Things to Memorize: Work and Energy

Work

The Formula for work is $W = F \cdot d \cdot \cos(\theta)$

Work is a Scalar.

Work is a Change in Energy.

Energy

Mechanical Energy

Potential Energy

Potential Energy means stored energy. **Gravitational potential energy** is stored energy due to a gravitational field. The formula for gravitational potential energy in a uniform gravitational field (like near a planet's surface) is $U_g = mgh$. **Elastic Potential Energy** is energy stored by compressing, stretching, or otherwise deforming an object that will naturally return to its shape. Elastic potential energy will be discussed in greater depth in the section on springs.

Kinetic Energy

0.1 The Work Energy Theorem

$W = \Delta K$

test

$W = \vec{F} \cdot \vec{d}$

test

$d = \frac{v_f^2 - v_i^2}{2d}$

test

$W =$