

LKS2 Science Knowledge Organiser

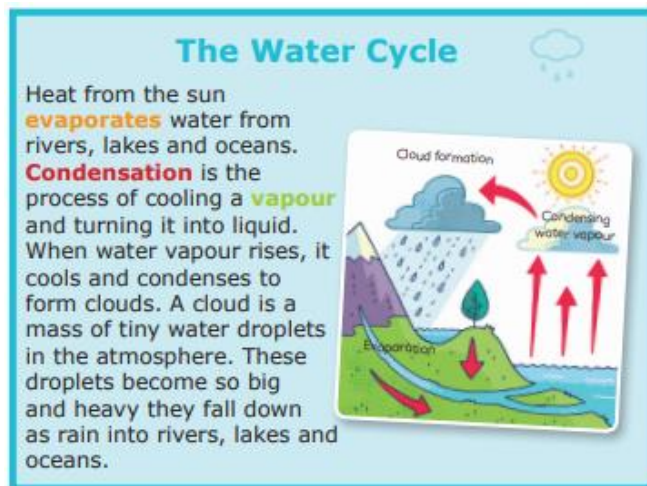
Topic: States of matter

Key questions:

- I can compare and group materials together, according to whether they are solids, liquids or gases.
- I can observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C).
- I can identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

Key facts and figures

Boiling point	The temperature at which a liquid changes into a gas as it heats up.
Condensation	The process of change from a gas to a liquid.
Degrees Celsius (°C)	A measurement of temperature.
Energy	The capacity to perform work.
Evaporation	The change from a liquid to a gas.
Freezing point	The temperature at which a liquid changes into a solid as it cools.
Melting	To turn from a solid into a liquid, for example, ice melts to become water.
Melting point	The temperature at which a solid changes into a liquid as it heats up.
Mixture	A mixture is when two or more substances are combined, but each substance keeps its physical properties. A mixture can be reversed, or separated, after being combined.
Solidify	To turn into a solid.
Solution	A liquid mixture where one substance has been dissolved into another.
Temperature	A measure of how warm or cold something is. It is often measured in degrees Celsius (°C).
Vapour	A gas or extremely small drops of liquid suspended in the air. This is normally caused by the heating of a liquid.



 Solid	<p>Solids keep their shape.</p> <p>Solids always take up the same amount of space.</p> <p>Solids can be held, cut or shaped.</p> <p>Even though they can be poured, sugar, salt and flour are all solids. Each grain of sugar, for example, keeps the same shape and volume</p>
 Liquid	<p>Liquids can flow or be poured easily.</p> <p>Liquids change their shape depending on the container they are in.</p> <p>Even when liquids change their shape, they always take up the same amount of space – their volume stays the same</p>
 Gas	<p>Gases can be squashed and are often invisible.</p> <p>Gases do not have a fixed shape. They spread out and change their shape and volume to fill up whatever container they are in</p>

Did you know...?

Gases are often invisible and assume the shape and volume of their container.

The air we breathe is made up of different gases, but it is mostly nitrogen and oxygen.

We can see through some solids like glass.

Key vocabulary

state	water	temperature	boil
matter	water vapour	degrees Celsius	boiling point
solid	steam	melt	condensation
liquid	heated	melting point	water cycle
gas	cooled	ice	precipitation
air	evaporate	freeze	infiltration
oxygen	evaporation	freezing point	
	condense	solidify	