



Oxford Cambridge and RSA

GCSE (9–1) Combined Science A (Gateway Science) Physics

J250 05/06/11/12

Data Sheet (Insert)

June 2018



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).
- This document consists of **2** pages.

Equations in physics

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

change in thermal energy = mass \times specific heat capacity \times change in temperature

thermal energy for a change in state = mass \times specific latent heat

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

potential difference across primary coil \times current in primary coil = potential difference across secondary coil \times current in secondary coil

Higher tier only –

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

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