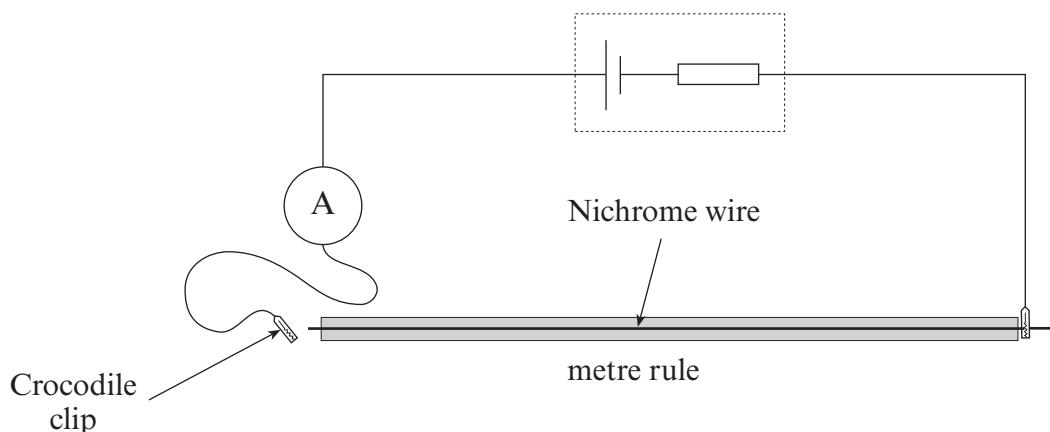


SECTION B**Task B4** (45 minutes)

You are going to use the circuit below to determine the internal resistance of a power supply and the resistivity of a wire. The circuit has already been set up for you.



- (a) (i) Add to the circuit diagram a voltmeter to find the e.m.f. of the power supply. [1]
- (ii) Now add the voltmeter to the circuit to measure the e.m.f. E .

State the value of E .

$E = \dots\dots\dots$ V [1]

Ask your supervisor to check the position of the voltmeter before continuing.

For supervisor's use only [Tick one box (✓)]	
Correct connection	
Incorrect connection	

- (iii) State the resolution of the voltmeter, and using this as your uncertainty, calculate the percentage uncertainty in your value for the e.m.f. E . [2]

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