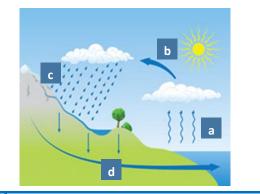
Knowledge Organiser Science Year 4 States of Matter



	Key Vocabulary
change of state	When a material changes from one state to another.
melting	The change of state from solid to liquid.
freezing	The change of state from liquid to solid. When a liquid becomes cold enough to turn solid, it freezes. The freezing point of water is 0°C.
melting point	The temperature at which a solid becomes a liquid. The melting point of water is 0°C.
boiling point	The temperature at which a liquid turns into a gas. Water boils when it is heated to 100°C.
evaporation	The change from a liquid to a gas at the surface of the liquid.
condensation	The process when a gas changes into a liquid, caused by cooling. the change from a gas to a liquid, caused by cooling.
water cycle	The never-ending process of water moving from the oceans, up into the atmosphere, and back to the Earth and oceans.
temperature	The measure of how hot or cold something is. It is measured in degrees Celsius with a thermometer

Solids, Liquids and Gases					
Solid	Liquid	Gas			
Ice Sugar	Water Honey	Water vapourBubbles in cola			
A solid keeps its shape and has a fixed volume.	A liquid has a fixed volume but changes in shape to fit the container. It can be poured.	A gas fills all the available space; it has no fixed shape or volume.			

The Water Cycle



Water evaporates into the air The sun heats up water at the sur- face of seas, rivers, lakes and turns it into water vapour. The water va- pour rises into the air.
Water vapour condenses into

а

b

Water vapour condenses into
clouds
Water vapour in the air cools and
changes back into tiny drops of
liquid water, forming clouds.

c Water falls as rain snow, sleet etc

When too much water has condensed the water droplets in the clouds get too heavy and water falls back down to Earth in the form of rain, snow, sleet etc. This is called precipitation.

Water returns to the sea.
Rainwater runs over the land and collects in lakes or rivers which take it back to the sea.
The cycle starts all over again