

Science Subject Knowledge Bank

Year 5: Properties and changes of materials

Vocabulary	Definition
Change of state	Describe the process of one state of matter (solid, liquid or gas) changing to another
Solution	The result of a solid mixing with a liquid.
Dissolve	The process of particles of a solid mixing with a liquid.
Reversible	When materials can be separated after they have been mixed
Irreversible	When materials cannot be separated back after they have been mixed
Soluble	A material that is able to be dissolved
Insoluble	Incapable of being dissolved

What is dissolving?

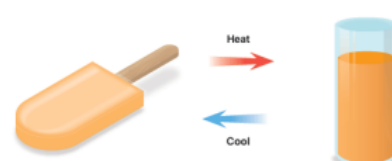
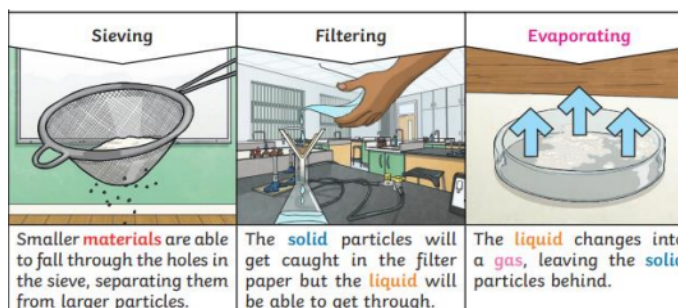
- When the particles of a solid mix with the particles of a liquid, this is called dissolving.
- The result is a solution.
- Materials that dissolve are soluble.
- Materials that do not dissolve are insoluble.

What is a reversible change?

- Some materials can be separated after they have been mixed based on their properties. This is called a reversible change.
- Some methods of separation include the use of a magnet, a filter (for insoluble materials), a sieve (based on the size of the solids) and evaporation.

What is an irreversible change?

- When a mixture cannot be separated back into the original components, this is called an irreversible change. Examples of this include when materials burn or mixing bicarbonate of soda with vinegar.



Reversible changes
Reversible changes such as mixing and dissolving can be reversed.



Irreversible changes
Irreversible changes often result in a new product being made from the old materials (reactants). For example, burning wood produces ash and this cannot be turned back into wood.

