| Working Scientifically | | | | | | |
|---------------------------------|-----------------------------------|--|----------------------------------|--|--|--|
| Plan different types of enquiry | Take measurements with increasing | Record results using diagrams and tables | Use test results to make further | | | |
| to answer questions | accuracy | | predictions | | | |

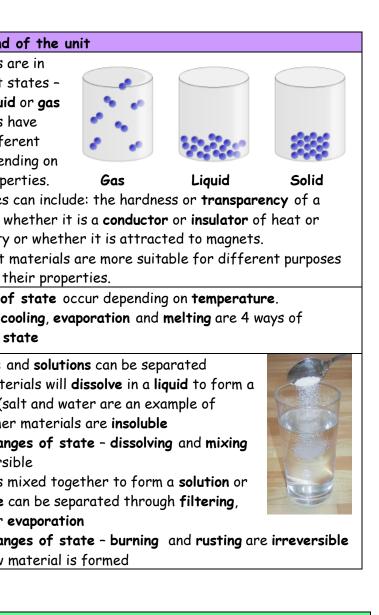
What I should already know

- How to describe **properties** of everyday materials
- How to group and compare different materials based on their **state** are they a **solid**, **liquid**, or a **gas**?
- Solids keep their shape and have a fixed volume.
- Liquids have a fixed volume, but change in shape to fit their container. A liquid can be poured, or flows.
- Gases have no fixed shape or volume. A gas fills all available space
- Understand that some materials change state when they are heated or cooled
- Boiling is a change of state from liquid to gas when the liquid is heated to a certain temperature. Water boils at 100 °C
- Know that evaporation is the change from a liquid to a gas. Condensation is the change back from a gas to a liquid. This normally happens through cooling.

| Key Vocabulary | | |
|-----------------|---|--|
| absorbent | Material which has the ability to soak up another substance – usually liquids | |
| boiling point | Temperature at which a substance boils and changes from a liquid to a gas | |
| burning | Setting something alight, setting fire to a material | |
| change of state | When a substance changes from one state to another without changing its chemical makeup. Substances can change from solids to liquids to gases | |
| cooling | Falling temperature | |
| conductor | A substance or material that transmits electricity, heat, light or sound | |
| dissolve | When a substance is broken up or absorbed and disappears into another substance. | |
| evaporation | When a liquid changes to a gas (vapour) after being heated up | |
| filter | A device with tiny openings that allows you to remove things from a gas or liquid | |

| Key Vocabulary | | What I will know | by the end |
|----------------|--|---|---|
| freezing | When a substance changes from a liquid to a solid in lower temperatures. Water freezes at 0°C | Compare and group together materials based | Materials of different solid, liquid |
| gas | Air-like substance that moves around. Gases don't have a shape, but fill the space they are in | on their properties | Materials I many diffe |
| insoluble | Solid which won't dissolve into a liquid , even when stirred or mixed | | uses depen their prope |
| insulator | A substance or material that that doesn't transmit electricity, heat, light or sound. | | Properties material; w |
| liquid | One of the 3 states of matter. Liquids flow and take the shape of the container they are in | | electricity Different |
| melting point | Temperature at which a solid changes to a liquid . Different solids have different melting points | Materials can | based on t Changes of |
| mixture | 2 or more substances are mixed, but not joined together. One substance hasn't dissolved into the other. Mixtures can be easily separated | change state Changes of | Heating, co changing s Mixtures o |
| non-reversible | When a change cannot be undone or reversed | state can be reversible or | Some mate |
| reversible | When a change can be undone or reversed | irreversible | this); othe Some chan |
| rusting | Orange, red or brownish coating that appears on metals left exposed to air and water | | are revers Materials |
| sieve | Device for straining out lumps | | a mixture sieving or o |
| solid | One of the 3 states of matter. Solids keep their shape and have a fixed volume | | Some chan and a new |
| solution | Mixture where one substance is dissolved into another. The two substances can't be separated by filtering | | |
| soluble | Substance which will dissolve into a liquid | | igate differe happens to cl |
| temperature | Degree of hotness or coldness measured with a thermometer | | in adult's hel |
| thermal | Type of energy in the form of heat | With an adult's help this a reversible or irreversible Can you separate a | |
| translucent | Lets light pass through, but not clearly | | |
| transparent | Lets light pass through | | |

Report and present findings



Investigate

rent liquids and how long they take to freeze. clothes when they dry on the washing line on a hot day elp, bake a cake or bread. What irreversible change

elp, melt chocolate to make chocolate crispy buns. Is ble change? a solution of water and sugar?