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

**Physics** Science (Double Award) 4SD0 Paper: 1P

Time: 2 hours plus your additional time allowance

## FORMULAE BOOKLET

## DO NOT RETURN THIS FORMULAE BOOKLET WITH THE QUESTION PAPER





You may find the following formulae useful.

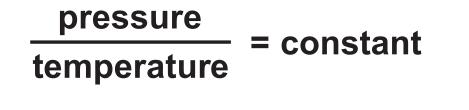
energy transferred = current × voltage × time E = I × V × t

frequency = 
$$\frac{1}{\text{time period}}$$
 f =  $\frac{1}{\text{T}}$   
power =  $\frac{\text{work done}}{\text{time taken}}$  P =  $\frac{W}{t}$   
power =  $\frac{\text{energy transferred}}{\text{time taken}}$  P =  $\frac{W}{t}$   
orbital speed =  $\frac{2\pi \times \text{orbital radius}}{\text{time period}}$  v =  $\frac{2 \times \pi \times r}{\text{T}}$   
(final speed)<sup>2</sup> = (initial speed)<sup>2</sup> +  
(2 × acceleration × distance moved)  
v<sup>2</sup> = u<sup>2</sup> + (2 × a)

pressure × volume = constant

 $p_1 \times V_1 = p_2 \times V_2$ 

×s)



 $\frac{\mathbf{p}_1}{\mathbf{T}_1} = \frac{\mathbf{p}_2}{\mathbf{T}_2}$ 

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