Knowledge Organiser | States of Matter

Glossary				
1	Matter	All substances that take up space		
2	Solid	Having a firm shape or form that can be measured in length, width and height		
3	Liquid	In a form that flows easily		
4	Gas	A form that is often colourless that fills the space it is contained within		
5	Viscosity	How thick a liquid is or how easily it can flow		
6	Particles	A tiny amount or a small piece		
7	The Water Cycle	The continuous journey that water takes from the sea, to the sky, to the land and back to the sea		
8	Precipitation	Liquid and solid water particles that fall from clouds including, rain, snow, sleet or hail		
9	Freeze	The change of state from a liquid to a solid		
10	Melt	The change of state from a solid to a liquid		
11	Temperature	The degree of hotness or coldness that can be measured using a thermometer		
12	Degree Celsius A scale that measures temperature			
13	Evaporation	The change of state from a liquid to a gas		
14	Condensation	The change of state from a gas to a liquid		
15	Water vapour	Water in the form of a gas		
16	Rate	A measure of how rapidly something occurs		

Properties of each state				
Solid	Liquid	Gas		
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Solids have a definite shape and volume.	Liquids have indefinite shape and definite volume.	Gases have an indefinite shape and volume.		
The particles are closely packed together.	The particles move freely around each other.	The particles are far apart and move freely into any available space.		

Changing States

States of matter can change. Temperature is key to any state changing. As a solid gets hotter, it may melt turning into a liquid. As the liquid gets hotter, it will evaporate into a gas. When a gas cools down, tiny droplets condense to form a liquid. When it is cooled even further, it can freeze, turning into a solid. These processes are all reversible.

Different substances have higher and lower melting and freezing points. Water freezes and melts at 0°C. Glass however has a much higher melting point of 700–800°C.





The Water Cycle

The water cycle is the continuous journey that water takes from the sea (rivers and lakes), evaporates into the sky, condenses to form tiny water particles which eventually become too heavy for the air and fall back to the land and sea as precipitation. Precipitation falls as either rain, sleet, snow or hail.

Once the water has reached land and sea again, it begins the cycle again by evaporating.







