Vocabulary: Household Energy Usage

Vocabulary

- Current – the flow of electrical charge.
  - In a metal wire, current is the flow of negatively charged particles (electrons).
  - Current is measured in *amperes* (A).
  - In equations, the symbol for current is *I*.
- Energy consumption – the amount of energy that is used.
  - The unit of energy consumption used in this Gizmo™ is the *kilowatt-hour*, or kWh. A 60-watt light bulb consumes 0.06 kilowatt-hours of energy in one hour.
  - To calculate energy consumption, multiply *wattage* by *usage*.
- Fluorescent lamp – a light source that consists of a glass tube coated with phosphor and filled with argon and another inert gas.
  - When an electric current flows through a fluorescent lamp, the gases emit ultraviolet radiation. This radiation excites the phosphors, which then emit light.
- Halogen lamp – a type of incandescent lamp in which the tungsten filament is encased in a capsule containing a mixture of gases that allow it to operate at a high temperature.
- Incandescent lamp – a standard light bulb.
  - An electrical current passes through a thin tungsten filament, causing it to glow and give off light.
  - The tungsten filament produces a lot of heat as well as light. Because of this, incandescent lamps are less efficient than fluorescent lamps.
- Lumen – a measure of the light produced by a lamp.
  - A lumen is equal to the amount of light produced by a single candle.
  - A standard 60-watt incandescent bulb produces about 800 lumens of light.
- Usage – the amount of time an electrical device is used.
- Voltage – a measure of electrical potential energy.
  - Just as pressure causes water to flow through a pipe, voltage can be thought of as “electrical pressure” that causes electrical charge to flow through a circuit.
  - Voltage is measured in *volts* (V).
  - In equations, the symbol for voltage is *V*.
- Wattage – the electrical power consumed by a device.
  - Units of wattage include the watt (W) and kilowatt (kW). A kilowatt is 1,000 watts.