

Topic: Phase: KS2 Y4 Strand:

Prior knowledge from previous year groups:

Describe the simple physical properties of a variety of materials
 Compare and group together a variety of everyday materials on the basis of their simple physical properties
 identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses
 find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and

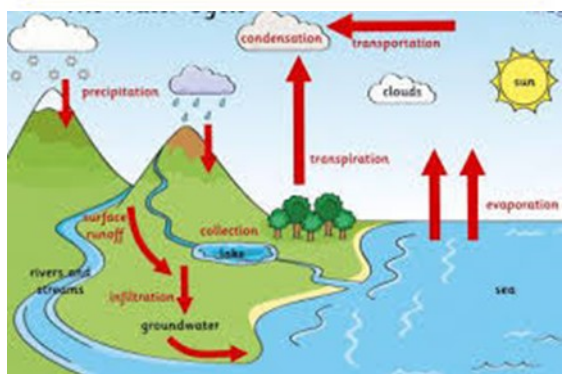
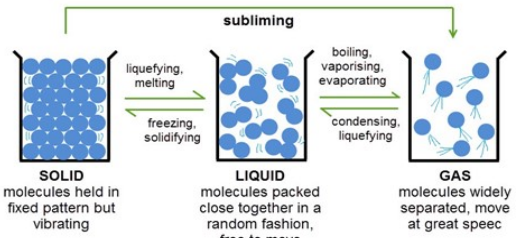
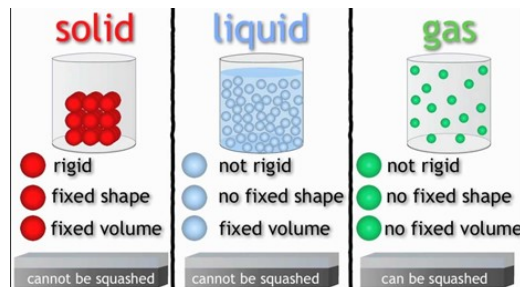
What will we know by the end of the unit?

To be able to compare and group materials together, according to whether they are solids, liquids or gases
 Know that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius
 Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

Investigate!

Grouping and classifying a variety of different materials;
 Exploring the effect of temperature on substances .
 Research the temperature at which materials change state
 The water cycle
 observe and record evaporation over a period of time
 investigate the effect of temperature on washing drying or snowmen melting.

Diagrams:



Vocabulary:

Matter makes up our planet and the whole universe. On Earth, all **matter** exists in one of three different states: solid, liquid or gas.

A **solid** can hold its shape (for example, water in solid form is ice).

A **liquid** like water forms a pool: it flows or runs but it can't be stretched or squeezed.

A **gas** can flow, expand and be squeezed; if it is in an unsealed container it escapes (water in gas form is steam).

A **reversible change** is a change that can be changed back again.

An **irreversible change** is a change that cannot be changed back again.

Melting is the process of changing a solid into a liquid.

Evaporation is the process of changing a liquid into a gas.

Condensation is the process of changing a gas into a liquid.

Freezing is the process of changing a liquid into a solid

Precipitation is rain, hail, sleet and snow that falls from the clouds

Any time two atoms join together, they make a **molecule**. All the stuff around you is made up of **molecules**.

Temperature is a measure of how hot or cold something is;

Water vapour is water in the form of a gas resulting from heating water or ice.