

A Level Physics Online

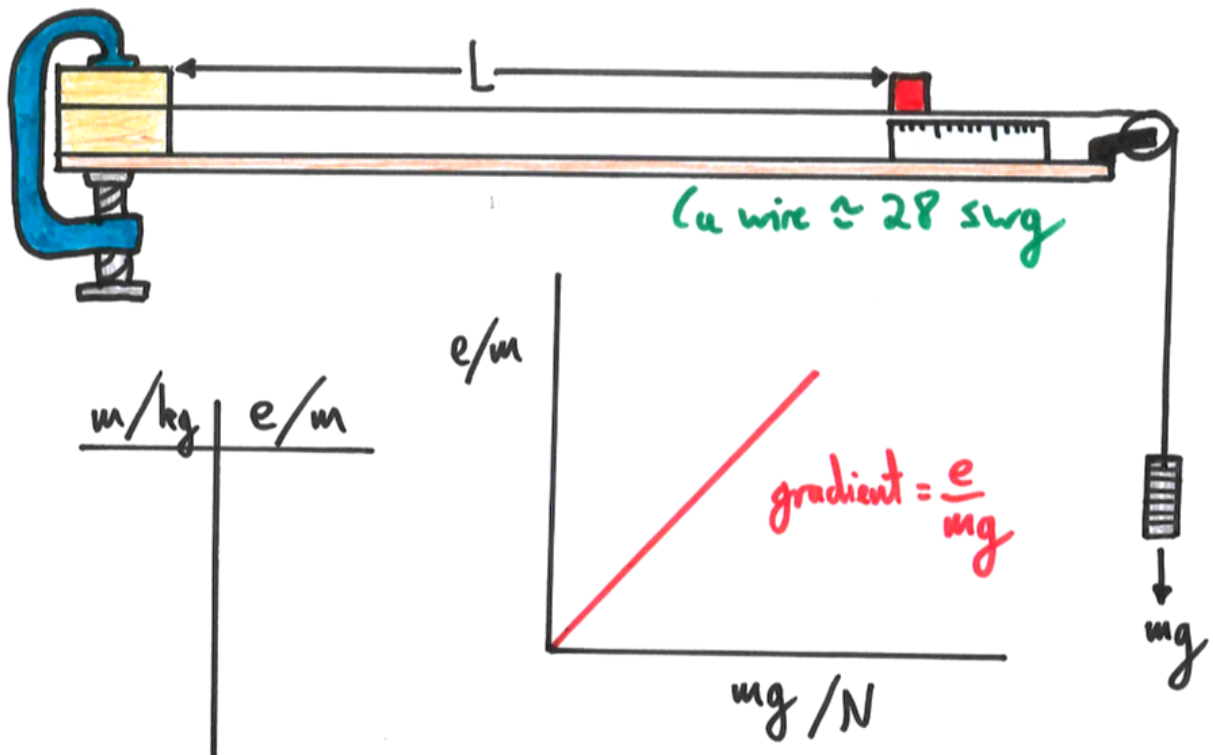
The Young's Modulus (of Copper)

Young's Modulus, $E = \frac{\text{stress}}{\text{strain}} = \frac{F/A}{e/L}$

$$F = mg$$
$$A = \frac{\pi d^2}{4}$$

$$E = \frac{mgL}{Ae}$$

$d \times 3$



$$E = \frac{L}{A \times \text{gradient}}$$

$$E_{Cu} \approx 117 \text{ GPa}$$

Wire may snap \therefore Wear Goggles
Weight may drop \therefore Cushion it or stand back

