SC9a Masses and empirical formulae

Word	Pronunciation	Meaning
empirical formula	*em-**pir**-ical formula*	The formula showing the simplest whole number ratio of atoms of each element in a compound.
molecular formula	*mol-**ec**-ular formula*	The formula showing the actual number of atoms of each element in a molecule of a compound.
relative formula mass		The sum of the relative atomic masses of all the atoms in a formula.

SC9b Conservation of mass

Word	Pronunciation	Meaning
concentration	*con-cen-**tray**-shion*	The amount of a solute dissolved in a certain volume of solvent.
solute	***sol**-ute*	A substance that dissolves in a liquid to make a solution.
solvent	***sol**-vent*	Describes the liquid in which a substance dissolves to make a solution.
precipitate		An insoluble substance that is formed when two soluble substances react together in solution.
closed system		When substances cannot enter or leave an observed environment, e.g. a stoppered test tube.
law of conservation of mass		The idea that mass is never lost or gained during a chemical reaction or physical change.
non-enclosed system		When substances can enter or leave an observed environment e.g. stoppered test tube

SC9c Moles

Word	Pronunciation	Meaning
Avogadro constant	*Avo-**gadro***	This is the number of particles in one mole of a substance (6.02×10^{23} mol^{-1}).
limiting reactant		The reactant that determines the amount of product formed in a chemical reaction. Any other reactants will be present in excess.
mole		The mass of a mole of a substance is the relative formula mass expressed in grams.
stoichiometry	*stoi-key-**om**-etry*	The molar ratio of the reactants and products in a chemical reaction.