**Circuit Design and Measurements Revision Task**

Use the Phet simulator (link on Weebly)

1. Build a circuit using 2 batteries which lights 2 bulbs connected in SERIES and use the voltmeter and ammeter to measure the following:
	1. Voltage across whole circuit:
	2. Voltage across each bulb:
	3. Current flowing through circuit:
	4. Draw a circuit diagram of this circuit in your book and label the voltage / current at various points **(USE PENCIL AND A RULER)**
2. Change your circuit so the bulbs are connected in parallel and measure the following:
	1. Voltage across the whole circuit:
	2. Voltage across each bulb:
	3. Current flowing through ALL the circuit:
	4. Current flowing through each bulb:
	5. Draw a circuit diagram of this circuit in your book and label the voltage / current at various points **(USE PENCIL AND A RULER)**

	**EXTENSION**
3. Build a circuit with two bulbs in parallel
	1. Add a switch which turns off just one of the bulbs
	2. Add another switch which turns off both bulbs
	3. Show your neighbor / Mr Brown
4. Make a circuit with one main on/off switch that will turn on/off 3 bulbs, each with a different brightness.
	1. Use the non-contact Ammeter to check for different currents.
	2. Change the circuit so 1 switch will turn on/off all the lights
	3. Add a second switch which will change the lights from all being the same brightness to all being different brightness’s.
	4. Take a screenshot and email to Mr Brown