

# Energy Pioneers

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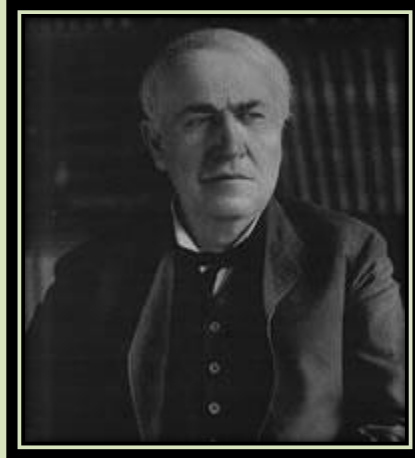
**The following pages will give an overview about famous people in history who studied energy and invented useful things we still use today.**



**Read about these people then complete the matching activity on the last page.**

## Thomas Edison (1847)

Information comes from the Department of Energy, including sourced pictures.

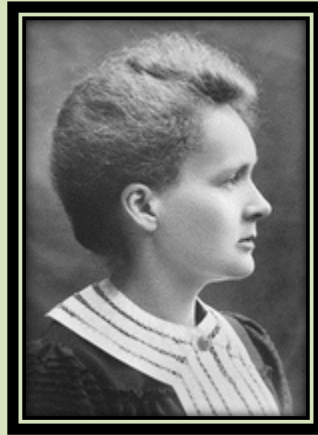


Source: [Wikimedia Commons](#) (Public Domain)

- Born in 1847.
- Not a very good student.
- Created many inventions including the phonograph (similar to a record player), the light bulb, the first power plant and the first movie camera.
- One of his most famous quotes is, “Invention is one percent inspiration and ninety-nine percent perspiration.”

## Marie Curie (1867)

Information comes from the Department of Energy, including sourced pictures.

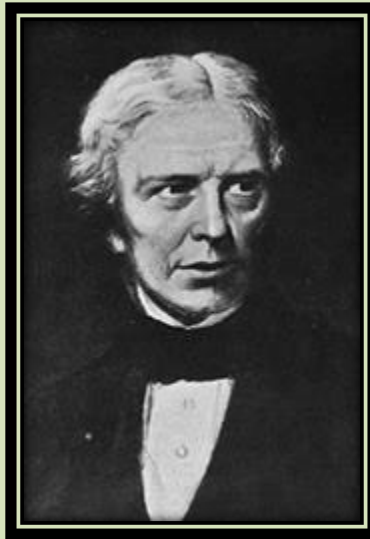


Source: Nobel Foundation, [Wikimedia Commons](#) (Public Domain)

- Born in 1867.
- Learned to read at 4.
- There were no universities in her native Poland that accepted women, so she had to move to France to attend college.
- She, along with her husband, discovered the first radioactive element.
- In 1903, she was awarded the Nobel Prize in Physics for the discovery of radium.
- Marie Curie was the first woman to win a Nobel Prize in Physics. Later, she won a second Nobel Prize in Chemistry.

## Michael Faraday (1791)

Information comes from the Department of Energy, including sourced pictures.



Source: A. Blakely, [Wikimedia Commons](#) (Public Domain)

- Born in 1791.
- Discovered electromagnetic induction in 1831, which helped form the basis of modern electromagnetic technology.
- Later created the first generator and electric transformer.

## **Maria Goeppert-Mayer (1906)**

Information comes from the Department of Energy, including sourced pictures.

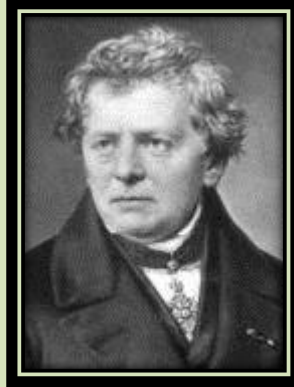


Source: [Nobel Foundation](#) (Public Domain)

- Born in 1906.
- Had difficulty getting a job in Physics because she was a woman and did most of her work as a volunteer.
- Helped develop the nuclear shell model that shows how protons and neutrons are arranged in the nucleus of an atom.
- Was awarded the Nobel Prize in Physics in 1963.

## Georg Simon Ohm (1787)

Information comes from the Department of Energy, including sourced pictures.



Source: [Wikimedia Commons](#) (Public Domain)

- Born in 1787.
- Worked as a math teacher for several years while beginning experimental work on electromagnetism.
- The results of his experiments helped define the relationship between voltage, current and resistance.
- The equation  $I=V/R$  is known as “Ohm’s Law.”

## Rufus Stokes (1924)

Information comes from the Department of Energy, including sourced pictures.

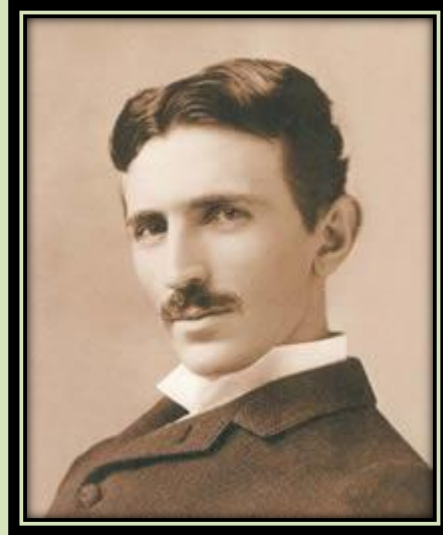


Source: U.S. Dept. of Energy (Public Domain)

- Born in 1924.
- Joined the Army in 1940 where he was trained as an auto mechanic.
- When he left the Army, he worked in a Veteran's hospital in Chicago, where he saw the effects of pollution on the city's residents.
- Later began to work independently on an air purification device that he patented in 1968. This device helped reduce pollution and clean up the air from factories and power plants.

## Nikola Tesla (1856)

Information comes from the Department of Energy, including sourced pictures.



Source: [Wikimedia Commons](#) (Public Domain)

- Born in 1856.
- Patented multiple devices related to electrical current that led to widespread use of electricity in industry and manufacturing.
- Created an alternating-current system that helped influence electric production.
- Also worked on developing radio and wireless transmission.
- The Tesla coil, invented in 1891, is still used in a variety of electrical equipment.





## ENERGY PIONEERS



Match the famous energy researcher to his or her work.

Thomas Edison

Known as the father of the electric motor, electric generator and electric transformer

Marie Curie

Inventor of the light bulb and the first power plant

Michael Faraday

Defined the fundamental relationship between voltage, current and resistance. Now known as "Ohm's law"

Maria Goeppert Mayer

Discovered radium, studied radioactivity and was the first woman to earn the Nobel Prize in Physics

Georg Ohm

Helped develop the nuclear shell model, which advanced the use of nuclear energy

Rufus Stokes

Invented one of the first devices used to limit emissions from power plants, helping to clean up the air and limit pollution

Nikola Tesla

Invented alternating current, which led to invention of the induction motor, the Tesla coil and more