Continuous spectrum	Colours from red to violet formed when white light is passed through a prism
Emission line spectrum	Consists of coloured lines against a dark background, indicates the presence of energy levels in atoms.
Crimson	Flame colour of Lithium
Lilac	Flame colour of Potassium
Yellow-green	Flame colour of Barium

Red	Flame colour of Strontium
Blue green	Flame colour of Copper
Yellow / Orange	Flame colour of Sodium
Spectrometer	The instrument used to examine spectra (spectroscope)
Bohr	Scientist who proposed that electrons revolve around the nucleus in fixed paths called orbits or energy levels which are quantised, i.e. fixed at a definite amount.

Energy level	The fixed energy value that an electron in an atom may have
Ground state	Describes an electron which is in its lowest energy level
Excited state	Describes an electron which has moved into a higher energy level after it has absorbed a certain amount of energy.
$E = hf$	Formula to show that the definite amount of energy emitted from atom is equal to the light of definite frequency or wavelength in emission spectrum
Balmer	Series which gives rise to lines in the visible spectrum

Lyman	Series which gives rise to lines in the ultraviolet of the spectrum
Paschen	Series which gives rise to lines in the infra-red region of the spectrum
Absorption	Type of spectrum produced when white light is passed through a gaseous sample of an element.
Absorption spectrum	Consists of dark lines against a coloured background.
Atomic absorption spectrometer	Instrument which indicates the amount of light absorbed and so measures the concentration of a metal in a sample. Used in the analysis of water for heavy metals like lead, mercury and cadmium

Electronic configuration	Shows the arrangement of electrons in an atom of that element
s p d and f	4 main sublevels which are associated with the main energy levels
Aufbau Principle	States that when building up the electronic configuration of an atom in its ground state, the electrons occupy the lowest available energy level
1s 2s 2p 3s 3p 4s 3d 4p	Order in which the sublevels are filled
Cu and Cr	Exceptions to order of sublevels. Both have a half-full 4s orbital and a full or half-full 3d sublevel as this is a more stable configuration.

Orbital	A region in space within which there is a high probability of finding an electron.
s	spherical orbitals, 1 per sub-level
p	dumb-bell shaped orbitals, 3 per sub-level (x, y, z)
Hund's Rule of Maximum Multiplicity	States that when two or more orbitals of equal energy are available, the electrons occupy them singly before filling them in pairs.
The Pauli Exclusion Principle	States that no more than two electrons may occupy an orbital and they must have opposite spin.

Heisenberg's Uncertainty Principle	States that it is impossible to measure at the same time both the velocity and the position of an electron.
De Broglie	Scientist who suggested that all moving particles had a wave motion associated with them
Wave particle duality	Refers to the idea that a particle (like an electron) can behave like a wave