

Particle model

The scientific theory used to explain the properties of solids, liquids and gases. It involves the arrangement and movement of the particles in a substance.



Evaporation

The process in which a liquid changes state and turns into a gas.



Boiling

Changing from the liquid to the gas state, in which bubbles of gas form throughout the liquid.

Sublimation

When a solid turns straight into a gas on heating, without becoming a liquid first - or when a gas turns straight into a solid, without becoming a liquid.



Ion

An electrically charged particle, formed when an atom or molecule gains or loses electrons.



Ionic bonding

Ionic bonding forms between two atoms when an electron is transferred from one atom to the other, forming a positive-negative ion pair.

Ionic lattice

The regular arrangement of ions in an ionic substance.



Ionic compound

An ionic compound occurs when a negative ion (an atom that has gained an electron) joins with a positive ion (an atom that has lost an electron).



Covalent bond

A bond between atoms formed when atoms share electrons to achieve a full outer shell of electrons.

Giant covalent structure

A structure in which very large numbers of atoms are joined together by covalent bonds in a regular network.



Fullerenes

Molecules of carbon with hollow shapes. Their structures are based on hexagonal rings of carbon atoms.



Polymer

A large molecule formed from many identical smaller molecules known as monomers.

Delocalise

Electrons that are not associated with a particular atom, e.g. in a metal, outer electrons can be free to move through the solid.



Alloy

An alloy is a mixture of two or more elements, at least one of which is a metal.



Nanoparticles

Tiny particles which are between 1 and 100 nanometres (nm) in size.