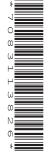


# GCSE (9–1) Combined Science A (Gateway Science) Physics J250 05/06/11/12

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**

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

change in thermal energy = mass × specific heat capacity × change in temperature

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

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

potential difference across primary coil × current in primary coil = potential difference across secondary coil × current in secondary coil

Higher tier only -

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



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