Name: _____ Lab Partners:_____

Mini Lab 2.1

1) Draw a circuit diagram of a circuit with two batteries wired in **series** and two lightbulbs wired in **series**.

2) Build this circuit and make observations about brightness and what would happen if a bulb went out.

_____

_____

_____

3) Voltage across 1st light bulb. Prediction, (with explanation): _____

_____

_____

Measurement: _____

4) Voltage across 2nd light bulb. Prediction, (with explanation): _____

_____

_____

Measurement: _____

4) Voltage across both light bulbs. Prediction, (with explanation): _____

_____

_____

Measurement: _____

5) Current through circuit. Prediction, (with explanation): _____

_____

_____

Measurement: _____

Mini Lab 2.2

1) Draw a circuit diagram of a circuit with two batteries wired in **series** and two lightbulbs wired in **parallel**.

2) Build this circuit and make observations about brightness and what would happen if a bulb went out.

_____

_____

_____

3) Voltage across 1st light bulb. Prediction, (with explanation): _____

_____

_____

Measurement: _____

4) Voltage across 2nd light bulb. Prediction, (with explanation): _____

_____

_____

Measurement: _____

5) Current through 1st loop. Prediction, (with explanation): _____

_____

_____

Measurement: _____

5) Current through 2nd loop. Prediction, (with explanation): _____

_____

_____

Measurement: _____