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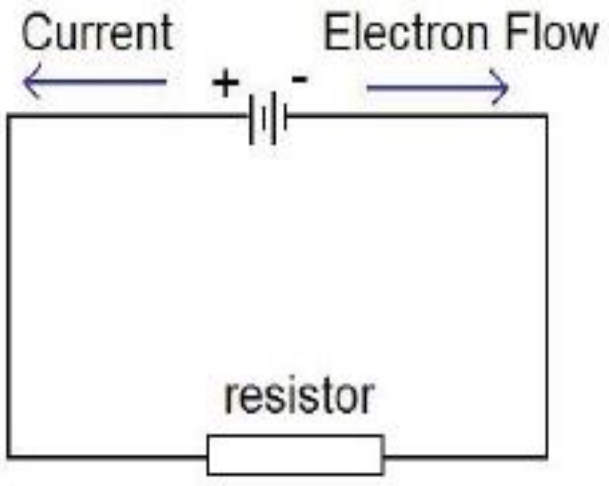
SUBJECT:- PHYSICS CLASS:- XTH DATE:14/04/XXI

SUBJECT TEACHER:- MR. NEEL NIRANJAN

CHAPTER 1. (ELECTRICITY) (BASED ON NCERT PATTERN)

Ohm' law: Under constant physical conditions (i.e., constant temperature, pressure etc.), the current flowing through a conductor is directly proportional to the potential difference across the conductor.

- **Potential difference** (which is measured in Voltage) is the cause of current (which is measured in Ampere).
- In conductors, flow of electrons constitute current. In a circuit current flow from positive terminal of the battery to the negative terminal, but electrons travels from negative terminal to the positive terminal. The negative terminal of a battery is said to be at lower potential and the positive terminal is said to be at higher potential.



- When a battery is not connected to any circuit, the potential difference across the terminals of the battery is equ EMF of the battery. (EMF = Electro Motive Force). Electromotive force, also called EMF, (denoted and measured i refers to voltage generated by a battery or by the magnetic force. according to Faraday's Law, which states that a varying magnetic field will induce an electric current..
- **Electric power:**

  $P = VI = I^2R = V^2/R$
- **Unit:** 1 kWh = 3.6×10^6J

  1 W = 1V × 1A