

ERASMUS+PAGE

Marie Curie

Nobel Peace Prize

Gheorghe Tatarescu High School Rovinari, Romania

Student: Giuliana Căpriță

Marie Salomea Skłodowska Curie (7 November 1867 – 4 July 1934)

- ***was born*** in Warsaw, Poland and died in Passy, Haute-Savoie, France.
- ***discovered*** the elements polonium and radium with her husband, Pierre.
- *was a Polish and naturalized-French **physicist** and **chemist** who conducted pioneering research on radioactivity.*
- *was the **first woman** to win a **Nobel Prize**, the first person and the only woman to win the Nobel Prize twice, and **the only person** to win the Nobel Prize in two scientific fields.*



Early life

- Marie **is the youngest of five children** of Wladislaw and Bronislava Boguska Sklodowska. After her father lost his job, the family struggled and was forced to take **borders** into their small apartment. Religious as a child, **Curie rejected her faith** after her sister died of a severe fever in 1876. Two years later she lost her mother to tuberculosis, a terrible disease that attacks the lungs and bones.
- She was a **brilliant student**, gaining a gold medal upon completing her secondary education in 1883. In early 1886, Marie **accepted a job** as governess with a family living in Poland, but the intellectual loneliness she experienced there only solidified her determination to somehow achieve her dream of becoming a university student. One of her sisters, Bronya, was already in Paris, France, successfully passing the examinations in medicine. In September 1891 Marie **moved in** with her sister in Paris.



Marie Curie as a child

Work in Paris

- *When classes began at the Sorbonne in Paris in early November 1891, Marie enrolled as a student of physics. Acting upon a suggestion, she visited Pierre Curie at the School of Physics and Chemistry at the University of Paris. In 1895 Pierre and Marie were married, thus beginning a most extraordinary partnership in scientific work.*
- *By mid-1897 Curie's scientific achievements were two university degrees, on the magnetization of tempered steel. The Curies turned their attention to the mysterious radiation from uranium. Marie's search soon established the fact of a similar radiation from thorium, and she invented the historic word "radioactivity".*
- *While searching for other sources of radioactivity, the Curies had turned their attention to pitchblende, a mineral well known for its uranium content.*



pitchblende

- From their laboratory two papers reached the Academy of Sciences within six months. The first, read at the meeting of July 18, 1898, announced the discovery of a new radioactive element, which the Curies named polonium after Marie's native country. The other paper, announcing the discovery of radium, was read at the December 26 meeting.
- From 1898 to 1902 the Curies converted several tons of pitchblende. The Curies also published, jointly or separately, during those years a total of thirty-two scientific papers. Among them, one announced that diseased, tumor-forming cells were destroyed faster than healthy cells when exposed to radium.



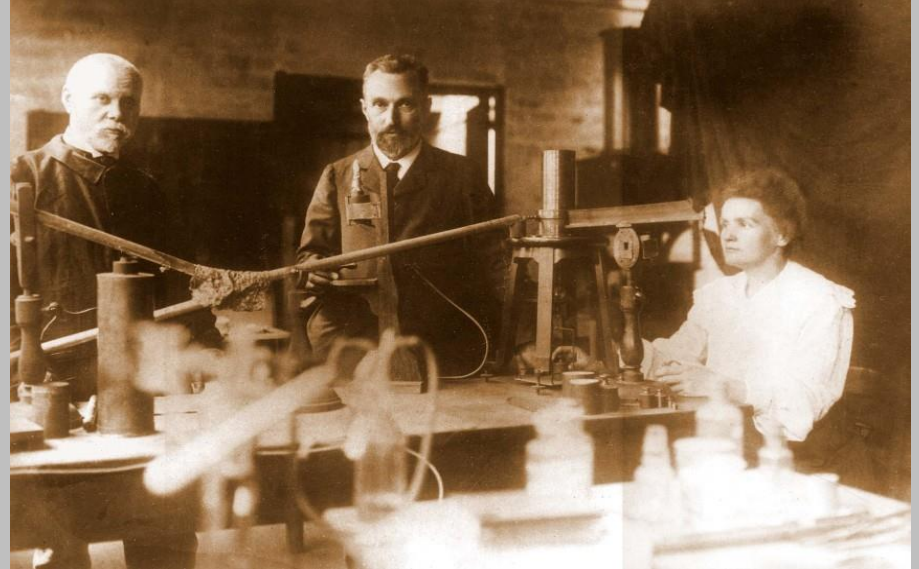
The room where experiments on uranium ore took place - the laboratories of Marie and Pierre Curie, Paris



The wedding photo of Marie and Pierre Curie, 26 July 1895

Recognition

- *In November 1903 the Royal Society of London gave the Curies one of its highest awards, the Davy Medal. A month later followed the announcement from the Nobel Foundation in Stockholm, Sweden, that three French scientists, A. H. Becquerel and the Curies, were the joint recipients of the Nobel Prize in Physics for 1903. Finally, even the academics in Paris began to stir, and a few months later Marie was appointed director of research at the University of Paris.*
- *Shortly after the death of her husband, Curie received her second Nobel Prize, this time in chemistry.*



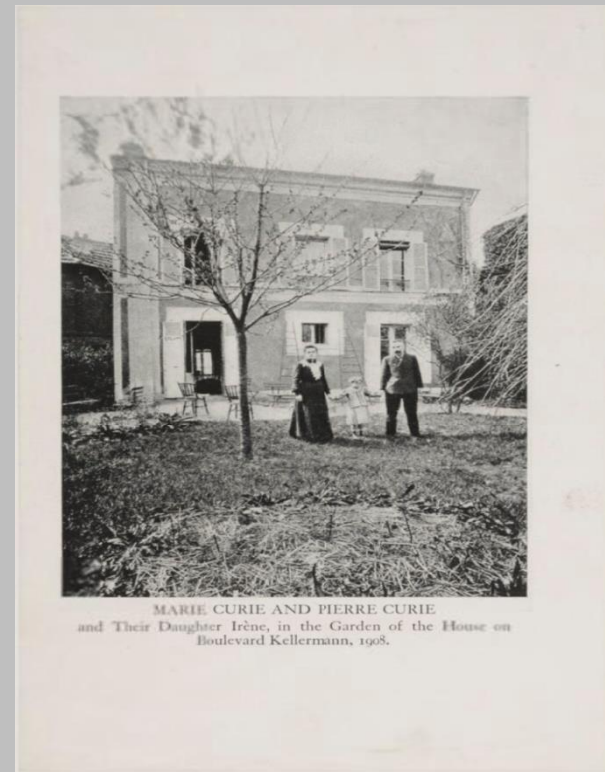
Marie and Pierre Curie with co-laureate Henri Becquerel, 1898

Marie and Pierre Curie

The couple had two daughters, Irène and Eve, and a few years after they married, Pierre Curie abandoned his own research to join his wife's study of radioactivity. The Curies' affair of the heart and mind ended tragically not long after Eve was born. In 1906, Pierre Curie was run over by a horse and carriage and killed.



Marie Curie and her daughters, Irène and Eve, 1908



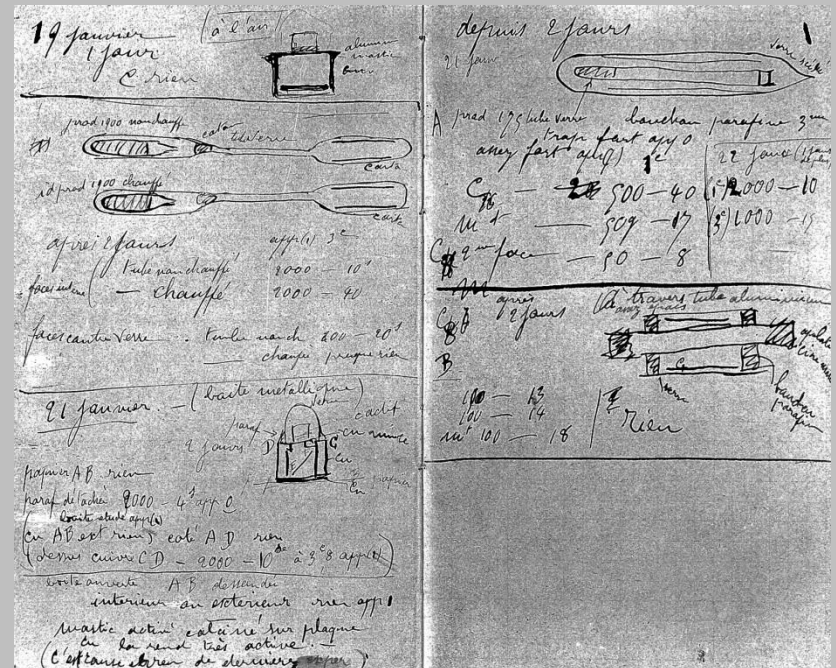
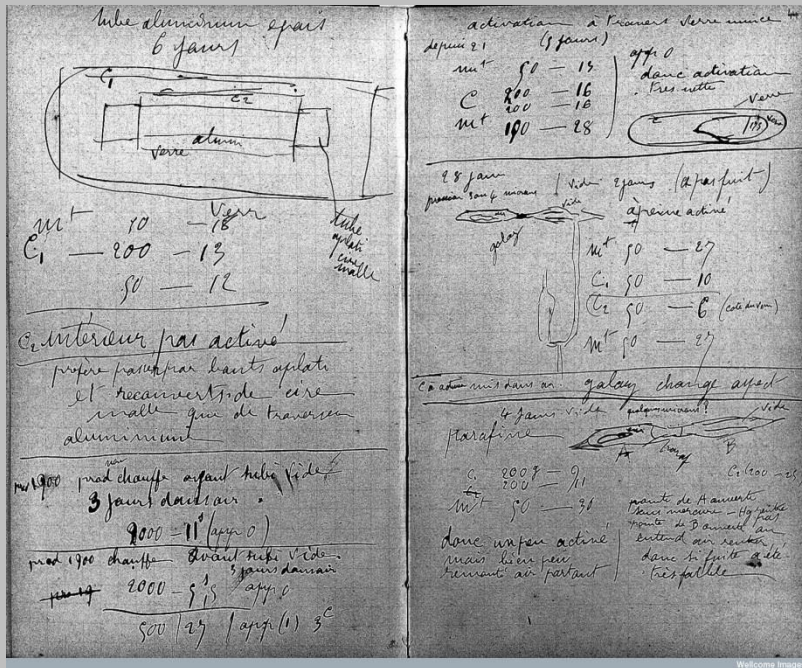
Marie and Pierre Curie with their daughter Irène in the garden of the house on Boulevard Kellermann, 1908



Marie Curie visiting a British field hospital, Furnes, Belgium, 1915

Marie Curie's notebooks are still radioactive

Both Curies were constantly ill from radiation sickness, and Marie Curie's death from aplastic anemia in 1934, at age 66, was likely caused by radiation exposure. A few of her books and papers are still so radioactive that they are stored in lead boxes. It seems fitting that Curie left a scientific legacy that is literally untouchable. Today they're stored in lead-lined boxes, and will likely remain radioactive for another 1500 years.



The end