

SC5a Ionic bonds

Word	Pronunciation	Meaning
anion	<i>an-i-on</i>	Negatively charged ion.
bond		A force that holds some atoms tightly together.
cation	<i>cat-i-on</i>	Positively charged ion.
electrostatic force		Force of attraction between oppositely charged particles, and force of repulsion between particles with the same charge.
ion		Atom or group of atoms with an electrical charge. Atoms become positively charged ions if they lose electrons and negatively charged if they gain electrons.
ionic bond		Strong electrostatic force of attraction between oppositely charged ions.

SC5b Ionic lattices

Word	Pronunciation	Meaning
crystals	<i>kris-tals</i>	Solids that are made up of a regular repeated pattern of atoms, molecules or ions, which form fixed shapes with flat surfaces and sharp edges.
ionic compound		Substance containing ions, formed by the loss and gain of electrons between two or more elements.
lattice structure		Regular grid-like repeating arrangement of particles such as atoms, molecules or ions.
polyatomic ions		A group of atoms that have a positive or negative charge due to the loss or gain of electrons.

SC5c Properties of ionic compounds

Word	Pronunciation	Meaning
anode	<i>an-ode</i>	The positive electrode.
aqueous solution	<i>a-kwi-ous sol-ution</i>	A solution in which water is the solvent.
cathode	<i>cath-ode</i>	The negative electrode.

SC6a Covalent bonds

Word	Pronunciation	Meaning
covalent bond	<i>co-vay-lent</i>	The bond formed when a pair of electrons is shared between two atoms.
dot and cross diagram		Diagram, to explain what happens when a bond is formed, which uses dots and crosses to represent the electrons of different atoms.
double bond		The bond formed when two pairs of electrons are shared between the same two atoms.

Word	Pronunciation	Meaning
electrostatic forces		Forces of attraction between oppositely charged particles, and forces of repulsion between particles with the same charge.
molecular		Referring to substances that are made up of molecules.
molecular formula		This shows the actual number of atoms of each element that combine to make a molecule of a substance.
molecule		A group of two or more atoms joined together by covalent bonds.
outer electron shell		The electron shell (or energy level that contains electrons) which is furthest away from the nucleus.
valency	<i>vay-len-see</i>	The number of covalent bonds formed by an atom (or the charge number of the ion formed by an atom).

SC7a Molecular compounds

Word	Pronunciation	Meaning
bond		A force that holds some atoms tightly together.
compound		Contains atoms of more than one element chemically joined together with bonds.
covalent bond	<i>co-vay-lent</i>	The bond formed when a pair of electrons is shared between two atoms.
covalent, simple molecular structure		Two or more atoms covalently bonded together to form a distinct unit.
element		A simple substance, made up of only one type of atom.
intermolecular force		A weak force of attraction between molecules.
monomer		A small, simple molecule that can be joined in a chain to form a polymer.
poly(ethene)		A common polymer made of ethane monomers.
polymer		A long-chain molecule made by joining many smaller molecules (monomers) together.

SC7b Allotropes of carbon

Word	Pronunciation	Meaning
allotropes		Different structural forms of the same element.
covalent, giant molecular structure		Three-dimensional lattice of carbon atoms linked by covalent bonds.
delocalised electron		An electron that is free to move and can carry an electrical current.
fullerene		A simple molecule in which each carbon atom is covalently bonded to three other carbon atoms, forming spheres or tube shapes.

Word	Pronunciation	Meaning
graphene		An allotrope of carbon consisting of a sheet that is one atom thick, with atoms arranged in a honeycomb shape.
lubricant		A substance placed between two moving surfaces to reduce the friction between them.

SC7c Properties of metals

Word	Pronunciation	Meaning
electrical conductivity		Allowing electricity to pass through.
lattice	<i>latt-iss</i>	An arrangement of many atoms or other particles that are bonded together in a fixed regular (grid-like) pattern.
malleable	<i>mal-ee-uh-buhl</i>	A substance that can be hammered or rolled into shape without shattering.
metallic bonding		The type of bonding found in metals. We can think of it as positively charged ions in a 'sea' of negatively charged electrons.
metals		Any element that is shiny when polished, conducts heat and electricity well, is malleable and flexible and often has a high melting point.
non-metals		Any element that is not shiny, and does not conduct heat and electricity well.