



MOTION & FORCES

Speed	$v = s \div t$
Acceleration	$a = \Delta v \div t$
Resultant force	$F = m a$
Weight	$W = m g$
Momentum	$p = m v$
Force & momentum	$F = \Delta p \div \Delta t$
Moment	$M = F d$
Work done	$W = F s$
Power	$P = W \div t$
Equation of motion	$v^2 = u^2 + 2 a s$

PRESSURE & MATERIALS

Pressure	$p = F \div A$
Pressure in a fluid	$p = h \rho g$
Density	$\rho = m \div V$
Hooke's law	$F = k e$
Elastic PE	$E_e = \frac{1}{2} k e^2$

ENERGY

Kinetic energy	$E_k = \frac{1}{2} m v^2$
Gravitational PE	$E_p = m g h$
Power (energy)	$P = E \div t$
Efficiency	$\eta = \text{useful} \div \text{total}$
Specific heat	$\Delta E = m c \Delta \theta$
Specific latent heat	$E = m L$

WAVES

Wave speed	$v = f \lambda$
Period	$T = 1 \div f$
Magnification	$M = \text{image} \div \text{object}$

ELECTRICITY

Charge	$Q = I t$
Potential difference	$V = I R$
Electrical power	$P = V I = I^2 R = V^2 \div R$
Energy transferred	$E = P t = Q V$

MAGNETISM

Force on a conductor	$F = B I L$
Transformer (turns)	$V_p \div V_s = N_p \div N_s$
Transformer (power)	$V_p I_p = V_s I_s$