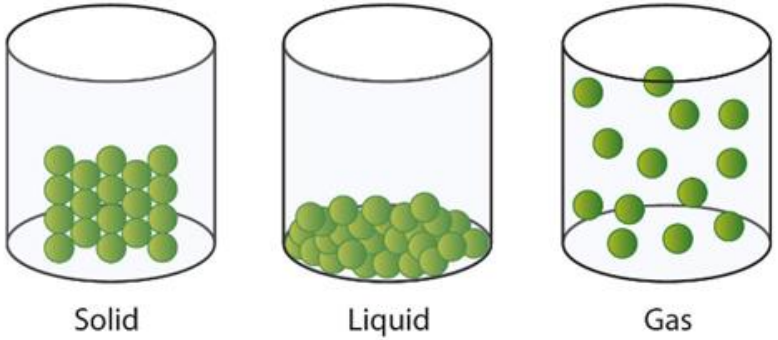
Year 4 States of Matter – Solids, Liquids and Gases.



Particles in a solid are closer together. They can only vibrate.	Particles in a liquid are still close together but can move around each other.	Particles in a gas are spread out and can moves around freely in all directions.
Solids keep their shape unless they are deliberately made to go out of shape by a force of some sort. They will always take up the same amount of space. They can be soft or hard.	Liquids take the shape of their container. They can change shape but will always take up the same amount of space. They can be poured and they can flow.	Gases can fill a container or a space like a room. They do not have any fixed shape. (They do have a mass though)

Melting

A solid can change into a liquid if it is melted. This means that it is heated up to its melting point.

The particles in this ice cube start to vibrate and move faster until they break free and are able to move around each other. The ice cube becomes water, which is a liquid.

Freezing

A liquid can change to a solid if it is frozen. This means that it is cooled down to its freezing point.

The particles in water slow down and begin to move less freely. As they get colder and colder, they are only able to vibrate and this is why solid ice is formed.