Electricity

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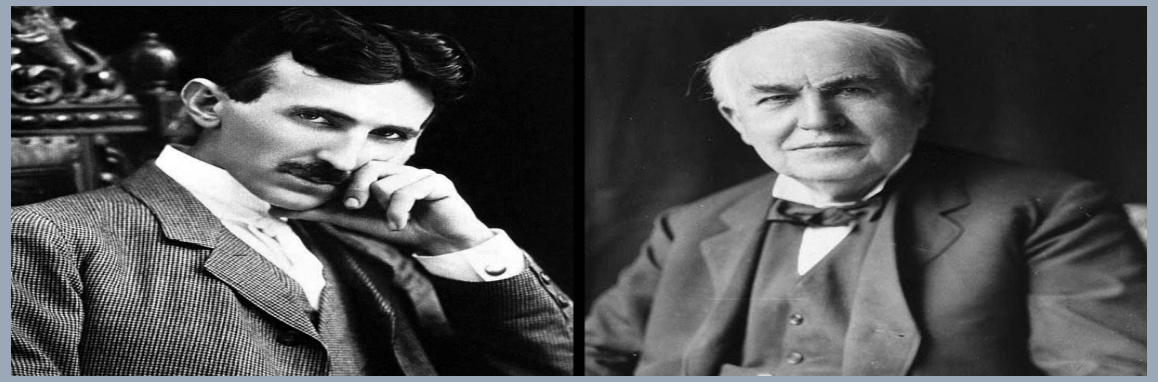
NINTH A

Who is the founder ??

It was founded **Early Observations**
600 BC – Thales of Miletus (Greek philosopher)
Noticed that rubbing amber with fur made it attract small objects.
This was **static electricity**, but they didn't understand it yet

1600s – William GilbertFirst person to study electricity scientifically.Coined the term "electricus" (meaning "like amber").



1750s – Benjamin Franklin
Famous **kite experiment** during a thunderstorm.
Proved that **lightning is a form of electricity**.
Introduced terms "positive" and "negative" charges.

1800 – Alessandro Volta
Invented the **first electric battery** (Voltaic Pile).
This was the first time humans had a **steady source of electric current**.

1820–1830 – Michael Faraday
Discovered **electromagnetic induction**.
Invented the **electric generator**.
His work made electricity useful for powering machines.

Late 1800s – Thomas Edison & Nikola Tesla
Thomas Edison
Improved the **light bulb**.
Built the first **electric power stations** (direct current).
Nikola Tesla
Developed **AC (alternating current)** system.
AC power is what we use worldwide today.

-THALES OF MILETUS -BENJAMIN FRANKLIN –ALESSANDRO VOTTA

-WILIAM GILBERT –MICHEAL FARADY –THOMAS EDISON&NIKOLA TESLA

How Electricity Is Generated
Most electricity comes from:
Power plants, using:
1-Fossil fuels (coal, natural gas)
2-Nuclear energy
3-Renewable sources (solar, wind, hydro, geothermal)
Batteries—store chemical energy and convert it to electrical energy

Basic Electrical Concepts

Voltage (V)

The pressure that pushes electric charges through a wire.

Current (I)

The flow of electric charge, measured in amperes (A).

Resistance (R)

How much a material opposes the flow of electricity.

Power (P)

The rate of electricity use, measured in watts (W).
Formula: **P = V × I**

What Is Electricity?

Electricity is a form of energy created by the movement of tiny particles called **electrons**. It's one of the most widely used energy sources in the world.

ypes of Electricity

1. Static Electricity

Happens when electrons build up on the surface of an object.

Example: feeling a shock when you touch a doorknob or rubbing a balloon on your hair.

2. Current Electricity

Electricity that flows through wires.

This is what powers homes, phones, lights, appliances, etc

Common Uses of Electricity

1-Lighting
2-Heating & cooling
3-Electronics: phones, laptops, TVs
4-Transportation: electric vehicles, trains
5-Industry: factories, machinery
6- Electric car fuels

Electricity Safety Tips

1-Don’t touch electrical appliances with wet hands.
2-Avoid overloading outlets.
3-Keep electrical devices away from water.
4-Call professionals to fix wiring problems.