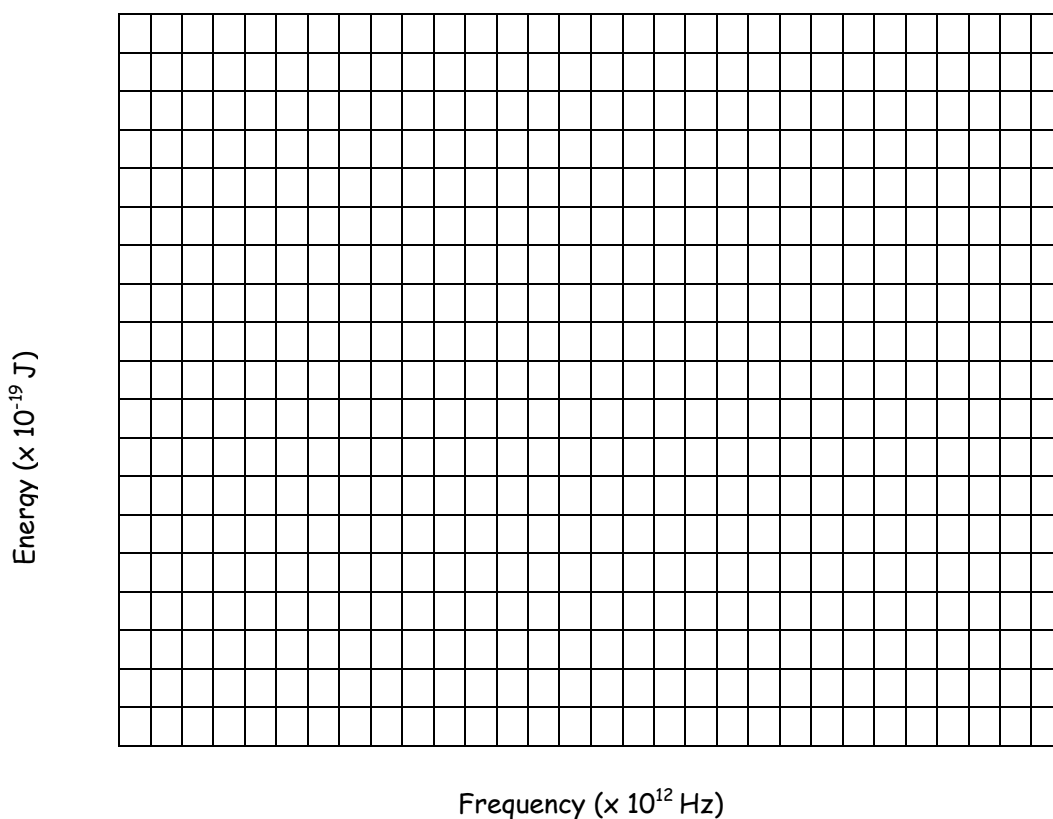


Light and Energy

Energy of Photon (E) (J)	Frequency (ν) (Hz)	Wavelength (λ) (m)
3.45×10^{-21}		5.77×10^{-5}
2.92×10^{-20}		6.82×10^{-6}
6.29×10^{-20}		3.16×10^{-6}
1.13×10^{-19}		1.76×10^{-6}
1.46×10^{-19}		1.36×10^{-6}
3.11×10^{-19}		6.38×10^{-7}



1. Complete the table above.
2. Plot energy (y-axis) vs frequency (x-axis).
3. Determine slope of the line.
4. What is the significance of the slope?

Formulas:

$$E = h\nu \text{ or } c = \lambda\nu$$

$$c = 3.00 \times 10^8 \text{ m/s (speed of light in a vacuum)}$$

$$h = 6.626 \times 10^{-34} \text{ m}^2 \text{ kg / s (Planck's Constant)}$$