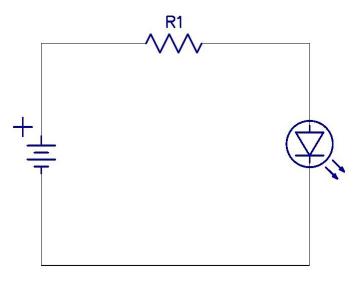
Breadboard Lab #1 "How a resistor works"

- A resistor is used to control the amount of electricity flowing through a circuit. An LED is a component that gives off light and requires the resistor to control the current through it otherwise it will burn out.
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- 2. Breadboard the following schematic diagram, start with a 330 ohm (orange, orange, brown, gold) resistor (R1). Make sure your wires are flat! Set the Power Supply to 9 volts.



- 3. Replace the resistor (R1) one at a time with a; 10K ohm (brown, black, red, gold) 100K ohm (brown, black, yellow, gold)
- 4. Answer the following questions in the Student Answer booklet, **ONCE** you have gone through ALL the resistors. Use the <u>Intro to Electricity PowerPoint presentation</u> from class to answer to help.
 - a) The dimmer the LED, the ______ the value of the resistor.
 - b) The brighter the LED, the ______ the value of the resistor.
 - c) The lower the voltage, the ______ the LED.
 - d) The brighter the LED, the _____ the current flow.
- Mr. ClaassenRevised Fall 2017