



Material common to both physics and chemistry syllabuses

Atomic structure

1. History of idea of elements (*but with different emphasis*) (*in physics option one*).
2. Contributions of Stoney and Millikan to atomic theory.
3. Rutherford's alpha scattering experiment.
4. Bohr model of the atom.
5. Atomic number, mass number, isotopes.
6. Energy levels, emission line spectra, $hf = E_2 - E_1$.

Radioactivity

1. Alpha, beta and gamma radiations (nature and penetrating ability).
2. Concept of half-life (*mathematical treatment in Higher level physics only*).
3. Uses of radioactivity (*but with different emphasis*).

Electricity

1. Conduction in ionic solutions (active and inert electrodes).
2. Conduction in metals (*Option 2A in chemistry*).

Gas Laws

1. Boyle's law.

