

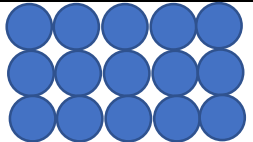
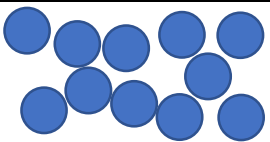
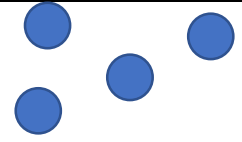
Year 4 Solids, liquids and gases

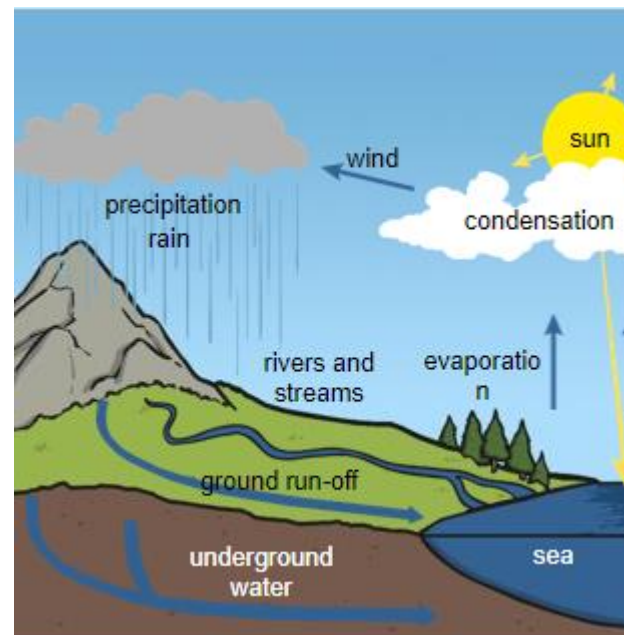
KNOWLEDGE ORGANISER

Essential solids, liquids and gases vocabulary	
solid	Materials that keep their shape unless a force is applied to them.
liquid	Liquids take the shape of their container. They can flow or be poured.
gas	Gases can spread out to fill the container they are in. They have no fixed shape.
mixture	A substance made from mixing other substances together.
density	How compacted a substance is.
freezing	The process of liquid turning to a solid.
steam	The vapour that water is turned into when heated.
solution	A liquid mixture where substance has been dissolved into a solvent.
melting	The process of a solid turning to a liquid.
evaporation	The process of turning from liquid to vapour.
dissolve	Causing something to become mixed into a liquid so it becomes a solution.
material	The matter something is made from.
condensation	The conversion of a vapour to a gas or liquid.
precipitation	Rain, snow or sleet that falls to the ground.
melting	The process of a solid turning to a liquid.

States of Matter

There are three states of matter that materials can be- solids, liquids or gases. Some materials are able to change to and from different states.

Solid	Liquid	Gas
Particles are very close together. They can vibrate, but not move.	Particles are close together, but can move around easily.	Particles are spread out. They can move around freely and quickly
		



Temperatures

If you heat water to a temperature of 100°C, it evaporates to form water vapour.

If you cool water vapour to a temperature of below 100°C, it condenses to form water.

If you cool water to a temperature of 0°C, it freezes to form ice.

If you heat ice to a temperature of 0°C, it melts to form water.



- The Water Cycle**
- Evaporation**- when water from seas, lakes rivers, streams, puddles or ponds evaporate, it turns into water vapour.
 - Water vapour** rises and cools down. Once cool enough, it forms as small droplets of water. The droplets form together to form clouds.
 - Precipitation**- more droplets form together and when these are heavy enough to fall down, they fall in the form of rain, sleet, hail or snow.
 - Collection**- the droplets can fall on oceans, lakes, rivers or the ground. Anything falling on the ground is absorbed by the soil (then used for drinking water for animals and plants) or it runs over the ground and collects into the ocean, lakes and rivers. The cycle begins again!

MAKING LINKS TO PREVIOUS LEARNING GOLDEN VOCABULARY	
Electricity	Some materials conduct electricity and others don't.
Water Cycle	Water condenses to form clouds in the water cycle.
Water Cycle	Precipitation occurs when water vapour becomes heavy.
Arctic and Antarctic	The polar ice caps are at risk of melting .