

ENERGY =

ENERGY =

The ability to do WORK

WORK =

Using energy to change or
move something

ENERGY

Potential Energy

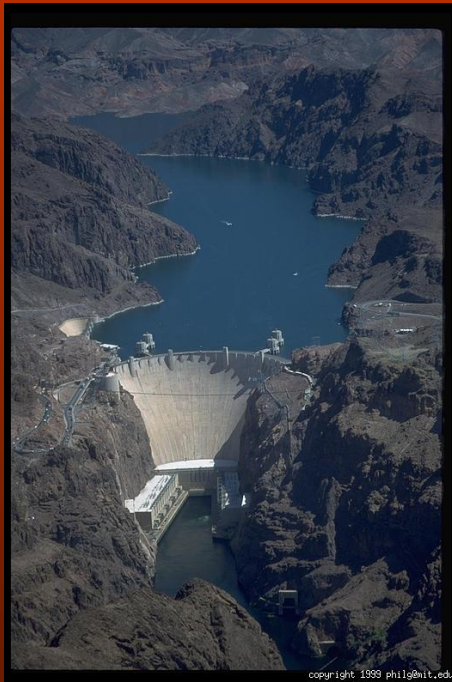
Kinetic Energy

ENERGY

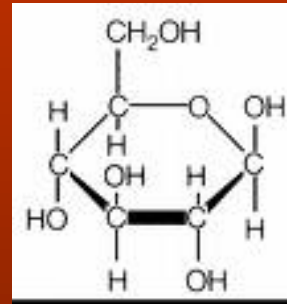
Potential Energy

Kinetic Energy

Gravitational



Chemical



ENERGY

Potential Energy

Kinetic Energy



Mechanical
Electrical

ENERGY

calorie (cal) The amount of heat necessary to raise the temperature of one (1) gram of water one degree Celsius (A **C**alorie is 1,000 **c**alories, and is used to measure the energy in food)

British thermal unit (BTU) The amount of heat required to raise the temperature of one pound of water one Fahrenheit degree

Horsepower (hp): How much one horse can lift:
1 hp is the power required to lift 550 pounds of weight one foot high in one second

ENERGY

We are concerned with **USABLE** energy – which means converting energy from one form to another.

[See the short video on the 1st 2 laws of thermodynamics.](#)

1. Energy Can Not Be Created or Destroyed.

[See the Happy Flying Rhino.](#)

2. Energy Flows from More to Less
(Hotter to Colder)

ENERGY

We are concerned with **USABLE** energy – which means converting energy from one form to another.

Unfortunately, every time we convert energy from one form to another, we lose some! (Entropy)

That means that there will always be more zebras than lions, and no animal can live entirely on lions!