

Name: _____

Class: _____

Grade 9 Science

Parallel and Series Circuit Lab #3 – Measuring Voltage

Outcomes Covered

- *rephrase questions in a testable form related to series and parallel circuits (208-1)*
- *use an ammeter and voltmeter to measure current and voltage in series and parallel circuits (209-3)*

Purpose: For this lab activity you will use an online circuit simulator to build series and parallel circuits. You will use a voltmeter to measure voltage to investigate some of the similarities and differences between series and parallel circuits.

Directions

Go to Mr Fifield's Corner Page <http://www.mrfifieldcorner.weebly.com>

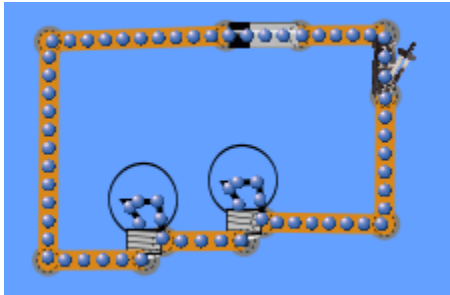
Then on "Circuit Construction"

When the page open click on "Run Now" to open the simulator.

PART A – SERIES CIRCUITS

Step 1

Build the following Series Circuit



Series Circuit 2
Bulbs

* Double check that the Battery Voltage is set to 9V and the Light Bulb to 10V

Step 2

Use a Voltmeter to measure the voltage across the battery when the switch is open.

Record your findings in the data table provided.

Step 3

Close the switch.

Use the Voltmeter to measure the voltage across the following points.

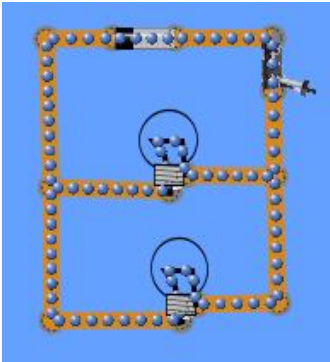
- a) Across the Battery
- b) Across the Switch
- c) Across Light Bulb #1
- d) Across Light Bulb #2

Record your findings in the data table provided.

PART B – PARALLEL CIRCUITS

Step 1

Build the following Parallel Circuit



Parallel Circuit–
Two Bulbs

* Double check that the Battery Voltage is set to 9V and the Light Bulb to 10V

Step 2

Use a volt meter to measure the voltage across the battery when the switch is open.
Record your findings in the data table provided.

Step 3

Close the switch.

Use the Voltmeter to measure the voltage across the following points.

- a) Across the Battery
- b) Across the Switch
- c) Across Light Bulb #1
- d) Across Light Bulb #2

Record your findings in the data table provided.

