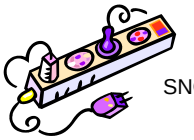

SNC1D

CIRCUIT DIAGRAM PRACTICE

NAME: _____

Always use a ruler and a pencil when drawing circuit diagrams. Complete the circuit diagrams on a separate piece of paper. Assume each cell has a potential difference of 1.5 V.

1. Draw a symbol to represent each of the following:

   a. a 3.0-V battery, made up of two 1.5-V cells
   (including labels for the positive and negative terminals)

   b. a light bulb

   c. a load

   d. a switch

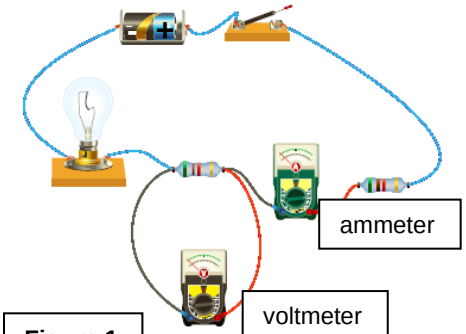

Figure 1

2. Draw a circuit diagram for the circuit shown in **Figure 1.** Show the direction of electron flow in the circuit.

3. Draw a circuit diagram containing a single cell, a closed switch, and light bulb. Show the direction of electron flow in the circuit.

4. Draw a circuit diagram with 2 cells connected in series, 2 loads in series and an open switch. Show the direction of electron flow in the circuit. **What is the potential difference of the battery?**

5. Draw a circuit with 2 cells connected in series, 3 bulbs in series, and a switch. Show the direction of electron flow. **What would happen if you unscrew one of the light bulbs?**

6. Draw a circuit with 2 cells connected in series, and 3 bulbs in parallel. Show the direction of electron flow. **What would happen if you unscrew one of the light bulbs?**

7. Draw a circuit diagram containing a 3.0 V battery, an open switch, a load, and an ammeter measuring the current flowing through the load. Show the direction of electron flow in the circuit.

8. Draw a circuit diagram containing a 6.0 V battery, a switch controlling a lamp (and only the lamp), and a resistor. Draw an ammeter to measure the current flowing through the battery.

9. Draw a circuit diagram containing a 4.5 V battery, and two lamps. Each lamp needs its own switch, and each switch must control only one lamp. Show a voltmeter hooked up to measure the voltage for one lamp.

10. Draw a circuit diagram containing a cell, a lamp, and two resistors. The lamp and one resistor should be in parallel with each other. The second resistor should be in series with the lamp. Show a voltmeter hooked up to measure the voltage across one of the resistors.