

Part C: Energy in an Electrical Circuit**Chemical Potential Energy**

Any energy that can be released by a chemical reaction.

Electrochemical Potential Energy

A type of chemical potential energy in which energy is released by a chemical reaction *and* electrons are exchanged during the reaction.

Electrochemical potential energy is stored in a *battery*!

Electrical Energy

A type of *kinetic energy*. Any time that electrons move, they have electrical energy.

Light Energy (also called Electromagnetic Energy)

Energy contained in a ray of light.

Thermal Energy

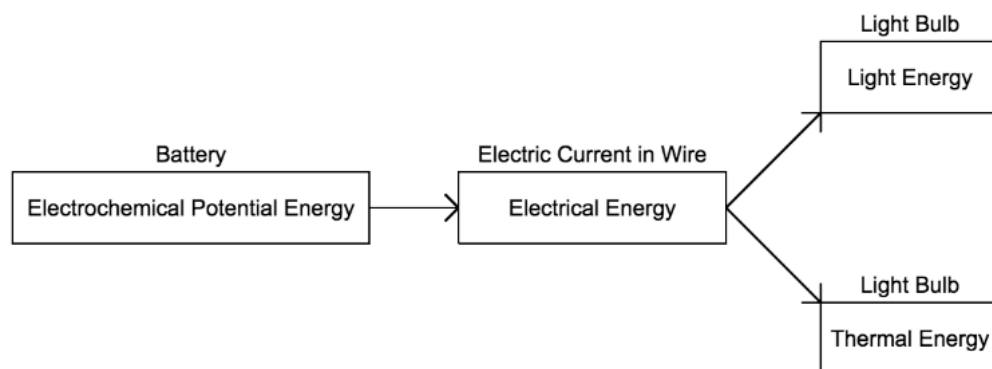
Caused by moving molecules, the faster molecules move, the more thermal energy they release.

Energy Transfer in an Electrical Circuit

The battery contains *electrochemical potential energy*.

When it is connected to a wire, it turns into *electrical energy*.

When electric current passes through the light bulb, it is converted into *light energy* and *thermal energy*.



You should memorize this diagram!

Questions

C.1 What type of energy do you put into a circuit?

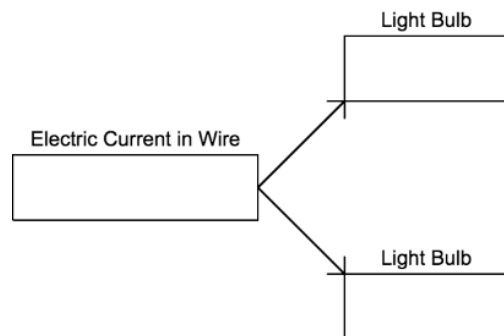
C.2 What two types of energy are released from an incandescent light bulb?

C.3 What type of energy is able to move through an electrical wire?

C.4 What type of energy is contained within a battery?

C.5

Draw an energy transfer diagram for a light bulb changes energy:
(use the boxes to show how energy changes)



Answers:

C.1 Electrochemical potential energy

C.2 Heat energy and light (electromagnetic) energy

C.3 Electrical Energy

C.4 Electrochemical potential energy