

Properties of Energy Unit Outline (11/18)

I. Energy

A. ability to produce a change or to move something some distance

B. types

1. **potential**: energy of position or stored energy

- a. gravitational: in position for gravity to move object
- b. chemical: energy stored in food or in molecular bonds
- c. nuclear: energy stored in nucleus of atoms
- d. elastic: energy stored in stretched elastic or spring

2. **kinetic**: energy of motion

- a. sound: vibrations in matter we can hear
- b. light: moving photons that allow us to see
- c. mechanical: moving mechanism
- d. thermal: molecular motion in matter (friction can make it)
- e. electrical: energy in moving charges

C. Law of Conservation of Energy

1. energy cannot be created or destroyed; it can only change forms

D. Energy flow charts—show how one type of energy changes into another

I. Energy

- A. I can define energy.

- B. I can name different types of energy and can classify them as either ***potential*** or ***kinetic***. I can also recognize different types of energy that are involved in different situations.

- C. I can explain what can and what cannot happen to energy according to the Law of Conservation of Energy.

- D. I can create and explain energy flow charts for a variety of toys/machines