

# Light a Bulb – Inquiry

# Teacher’s Notes

<b>Main Topic</b>	Electricity
<b>Subtopic</b>	Current Electricity
<b>Learning Level</b>	Elementary/Middle
<b>Technology Level</b>	Low
<b>Activity Type</b>	Student

Description: Use the simplest materials possible to light a small bulb. Introduce the concept of a circuit with this inquiry lab.

Required Equipment	D Battery, mini bulb, single short wire
Optional Equipment	

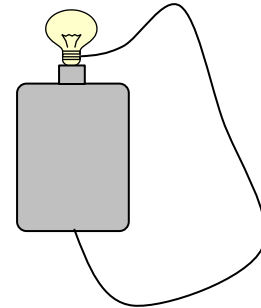
## Educational Objectives

- Use simple materials to create a complete circuit.

## Concept Overview

This simple inquiry lab challenges students to light a mini bulb using only a battery and one short wire. Even students who have seen circuit diagrams may be stumped when they have only one wire. One solution to the problem is shown here:

Students will also discover how light bulbs are constructed, with a partial circuit that leads from the outer base, through the filament, to the bottom of the base. Their circuit must touch each of the two parts of the base to work.



## Lab Tips

Create a 6-inch piece of wire with stripped ends. Alligator clips make excellent wire strippers. Place the wire through the end of the alligator clip, close, and pull.

# Light a Bulb – Inquiry

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

Class: \_\_\_\_\_

## **Goal:**

Light the bulb

## **Materials:**

Mini light bulb, D battery, single wire

## **Procedure:**

1. Use the materials provided (and nothing else) to light the bulb.
2. Draw your solution using pictures or symbols.

3. Explain your solution using words.