

### Prior Knowledge

- Distinguish between an object and the material it is made from
- Identify, name & describe simple properties of common materials
- Compare and group materials based on their properties
- Discuss the suitability of everyday materials for particular uses
- Know that the shapes of solid objects made from some materials can be changed squashing, bending, twisting and stretching

### Key Knowledge

- A **solid** keeps its shape and has a fixed volume
- A **liquid** has a fixed volume but can change its shape to fit a container. It can be poured and keep a level surface
- A **gas** fills all available space; it has no fixed shape or volume
- Even though they can be poured sugar, salt and sand are all solids; each grain keeps the same shape and volume

- **Melting** is a change of state from solid to liquid.
- **Freezing** is a change of state from liquid to solid. The freezing point of water is at 0°C.
- **Boiling** is a change of state from liquid to gas that happens when a liquid is heated to a certain temperature and bubbles of gas can be seen in the liquid. Water boils when it is heated to 100°C.

- **Water evaporates into the air**
- The sun heats up water at the surface of seas, rivers, lakes and turns it into water vapour (a gas). The water vapour rises into the air.
- **Water vapour condenses into cloud**
- Water vapour in the air cools and changes back into tiny drops of liquid water, forming clouds.
- **Water falls as rain, snow, sleet etc...**
- When too much water has condensed the water droplets in the clouds get too heavy and water falls back down as rain, snow, sleet etc... This is called precipitation.
- **Water returns to the sea**
- Rainwater runs over the land and collects in lakes and rivers which take it back to the sea. **The cycle starts all over again.**

**Evaporation** is the same change of state as boiling (liquid to gas) but it happens slowly, at lower temperatures and only at the surface of the liquid.

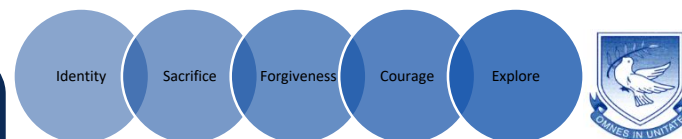


A puddle evaporating

**Condensation** is the change back from a gas to a liquid caused by cooling.



Condensation on a window



### Key Vocabulary

solid	liquid	gas
<b>Change of State</b>	When a material changes from one state to another	
<b>melting</b>	A solid changing into a liquid	
<b>freezing</b>	When a liquid becomes cold enough to turn solid, it freezes	
<b>Melting point</b>	The temperature at which a solid becomes a liquid	
<b>Boiling point</b>	The temperature at which a liquid turns to gas	
<b>Evaporation</b>	When liquid at the surface changes into a gas	
<b>Condensation</b>	The process when a gas changes into a liquid, caused by cooling	
<b>Water cycle</b>	The never-ending process of water moving from the oceans, up into the atmosphere and back to the Earth and oceans	
<b>Temperature</b>	The measure of how hot or cold something is	

*What is our world made up of?*

### The Water Cycle

