



Y5 Thinking like a scientist

Changes of Materials:

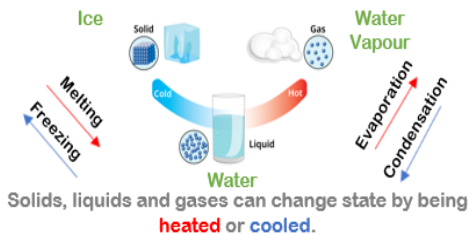
Key Knowledge:

Evaporation



If a solid has **dissolved** in water (for example in a salt solution), **heating** it causes the water to **EVAPORATE**, leaving the solid (salt) behind.

Changes of State



Irreversible Changes



These are **CHEMICAL** changes – they **cannot** be reversed as a new material has been made.

Reversible Changes



liquid chocolate
– cool –
solid chocolate



solid lolly
– heat –
liquid lolly



mixture of rice
and flour
– sieve –
both separated



dissolved sugar
– evaporation (heat) –
solid sugar

These are **PHYSICAL** changes – they **can** be reversed as no permanent change has been made.

Rocket Words

	solute	a substance that can be dissolved in liquid
	solvent	a substance that can dissolve in a solute
	reversible	a change to a substance that can be undone or reversed
	evaporate	the process where a liquid changes to a gas
	chemical change	a type of change in which a new substance is formed
	effervescence	fizzing or bubbling
	fair test	an experiment that only changes one variable
	corrosion	the reaction of a metal with oxygen
	combustion	an irreversible change where a fuel uses oxygen to burn and releases energy
	extinguish	to put out a fire
	reaction	process in which substances are converted into different substances
	carbon dioxide	gas which makes up around 0.04% of our atmosphere

Learning Questions:

How can I recover a substance from a solution?

How can I describe that dissolving, mixing and changes to state are reversible?

How can I explain that changes are irreversible?

How can I investigate rusting reactions?

How can I explain burning reactions?

Can I predict the best substances to make a fizzy rocket?

What else do I know: