### Key Vocabulary

Properties

Hardness

Flectrical conductor

Thermal conductor

Conductivity

Insulation

Dissolve

Solution

Soluble

Separate

Magnetic

Solids

Liquids

Gases

Reversible changes

Dissolving

Mixing

Evaporation

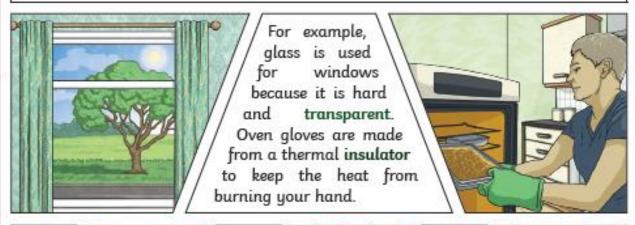
Filtering

Sieving

Melting

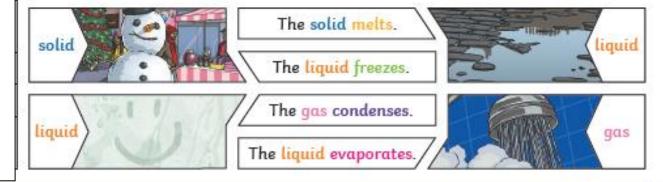
# Key Knowledge

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





## Changes of State



### Key Vocabulary

Irreversible Fair test

New material Variables

Burning Prediction

Conclusion Rusting

Chemical

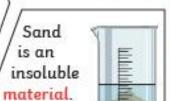
#### Key questions:

- 1. Can you name any of the separating processes?
- 2. What do the terms 'reversible' and 'irreversible' mean?
- 3. What are the names of each change of state?
- 4. Can you explain how a solid turns into a liquid?
- 5. Can you explain how a liquid turns into a gas?

#### Dissolving

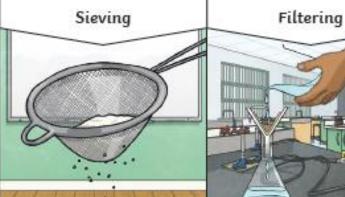
A solution is made when solid particles are mixed with liquid particles. Materials that will dissolve soluble. known Materials that won't dissolve are known as insoluble A suspension is when the particles don't dissolve.

Sugar is a soluble material.



#### Key Knowledge

Reversible changes, such as mixing and dissolving solids and liquids together, can be reversed by:



Smaller materials are able to fall through the holes in the sieve, separating them from larger particles.



The solid particles will get caught in the filter paper but the liquid will be able to get through.



The liquid changes into a gas, leaving the solid particles behind



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

