



What I should already know

- Knowledge from Year 1, 2 and 3 of everyday materials
- Describe, group and compare the properties of everyday materials
- Identify and compare the suitability of a variety of everyday materials.

Working Scientifically

- Group and classify a variety of different materials; explore the effect of temperature on substances such as chocolate, butter, cream
- Research the temperature at which materials change state, for example, when iron melts or when oxygen condenses into a liquid.
- Observe and record evaporation over a period of time, for example, a puddle in the playground or washing on a line,

Sticky Knowledge

- ◆ Solids keep their shape whereas liquids can change their shape to fit the container they are in. Unlike a solid a liquid can be poured or spilled.
- ◆ Solids, liquids and gases behave differently because their particles behave differently. In solids the particles are closely packed together with minimum movement, In liquids the particles are more spaced out so they can easily flow and change shape, In gases the particles are further spaced out allowing them to freely spread into any available space.
- ◆ Some materials can exist as both liquids and solids due to the process of melting and solidification e.g. water, rock and metal.
- ◆ When water and other liquids are heated they turn into a gas through the process of evaporation. Condensation is the reverse of evaporation and occurs when a gas cools down and turns into a liquid. Condensation occurs more in cold conditions.

Vocabulary

material	Something that an object is made from.
solid	Solids keep their shape unless a force is applied to them. They take up the same amount of space no matter what happens to them.
liquid	Take the shape of a container. They can change shape but do not change the amount of space they take up. They can flow or be poured.
gas	Spread out to fill a container or room they are in. They do not have a fixed shape but do have a mass.
melt	When a solid changes to a liquid.
solidify	The process of a liquid becoming hard or solid.
evaporation	The process of a liquid becoming a gas.
condense	When a gas cools down and turns into a liquid.
freeze	Liquid turns into a solid due to freezing.
thermometers	A tool used to measure temperature.
water cycle	The continuous journey water takes from the sky to the land and back to the sky again.
precipitation	The release of water from the sky during the water cycle.