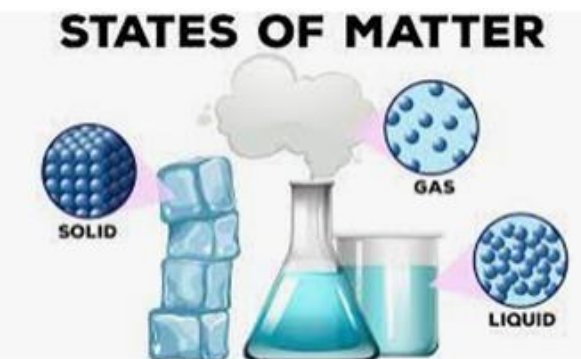


Science: states of matter: solids, liquids and gases.

Y4 spring term

National Curriculum Objectives:	
✓	compare and group materials together, according to whether they are solids, liquids or gases
✓	observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)
✓	identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature
Working scientifically:	
✓	making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers



Key Vocabulary:	
Spelling:	Definition:
Boiling	At, or near, boiling point, when a liquid becomes a vapour.
Condensation	Condensation is a process by which a substance changes from a gaseous state to a liquid state.
Evaporation	Evaporation is a process by which a substance changes from a liquid state to a gaseous state.
Freeze	Freezing is when a substance changes state from liquid to solid.
Freezing point	The temperature at which a liquid freezes and becomes a solid: 0 degrees.
Gas	A gas can spread out to completely fill the container or room they are in. It does not have any fixed shape.
Liquid	A liquid takes the shape of its container. It can change shape but do not change the amount of space it takes up. It can flow or be poured.
Melt	Melting is when a substance changes state from a solid to a liquid
Precipitation	The liquid and solid water particles that fall from clouds and reach the ground are known as precipitation. These particles include drizzle, rain, snow, snow pellets, ice crystals, and hail.
Solid	A solid keeps its shape unless a force is applied to it. It can be hard, soft or even squashy. A solid takes up the same amount of space no matter what has happened to it.
States of matter	Substances can be one of three states: solids, liquids or gases. Some materials can change from one state to another and back again.
Temperature	The degree of hotness or coldness.
Water cycle	The water cycle is the continuous journey of water from oceans and lakes, to clouds, to rain, to streams, to rivers and back into the ocean again.
Water vapour	This is water that takes the form of a gas. When water is boiled, it evaporates into a water vapour.

Sequence of Learning:					
Objectives (key knowledge):					
Lesson 1 To know how to sort materials into solids liquids and gases.	Lesson 2 To know the properties of solids, liquids and gases.	Lesson 3 To know how to describe the changes taking place during freezing and melting.	Lesson 4 To observe that some materials change state when they are heated or cooled.	Lesson 5 To know how to describe the changes taking place during condensation and evaporation.	Lesson 6 To know the part played by evaporation and condensation in the water cycle.