

Name: _____ Date: _____ Block: _____

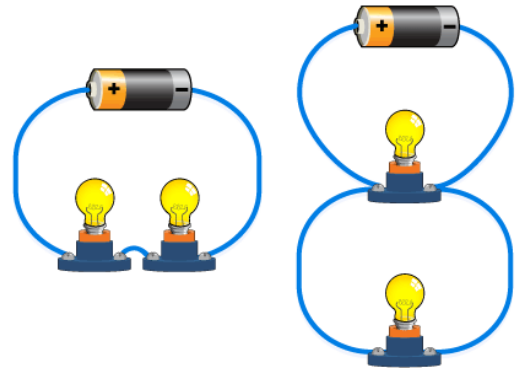
Series and Parallel Circuits Lab Activity

Purpose: To observe and compare a series circuit and a parallel circuit.

Hypothesis: If the light bulbs are arranged in parallel, they will be LESS OR MORE bright than if they are arranged in series.

Materials:

- 6-volt battery
- 6 Connecting wires
- 2 Light bulbs and Sockets
- Ammeters



Useful Conversions:

1 amp = 1,000 milliamps

Procedure:


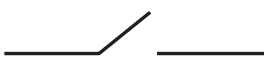



1. Gather all materials.
2. Screw the light bulbs into the sockets.
3. Use diagram “a” to assemble resistors in series, add an ammeter to the circuit.
4. If your ammeter has a 50, 500, and 5 on it, attach the positive end of the battery to the “500” screw.
5. You should record the current in milliamps (mA).
6. Use diagram “b” to assemble resistors in parallel, add an ammeter to the circuit.
7. Draw a diagram of your circuits.

Data:

Circuit	Voltage (from battery)	Current in mA	Current in Amps	Total Resistance	Resistance per light bulb	Relative Brightness
Series						
Parallel						

Circuit Diagrams:

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Symbol	Component
	lamp or bulb
	switch
	cell
	battery
	ammeter

Conclusion: (On a separate piece of paper)

1. Restate the problem or question.
2. Summarize the data from your experiments. (Give a brief description of the lab set up)
3. Compare your data to your hypothesis: Do your results support your hypothesis? Why/why not?
4. Discuss what you learned.
5. Problems/Improvements: What problems did you have with the lab? If you did this lab again, what would you do differently?