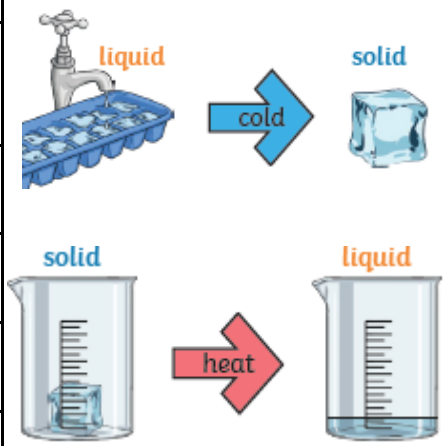


Science - Solids, Liquids and Gases Year 4 - Autumn 1



Key Vocabulary

States of matter	Materials can be one of three states: solids, liquids or gases. Some materials can change from one state to another and back again.
Solid	Materials that keep their shape unless a force is applied to them. They can be hard, soft or even squashy.
Liquid	Liquids take the shape of the container. This can flow or be poured.
Gas	Gases spread out to completely fill the container or room they are in. they do not have a fixed shape.
Water vapour	This is water that takes the form of a gas. When water is boiled, it evaporates into water vapour.
Melt	This is when a solid changes to a liquid.
Evaporate	Turning a liquid into a gas.
Condense	Turning a gas into a liquid.
Precipitation	Liquid or solid particles that fall from a cloud as rain, sleet, hail or snow.



Resources	Safety Cards
<ul style="list-style-type: none"> Selection of materials— toothpaste, foam, gel, chocolate Flask for hot water 	Card 15 - Water Card 18/19 - Heating materials Card 20 - Burning materials Card 21 - Mixing materials

What key knowledge will I have by the end of this unit?

- Materials can be divided into solids, liquids and gases.
- Solids, liquids and gases can be described by observable properties.
- Heating causes solids to melt into liquids and gases to evaporate into gases.
- Cooling causes gases to condense into liquids and liquids to freeze into solids.
- Materials change state depending on the temperature.
- The temperature at which there is a change of state depends on the material. (e.g. boiling points, freezing points)
- Changes of state for water – link to the water cycle.

What key skills will I have by the end of this unit?

- Safety in science
- Accurate observations – handling materials/ chocolate melting
- Classifying materials – Venn diagram sorting
- Reporting – written explanations or annotated diagrams
- Scientific Models – water cycle in a bag
- Fair test – variables to control, change, measure
- Equipment – accurate measurements using a thermometer
- Data recording – tables
- Conclusions – look for patterns, answer question

In KS1:	In Year 3:	In Year 4:	In Year 5:	In Year 6
<ul style="list-style-type: none"> Identify, name and describe different materials Compare and group them according to their properties 	<ul style="list-style-type: none"> Investigate properties of materials - flexibility, absorbency 			<ul style="list-style-type: none"> Make changes to materials Investigate solids, liquids and gases