



Physics Equations Sheet

GCSE Combined Science: Trilogy (8464)
GCSE Combined Science: Synergy (8465)

1	$(\text{final velocity})^2 - (\text{initial velocity})^2 = 2 \times \text{acceleration} \times \text{distance}$	$v^2 - u^2 = 2 a s$
2	elastic potential energy = $0.5 \times \text{spring constant} \times (\text{extension})^2$	$E_e = \frac{1}{2} k e^2$
3	change in thermal energy = mass \times specific heat capacity \times temperature change	$\Delta E = m c \Delta \theta$
4	period = $\frac{1}{\text{frequency}}$	$T = \frac{1}{f}$
5	force on a conductor (at right angles to a magnetic field) carrying a current = magnetic flux density \times current \times length	$F = B I l$
6	thermal energy for a change of state = mass \times specific latent heat	$E = m L$
7	potential difference across primary coil \times current in primary coil = potential difference across secondary coil \times current in secondary coil	$V_p I_p = V_s I_s$

Higher Tier only equations are in **bold**.