

Grade 8

Lesson 7 - Measurements associated with electricity

Q: you will need two dry cells, connecting wires and a bulb. connect this wire to the dry cells and the small bulb. observe the circuit.

Q: Draw the diagram of the circuit.

The electric current flows from positive(+) terminal to the negative (-) terminal.

A centre zero galvanometer or a centre zero ammeter/ Milliammeter can be used to identify the direction of an electric current.

International unit for electric current = ampere

Symbol = A

Subunits used to measure small current = milliampere, microampere

equipment used to measure electric current = Ammeter

Symbol = $\text{---} \textcircled{A} \text{---}$

To measure the electric current in a circuit, the ammeter is connected in series.

The potential difference

The potential difference in a dry cell,

at positive(+) terminal = potential difference is high

at negative(-) terminal = potential difference is low

The difference of electric potential energy between positive and negative terminals of the cell is called potential difference or the voltage.

Example : the voltage of a dry cell is 1.5V

Q: Observe various electric cells with different potential differences.

International unit for potential difference = volt

Symbol = V

The equipment used to measure the potential difference = voltmeter

Symbol = $\text{---} \textcircled{V} \text{---}$

To measure the potential difference of a circuit, the Voltmeter should be connected parallelly.

The resistance of a conductor

The disturbance for an electric current to flow is known as the resistance.

International unit of measuring resistance = Ohm

Symbol = Ω

When the resistance of a conductor increases, the electric current decreases.

Q: Do the exercises given at the end of lesson 7.