$$E_k = \frac{1}{2} m \vec{v}^2$$

$$E_s = \frac{1}{2} k x^2$$

Spring constant

compression or stretch length

$$E_g = mgh$$

$$E_f = \vec{F}_f \vec{d}$$

$$W_{in} = \vec{F} \vec{d} \qquad W_{out} = \vec{F}_A \vec{d}$$

$$E = Pt$$