

Electricity



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Section: 9-b

What Is Electricity

Electricity is a form of energy from the flow of charged particles, typically electrons, through a conductive material. This flow is known as an electric current, which can be used to power devices and produce light, heat, or motion. It's a secondary energy source because it is generated by converting primary sources like coal, wind, or solar energy.

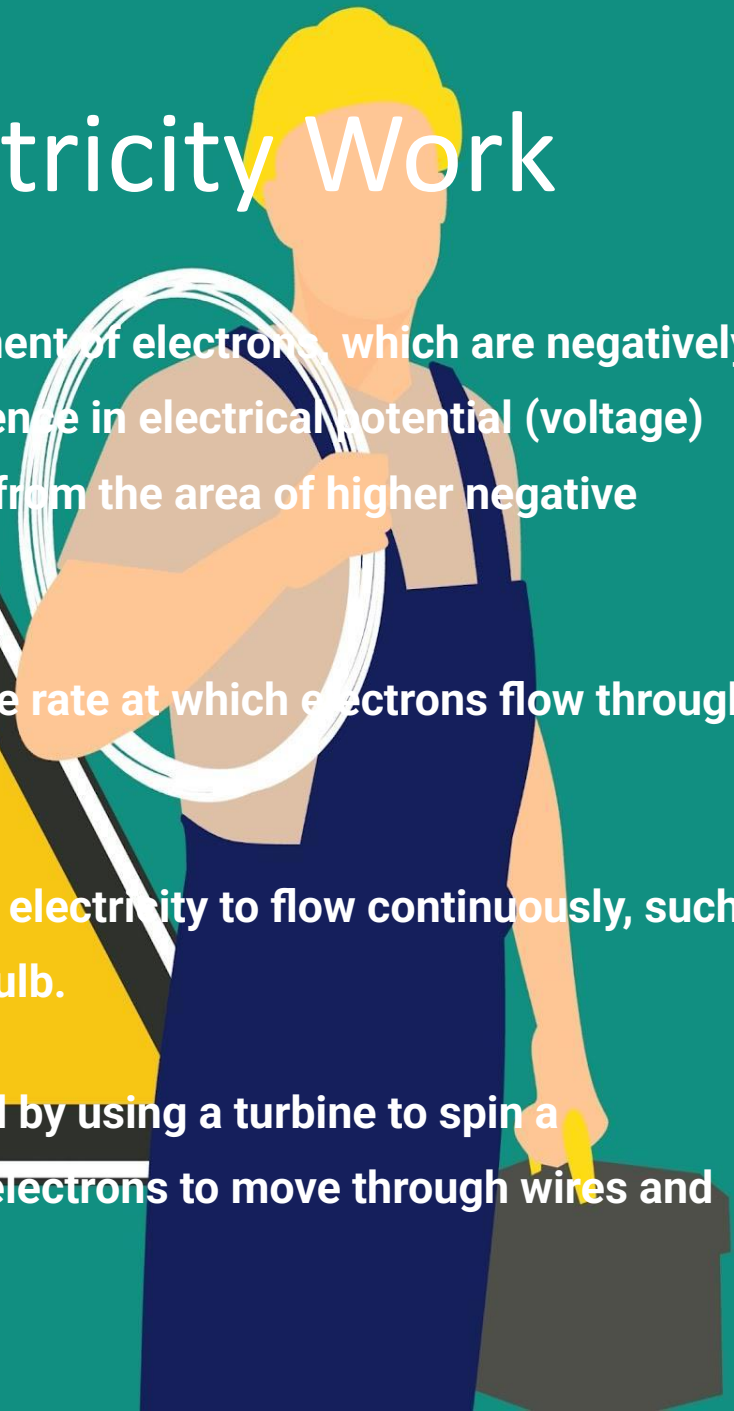
How Does Electricity Work

Electrons: Electricity involves the movement of electrons, which are negatively charged particles. When there is a difference in electrical potential (voltage) between two points, electrons will move from the area of higher negative charge to the area of positive charge.

Electric Current : An electric current is the rate at which electrons flow through a circuit, measured in amperes (amps).

Circuits : A complete circuit is needed for electricity to flow continuously, such as a wire connecting a battery to a lightbulb.

Generation : Most electricity is generated by using a turbine to spin a generator, which uses magnets to force electrons to move through wires and create a current.

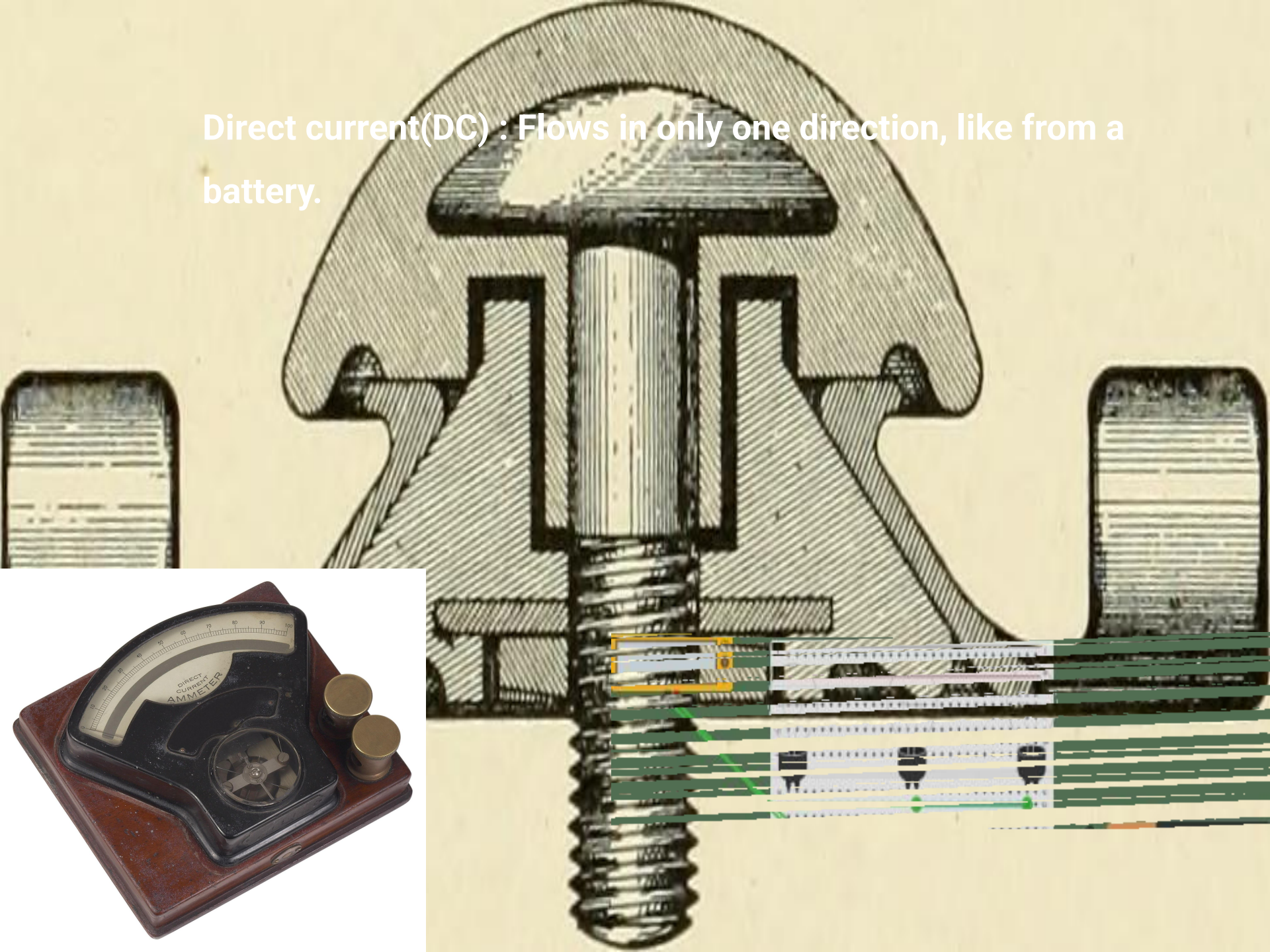


Types Of Electricity

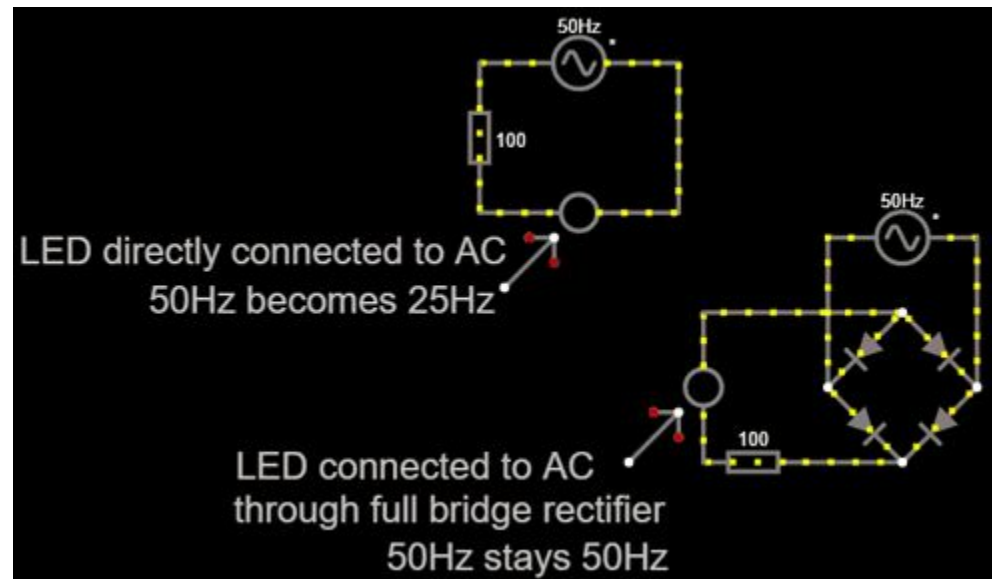
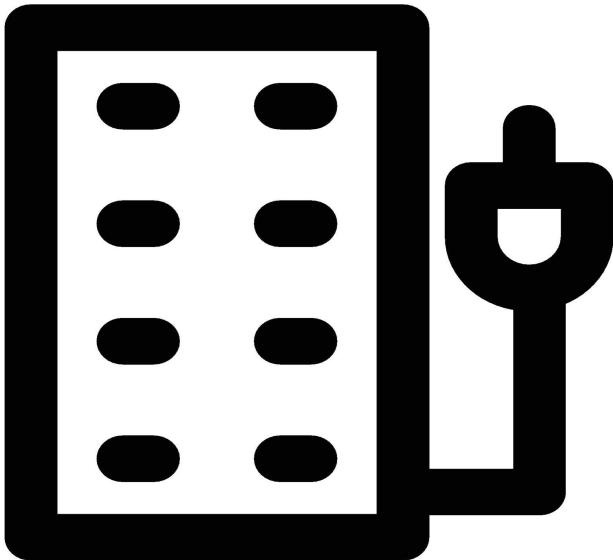
Current electricity : This is the electricity that flows continuously in a circuit. It includes:.



Direct current(DC) : Flows in only one direction, like from a battery.



- **Alternating current(AC)** : Periodically reverses direction, like the electricity from power plants and the wall outlets in your home.



- **Static electricity** : This is an imbalance of electric charges on the surface of an object, which results in a buildup of charge. A common example is when you rub a balloon on your hair and it becomes charged, causing your hair to stand on

