

9 Forms of Energy NOTES



Energy is the ability to do WORK. WORK is to make something MOVE by applying FORCE to it. There are 9 forms of Energy that are either potential or kinetic. The 9 Forms of Energy can be remembered using this acronym:

"SM"AC G. HELMS

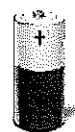
"SM" stored Mechanical - the energy that is stored in an object by applying a force. Examples include stretched rubber band and jack-in-the-Box.



Atomic Energy - the energy created when the NUCLEUS of ATOMS join together or split apart. It can also be called nuclear energy. Atomic energy gives the Sun its energy (fusion). It is also the energy used in atomic bombs. Nuclear power plants produce electricity by splitting uranium atoms (fission).



chemical Energy - the energy stored in matter that is released during a chemical change. Examples of chemical energy include: The burning of the chemicals stored in fuel to make heat, using chemicals stored in batteries to operate a toy, the digestion of chemicals found in food to give living things energy (chemical energy is potential energy because it is "stored").



gravitational Energy - the energy of position or place. A rock sitting at the top of a hill is an example of gravitational energy.
↑ potential



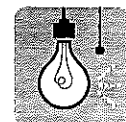
Heat/Thermal Energy - the energy that is related to heat and the temperature of matter. The faster the particles move the more heat/thermal energy is generated.



Electrical Energy - the energy of electrically charged matter. Electrical energy moves through wires and is transferred into other forms of energy so we can use it in radios, TVs, lights and all electrical appliances. These electrically charged particles also generate the electricity in lightning.



Light Energy - the energy caused by the vibration of electrically charged atoms. Light energy is often called radiant energy. Light/radiant energy includes visible light, sunlight, electrical lights; and some light that you cannot see: x-rays, microwaves and ultraviolet light (UV rays). Electromagnetic



Mechanical Energy - the energy of matter that has potential mechanical, and can become kinetic energy. Living organisms have mechanical energy because they have potential energy when they eat food and then kinetic energy when they move. Mechanical Energy - energy of things in motion.



sound - the energy from the vibration of an object. A guitar string vibrates to make sound. Vocal chords vibrate to generate sound. These vibrations cause the air particles to vibrate. The vibrating air particles vibrate against our eardrum allowing you to hear sound.



All 9 Forms of energy can be Potential or Kinetic

A CHANGE in one type of energy to another is called an energy conversion.
Or an energy transformation.

"SM"AC G
Potential Forms

HELMS
Kinetic Forms