STEM SCHOLARS HUB INC.

Name: _____ Date: _____

UNDERSTANDING ELECTRICITY AND CIRCUITS

DIRECTIONS: Use the symbols below to draw an electrical circuit for a light that you can turn on and off. Be sure to include all four components: power source, conductor(s), switch, and load.

Tip: Use a ruler for your conductors (wires) to ensure the diagram is clear.

1. CIRCUIT COMPONENTS (USE THESE SYMBOLS)

Power Source
(Battery)

Load
(Lamp / Light)

Switch
(Open / Close)

Conductor
(Wire)

2. DRAW YOUR CIRCUIT

Draw a complete circuit below that includes all four components: power source, conductors, switch, and load.

3. COMPLETE THE SENTENCES

Fill in the blanks using the terms in the box below.

power source conductor load switch

a. The _____ provides electrical energy for the circuit.

b. The _____ allows electricity to flow around the circuit.

c. The _____ uses the electricity to do work (give light).

d. The _____ can open or close the circuit.

4. THINK AND WRITE

1. What happens if the switch is open?

_____
_____
_____

2. What happens if a conductor (wire) is broken?

_____
_____
_____

3. Why do we need all four components for a circuit to work?

_____
_____
_____