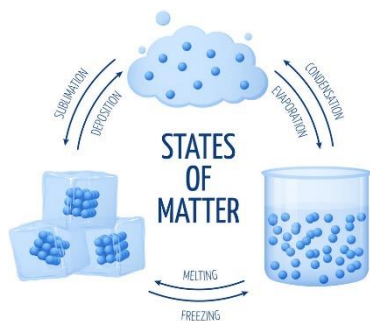


## Year 4 Science- Chemistry- States of matter.

### Prior Knowledge

Children will be able to describe the properties of different materials and group different materials together based on what they are made from or their properties. They should know how different solid objects can be changed shape by squashing, bending, folding, etc.

### Key Diagram



### Key Information

**Solids:** Table, sand, bread, book.

**Liquids:** Water, lemonade, oil.

**Gas:** Oxygen, water vapour, nitrogen.

### Ideas to do at home

- Create your own model of the water cycle.
- Perform an experiment to track the amount of evaporation in different parts of your house.
- Find out the boiling and freezing temperatures of different things.

### Key Vocabulary

**Solid** – A material that keeps its shape unless a force is applied to it. They always take up the same amount of space.

**Gas** – Can spread out to completely fill the container or space they are in. They do not have a fixed shape but do have mass.

**Evaporation** – The process of liquids changing into a gas or vapour through heating.

**Temperature** – The degree of heat present on a person, substance or object.

**Liquid** – A material that takes the shape of the container they are in but do not change the amount of space they take up.

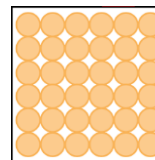
**Water vapour** – Water that takes the form of gas. When water is boiled it evaporates into a water vapour.

**Condensation** – The process of gas changing into a liquid through cooling.

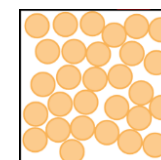
**Precipitation** – The release of water from the sky in the form of rain, sleet, hail or snow.

### Knowledge and Understanding

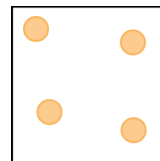
Solids have particles packed closely together inside them. To change their shape they must have force applied to them.



Liquids have particles with more space between them. They take the shape of the object or container they are in.



Gases have particles which are spaced out. This means they will fill the space of the object or room they are in and do not stay at the bottom.



Water has a boiling point of 100 degrees however it both freezes and melts at 0 degrees.



The water cycle is a natural process which occurs when water in seas and oceans are heated by the sun, causing them to evaporate into the sky. Once the water vapour has cooled it condenses and forms clouds. Eventually when the clouds are too full of water droplets precipitation occurs and rain, sleet, hail or snow falls and finds its way back to the water source.

