

## 10.1 Current Electricity

Current electricity refers to electric charges flowing in a \_\_\_\_\_ through a \_\_\_\_\_ in a controlled way.

There are several parts to an electric \_\_\_\_\_.

In order to have an electric \_\_\_\_\_, you need a power source. If we were measuring distance, we'd use units like km or m. The SI unit for measuring energy is the \_\_\_\_\_ (J)

The energy in an electric circuit comes from the \_\_\_\_\_

(just like with static electricity, it is the \_\_\_\_\_ that move!). The amount of energy that is available from each

electron is called the \_\_\_\_\_ of the electron.

There is a variety of sources of electrical energy. To simplify things, we are going to focus on the \_\_\_\_\_.

An \_\_\_\_\_ is a device that changes chemical energy

into electrical energy. There are 2 types of \_\_\_\_\_:

\_\_\_\_\_ and \_\_\_\_\_. \_\_\_\_\_ electric cells cannot

be recharged, while \_\_\_\_\_ electric cells can.

All electric cells have several things in common. They both

have a \_\_\_\_\_ terminal (a place where, thanks to

chemical reactions, there are a \_\_\_\_\_ electrons)  
and a \_\_\_\_\_ terminal (a place where, thanks to  
chemical reactions, there is a \_\_\_\_\_ electrons available).

They both also have something called an \_\_\_\_\_.  
This is a liquid or paste that allows ions to form.

In an electric cell, the electrons flow from the \_\_\_\_\_  
end, through the circuit and arrive back at the \_\_\_\_\_  
end of the electric cell.

Most “regular” people call an electric cell a \_\_\_\_\_. But  
scientists are more particular. For our purposes, a battery is a  
collection of 2 or more \_\_\_\_\_.

The reason we use a circuit is usually to power something.  
This changes the electrical energy into something else (like  
light and heat in a light bulb). Any device that does this in a  
circuit is called the \_\_\_\_\_. If you have 3 light bulbs in  
your circuit, your \_\_\_\_\_ is the total of all three bulbs.

Most circuits use \_\_\_\_\_ wire as the conductor. It  
conducts very well and is less expensive than things like gold  
and platinum.

A circuit diagram is like a “picture” of an electric circuit with  
symbols representing the various parts. Check out pg. 304 for  
the symbols we will be using.