

Name _____ Date _____

I. Lighting a Light Bulb

Objective: We will explore electricity and determine what makes a light bulb light by testing different electric pathways.

1. **Explore:** Take 5 minutes to explore the sim.
2. **Turn and Talk:** Talk about your findings with a partner.



3. Try to create different pathways that will light the light bulb.

Components (parts) I used to make a pathway:	Did the bulb light? <small>(circle Y or N)</small>		Observations
3 wires, 1 lightbulb, and a battery	Yes	No	
	Yes	No	
	Yes	No	
	Yes	No	

4. Draw one of the working pathways here:

5. **Turn and Talk:** Share some of your findings with your partner.

- Is there more than one way to create a working pathway?
- What did you notice about successful pathways?



6. Complete the table below.

How can you...	What did you do? <small>(write or draw)</small>	What other changes do you notice?
..make the bulb brighter?		

How can you...	What did you do?	What other changes do you notice?
...change the direction of the electrical current?		
...turn off the bulb without pushing pause?		

7. **Turn and Talk:** Share your findings with your partner.

- In order for the bulb to light, what needs to happen?
- What components did every working pathway have?



8. In the box below, use your understanding to explain how a light bulb turns on. You can use words or pictures to help show what you know.