

Mr. Schneider presents...

Energy & Machines Topics

- Work is energy
- Gravitational potential energy (GPE)
- Power
- Friction produces heat (“wasted” energy)
- Kinetic energy (KE)
- Work-energy theorem (conservation of energy)
- Simple machines
 - Trading force and distance
 - Mechanical efficiency
- Universal law of gravitation
- Rotational Motion
- Moment of inertia (distribution of mass about axis)
- Conservation of Angular Momentum
- Torque
- $W = \vec{F} \cdot \vec{d}$
- $GPE = mgh$
- $P = \frac{W}{\Delta t}$
- $KE = \frac{1}{2}mv^2$
- $\mathcal{E} = \frac{W_{out}}{E_{in}}$
- $F = G \frac{m_1 m_2}{r^2}$
- $\vec{\Gamma} = \vec{r} \times \vec{F}$