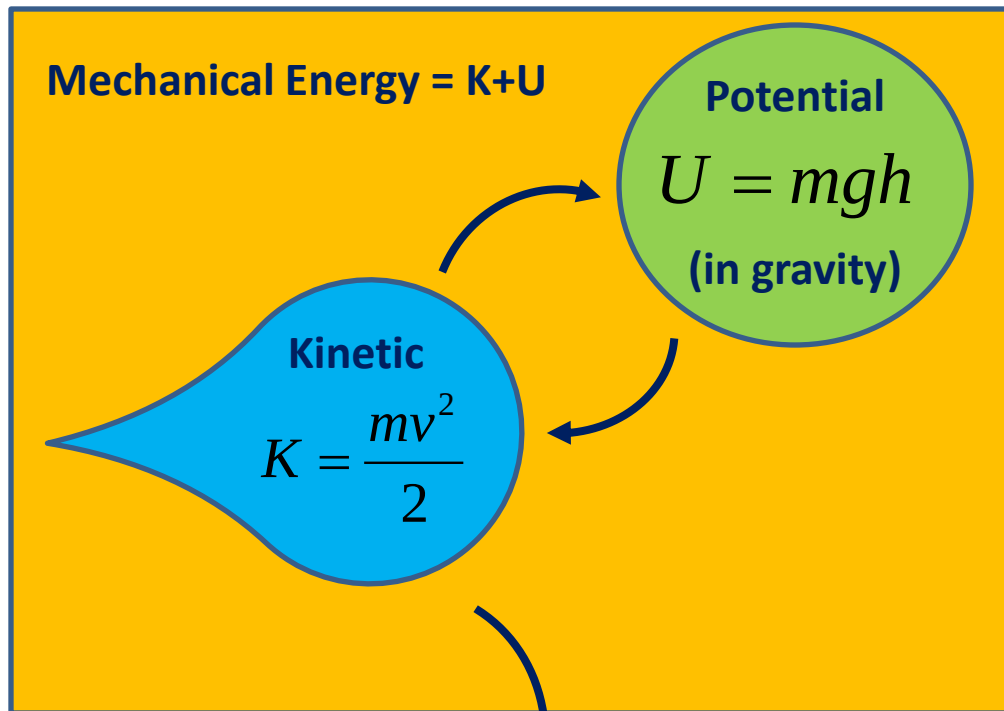


Mechanical Energy and Work



Change in Energy = Work

$$W = F\Delta x$$

Unit of Energy & Work is called Joule (J)

$$1J = 1N \cdot m = 1 \frac{kg \cdot m^2}{s^2}$$

Homework

A rollercoaster train starts motion with zero initial speed at the height $H=110\text{m}$ above the ground. It travels down to point (A) at height $h_A=20\text{m}$, and then climbs up to the point B at height $h_B=60\text{m}$. Find its speed at the points A and B, neglecting air resistance and any kind of friction. There is no engine, just gravity.

