States of Matter

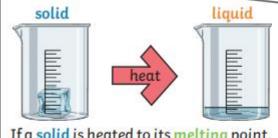
SCIENCE KNOWLEDGE ORGANISER



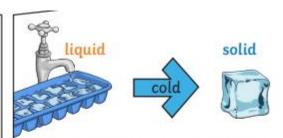
ESSENTIAL VOCABULARY		
States of matter	Materials can be one of three states: solids, liquids or gases. Some materials can change from one state to another and back again.	
Solid	These are materials that keep their shape unless a force is applied to them. They can be hard, soft or even squashy. Solids take up the same amount of space no matter what has happened to them	
Liquid	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.	
Gases	Gases can spread out to completely fill the container or room they are in. They do not have any fixed shape but they do have a mass.	
Water vapour	This is water that takes the form of a gas. When water is boiled, it evaporates into a water vapour.	
Melt	This is when a solid changes to a liquid	
Freeze	Liquid turns to a solid during the freezing process.	
Evaporate	Turn a liquid into a gas	
Condense	Turn a gas into a liquid.	
Precipitation	Liquid or solid particles that fall from a cloud as rain, sleet, hail or snow	

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





If a solid is heated to its melting point, it melts and changes to a liquid. This is because the particles start to move faster and faster until they are able to move over and around each other.



When freezing occurs, the particles in the liquid begin to slow down as they get colder and colder. They can then only move gently on the spot, giving them a solid structure.

Key themes

- The water cycle
- Evaporation
- Condensation
- · Heating and cooling

