



Building a Simple Electric Circuit with a Battery and Bulb

GOAL: Build a simple electric circuit and observe how electricity can make a bulb light up.



MATERIALS

- 1 Battery (AA or D cell)
- 1 Light bulb (small flashlight bulb)
- 1 Bulb holder
- 2 Alligator clip wires (or wires with exposed ends)
- Tape (optional)



SAFETY FIRST

- Do not mix old and new batteries.
- Do not use damaged batteries.
- Do not touch the metal parts of the bulb while it is connected.
- Always ask an adult if you need help.



PROCEDURE

- 1 Set up your materials on a table.
- 2 Connect one alligator clip (red) to the positive (+) end of the battery.
- 3 Connect the other end of the red wire to one metal contact on the bulb holder.
- 4 Connect the black alligator clip to the other metal contact on the bulb holder.
- 5 Connect the other end of the black wire to the negative (–) end of the battery.
- 6 Observe the bulb. Record what happens.



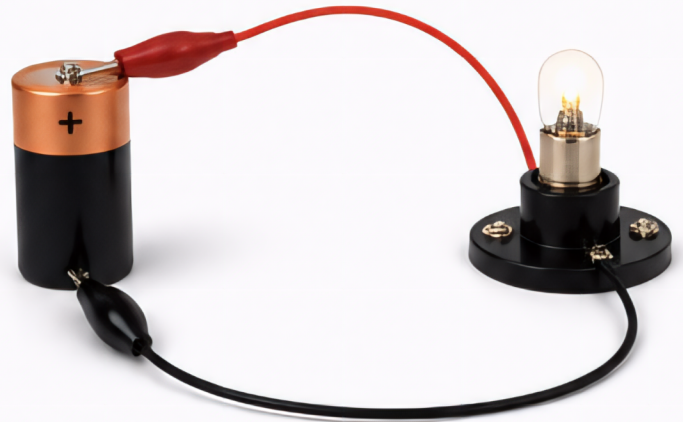
TIP: A complete loop (circuit) is needed for the bulb to light.



CONCLUSION

Electricity flows in a path called a circuit. When the circuit is complete, electricity flows from the battery, through the bulb, and back to the battery—making the bulb light up.

CIRCUIT EXAMPLE



This is a closed circuit. The bulb lights up.



OBSERVATIONS

What happened when you completed the circuit?



THINK & ANSWER

1. What happens if you disconnect one wire?

2. Why do you think the bulb turns on?

3. What did you learn from this experiment?
