporates into a water vapour.
Melting Point	The temperature that a material first begins melting at.	Matter	Objects that take up space and have a mass. Everything around you is made up of matter.

Gas examples

Steam (water vapour)
Hydrogen
Carbon Dioxide
Oxygen
Nitrogen

Liquid examples

Water
Milk
Washing up liquid
Blood
Urine



Solid examples

Ice
Wood
Glass
Diamond
Sand

Transparent



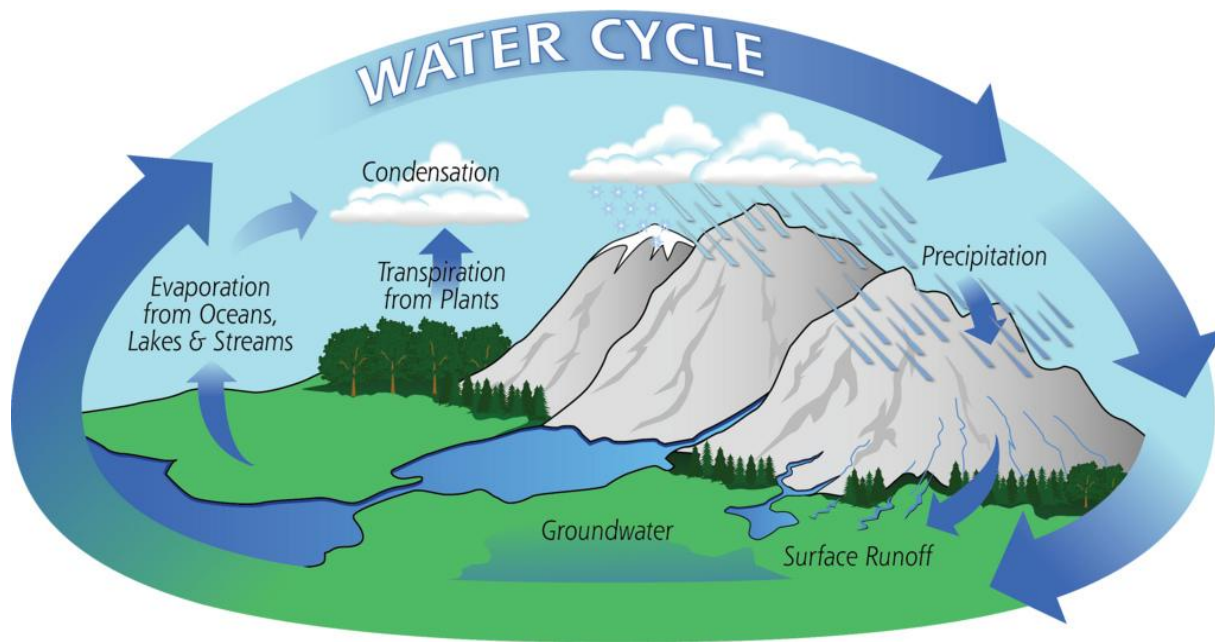
Impermeable

Permeable

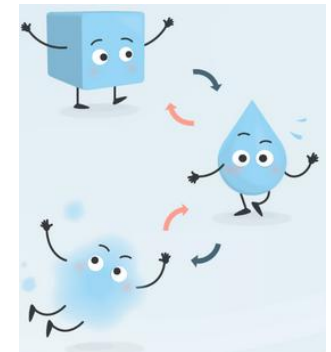


Flexible





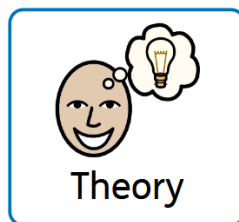
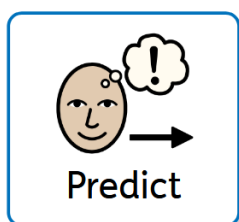
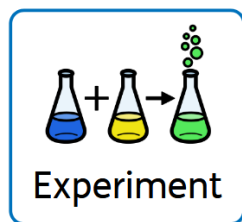
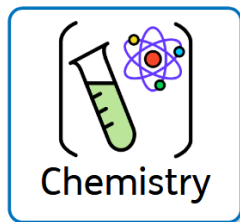
The water cycle is a complete journey that water makes, from one place to another and from one state to another.



Changing State

Solids, liquids and gases are called the three states of matter.

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



Key Skills

Ask questions such as:
Why are steam and ice the same thing?

Explain to others why a test that has been set up is a fair one. Such as, how to investigate how fast ice melts in different temperatures.

Measure carefully, using Year 4 mathematical knowledge.

Use a thermometer to measure temperature and know there are two main scales used to measure temperature

