



Prior learning to reactivate

- Know a range of materials and why materials are suitable for a specific job (Year 1 and 2).
- That materials can be changed by bending and squashing (Year 2).
- Know the properties of everyday materials (Year 1).
- Properties of rocks (Year 3)

Key learning

Most materials can be classified as either solids, liquids or gases (see vocabulary for definitions).

Some materials can change state when they are heated or cooled.

The temperature at which materials change state can vary.

Water changes from a liquid to a solid at 0°C.

In the water cycle, evaporation involves water changing from a liquid to a gas as it rises.

In the water cycle, condensation involves water changing from a gas to a liquid in the creation of precipitation.

Key vocabulary

Molecules	The very tiny particles that make matter
Solid	A material that keeps its shape and its molecules are closely packed together. It has a fixed volume.
Liquid	A material which fills the shape of the container it is in and can be poured. Its molecules are close together but can move around. It has a fixed volume.
Gas	A material which can expand to fill the space its in. Its molecules are far apart and can move around.
Matter	Objects which take up space and have mass.
Evaporation	When a liquid changes to a gas through heating.
Condensation	When a gas changes to a liquid through cooling.
Precipitation	The release of water from the sky. This can be a solid (e.g. snow) or a liquid (rain).
State	Describing whether matter is a solid, liquid or gas.
Water cycle	The complete journey that water takes.

SCIENTIFIC SKILLS

By the end of the year, children should be able to...

- Ask their own questions relating to the topic
- Make predictions about the outcomes of investigations
- Set up simple practical investigations
- Be able to identify simple ways in which a fair test can be created
- Make simple observations, including through the use of a range of recording/measurement equipment
- Gather and record data
- Present data in a variety of ways, including diagrams, charts, tables, and graphs
- Draw simple conclusions on results and link back to the theory discussed
- Suggest improvements for further investigations

Opportunities for scientific enquiry within the unit:

- Factors affecting the rate of evaporation and condensation.
- The temperature at which materials change state.

