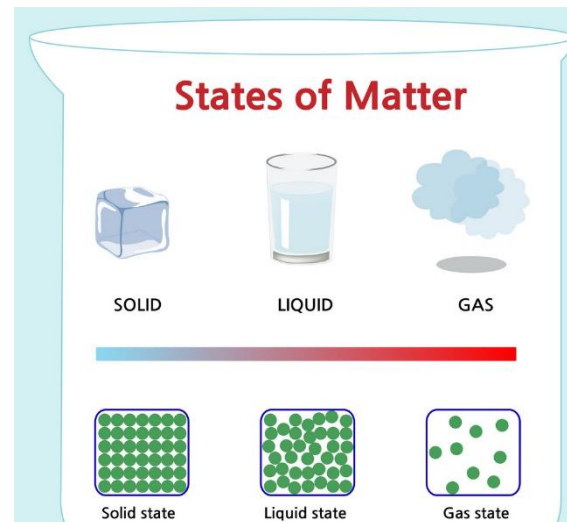


Year 4 States of Matter

Key Vocabulary	
Condensation is when 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.
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.
Liquids	Liquids take the shape of the container they are in. They can change shape but do not change the amount of space they take up.
Gases	Gases can spread out to completely fill the container or room they are in. They do not have any fixed shape.
Water vapour	This is water that takes the form of a gas. When water is boiled, it evaporates into a water vapour.
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.

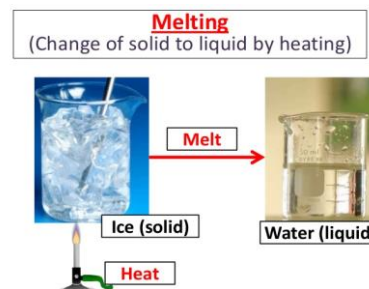


Particles in a solid are close together and cannot move. They can only vibrate.

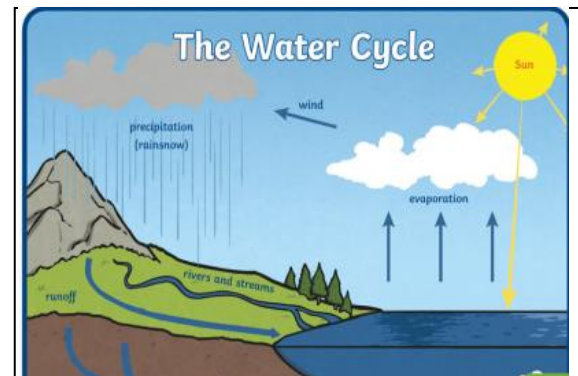
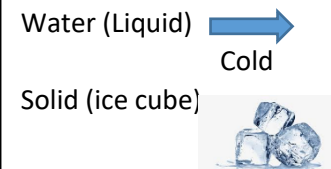
Particles in a liquid are close together but can move around each other easily

Particles in a gas are spread out and can move around very quickly in all directions

When water and other liquids reach a certain temperature they change state into a solid or a gas. This is the boiling point or freezing point.



If a solid (ice cube) is heated it melts and changes to a water (liquid).



Condensation and evaporation occur within the water cycle.

Water from lakes, puddles, rivers, seas is evaporated by the sun's heat, turning it into water vapour.

This water vapour rises, then cools to form water droplets in clouds (condensation). When the droplets get too heavy they fall back to earth as rain, sleet, hail or snow (precipitation).

Evaporation

Evaporation occurs when water turns into water vapour. This happens quickly when the water is hot, like in a kettle, but it can happen slowly, like a puddle evaporating in warm air.

Condensation

Condensation is when water vapour is cooled down and turns into water. You see this when droplets of water form on a window. The water vapour in the air cools when it touches a cold surface (the glass).

