



St White's Primary School – Science

What knowledge do I already have?

I can name different materials e.g. glass, plastic and say what material an object has been made from. I can describe simple properties of materials. I know that some materials can be changed by twisting or squeezing them.

What will I know by the end of the unit?

The 3 states of matter are solid, liquid and gas. Some materials change state when they are heated or cooled. Different materials change state at different temperatures. Temperature is measured in degrees Celsius. (°C) Evaporation and condensations are important parts of the water cycle. If a solid is heated to its melting point, it melts and changes to a liquid. This is because the particles start to move faster and faster until they are able to move over and around each other. When freezing occurs, the particles in the liquid begin to slow down as they get colder and colder. They can then only move gently on the spot, giving them a solid structure

Years 3 and 4

States of Matter Spring A



Science

We are scientists. We ask questions about our world and technology and then explore and discover the answers with the aim of making the world a better place.

Technical vocabulary

Physical properties hard/soft, shiny/dull, rough/smooth, absorbent/non-absorbent

State A material can be in one of three states: solid, liquid or gas.

Solid A solid keeps its shape unless force is applied to it. It can be hard, soft or squishy. Solids take up the same amount of space whatever is done to them.

Liquid Liquids take the shape of their container. They can change shape but not the amount of space they take up.

Gas Gases can spread out completely to fill a container or even a room. They do not have a fixed shape.

Heat To increase temperature

Cool To decrease temperature

freeze Turn a liquid into a solid.

Evaporate Turn a liquid into a gas.

Melt Turn a solid into a liquid

condense Turn a gas into a liquid




Degrees Celsius The unit used to measure temperature

thermometer A piece of equipment used to measure temperature

Temperature The measure of how hot or cold something is

Ice Water in its solid state

Water vapour Water in its gas state

Solid	Liquid	Gas
		
Particles in a solid are close together and cannot move. They can only vibrate.	Particles in a liquid are close together but can move around each other easily.	Particles in a gas are spread out and can move around very quickly in all directions.