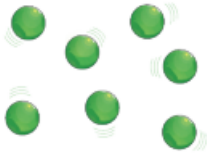
Year 4 Knowledge Organiser Science

States of matter

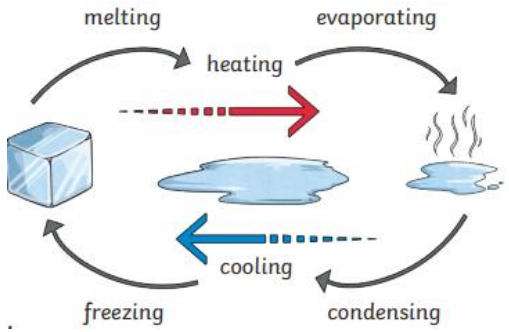
TERMS Key Vocabulary

Matter	Anything that takes up space and has weight, like air, water, or a chair.
Solid	A type of matter that keeps its shape, like a rock or a table.
Liquid	A type of matter that can flow and takes the shape of its container, like water or juice.
Gas	A type of matter that spreads out and fills the space around it, like air.
Evaporate	When a liquid turns into a gas, usually because it gets warm (like water turning into steam).
Condensation	When a gas turns back into a liquid (like water droplets forming on a cold window).
Particles	Tiny pieces that make up everything, too small to see.
precipitation	Water that falls from the sky, like rain, snow, or hail.
Water cycle	The journey water takes as it moves from the ground to the sky and back again.
investigate	To find out more by looking closely, asking questions, and testing things.

Solid	Liquid	Gas
		
The particles are close together in clear formations. The particles vibrate on the spot.	The particles are quite close together but move around each other much more easily.	The particles move quickly in all directions, filling the space. There is much more space between the particles.

Changing state

Increasing the temperature of a solid can cause it to melt into a liquid and eventually evaporate the liquid into a gas. Decreasing the temperature of a gas can condense it into a liquid and eventually freeze the liquid into a solid.



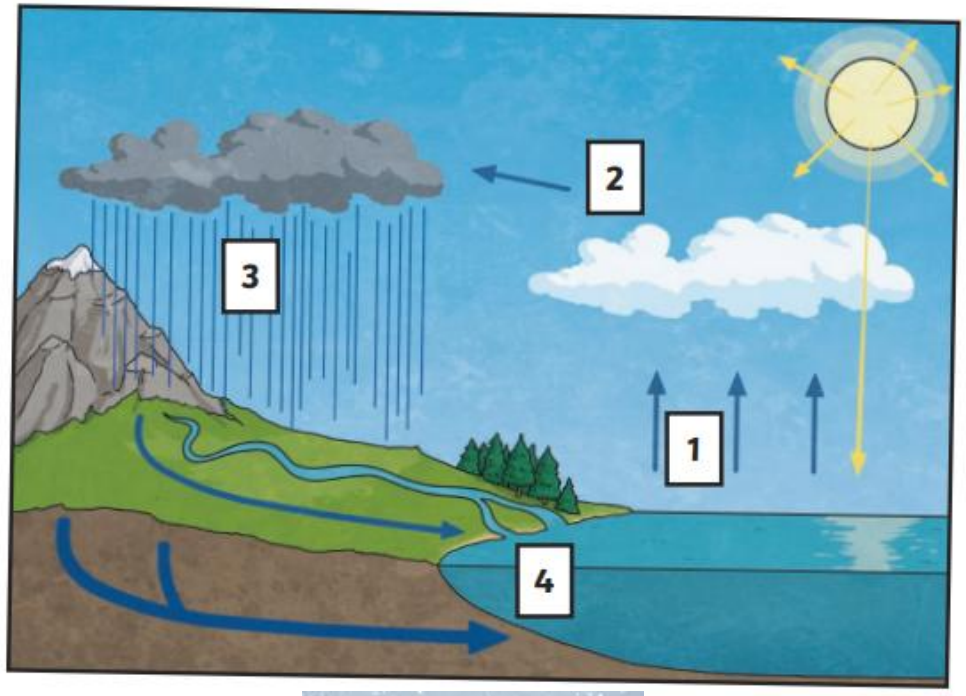
Useful Vocabulary

Temperature

Temperature is a measurement of how hot or cold something or somewhere is.

Thermometer

A thermometer is a piece of scientific equipment used for measuring temperature. It measures in °C or °F.



Melting point

This is the temperature at which a solid turns into a liquid.

The water Cycle

The water cycle is the movement of water within the Earth's atmosphere and the way that it is stored in its various states of matter.

1. evaporation – When the surface of the water is heated, the water will begin to change from a liquid to a gas through evaporation.
2. condensation – As the water vapour rises, the conditions become much cooler. The water vapour begins to change back into a liquid, forming clouds.
3. precipitation – Once the water vapour has condensed into liquid water, it will fall back to the ground through precipitation.
4. accumulation – When the water reaches the ground through precipitation, it collects in rivers and streams (run-off) and underground (groundwater) and is transported back to larger bodies of water such as lakes, seas or oceans.