

# Vocabulary: Energy



## Vocabulary

**energy:** An abstract property something has which enables it to do work.

- The more energy something has, the more work it can perform.
- Every kind of energy falls into one of two general categories: kinetic energy and potential energy.

**Law of Conservation of Energy:**

The law that states that energy can neither be created nor destroyed, although it can be transformed from one kind into another.

**energy transition:** A process in which energy transforms (changes) from one form to another.

**kinetic energy:**

The energy that an object has because of its motion.

- **mechanical energy:** The energy an object has due to its motion, which allows it to apply force to another object.
- **electrical energy:** The energy resulting from the movement of electrical charges.
- **radiant energy:** Energy that travels in electromagnetic waves.
- **thermal energy:** The internal energy in substances due to the movement of the atoms and molecules within a substance.
- **sound energy:** The movement of energy through a medium in longitudinal waves (vibrations), producing sound.

**potential energy:**

1. The stored energy in an object due to its shape or composition.  
or
2. The energy in a group of objects due to their positions relative to one another.
  - **elastic energy:** The energy stored in elastic materials as a result of their stretching or compressing.
  - **chemical energy:** The energy stored in the bonds of atoms and molecules (holds these particles together).
  - **nuclear energy:** The energy stored in the nucleus of an atom (holds the nucleus together).
    - the energy is released through **fission** (splitting a nucleus apart), or **fusion** (when two or more nuclei are combined).
  - **gravitational energy:** The potential energy contained in the combined system of an object and the Earth by virtue of the separation of the object and the Earth's surface.