



Mossfield Primary School Knowledge Organiser



Year 4 — **States of Matter**— Compare and group materials together, according to whether they are solids, liquids or gases. 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). Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

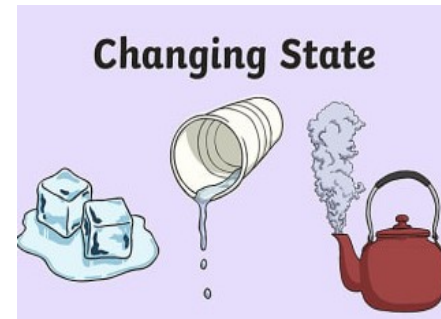
Explore solid, liquids and gases



Think differently – solids, liquids and gases



Change states

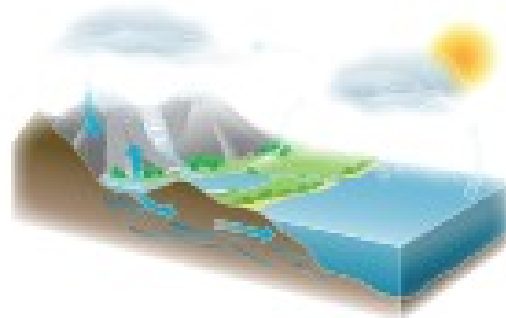


Use equipment and plan melting experiment

Investigate – melting experiment



Water cycle



Plan and set up evaporation experiment



Investigate and evaluate evaporation experiment



Key Vocabulary

Atmosphere	Earth's atmosphere is a jacket of gases that surrounds our planet. It keeps us warm, gives us oxygen to breathe, and it is where our weather happens.
Boiling	Boiling is when a liquid, like water, turns into a gas, like steam, because it's been heated up very hot.
Condensation	Condensation is when water vapour (invisible water gas in the air) turns back into liquid water, like water droplets on a cold drink or on a window.
Evaporation	Evaporation is when a liquid, like water, turns into a gas, which is invisible and called water vapor.
Flow	To move in a stream.
Freezing	Freezing means when something changes from a liquid to a solid, like water turning into ice.
Gas	A substance which will expand freely to fill a whole container and has no fixed shape or volume.
Liquid	A substance that flows freely but is of constant volume.
Melting	Melting is when a solid turns into a liquid.
Melting Point	The temperature at which a given solid will melt.
Ooblek	A mixture of corn starch and water that behaves like a liquid when at rest and like a solid when pressure is applied.
Petri dish	A Petri dish is a round container made of glass or plastic that scientists use to study cells and microorganisms.
Precipitation	Liquid or solid particles that fall from a cloud as rain, sleet, hail or snow.
Solid	A solid is a state of matter that maintains its own shape instead of conforming to the shape of its container.
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.
Water Cycle	The cycle of processes by which water circulates between the earth's oceans, atmosphere, and land.