National 5 Assignment  
LED: Guide A

Nat

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A close up of a toy

Description automatically generated

**Variation of current for an LED**

**Equpment:** Multimeters with settings for resistance, current and voltage, or ohmmeter, voltmeter, ammeter, variable resistor, LED, leads, power supply.

**Instructions:**

A

V

1. Connect the circuit as shown in the diagram having chosen a suitable protective resistor.
2. Set the variable resistor to give the lowest potential difference across the LED and record the readings on the voltmeter and ammeter.
3. Alter the variable resistor to increase the potential difference.
4. Record the new readings on the voltmeter and ammeter.
5. Repeat steps three to four.
6. Reverse the power supply connections and repeat steps two to six.

**Risk Assessment**

* Check all the wires and ensure that the wires are not frayed
* The resistor could get hot, so avoid contact with this.
* Switch off the equipment when it is not in use.
* Do not overload the LED
* **a**

**Mrsphysics takes no responsibility for any health and safety. It is the responsibility of the teacher and student to risk assess any practical activity they complete!**

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