Pearson Edexcel International GCSE (9–1)

May–June 2025 Assessment Window

Syllabus reference **4SS0**

International GCSE Science (Single Award) – Physics
Equation List

W84709A

Pearson

1. Forces and Motion

$$\text{average speed} = \frac{\text{distance moved}}{\text{time taken}}$$

$$\text{acceleration} = \frac{\text{change in velocity}}{\text{time taken}} \qquad a = \frac{(v - u)}{t}$$

$$\text{force} = \text{mass} \times \text{acceleration} \qquad F = m \times a$$

$$\text{weight} = \text{mass} \times \text{gravitational field strength} \qquad W = m \times g$$

2. Electricity

$$\text{power} = \text{current} \times \text{voltage} \qquad P = I \times V$$

$$\text{voltage} = \text{current} \times \text{resistance} \qquad V = I \times R$$

3. Waves

$$\text{wave speed} = \text{frequency} \times \text{wavelength} \qquad v = f \times \lambda$$

4. Energy resources and energy transfers

$$\text{efficiency} = \frac{\text{useful energy output}}{\text{total energy output}} \times 100\%$$

$$\text{work done} = \text{force} \times \text{distance moved} \qquad W = F \times d$$

$$\text{gravitational potential energy} = \text{mass} \times \text{gravitational field strength} \times \text{height}$$

$$GPE = m \times g \times h$$

$$\text{kinetic energy} = \frac{1}{2} \times \text{mass} \times \text{speed}^2 \qquad KE = \frac{1}{2} \times m \times v^2$$

$$\text{power} = \frac{\text{work done}}{\text{time taken}} \qquad P = \frac{W}{t}$$

5. Solids, liquids and gases

$$\text{pressure} = \frac{\text{force}}{\text{area}} \qquad p = \frac{F}{A}$$

END OF EQUATION LIST