



What should I already know?

- All around us there are solids, liquids and gases.
- When ice heats up it melts and turns into water.
- When water is frozen it turns into ice.
- When water heats up it turns into a gas.
- A gas fills up a balloon.
- Solids and liquids can be touched, gases cannot.

Cultural Capital -
(including focused text /
WOW moment / visitors /
trips / fieldwork)

Solids, Liquids and Gases
school hall exhibition with
questions to answer.

What will I know by the end of this unit?

- I will be able to compare and group materials together according to whether they are solids or liquids.
- I will be able to identify and explore the properties of gases.
- I will be able to observe that materials change state when they are heated or cooled.
- I will research the temperature in degrees Celsius ($^{\circ}\text{C}$) at which materials change state.
- I will understand the process of evaporation and condensation.
- I will be able to identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

Diagrams

There are three states of matter.

Solid	Liquid	Gas
		
Particles in a solid are close together and cannot move. They can only vibrate.	Particles in a liquid are close together but can move around each other easily.	Particles in a gas are spread out and can move around very quickly in all directions.

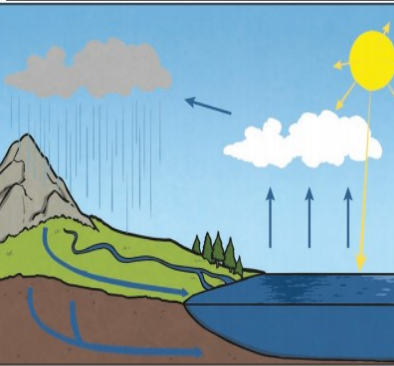
Evaporation



Condensation



The Water Cycle



Vocabulary:

Boiling point	Temperature at which a change state occurs from a liquid to a gas throughout the bulk of the liquid.
Condense	Turn a gas into a liquid.
Evaporate	Turn a liquid into a gas.
Freeze	Liquid turns to a solid during the freezing process.
Gases	Gases can spread out to completely fill the container or room they are in. They
Liquids	Liquids take the shape of their container. They can change shape but do not change the amount of space they take up. They can flow or be poured.
Melt	This is when a solid changes to a liquid.
Melting point	Temperature at which a substance goes from the solid state to the liquid one,
Precipitation	Liquid or solid particles that fall from a cloud as rain, sleet, hail or snow.
Solids	These are materials that keep their shape unless a force is applied to them. They can be hard, soft or even squashy. Solids take up the same amount of space no matter what has happened to them.
States of matter	Materials can be one of three states: solids, liquids or gases. Some materials can change from one state to another and back again.
Temperature	A measure of hotness or coldness.
Water cycle	Describes the existence and movement of water on, in, and above the Earth. Earth's water is always in movement and is always changing states, from liquid to vapour to ice and back again.
Water vapour	This is water that takes the form of a gas. When water is boiled, it evaporates

Working scientifically

- To ask relevant questions and use different types of scientific enquiries to answer them.
- To use scientific evidence to answer questions or to support their findings.
- To record findings using simple scientific language, drawings, labelled diagrams and tables.
- To report on findings from enquiries, including oral and written explanations.
- To identify differences, similarities or changes related to simple scientific ideas and processes.