ENERGY

A Flipped Lesson by Ms. Logan

WHAT IS ENERGY?

- The ability to do work.
  - Work is defined as being able to move something over a distance.
- Measured in Joules (J).

TYPES OF MECHANICAL ENERGY

- Gravitational Potential Energy
- Kinetic Energy
- Spring Potential Energy

GRAVITATIONAL POTENTIAL ENERGY (PE_G)

- The energy stored in an object when it can be pulled downwards by gravity.
- If you are above ground, you have PE_g.
- Formula:

$$PE_g = mgh$$

KINETIC ENERGY

- The energy of a moving object.
- If you're moving, you have KE.
- Formula:

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

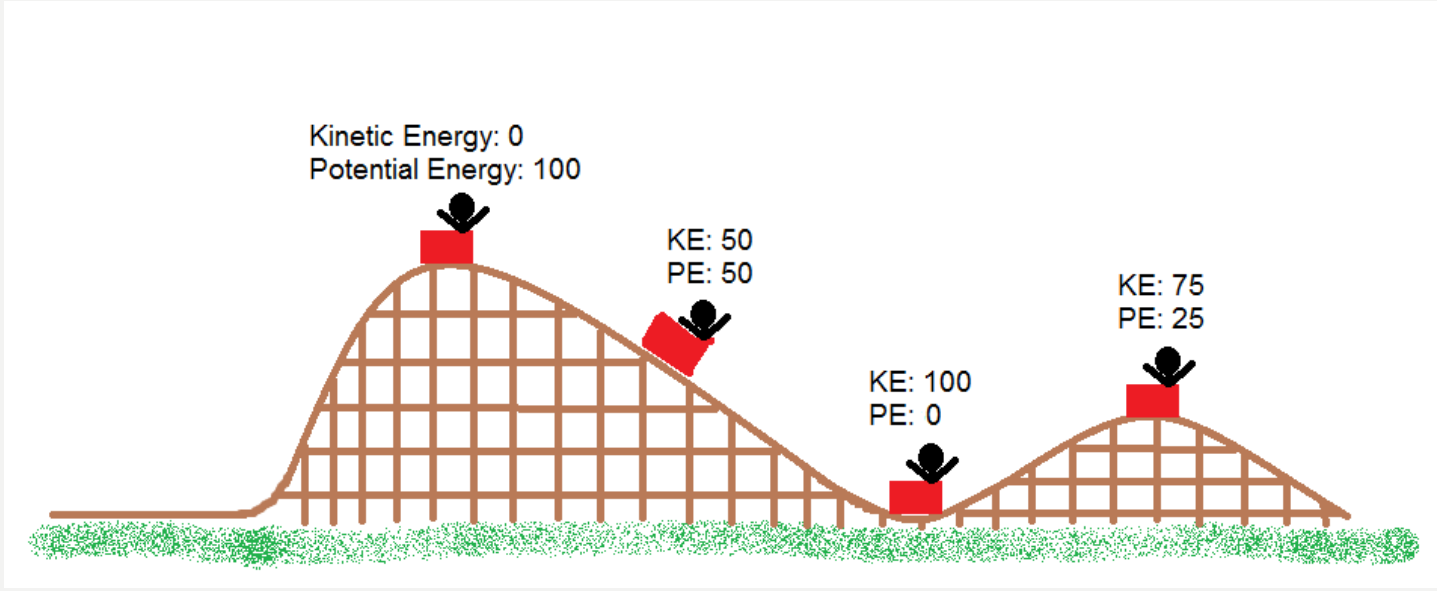
Practice Problems

A 10 kg ball is thrown at 6 m/s from a height of 10 m. What is the kinetic energy? potential energy?

Midway through the flight, can there be kinetic and potential energy? Why?

CONSERVATION OF ENERGY

- Energy cannot be created or destroyed, it is simply transformed from one form to another.



Follow Up Questions

1) What are the different types of energy?
2) What is the equation for kinetic energy?
3) What is the equation for potential energy?
4) At the top of the hill, What type of energy is present?
5) At point B what types of energy is present?
6) At the bottom of the hill, what type of energy is present (assume this is the lowest point).
7) At Point A there is a total of 1050 J of energy. What is the total energy at point B? Why?