Breadboard

Draw a green line across the positive power rails

Draw a blue line across the ground power rails

Draw yellow lines on 5 connected rows.

Which side of the battery should the cathode side of a LED connect to?

Draw red wires to show how to complete this circuit to light the LED (cathode to left)

Modify your pushbutton 3-color LED circuit to light up the LED in green, purple or yellow (red+green=yellow)

Paste a screenshot of the circuit running into OneNote Unit 1 Circuit Design Simulations.

Ohms’ Law.

Copy the schematic of the Ohm’s Law circuit below.

What resistor will allow 20mA of current? \_\_\_\_\_\_ 120 mA current? \_\_\_\_\_\_\_
Will a AA battery provide enough current to light the LED? \_\_\_\_\_

Series and Parallel



If you change the first battery on the left to be a 9V battery, how many LEDs can it light up in series?

How can you rewire the parallel circuit on the right to use only 1 resistor?

Are the meter readings the same if you wire it that way?

Add a switch to 2 of the parallel resistor pathways. What changes when you turn the switch on and off?

Paste a screenshot of the circuit running into OneNote Unit 1 Circuit Design Simulations.