



What I should already know

- Variety of everyday materials and their properties
- How magnets and electrical circuits work
- Solids, liquids and gases and how they change state.

Magnetic



Transparent



Permeable



Soluble



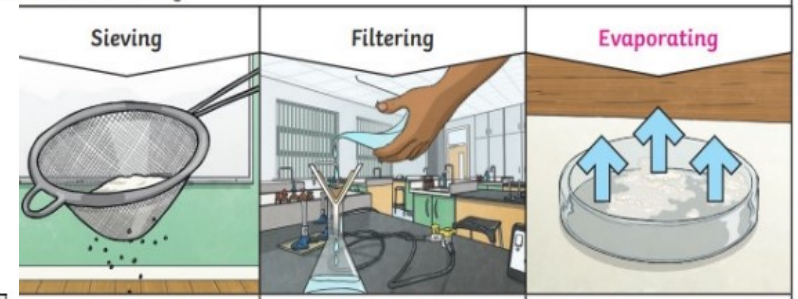
Insoluble



Impermeable



Flexible



Working Scientifically

- compare materials in order to make a switch in a circuit
- observe and compare the changes that take place, for example, when burning different materials or baking bread or cakes.
- research and discuss how chemical changes have an impact on our lives, for example, cooking, and discuss the creative use of new materials such as polymers, super-sticky and super-thin materials.

Sticky Knowledge

- ◆ Different materials are used for particular jobs based on their properties: electrical conductivity, flexibility, hardness, insulators, magnetism, solubility, thermal conductivity, transparency.
- ◆ Changes of state, solids, liquids and gases
- ◆ Reversible changes, such as mixing and dissolving solids and liquids together, can be reversed by filtering, evaporating and sieving.
- ◆ A solution is made when solid particles are mixed with liquid particles. Materials that will dissolve are known as soluble. Materials that won't dissolve are known as insoluble. A suspension is when the particles don't dissolve
- ◆ Irreversible changes often result in a new product being made from the old materials (reactants).

Vocabulary

solids	Solid particles are very close together, meaning solids hold their shape.
liquids	Liquids can flow and take the shape of the container because the particles are more loosely packed and can move around each other.
gases	Gas particles are further apart and they are free to move around.
evaporating	When a liquid turns into a gas or vapour.
condensing	When a gas, such as water vapour, 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.