



Mossfield Primary School Knowledge Organiser



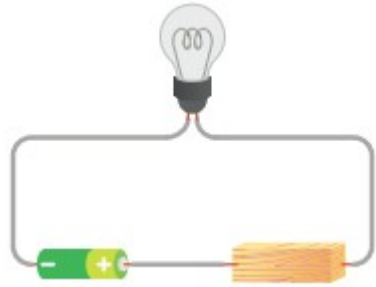
Year 5 — **Properties of Materials** — Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets. Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.

Reversible and irreversible changes - Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. Demonstrate that dissolving, mixing and changes of state are reversible changes. Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning, and the action of acid on bicarbonate of soda.

Test materials – magnetism, transparency and hardness



Test materials – electrical conductivity



Plan, investigate and evaluate – insulating heat experiment



Uses of everyday materials plastic, wood and metal



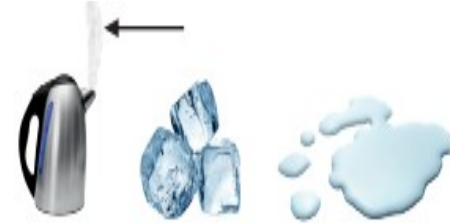
Dissolving and Separate materials – filtering and sieving



Solutions and evaporating



Reversible changes



Irreversible changes – burning and acid



Key Vocabulary

Burning	Something is on fire and being destroyed by heat.
Bicarbonate of soda	Bicarbonate of soda is a white, powdery ingredient, also called baking soda, that makes cakes and cookies rise in the oven.
Chemical reaction	A chemical reaction is when two or more substances mix to create new substances with different properties.
Dissolve	To mix something into a liquid until it disappears .
Electrical Conductor	Lets electricity pass through easily, like copper wire.
Electrical Insulator	Does not let electricity flow through easily, like plastic or rubber.
Heating	Making something warm or hot, or it can refer to the system that keeps a building warm.
Insoluble	Something that cannot dissolve in a liquid, like water.
Irreversible changes	A permanent change where something cannot be turned back into its original form, often because a new substance is made.
Lifespan	The length of time a person, animal, or plant lives.
Mixture	When different things are combined, but they are not chemically joined and can still be separated.
Properties	A characteristic of a material.
Reverse	To do something the opposite way or go backward.
Reversible changes	Something that can be undone.
Soluble	A substance can dissolve in a liquid, like sugar dissolving in water.
Solution	A mixture where one thing dissolves into another, like sugar in water.
Thermal Conductor	Lets heat pass through easily, like a metal kettle.
Thermal insulator	Does not let heat pass through easily, like a wooden pan handle.
Vinegar	Vinegar is a sour liquid that is used to flavour and preserve food.