

ICP Do Now

Get out your Energy Reading packet.

In your notes answer these questions:

1. Which do you think has more energy, an object moving at 5 mph or 10 mph?
2. Two objects are moving at the same speed, but one has a mass of 10 kg and the other has a mass of 5 kg. Which do you think has more energy?
3. Which do you think has more energy, a book dropped from 10 feet or a book dropped from 1 foot?
4. Based on your answers above, what are some factors that effect how much energy an object has?

Oct 29-4:24 PM

- 1) change in motion, temperature, phase (liquid, solid, gas), structure
- 2) no - not an object
- 3) It acts like a substance
 - can be transferred
 - maintains identity
 - can be stored
- 4) Information is transferred by:
Information can be stored:
Information means the same in different forms
- 5) Money can be stored in different accounts
Money can be transferred between accounts
monetary values are maintained

Oct 30-11:26 AM

Kinetic energy, E_k – energy of motion. The quantity of kinetic energy stored by an object is related to both its mass and velocity/speed. You instinctively recognize this as you would rather catch barehanded a baseball thrown by your instructor than one thrown by a major league pitcher. Similarly, you wouldn't mind if a softball landed on your toe, but would suddenly move if a shot put were heading that way.

Oct 29-4:29 PM

Gravitational Potential energy, E_p – energy due to an object's position and . This is a form of potential energy because it has the potential to cause change, or be transferred into the kinetic energy account. A text book on a higher shelf has more potential energy than the same text book on a lower shelf. Similarly, a large textbook has more E_p than a paperback book at the same height.

Oct 29-4:29 PM

Thermal energy, E_{th} - energy of motion at the particle level. The amount of thermal energy the particles in a substance have effect it's temperature.

Oct 29-4:30 PM

Energy Stations

Briefly describe how your system changes at each station.

Explain how you see energy transferred from the following accounts in order to cause those changes:

Kinetic
Potential
Thermal

Oct 29-4:32 PM