Year 5 Science Knowledge Organiser - Properties & Changes of Materials

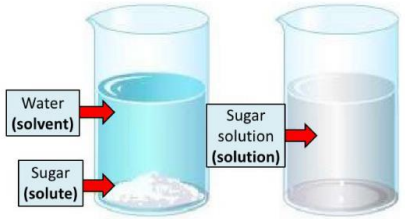
Word	Definition
Condensation	Small drops of water which form when water vapour or steam touches a cold surface.
Evaporation	Separates a soluble solid and a liquid
Dissolve	A solid that completely mixes in with a liquid and cannot be seen.
Filter	Separates an insoluble solid that is mixed in a liquid.
Insoluble	Solids that do not dissolve in a liquid.
Non-reversible change	Changes that cannot be reversed back to their original state. For example burning
Reversible Change	Changes that can be switched back and are nor permanent. For example, melting and freezing.
Soluble	Solids and gases that dissolve in liquids.
Solution	A mixture of a liquid with a dissolved solid or gas.
Thermal conductor	Allows heat to pass through it.
Thermal Insulator	Does not allow heat to pass through easily.

Materials can be grouped together based on their properties.

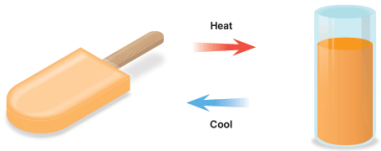
Hardness, solubility, transparency, thermal conductivity, response to magnets

Reversible Changes

Dissolving sugar in water to make a solution



Melting and freezing



Condensing and evaporating

Non Reversible Changes

Burning

Mixing vinegar and bicarbonate of soda

Rusting

Significant Scientist

Ahmed Zewail (1946-2016)

He was known as the father of femtochemistry which is the study of chemical reactions over very short periods of time. He was the first Egyptian scientist to win a Nobel Prize.

What are thermal insulators and conductors?

Materials which are good thermal conductors allow heat to move through them easily. Thermal insulators do not let heat travel through them easily.

Sticky knowledge is in red!