



Vocabulary

boiling to change from a liquid to a gas rapidly, using heat.

condensation the change from gas to liquid.

dissolve a solid becomes incorporated into a liquid

evaporation the change from liquid to gas.

freezing the change from liquid to solid caused by cooling.

gas a substance whose particles are free to move about.

liquid a substance whose particles are free to move over each other but remain fixed.

melting the change from solid to liquid caused by heating.

particle a minute part or fragment of a substance.

reversible capable of being returned to a previous state

solid a substance whose particles are fixed together.

solidifying the change from liquid to solid

solution liquid mixture with a solid dissolved within in it.

Chemistry

Science Y5: Changing Materials

Key diagrams and knowledge

Solids, liquids and gases are different forms of the same substance.

In a solid, all the particles are locked together. Liquids are made of particles that can slide past each other. Gases are made of particles that are free to move about.

When something melts, freezes or turns into gas, the only change is in the way the particles of the substance are held together.

Changes of state occur as a result of heating or cooling. They affect the properties of the substance but not its chemical make-up of it. Changes of state are reversible processes.

Boiling happens when bubbles form inside a heated liquid. The bubbles are full of the vapour (gas) from the liquid.

Evaporation happens when particles of liquid escape into the air. Evaporation needs a source of energy. Different factors can affect the rate of evaporation.

Condensation happens when a gas changes state into a liquid. Condensation occurs on cold surfaces, because they take the heat from the air. Condensation on the ground is called dew, whilst in the air it makes clouds.

Condensation Cube



condensation

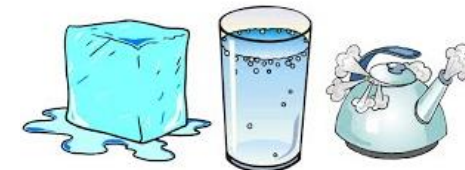
evaporation

Scientists



TBC

states of matter



There are three states of matter - solid, liquid and gas.

Links to other subjects

Maths – line graphs, measurements (ml)

Y4 Geography: water cycle

Links to prior learning

Y4: states of matter

Next steps

Y6: Reversible and irreversible changes