*****MEASURING CURRENT – PART I***

**Skill focus**: observing, predicting, measuring

**Goal:** In this activity, you will measure currents in a simple circuit using an ammeter.

**Materials:** light, electric cells in holders, switch connecting wires, ammeter

**Procedure:**

1. Connect the light bulb to the electric cells in series. Insert an ammeter between the bulb and the cell. (See picture to left).

2. Draw a circuit diagram of your circuit. Draw an arrow on your diagram to indicate the direction of electron flow.

3. Close the switch. Measure the current entering the light bulb.

**Record it:**

4. Open the switch. Remove the ammeter and place it on the other side of the light bulb. Make a prediction about how the current on this side of the light bulb will compare with the current on the other side.

**Prediction:**

5. Close the switch and measure the current leaving the light bulb.

**Record it:**

**Analysis:** How does the current entering the light bulb compare with the current leaving the bulb? Draw a conclusion about what happens to electrons when entering and leaving the bulb.

***MEASURING CURRENT – PART II***

Add a second bulb. What happens to the current if you add a second light bulb?

Add a third bulb. What happens to the current if you add a third light bulb?

Take out the extra bulbs. Add a second battery. What happens to the current when you add a second battery?

Add a third battery. What happens to the current when you add a third battery?

How would you make a circuit that had the brightest light possible? TEST IT.