



States of Matter Year 4

Learning outcomes with context

- To explore a variety of everyday materials and develop simple descriptions of the states of matter
- To compare and group materials together, according to whether they are solids, liquids or gases
- To 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)
- To identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature
- To explore George Stephenson's contribution to science

Learning outcomes without context

- To make decisions, ask relevant questions and use different types of scientific enquiries to answer them
- To make systematic and careful observations using notes and simple tables
- To take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
- To gather, record, classify and present data in a variety of ways to help in answering questions
- To record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- To report on findings from enquiries, using relevant scientific language, including oral and written explanations, displays or presentations of results and conclusions
- To use straightforward scientific evidence to answer questions or to support their findings
- To begin to look for naturally occurring patterns and relationships

Key vocabulary children should know by the end of the topic

Solid	Stays the same shape and can be held in your hands.
Liquid	Flows and can be poured, changes shape to its container.
Gas	Often invisible, always fills its container and changes in shape.
Melt	The process of a solid heating and changing into a liquid.
Freeze	The process of a liquid cooling and changing into a solid.
Evaporating	The process of a liquid heating and changing into a gas.
Condensing	The process of a gas cooling and changing into a liquid.
Thermometer	An object used to measure temperature.
Temperature	How hot or cold something is.
Degrees	The measurement of how hot or cold something is.
Celsius	
Water cycle	Water moving continuously from the sea/ land to the sky and back.

