

Topics Comb Sci Physics	R	A	G	Comments
Current, voltage and resistance in series and parallel circuits				
Ohms Law				
Components				
a.c. d.c. the plug, fuses and the national grid.				
Electrical Power $P = IV$, $P = I^2R$				
Electrical energy $E = QV$				
Electrical efficiency and $E = IVt$				
Structure of the atom, ions, ionisation, isotopes.				
Properties of α , β , γ .				
Nuclear Equations.				
Radioactive decay (half life)				
Contamination and irradiation.				
History of the atom including Rutherford's expt.				
Speed distance & time $v=st$				
Distance-time graphs				
Velocity & acceleration, $a = (v-u)/t$				
Velocity -time graphs				
Momentum $p = mv$				
Forces & free body diagrams				
Newtons laws				
Weight $W = mg$				
Terminal velocity				
Energy stores, GPE, KE and Elastic potential energy. ($E_p = mgh$, $E_k = \frac{1}{2}mv^2$, $E_e = \frac{1}{2}ke^2$)				
Power $P = E/t$ $P = W/t$				
Work done $W = Fs$				
Density				
States of matter				
Gas pressure and Brownian motion				
Basic waves, f , λ , T . $T=1/f$				
Longitudinal and transverse waves				
Wave equation $v = \lambda f$.				
Electromagnetic spectrum (Higher)				