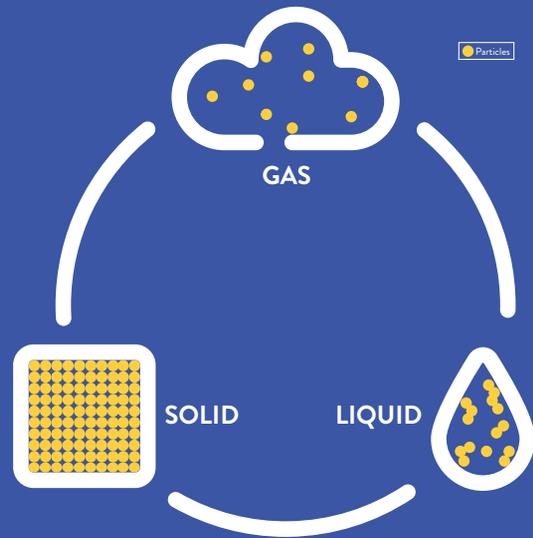


STATES OF MATTER

Core Learning of This Unit

- A material may exist in three states: **solid**, **liquid**, and **gas**.
- A sample of a material is in the solid state if it can be held by hands and can form into a **pile**.
- When a material is in the liquid state, it cannot be held by hands and it forms a **pool**.
- In the gas state, a material **escapes** from an unsealed container. It spreads out to fill all the space available, and takes the shape of the entire container.
- Materials change state when they are heated or cooled by **freezing**, **melting** and **boiling**.
- Some state change processes can be **reversed**.



Prior Learning & Curriculum Links



Prior learning

- From Year 3: Simple physical properties of everyday materials and how to group them based on their physical properties.

Curriculum Links

- Geography: River investigation: the Amazon (Spring term)
- RE/Eco Links: How different faiths consider water as a material for spiritual cleansing
- PSHCE: Article 24: Right to have safe water to drink.

Working Scientifically

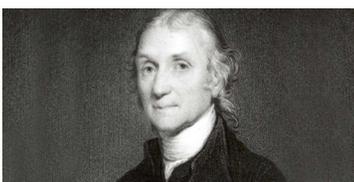


- Children will compare materials by their properties.
- Children will group materials together, based on observations.
- Children will recognise that some materials may exist in more than one form. For example, water may exist in solid, liquid and gas states.
- Children will make careful observations about how matter changes from solid to liquid.
- Children will record their observations in a variety of ways.
- Children will read scales accurately.

Vocabulary



- **Matter:** Another name for 'material': what an object is made of; not just fabric.
- **Temperature:** A measurement of how hot or cold something is.
- **Thermometer:** A device or instrument used to measure temperature.
- **Melting:** When a solid turns into a liquid.
- **Freezing:** When a liquid turns into a solid.
- **Melting point:** The temperature at which a solid melts.
- **Freezing point:** The temperature at which a liquid turns into a solid.
- **Boiling point:** The temperature at which a liquid turns into a gas.
- **Evaporation:** When a liquid turns into a gas, below its boiling point.
- **Condensation:** The process when a gas turns into a liquid.
- **Water cycle:** How water moves around to create clouds, rain and the weather.



Significant People

Joseph Priestley (a British scientist) discovered oxygen in 1774. He also answered questions such as why and how things burn.