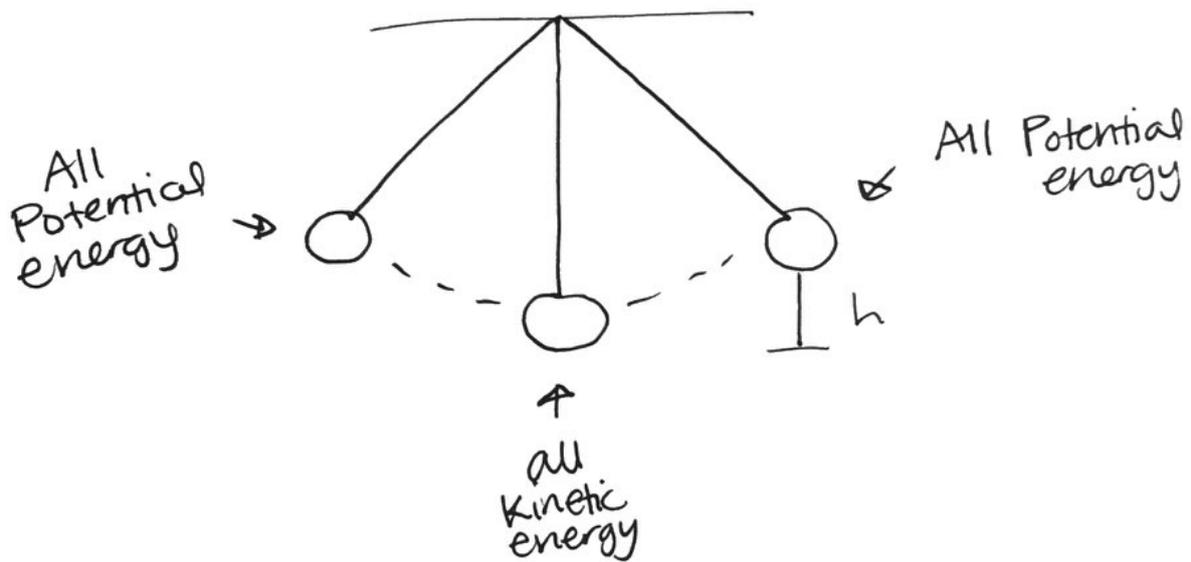


# Pendulums



If the period of the pendulum is 0.4s, what is the pendulum frequency?

$$f = \frac{1}{T} \quad f = \frac{1}{0.4s} \quad f = 2.5 \text{ Hz}$$

To decrease the period of the pendulum, shorten the length of the rope.

To increase the period of the pendulum, increase the length of the rope.

$$T = 2\pi \sqrt{\frac{L}{g}}$$

T = period (s)

L = length (m)

g = gravity ( $\text{m/s}^2$ )