

Year 5 and 6: Spring 2

What do we mean by properties?

A **property** is a characteristic or feature of a material.

Knowledge Organiser

Properties and Changes of Materials

What are the three states of matter?

- Solids
- Liquids
- Gases



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



Solids

Particles are close together meaning they don't move.



Reversible Changes

If something is reversible, it means it can go back to its original state.

- Sieving
- Filtering
- Evaporating

Liquids

The particles are further apart and looser, so they move more.



Irreversible Changes

If something is irreversible, it means it cannot go back to its original state.



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.



Gases

The particles are much further apart and can move more freely.



Changes of State

solid



The **solid** **melts**.

The **liquid** **freezes**.

liquid



liquid



The **gas** **condenses**.

The **liquid** **evaporates**.

gas

