

# Solids, Liquids and Gases KNOWLEDGE ORGANISER



| ESSENTIAL SOLIDS, LIQUIDS AND GASES VOCABULARY |   |
|--|---|
| solid  | Materials that keep their shape unless a force is applied to them.  |
| liquid   | Liquids take the shape of their container. They can flow or be poured.  |
| gas  | Gases can spread out to fill the container they are in. They have no fixed shape.   |
| condense                                       | The process when gases change state into liquids.   |
| degrees Celsius                                | The unit we measure temperature in.   |
| temperature                                    | How hot or cold something is.   |
| changing state                                 | The process of changing one state of matter into another.   |
| heating  | When you raise the temperature of something.  |
| cool   | When you lower the temperature of something.  |
| water cycle                                    | The continuous journey of water from oceans and lakes, to clouds, to rain, to streams, to rivers and back into the ocean again. |

**States of Matter**

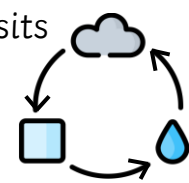
There are three states of matter that materials can be- solids, liquids or gases. Some materials are able to change to and from different states.

| Solid  | Liquid  | Gas   |
|--|---|---|
| Particles are very close together. They can vibrate, but not move. | Particles are close together, but can move around easily. | Particles are spread out. They can move around freely and quickly |
|  |   |   |

**Changes of State**

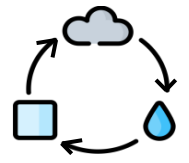
Most solids can be changed to a liquid or gas by changing its temperature. The boiling point and freezing point is at different temperatures for different substances.

The solid melts to become a liquid. The liquid evaporates to become a gas. The gas deposits to become a solid.



The changes also occur in the opposite direction.

The solid sublimates to become a gas. The gas condenses to become a liquid. The liquid freezes to become a solid.



| MAKING LINKS TO PREVIOUS LEARNING GOLDEN VOCABULARY |  |
|---|--|
| <b>Materials</b>                                    | The <b>material</b> is what the object is made from. |
| <b>Arctic and Antarctic</b>                         | The polar ice caps are at risk of <b>melting</b> .   |