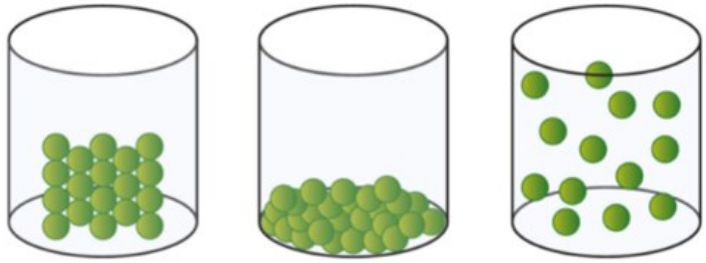
Science - Year 4 - What are the properties of solids, liquids and gases?

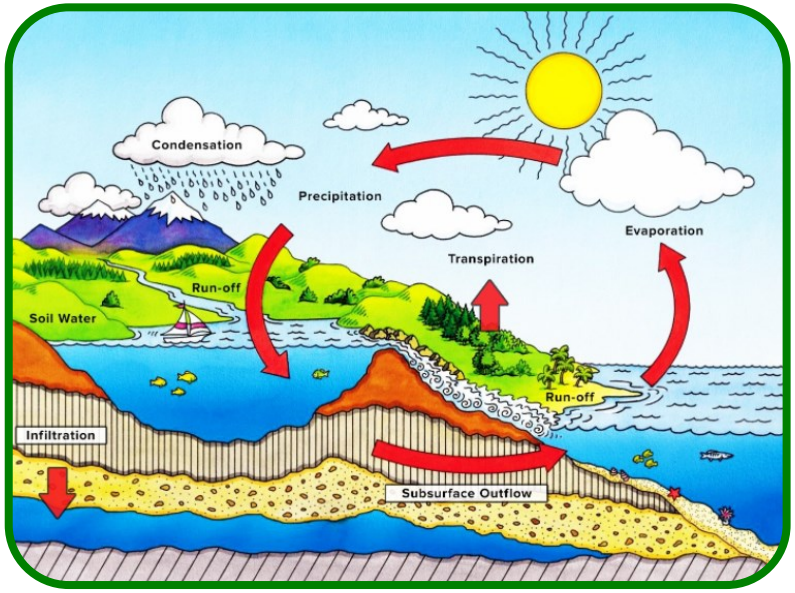
The Rivers C of E. Academy Trust

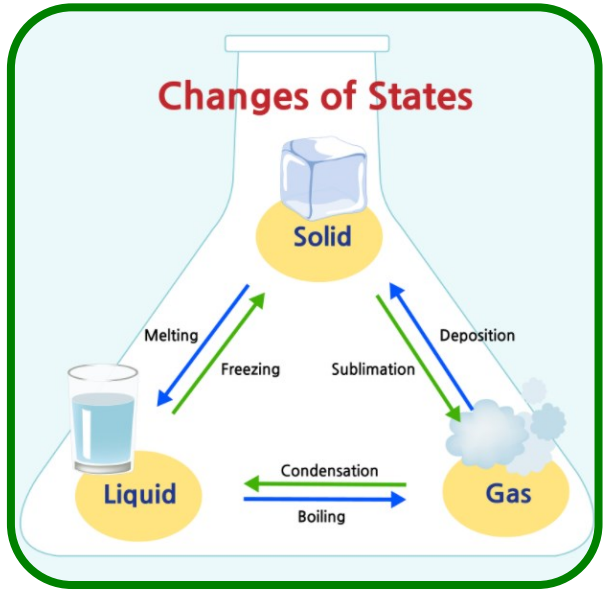
Sticky Knowledge:

- To know how to compare and group materials together, according to whether they are solids, liquid or gases.
- To know that some materials change state when they are heated or cooled.
- To know what melting and boiling points are.
- To know some changes are irreversible.
- To know the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.
- To know how to set up fair and comparative testing.
- To know how to gather, record and present data.



Solid	Liquid	Gas
Rigid, fixed shape, fixed volume.	Not-rigid, no fixed shape, fixed volume	Not-rigid, no fixed shape, no fixed volume
Wood, iron, copper, plastic	Water, milk, blood, oil	oxygen, carbon dioxide, nitro-gen, steam





Glossary:

- Solid – a substance that has a fixed shape and volume.
- Liquid – a substance that flows freely and takes the shape of the container.
- Gas – a substance that has no fixed shape and is free to fill any space.
- Changing state – moving from one state to another.
- Melting point – temperature at which a given solid will melt.
- Boiling point – temperature when a liquid turns to a gas.
- Water cycle – way that water moves between being water vapour to liquid water and then back to water vapour.
- Evaporation – the process of a liquid heating and changing into a gas.
- Condensation – the process of a gas cooling and changing into a liquid.
- Freezing – the process of a liquid cooling and changing into a solid.
- Precipitation – when water or snow fall from a cloud.
- Boiling – to become so hot (100°C) that water bubbles and then turns into a gas.
- Temperature – how hot or cold something is, measured in degrees Celsius.
- Particle – a tiny amount of something, you can't see them with your eyes.
- Condensation – turns a gas into a liquid.
- Water vapour – this is water that takes the form of a gas. When water is boiled, it evaporates into a water vapour.