

**Paper Reference(s) 4PH1/1P 4SD0/1P**  
**Pearson Edexcel International GCSE (9–1)**

**Physics**

**UNIT: 4PH1**

**Science (Double Award) 4SD0**

**PAPER: 1P**

**Formulae Booklet**

**DO NOT RETURN THIS BOOKLET  
WITH THE QUESTION PAPER.**

You may find the following formulae useful.

energy transferred =  
current × voltage × time

$$E = I \times V \times t$$

frequency =  $\frac{1}{\text{time period}}$

$$f = \frac{1}{T}$$

power =  $\frac{\text{work done}}{\text{time taken}}$

$$P = \frac{W}{t}$$

power =  $\frac{\text{energy transferred}}{\text{time taken}}$

$$P = \frac{W}{t}$$

**(final speed)<sup>2</sup> = (initial speed)<sup>2</sup> +  
(2 × acceleration × distance moved)**

$$v^2 = u^2 + (2 \times a \times s)$$

**orbital speed =  $\frac{2\pi \times \text{orbital radius}}{\text{time period}}$**

$$v = \frac{2 \times \pi \times r}{T}$$

**pressure × volume = constant**

$$p_1 \times V_1 = p_2 \times V_2$$

**$\frac{\text{pressure}}{\text{temperature}} = \text{constant}$**

$$\frac{p_1}{T_1} = \frac{p_2}{T_2}$$

**Where necessary, assume the acceleration of free fall,  $g = 10 \text{ m/s}^2$ .**