Lab Title: Exploring Voltage

<u>Problem:</u> How does voltage around a circuit compare?

<u>Materials:</u> small light bulb, electric cells (2), electric cell holder, switch, connecting wires, ammeter, voltmeter

Procedure:

- 1. Connect a light bulb to an electric cell with a switch in series. Connect the switch to the negative end of the source before the light bulb
- 2. Insert a voltmeter into the circuit in parallel with the load (refer to diagram)
- 3. Draw a circuit diagram of your circuit.
- 4. Draw an arrow to indicate the flow of electrons
- 5. Close the switch. Measure electric potential difference of the light bulb.
- 6. Open the switch, remove voltmeter and place it on either side of the source
- 7. Close the switch and measure the voltage.
- 8. Measure the current anywhere in your circuit
- 9. Complete steps 1-8 using a battery (2 cells)

	Voltage		
	1 cell	2 cells	
Source			
Load			

	Current		
	1 cell	2 cell	
Anywhere in circuit			

Results:

 How does the voltage compare between source an 	d	load?
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2. What happens to voltage as more cells are added?

3. What happens to the current as voltage increases?