

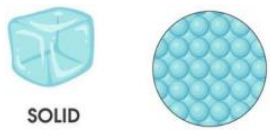


Key Vocabulary

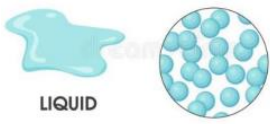
matter	Objects that take up space and have a mass and called matter. Everything around you is made up of matter.
solid	a solid holds its shape and has a fixed volume.
liquid	a liquid fills up the shape of the bottom of a container. It forms a pool and also has a fixed volume.
gas	a gas can escape from an unsealed container. It fills up the space that it is in and does not have a fixed volume.
melting point	the temperature at which a given solid will melt.
thermometer	an instrument for measuring and indicating temperature.
Celsius	a scale of temperature on which water freezes at 0 degrees and boils at 100 degrees under standard conditions.
condensation	Changing from a gas to a liquid.
evaporation	Changing from a liquid to a gas.
precipitation	liquid or solid particles that fall from a cloud as rain, sleet, hail or snow.
Water cycle	the cycle of processes by which water circulates between the earth's oceans, atmosphere, and land.
Water vapour	water in the gaseous state, especially when due to evaporation at a temperature below the boiling point.
Freezing	When a liquid turns to a solid as it has reached its freezing point. These can differ depending on the substance.

Solids, Liquids and Gases

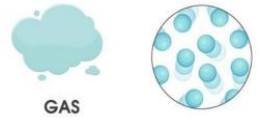
SOLIDS -Solids hold their shape -Solids are rigid -Solids have a fixed volume
Examples include ice cubes, rock, glass and most metals.



LIQUIDS -Liquids do not hold their shape. They are not rigid -However, they have a fixed volume. Examples include water, oil, blood and milk.



GASES -Gases do not hold their shape. They are not rigid -They do not have a fixed volume. Examples include oxygen, carbon dioxide and helium.



Changing State of Matter

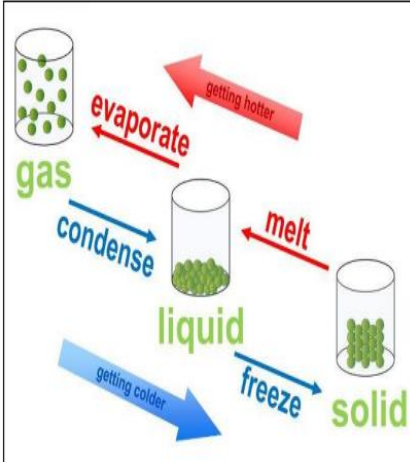
States of matter can change, depending upon the temperature of the matter.

Melting is the process of changing a solid into a liquid.

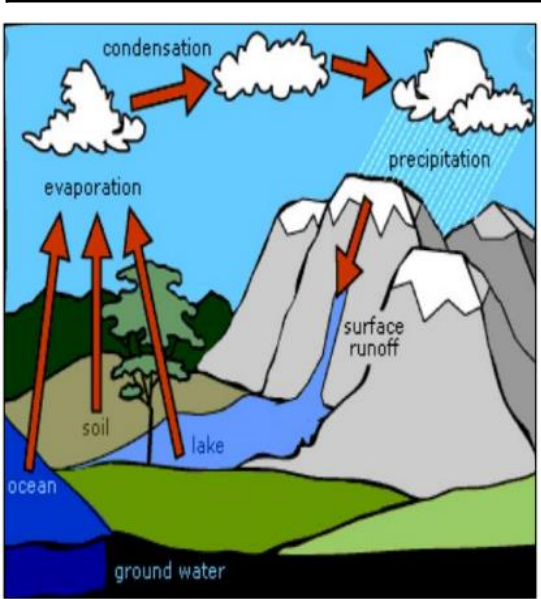
Evaporation is the process of changing a liquid into a gas.

Condensation is the process of changing a gas into a liquid.

Freezing is the process of turning a liquid into a solid.




Water Cycle




1. Water from lakes, puddles, rivers and seas is **evaporated** by the sun's heat, turning it into **water vapour**.
2. This **water vapour** rises, then cools down to form water droplets in clouds (**condensation**).
3. When the **droplets** get too heavy, they fall back to the earth as rain, sleet, hail or snow (**precipitation**).

Focused Scientist – John Dalton 1766 - 1844
John Dalton FRS was an English chemist, physicist and meteorologist. He is best known for introducing the atomic theory into chemistry, and for his research into colour blindness, which he had.



In 1803 he proposed matter is made up of atoms that are indivisible and indestructible.

Focused Scientist – Robert Boyle 1627–1691
Robert Boyle FRS was an Anglo-Irish natural philosopher, chemist, physicist, alchemist and inventor.



Boyle discovered that the volume of a gas decreases with increasing pressure and vice versa—the famous Boyle's law.