



Eden Park Primary School Knowledge Organiser

**Prior Knowledge**

- Compare and group materials together, according to whether they are solids, liquids or gases.
- Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C).
- Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

The Powerful Knowledge we will take away from this science topic:

- Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets.
- Know that some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution.
- Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.
- Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.
- Demonstrate that dissolving, mixing and changes of state are reversible changes.
- Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.

| Word | Meaning |
|---------------------------------|--|
| Solubility | How easily dissolved |
| Conductivity | Allows electricity through |
| Buoyancy | How well objects floats |
| Suspension | Particals that are in a liquid but not dissolved |
| Solution | A liquid with something dissolved in it |
| Soluble | Something that will dissolve |
| Solvent | The liquid that can have something dissolved in it |
| Rusting | When iron reacts with oxygen and water |
| Mixture | Different materials jumbled together |
| Filtering | Process to separate solids from liquids |
| Reversible/irreversible changes | Changes of state that can be changed back or not. |

Investigation

-Could you be a CSI?

Separating mixtures including solutions.

Marbles/sand/salt water/paper clips etc.

-Sugar solution – make sugar crystals on stick or string.

Working scientifically

With prompting, plan different types of scientific enquiries to answer questions.

With prompting, recognise and control variables where necessary.