

Knowledge Organiser: Year 5 - Changes of Materials

Careers connected to changes of materials: laboratory technicians, technical associates, research analysts, chemistry teachers.



## Key learning

Some changes to materials such as dissolving, mixing and changes of state are reversible, but some changes such as burning wood, rusting and mixing vinegar with bicarbonate of soda result in the formation of new materials and these are not reversible. solute **Changes of State Evaporation** solvent Water Ice Vapour Evenention of the option reversible Concensation evaporate Liquid Water chemical change Solids, liquids and gases can change state by being hutterstock.com · 2113449260 heated or cooled. effervescence If a solid has dissolved **Irreversible Changes** in water (for example in a salt solution), heating fair test it causes the water to These are CHEMICAL changes - they cannot be reversed as a **EVAPORATE**, leaving new material has been made. the solid (salt) behind. corrosion **Reversible Changes** combustion extinguish mixture of rice liquid chocolate dissolved sugar solid lolly and flour -cool -- evaporation (heat) -- heat -- sieve solid cholate reaction solid sugar liquid lolly both separated These are PHYSICAL changes - they can be reversed as no permanent carbon dioxide change has been made.