

POTENTIAL AND KINETIC ENERGY CLASS NOTES

POTENTIAL ENERGY - Stored energy due to either position or condition.

KINETIC ENERGY - The energy of moving objects.

Scientists have learned you can determine the amount of Kinetic Energy a moving object has when the Mass and the Velocity of the moving object is known and you apply the following formula.

FORMULAS NEEDED:

CALCULATING KINETIC ENERGY

$$KE = \frac{1}{2} mv^2 = .5mv^2$$

or

$$KE = \frac{m v v}{2}$$

CALCULATING POTENTIAL ENERGY

$$PE = m g h$$

or

$$PE = (m) (9.8) (h)$$

* m = mass (kg) v=velocity (m/sec) g=gravity (9.8 m/sec²) h=height (meters)

CALCULATING VELOCITY

$$V = s / t$$

* s=distance (meters) t=time (seconds)

CALCULATING JOULES

1 Newton meter = 1 Joule

$$1 \text{ Nm} = 1 \text{ J} \underline{\hspace{2cm}}$$