



# Year 5 - Autumn 1 - Science Knowledge Organiser



## What I already know...

- Describe the properties of solids, liquids and gases.
- Explain that melting and freezing are opposite processes that change the state of a material.
- Explain that heating causes evaporation and cooling causes condensation.
- Explain that evaporation and condensation are opposite processes that change the state of a material.

## Key Vocabulary

Solution	A mixture of solid and liquid (you might not be able to see the solid).
Soluble	When something can dissolve.
Insoluble	When something can't dissolve.
Dissolve	When a solid mixes with liquid to make a solution.
Mixture	Two or more substances that can be separated.
Reversible/ physical change	A change that can be undone e.g. melting.
Irreversible/ chemical change:	A change that cannot be undone e.g. burning.

## What I will learn...

- That 'material' means any kind of matter in the world around us
- That 'everyday materials' can be made of single substances, mixtures or compounds
- To know the properties of materials.
- A mixture contains more than one substance. These are not chemically joined, which means they are easy to separate using their properties, e.g. size, magnetism, solubility
- Reversible (physical) changes do not produce a new substance or change the amount of substance.
- Irreversible (chemical) changes do produce new substances. Although no matter is lost or destroyed, some may become gas and float away. This sort of change is usually permanent and very difficult to reverse.

## Making a difference at The Merton

In this topic, the children learn about materials and how they change. First they test properties of materials, before looking at how materials dissolve, what a solution is, and evaporation. Finally the children compare reversible and irreversible changes.

## Making a difference at home

With adult permission, why not experiment at home to see which materials will dissolve in water to become solutions and which do not dissolve and become mixtures.