**Station #1: Series Circuit**

**Directions:**

Please complete the procedure described below to assist you in building a series circuit. When you are done make sure to check your mission sheet to see which questions are expected of you. Please complete the questions on your own loose leaf and include it with your mission work.

**Procedure:**

1. Create a series circuit on the file folder with ONE light bulb, a battery and a switch using the materials provided (tin foil, tape, battery, 3 brass fasteners and 2 light bulbs).

\*Couple things to think about:

* Each part of the circuit has to be connected
* Both parts of the battery cannot be touching, the positive and negative sections need to not be connected.

1. Ensure that your light bulb is able to light up by closing the switch.
2. Open the switch, close the switch again.
3. Add a second light bulb to the circuit, close the switch.
4. See if the light bulbs will light up.
5. Add a third light bulb to the circuit, close the switch.
6. See if the light bulbs will light up.

**Questions:**

1. A) What does the tinfoil represent?
2. Why is it able to function as this?
3. Would the same function occur if rubber was used instead of tin foil? Why?
4. A) What are the brass fasteners used for?
5. What happens when you open them? Why?
6. A) What occurred with the circuit when you added the 2nd light bulb?
7. Why do you think this occurred?
8. A) What occurred with the circuit when you added the 2nd light bulb?

B) Why do you think this occurred?