

Data Sheet
GCSE (9-1) Combined Science B (Twenty First Century Science)
(Physics J260/03 & J260/07)

The information in this sheet is for the use of candidates following
GCSE (9-1) Combined Science B (Physics) (J260/03 & J260/07).

A copy of this sheet will be provided as an insert within the question paper for each component.
Copies of this sheet may be used for teaching.

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Equations in physics

$(\text{final speed})^2 - (\text{initial speed})^2 = 2 \times \text{acceleration} \times \text{distance}$

$\text{change in internal energy} = \text{mass} \times \text{specific heat capacity} \times \text{change in temperature}$

$\text{energy for a change of state} = \text{mass} \times \text{specific latent heat}$

$\text{energy stored in a stretched spring} = \frac{1}{2} \times \text{spring constant} \times (\text{extension})^2$

$\text{potential difference across primary coil} \times \text{current in primary coil} = \text{potential difference across secondary coil} \times \text{current in secondary coil}$

$\text{force on a conductor (at right angles to a magnetic field) carrying a current:} = \text{magnetic flux density} \times \text{current} \times \text{length}$

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