Voltage Divider - Craig Coleman - Edited 250626

Prerequisites:

* Resistor lab (calculate color code and measure ohms). At least 5 different resistors.
* Series resistor lab. At least 5 different circuits. Do the math. Simple addition.
* Parallel resistor lab. At least 5 different circuits. Do the math. Parallel resistor equation.

Objective:

* Learn and try to understand the equation for voltage divider.
* Calculate two example voltage dividers.
* Create four different voltage dividers and measure ohms of resistors and voltage (VDC).

Remember to:

* COPY THE FORMULA
* FILL IN THE GIVEN INFORMATION
* DO THE ALGEBRA
* LABEL THE SOLUTIONS

Materials:

* Multimeter with ohms and voltage
* Breadboard
* 22 AWG Solid Wire
* Wire cutters
* 9V battery
* 9V battery holder

Procedure:

* Watch the Khan Academy posted at: <https://wa-appliedmath.org/files/ELECTRICAL/>
* Take notes for 5VDC to 3.3VDC voltage divider.
* Take notes for 9VDC to \_\_\_ voltage divider.
* Create a 9VDC with R1 = 510 Ohm and R2 = 1000 Ohm voltage divider.
* Do the math on the 9VDC with R1 = 510 Ohm and R2 = 1000 Ohm voltage divider.
* Measure and document voltage on 9VDC with R1 = 510 Ohm and R2 = 1000 Ohm voltage divider.
* Create 3 more voltage dividers and document circuit with calculated and measured voltage and resistance.

