

Key Vocabulary


- 1 **Conductor** – a material or device which allows heat or electricity to carry through
- 2 **Dissolve** – when something solid mixes with a liquid and becomes part of the liquid
- 3 **Evaporation** – the process of turning from liquid to vapour
- 4 **Flexible** – capable of bending easily without breaking
- 5 **Insoluble** – a solid cannot be dissolved, especially in water
- 6 **Insulator** – a substance which does not readily allow the passage of heat or sound
- 7 **Irreversible** – cannot be reversed back to its original state
- 8 **Magnetic** – capable of being magnetised or attracted by a magnet
- 9 **Material** – the matter from which a thing is or can be made from
- 10 **Opaque** – not able to be seen through, not transparent
- 11 **Permeable** – allows liquids or gases to pass through it
- 12 **Reversible** – able to be reversed back to its original state
- 13 **Soluble** – able to be dissolved, especially in water
- 14 **Solution** – is made when one substance dissolves into another
- 15 **Transparent** – Allows light to pass through so that objects behind can be seen





Year 5 Science Knowledge Organiser Properties and Changes of Materials Lent Term 1



Particles

Solid – particles packed closely together 

Liquid – particles have some space to move 

Gas – particles are free to move 

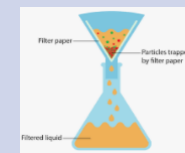
Separating gases, liquids and solids

Substances can be separated using **filtering, sieving and evaporating.**

Sieving – a mixture of different sized solid particles can be separated with a sieve.

Filtering – an insoluble solid can be separated from a liquid when passed through a filter. The liquid passes through the solid particles are trapped on the filter.

Evaporating – if a solution is boiled (heated) the water will evaporate into gas and the solid will be left behind.



Working Scientifically

In a **Fair Test** only one variable is changed, while all the others are kept the same.

Dissolving

Sometimes, when a **solid** is mixed with a **liquid**, it will dissolve to form a **solution** e.g. dissolving sugar in hot tea. The solid seems to disappear in the solution but it is still there.

It has just become part of the liquid.

A **soluble** material can dissolve however an **insoluble** material cannot dissolve.



Reversible and Irreversible Changes

A **reversible change** is a **change** that can be undone or reversed. If you can get back the substances you started the reaction with, that's a **reversible** reaction. ... Examples of **reversible** reactions include dissolving, evaporation, melting and freezing.

An **irreversible change** is when something cannot be changed back to its original form. In many **irreversible changes**, new materials and substances are formed.

Reversible and Irreversible Changes

