# ENERGY

Energy: Capacity of a physical system to do work

- Measured in Joule

Work: integral of the force over a distance of displacement

- Measured in Newtons

Conservation of Energy: the total energy can't change.

- Energy can't be created destroyed
- Can turn into different TYPES of energy

Kinetic energy: The energy that it possesses due to its motion

Potential Energy: Energy stored in object

Elastic Energy: The potential mechanical energy stored in the elastic material

Mechanical Energy: Sum of PE and KE

WORK= FORCE * DISTANCE*COS(degree) or FORCE * DISTANCE

POWER= WORK / TIME INTERVAL

GPE= M*G*H

EP= ½ * K * COMPRESSION

Ek= ½ M(V)2