The history of electricity

Arrastra las letras de cada texto a la imagen correcta

A

A Different Kind of Power: The Battery

The road to developing a practical use of electricity was a long one. Until 1800, there was no dependable source of electricity for experiments. It was in this year that an Italian scientist named **Alessandro Volta** soaked some paper in salt water, placed zinc and copper on alternate sides of the paper, and watched that the chemical reaction produced an electric current. Volta had created the first electric cell.

By connecting many of these cells together, Volta was able to "string a current" and create a **battery**. (It is in honor of Volta that we measure battery power in **volts**.) Finally, a safe and dependable source of electricity was available, making it easy for scientists to study electricity. The electric age was just around the corner!

B

Mr. Edison and his light

In 1879, **Thomas Edison** focused on inventing a practical light bulb, one that would last a long time before burning out. The challenge was finding a strong material to be used as the filament, the small wire inside the bulb that conducts the electricity.

Finally, Edison used ordinary cotton thread that had been soaked in carbon. The filament did not burn—instead, it became **incandescent**; that is, it glowed. These new lights were battery-powered, though, and expensive.

The next obstacle was developing an electrical system that could provide people with a practical, inexpensive source of energy. Edison went about looking for ways to make electricity both practical and inexpensive. He engineered the first electric power plant that was able to carry electricity to people's homes.

Edison's Pearl Street Power Station started up its generator on September 4, 1882, in New York City. About 85 customers in lower Manhattan received enough power to light 5,000 lamps. His customers paid a lot for their electricity.

C

Starting with Ben

Many people think **Benjamin Franklin** discovered electricity with his famous kite-flying experiments in 1752. That isn't the whole story. Electricity was not "discovered" all at once.

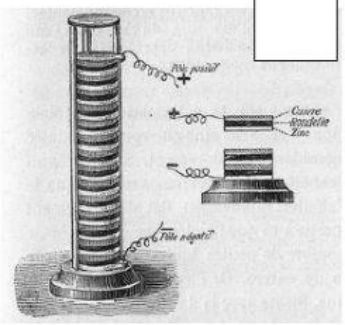
In the early years, electricity became associated with light.

After all, electricity lights up the sky during a thunderstorm. Likewise, static electricity creates tiny, fiery sparks. People wanted a cheap and safe way to light their homes, and scientists thought electricity could do it.

D

The turning point of the electric age came a few years later with the development of **AC (alternating current)** power systems. Now power plants could transport electricity much farther than before. In 1895, **George Westinghouse** and his associates opened a major power plant at Niagara Falls that used AC power.

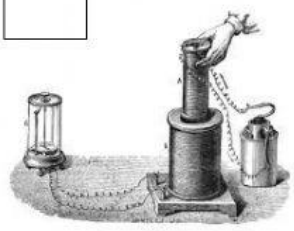
While Edison's **DC (direct current)** plant could only transport electricity within one square mile of his Pearl Street Power Station, the Niagara Falls plant was able to transport electricity over 200 miles!

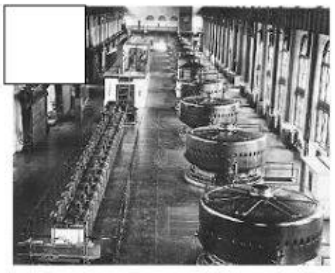


E

A Current Began

English scientist **Michael Faraday** was the first to realize that an electric current could be produced by passing a magnet through copper wiring. Both the electric generator and the electric motor are based on this principle. (A generator converts motion energy into electricity. A motor converts electrical energy into motion.





Read text A about *the battery* and decide if the sentences are TRUE OR FALSE

1) The creator of the first electric cell was a man T F
2) He created a battery using only one cell T F
3) Battery power is measured in VOLTS in honor of his creator T F

Read text B "Mr. Edison and his light" and find a word similar in meaning to...

A) CREATE
B) HIGH-PRICED
C) STRUCTURE
D) MOVE
E) LIGHT BULB