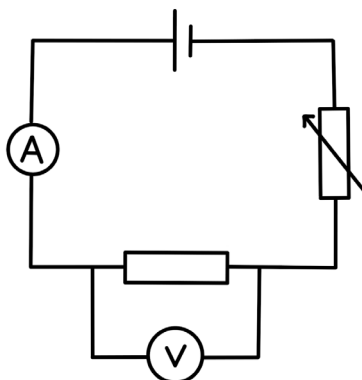


# OCR (B) Physics GCSE

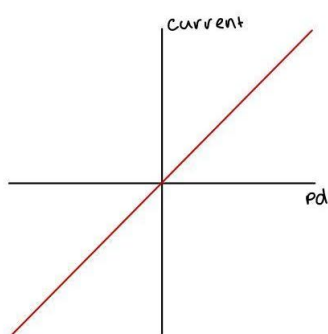
## PAG 6: Circuit Components



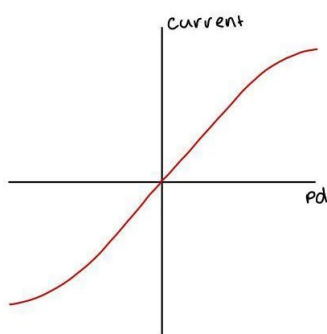
## Investigating the IV characteristics of circuit elements



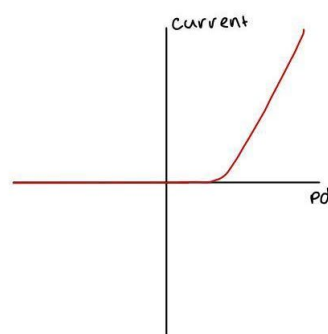
1. Set up the circuit as shown above with a **variable voltage supply**
2. Set the EMF at intervals from **0 to 6 V**, and measure the **potential difference** and **current** across the fixed resistor
3. **Reverse the connections** to the power supply to obtain negative values of  $V$
4. **Repeat** the process three times for each voltage and find **mean** values of  $I$  and  $V$
5. Plot a graph of mean  **$I$  against  $V$**  and draw a line of best fit
6. Replace the fixed resistor with a **filament lamp, thermistor, LDR or Diode** and repeat procedure to obtain their I-V characteristics.



**Resistor at constant temperature**



**Filament lamp**



**Diode**

