

Science Knowledge Organiser Year 5 Term 2

What different jobs do materials do based on their properties?

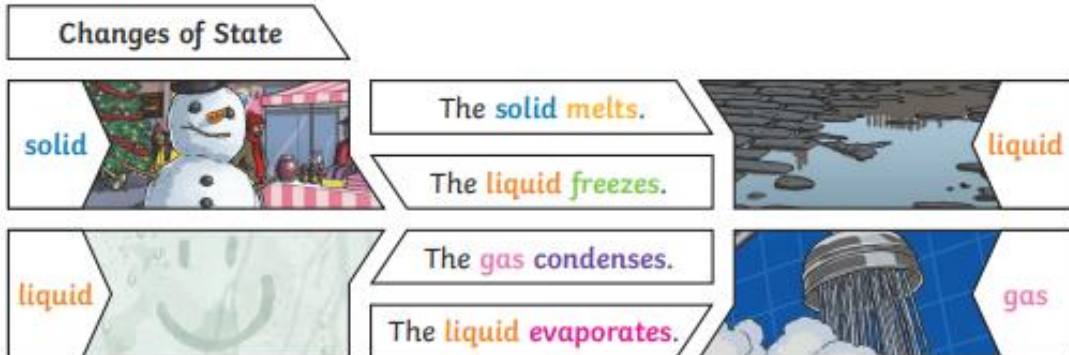
Key vocabulary:

Materials	The substance that something is made out of, such as wood, plastic and metal.
Solids	One of the three states of matter. Solid particles are very close together, meaning solids hold their shape.
Liquids	This state of matter can flow and take the shape of the container because the particles are more loosely packed than solids and can move around each other.
Gases	The particles in this state of matter are further apart and are free to move around.
Melting	The process of heating a solid until it changes into a liquid.
Freezing	When a liquid cools and turns into a solid.
Evaporating	When a liquid turns into a gas or vapour.
Condensing	When a gas cools and turns into a liquid.
Conductor	A conductor is a material that heat or electricity can easily travel through.
Insulator	An insulator is a material that does not let heat or electricity travel through them, such as wood and plastic.
Transparency	A transparent object lets light through so the object can be looked through, such as glass.

Key knowledge:

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

For example, glass is used for windows because it is hard and transparent. Oven gloves are made from a thermal insulator to keep the hand from burning your hand.



Dissolving:

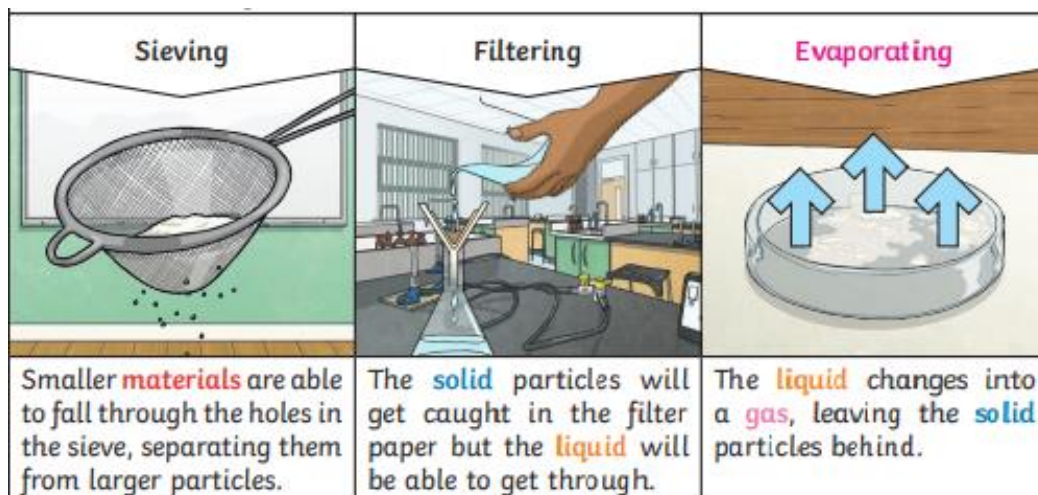
A solution is made when solid particles are mixed with liquid particles.

Materials that dissolve (e.g. sugar) are known as soluble.

Materials that won't dissolve (e.g. sand) are known as insoluble.

A suspension is when the particles don't dissolve.

Reversible changes:



Irreversible changes often result in a new product being made from the old materials (reactants). For example, burning wood produces ash, mixing vinegar and milk produces casein plastic.