

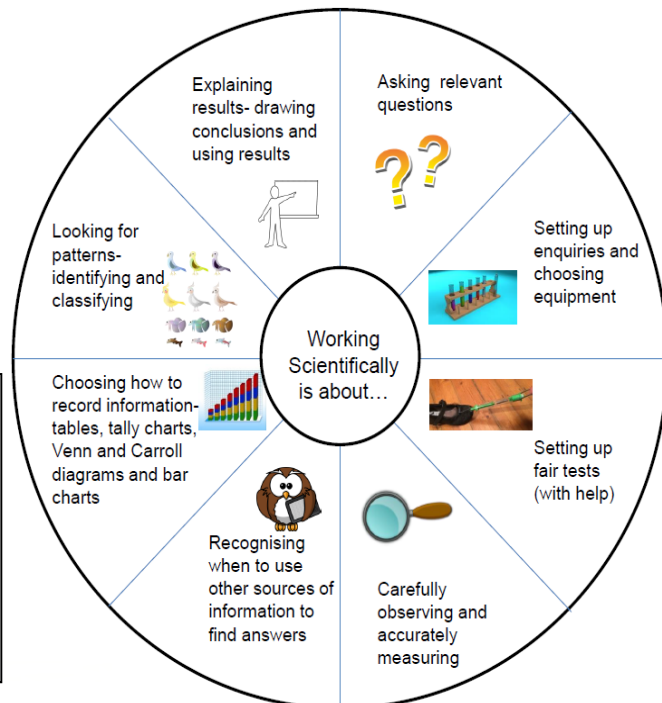
Science Unit title: States of Matter





Pupils will learn the names of the different states of matter. They will conduct investigations to deepen their understanding of the behaviour of solids, liquids and gasses. Children will look at the water cycle enabling them to explain the roles of condensation and evaporation.

Prior learning
Everyday materials and their properties

Future learning

Exploring reversible changes, including, evaporating, filtering, sieving, melting and dissolving, recognising that melting and dissolving are different processes. Exploring changes that are difficult to reverse, for example, burning, rusting and other reactions, for example, vinegar with bicarbonate of soda.



Key Knowledge	
Changing states	Matter can change from one state to another if it is heated or cooled – solid, liquid and gas
The water cycle	The water cycle is a complete journey that water makes, from one place to another and from one state to another 
Solids hold their shape	Why do solids hold their shape? Particles in a solid are packed closely together.  The particles can only vibrate, or move back and forth, in a very small space. This means they stay solid their shape.
Liquids form a pool not a pile	Liquids Liquids have a definite volume but don't have a definite shape. Liquid forms to the shape of its container. 
Gas will escape from an unsealed container	GAS molecules widely separated, move at great speed 

Key Vocabulary	
matter	Objects that take up space and have a mass and called matter. Everything around you is made up of matter.
solid	a solid holds its shape and has a fixed volume.
liquid	a liquid fills up the shape of the bottom of a container. It forms a pool and also has a fixed volume.
gas	a gas can escape from an unsealed container. It fills up the space that it is in and does not have a fixed volume.
evaporation	Changing from a liquid to a gas.
condensation	Changing from a gas to a liquid
temperature	Degree or intensity of heat present in a substance or object and shown by a thermometer or perceived by touch.
Celsius	a scale of temperature on which water freezes at 0 degrees and boils at 100 degrees under standard conditions.
molecules	the very tiny particles that make matter
reversible	Capable of being reversed so that the previous state is restored.
irreversible	Not able to be undone or altered - a chemical change has occurred.

For more information,

[Solids, liquids and gases - KS2 Science - BBC Bitesize](https://www.bbc.com/1/learn/primary/science/ks2/science_of_solids_liquids_and_gases)