Using an Ammeter

For most science experiments at the high school level, you will be measuring direct current (DC). Make this adjustment first.

Set up the circuit that you want to test by connecting a flashlight bulb to the battery as shown in Figure 1. Then break the circuit by disconnecting one of the wires, install the meter, and get the bulb to light up again as shown in Figure 2.

Next adjust the range. In general, use the lowest setting you can. If the setting is too small for the current running through it, an adjustment must be made. Either the needle will swing rapidly to the high end of the scale and remain pinned there, or the digital display will flash some kind of a message that the current passing through the meter is too large for the setting. Move the range setting up or down as needed, and be prepared to change it again as you change the setup of your experiment.

Caution: Never connect the probes of an ammeter directly to the opposite ends of a battery. This may damage the meter beyond repair.

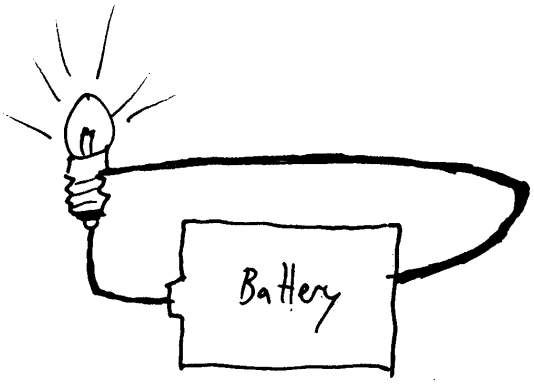

Figure 1

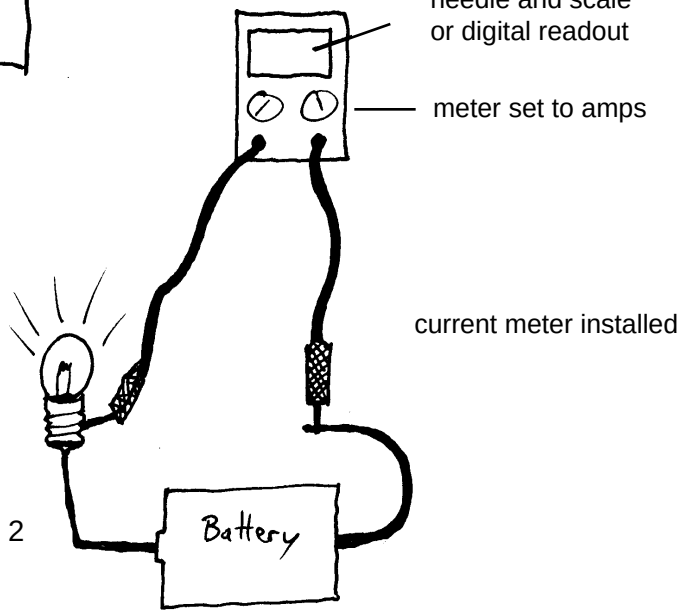

Figure 2