Types of Mechanical Energy

Kinetic Energy (KE) & Potential Energy (PE) are forms of mechanical energy.

Kinetic energy is the energy of a moving object.

$$\boxed{KE = \frac{1}{2} m v^2}$$

(Kinetic energy) (mass) (velocity)

SI units: $[J] = Kg \frac{m^2}{s^2}$

Gravitational potential energy is the energy stored due to an object's position.

$$\boxed{GPE = mgh}$$ ← (height)

(gravitational potential energy) (mass) (acceleration)

"g" $= 9.8 \frac{m}{s^2}$

SI units: $[J] = Kg \cdot \frac{m}{s^2} \cdot m = \frac{Kg\,m^2}{s^2}$