

# Properties and changes of materials – Year 5 (part 1)

In year 5 you will learn:

- That different materials have different properties and that is why we use them for certain jobs.
- That we can separate mixtures of materials using what we know about their properties.
- That some materials will dissolve.

## Key vocabulary

<b>thermal insulator</b>	Does not allow heat to pass through it easily.
<b>thermal conductor</b>	Allows heat to pass through it easily.
<b>electrical insulator</b>	Does not allow electricity to pass through it.
<b>electrical conductor</b>	Allows electricity to pass through it.
<b>dissolve</b>	A solid that completely mixes in with a liquid and cannot be seen.
<b>solution</b>	A mixture of a liquid with a dissolved solid or gas.
<b>soluble</b>	Solids and gases that dissolve in liquids.
<b>insoluble</b>	Solids that do not dissolve in a liquid.
<b>sieve</b>	Separates solids of different sizes.
<b>filter</b>	Separates an insoluble solid that is mixed in a liquid.
<b>evaporation</b>	Separates a soluble solid and a liquid.

Materials can be grouped together based on their properties. For example:

- hardness
- solubility
- transparency
- thermal conductivity
- electrical conductivity
- response to magnets

**Working scientifically:** Depicting a scientist's manner of thinking, questioning, researching and analysing to acquire or improve existing knowledge.

**Making predictions:** Refers to declaring or indicating in advance what you think will happen in the future.

**Reversible:** A reversible change refers to a change or reaction that can be undone or reversed. E.g. Ice cube can be melted and frozen again, Chocolate.

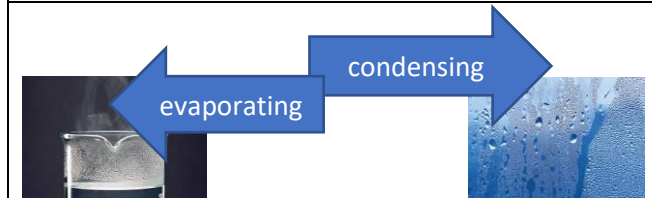
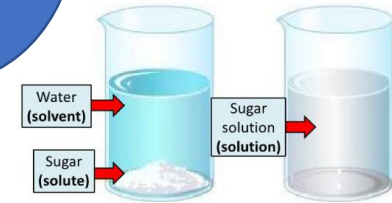
**Irreversible:** A irreversible change refers to a change or reaction that can not be undone or changed. E.g. Time, Age, Friction.

## Reversible and Irreversible Changes



Dissolving sugar in water to make a solution.

## Dissolving

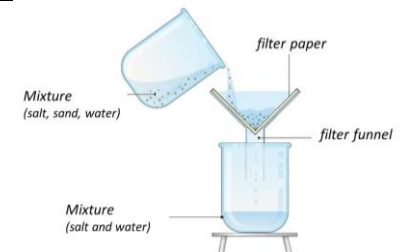


## Separating materials

**Sieving** separates the stones and twigs from the soil.



**Filtrating** separates the sand from the mixture.



**Evaporating** separates the dissolved salt from the water.

