

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Investigating Electrical Devices

### Part 1: Building Electrical Devices

Use the provided items to make an electrical device where you can turn the light on and off.

#### Design Diagram

In the space below, draw your energy system, showing the different parts and how they are connected. Add labels and captions that help explain how your energy system works. If you modify your design while building, update your diagram below.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Investigating Electrical Devices (continued)

### Reflection Questions

1. How does energy get from the battery to the light?

---

---

---

---

2. How does your on and off mechanism work? Explain how turning on your device causes energy to get to the light and how turning it off prevents energy from getting to the light.

---

---

---

---

---

---

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Investigating Electrical Devices (continued)

### Part 2: Designing Solutions for Fixing Broken Electrical Devices

#### Step 1: Build an electrical device that does not work to light up the lightbulb.

1. How would another group fix the device?

---

---

---

---

#### Step 2: Fix another group's broken electrical device.

2. What will you do to fix the broken device? Why will that work to fix the device?

---

---

---

---

---

3. Were you able to fix the device?

---

---

---

---