

Voltage Circuit Simulator

Record some data sets in the table below:

Trial #	Voltage	Resistance	Light Bulb? Glow, Breaks, Doesn't Glow
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Part One:

1. By manipulating the batteries and resistors, what combination(s) allowed the light bulb to glow?.
2. If the resistance was too high, what happened?
3. If the resistance was too low, what happened?
4. For a given battery, what is the relationship between current and resistance?
5. For a given resistor, what is the relationship between voltage and current?
6. What ultimately determines if the light bulb will glow?

Part Two: (Under "Try This Circuit" link at the bottom of the web page.

7. Were you able to get the light bulb to glow in one trial?
8. What is the mathematical relationship between current, voltage, and resistance?
9. What is the function of the resistor?
10. What is the function of the battery?
11. What is the function of the switch?
12. Which two variables did you manipulate in this experiment?
13. Which variable was the responding or dependent variable in this experiment?