Knowledge is Power…

Ivington CofE Primary and Preschool

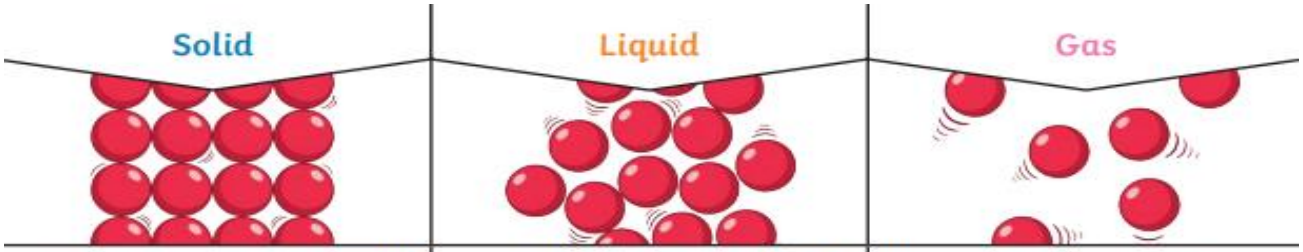
Reaching together

Key Vocabulary	
Solid	A state of matter that has a fixed shape and volume.
Liquid	A state of matter that has a definite volume but takes the shape of its container.
Gas	A state of matter that has neither a definite shape nor a definite volume.
Particle	Tiny pieces that make up matter.
Molecule	A group of atoms that are chemically bonded together.
Melting	The change of state from solid to liquid.
Freezing	The change of state from liquid to solid.
Evaporation	The change of state from liquid to gas.
Condensation	The change of state from gas to liquid.

Prior Knowledge
We would expect most children to already be able to: A variety of everyday materials including wood, plastic, glass, metal, water, and rock; The physical properties of a variety of everyday materials (including those that are transparent) and to compare and group materials on the basis of these properties; How materials are suitably used based on their properties; Some materials which are magnetic; How shapes of solid objects can be changed by squashing, bending, twisting, and stretching.

Aims

- Name the properties of solids, liquids, and gases.
- Describe how particles are arranged in solids, liquids, and gases.
- Predict what happens to a solid, liquid or gas when it is heated or cooled.
- Name each of the changes of state.
- Describe how it is possible to measure the melting point and boiling point of a substance.
- Explain how some substances do not show typical properties of one state of matter.

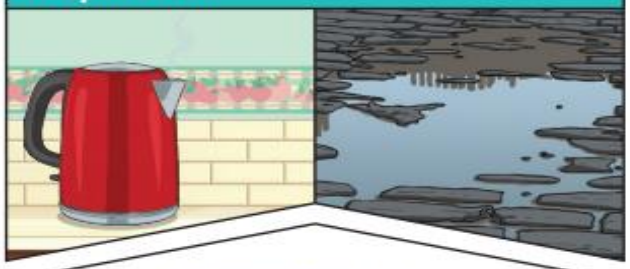


Particles in a **solid** are close together and cannot move. They can only vibrate.

Particles in a **liquid** are close together but can move around each other easily.

Particles in a **gas** are spread out and can move around very quickly in all directions.

Evaporation



Evaporation occurs when water turns into **water vapour**. This happens very quickly when the water is hot, like in a kettle, but it can also happen slowly, like a puddle **evaporating** in the warm air.

Condensation

Condensation is when **water vapour** is cooled down and turns into water. You can see this when droplets of water form on a window. The **water vapour** in the air cools when it touches the cold surface.

Condensation and **evaporation** occur within the water cycle.