

Work

Formula: $W = F \cdot d$

$W \rightarrow J$

Power

Formula: $P = W/t$

$J/s = W(\text{unit})$

$P = F \cdot d/t \rightarrow$ (when you don't have work)

Energy

• Kinetic: $KE = \frac{1}{2}mv^2$ Unit = J

• Gravitational Potential: $GPE = m \cdot g \cdot h$

• Work energy therm: $KE + PE = ME$

• Elastic Potential Energy: $EPE = \frac{1}{2}kd^2$
 $k \rightarrow$ Spring constant $F/d = k$

* Energy can not be created or destroyed;
it can only be changed. *