



Endpoints for Science

Year 5 – Properties and Change of Materials



We will be learning about the wider properties of materials and their uses. We will be learning about mixtures and how they can be separated through sieving, filtration and evaporation. We will also learn about why some changes are reversible while others are not.

What I know and can explain

Materials can be grouped according to their basic physical properties

Properties of materials include: hardness, solubility, transparency, conductivity (electrical and thermal) and magnetism

Thermal conductors are useful for quickly heating things up

Thermal insulators, such as wood, glass and plastic, are materials that do not transfer heat effectively

Dissolving is when a solute (material) becomes incorporated into a solvent (liquid) and can no longer be seen

Solubility is a measure of a material's ability to dissolve in a solvent

Reversible changes include heating, cooling, melting, dissolving and evaporating

Irreversible changes include burning, rusting, decaying and chemical reactions

A mixture is a combination of two or more substances that aren't chemically joined and can be separated back into their individual substances

Sieving can be used to separate large solids from liquids and some solids from other solids

Filtering can be used to separate small solids from liquids

Useful Vocabulary

Condense - When a gas is cooled and changes into a liquid.

Dissolve - When a solute becomes incorporated into a solvent and can no longer be seen. For example, salt (solute) dissolves in water (solvent) to become saline (salt solution).

Evaporate - When a liquid is heated and changes into a gas

Filtration - The process of separating small solid particles from a liquid or a gas using a filter

Insulator - A material that does not allow electricity or heat to pass through

Irreversible change - A change where new materials are formed, and there is no way to get the original materials back

Mixture - A combination of two or more substances that can be separated

Reversible change - A change where no new materials are formed and it is possible to recover the original materials