SMRP Knowledge Organiser for Year 5: Materials

Science knowledge

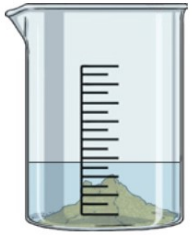
Materials

Different materials are used for particular jobs based on their physical properties: electrical conductivity, hardness, transparency, flexibility, magnetism, solubility, thermal conductivity, insulators.

Dissolving

A solution is made when solid particles are mixed with liquid particles. Materials that dissolve are known as **soluble**. Materials that won't dissolve are known as **insoluble**.

Sugar is a soluble material because the solid dissolves in the liquid.

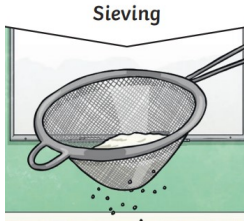


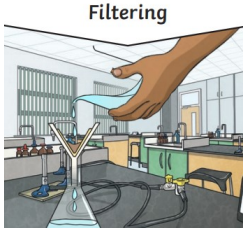
Sand is an **insoluble** material because it does not dissolve in the liquid.

Reversible changes such as mixing or dissolving solids and liquids together can be reversed by:

Sieving

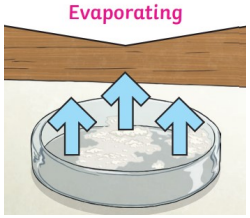
Smaller materials are able to get through the holes in the sieve, separating them from larger particles.





Filtering

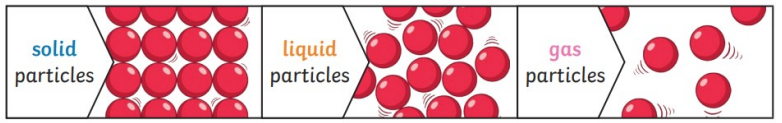
The solid particles will get caught in the filter but the liquid will be able to get through.

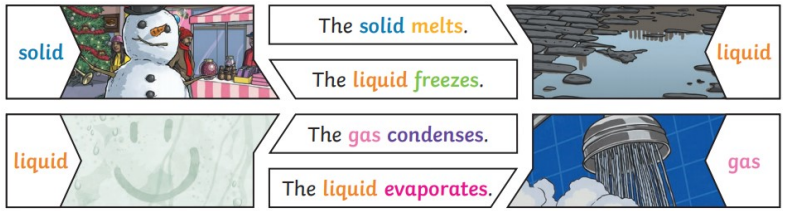


Evaporating

The liquid changes into a gas, leaving the solid particles behind.

Changes of State





Science Vocabulary

Word	Definition
material	From which something is made
hardness	Condition of being solid or rigid
transparency	Easy to see through
conductivity	Allowing heat or electricity to pass through
dissolving	When a solid mixes with liquid to make a solution
solubility	How soluble something is
filter	A way to separate a solid from a liquid
magnetic	Capable of being attracted to a magnet
evaporation	The process of turning from a liquid to a gas
mixing	Putting different things together so that the parts become one