

What should I already know?

- 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

Scientific Skills:

- 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.
- Demonstrate that dissolving, mixing and changes of state are reversible changes.
- Plan a scientific enquiry to answer a question recognising and controlling variables. (TAPS)

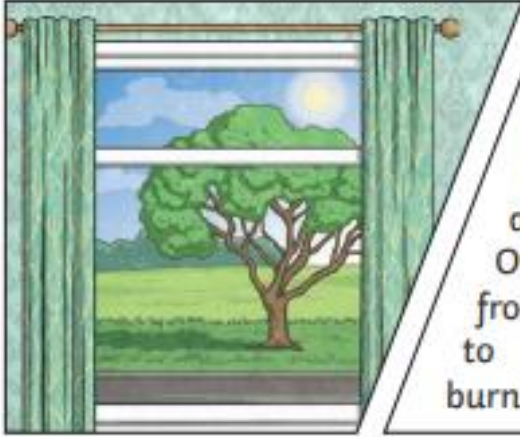
Key Vocabulary and Definitions:

dissolve	A solid becomes part of a liquid and is known as a solution.
evaporation	The process of turning from liquid into a gas.
filtration	The process of removing unwanted material.
irreversible change	A change that cannot be undone.
permeable	Allowing liquids or gases to pass through.
properties	A quality or trait belonging to an object. E.g. colour or texture.
reversible change	A change that can be undone or reversed.
soluble	A substance that is able to be dissolved.
solution	A liquid mixture.

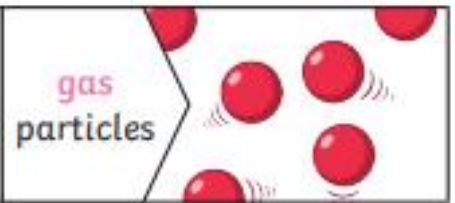
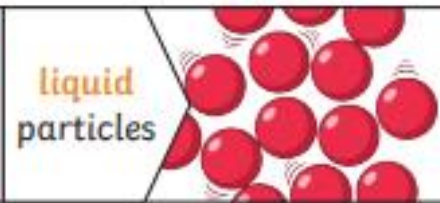
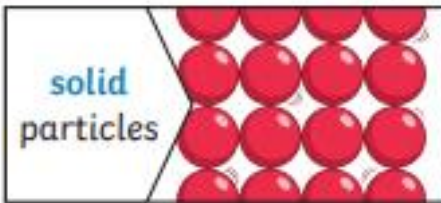
Teaching Sequence

1. To compare different materials according to their properties.
2. To investigate mixing and sieving materials.
3. To investigate mixing and filtering materials.
4. To investigate dissolving soluble material in liquids. (TAPS)
5. To investigate how to separate dissolvable materials.

Key Knowledge



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.



Changes of State



solid

The **solid melts**.

The **liquid freezes**.



liquid



liquid

The **gas condenses**.

The **liquid evaporates**.



gas