

OXFORD CAMBRIDGE AND RSA EXAMINATIONS
GCSE (9–1)

J250 05/06/11/12

COMBINED SCIENCE A
(GATEWAY SCIENCE) PHYSICS

DATA SHEET (INSERT)

JUNE 2018

MODIFIED ENLARGED

INSTRUCTIONS

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INFORMATION

The information in this Data Sheet is for the use of candidates following GCSE (9–1) Combined Science A (Physics) (J250 05/06/11/12).



Equations in physics

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

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

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

$\text{energy transferred in stretching} = 0.5 \times \text{spring constant} \times (\text{extension})^2$

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

HIGHER TIER ONLY

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

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