

## Properties of Materials Knowledge Organiser

### Key Vocabulary

conductor	A material that heat or electricity can easily travel through. Many metals are good conductors.	reversible changes	A change in state that can be 'undone' or performed backwards to allow the substance to go back to its previous state.
evaporation	When a liquid turns into a gas.	sieve	A device used to strain solids from a liquid or removing larger particles from finer particles.
filter	Something that removes the impurities from a substance such as water.	soluble	A substance that can be dissolved in a liquid such as water.
irreversible changes	A change in state that cannot be 'undone' or performed backwards. The substance cannot go back to its previous state.	substance	The matter that something is made up of.
materials	The substance that something is made of.	thermal	Related to temperature.

### Key Facts

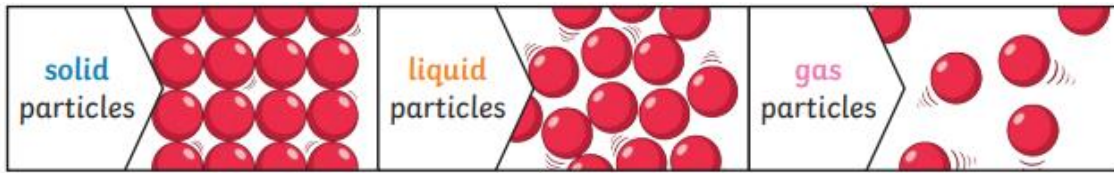
Different materials are used for different jobs based on their properties: electrical conductivity, flexibility, hardness, insulators, magnetism, solubility, thermal conductivity, transparency etc.

A solution is made when particles are mixed with a liquid. Materials that will dissolve are soluble. Materials that will not dissolve are insoluble. A suspension is when the particles do not dissolve. Sugar is soluble, sand is insoluble.

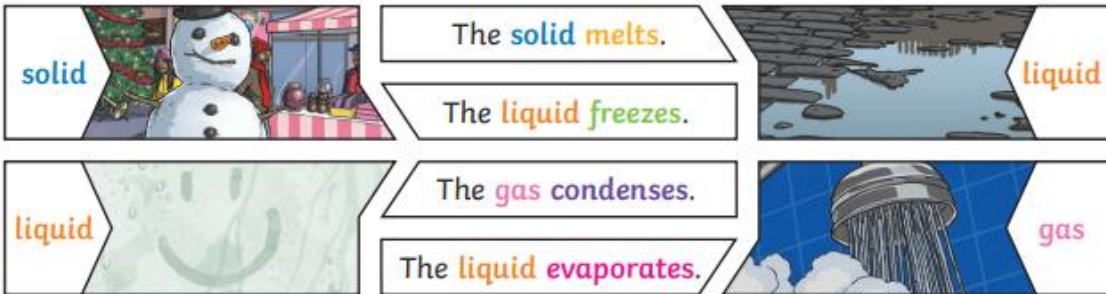
When some materials are mixed, the change can be reversed by sieving, filtering and evaporating.

Irreversible changes result in a new product being made and cannot be reversed.e.g. burning wood produces ash. The ash cannot become wood again.

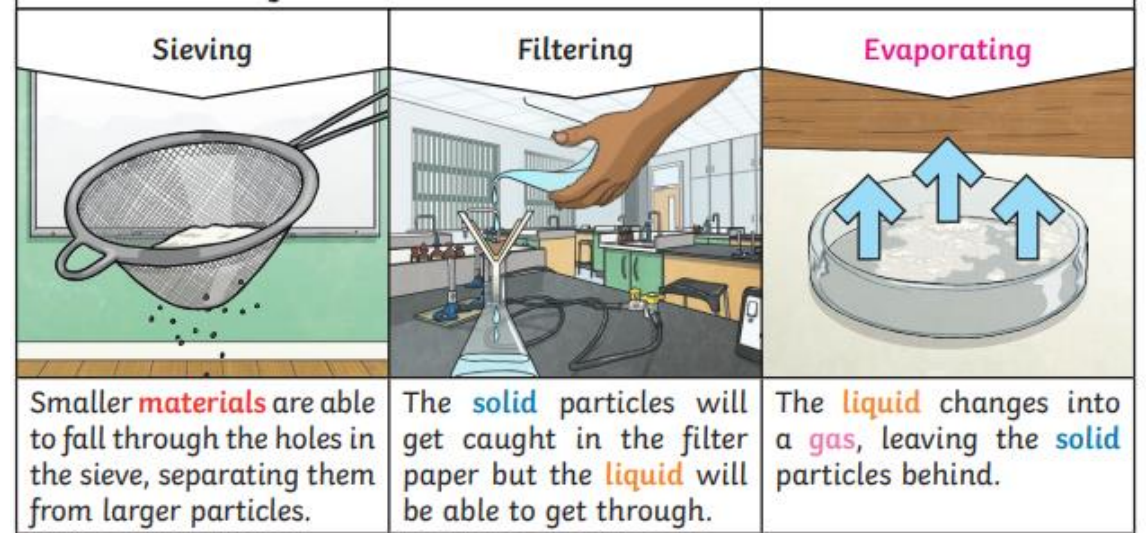
## States of Matter



### Changes of State



## Separating mixtures



## Tier 2 Vocabulary

structure	The way in which something is built or organised.