

# BIOGRAPHY



MARIA SKŁODOWSKA  
MARIE CURIE



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# A RAY IN THE DARK

**CHARACTER:** MARIA SKŁODOWSKA / MARIE CURIE

**DATES:** Warsaw, 7 november 1867/ Passy, 4 july 1934

**COUNTRY OF ORIGIN:** POLAND

**HISTORICAL PERIOD:** 20th century

**SUMMARY:** Marie was born in Warsaw in 1867.

She is a precocious child; study and nature are central to her life. Moving to Paris to continue her studies, she meets and marries scientist Pierre Curie. Together they discover radium and polonium. She will win two Nobel Prizes.

**KEY WORDS:** RESEARCH, SCIENCE, WOMAN, STUDY, NOBEL

**GENRE:** BIOGRAPHY

**AGE:** 9 - 10 YEARS

**AUTHOR:** Barbara Lachi

**NOTE:** This story was written inspired by Simone de Beauvoir's autobiography «Memoirs of a dutiful daughter».

# A RAY IN THE DARK

The November sky over Warsaw was thick and grey. Late autumn had shed leaves that formed a colourful carpet throughout the city. In spite of the bitter cold, three children played, chasing each other in the street and making the leaves rise as if they were a gust of wind. A fourth child, meanwhile, stood in the doorway, with their head half inside, as if waiting for something. Her brother and sisters would stop to ask her something every so often, but she would shake her head and go back inside with suspended breathing and strained ears. Suddenly the stairs were filled with a newborn's wail, loud and firm, just enough to fill her lungs with air and affirm her arrival in the world. "Bronia, Joseph, Hela!" the little girl named Zosia shouted in the doorway, "she has arrived! Daddy is calling us!". Festive and noisy, all four of them rushed inside, but the newborn girl was not disturbed. Rather, she seemed to look at them one by one, as if she could see inside them.



“This is Marie,” the parents said. It was November 7, 1867. Marie, whom everyone took to calling Manya, grew up curious. With her attentive and inquisitive gaze, she was observant and the smallest detail aroused in her a thousand questions. Whenever she visited her grandparents in the country, Manya was happy. She could run, play observe, dance, and talk, feeling relaxed. Poland was, in fact, at that time a country oppressed by poverty and Russian government which inflicted harsh rules.

But in the countryside, all of that seemed distant and everyone felt free to speak Polish. Manya, along with her brother and sisters, could listen to their father recite the poems of famous poets or verses he composed for them. Nature was always an enchantment, a source of questions and musings.

When the time came for Manya to go to school, her free spirit felt like touching the sky with a finger.





The Russian rules also applied in the schools: one could not study Polish or the history of Poland, and girls especially were forbidden to continue their studies, but that seemed very far off to Manya and at the present she felt happy.

“Tomorrow I will go to school,” she repeated as she tried to get sleep. But this brought on such a strong emotion in her that her eyes kept staring at the ceiling. There, she could see not the rafters but all the wonderful things she would learn, the books she would read. She imagined the tables lined up, the blackboard and the chalk with which the teacher would write the lessons. She saw the school library with the volumes neatly lined up.

She felt as if she could almost touch them to flip through them, heard the rustling of the pages and the teacher calling her name. “Manya! Manya, little Manya it’s late!” Manya shook herself. “Why does the teacher’s voice sound like my father’s?”, she asked herself - “Manya it’s bedtime, tomorrow you will go to the school and you can see and do everything”. “Yes dad”, Manya said thinking back to her father’s words that she would be able to see and do everything.



Nature and school became her passions.

It seemed to her that books were places where she could find all the answers, reading them was like climbing endless ladders that took her higher and higher from which she could get new points of view. She liked the smell of books and she even wondered what they tasted like, imagining herself eating them like cookies!

However, books do not write themselves. All those answers had been written by someone who had studied... and unfortunately no one by then had studied and written about her sister Zosia's illness. A book with a cure did not exist, and so Zosia died. It was a great sorrow for the whole family, especially for their mother, who seemed to die out little by little, just like a candle is consumed by its own wax, until there was just darkness. Manya had never felt so lonely and sad without her mother: she missed her mother's voice, music and stories, words and hugs. Like her father, her mother was also a teacher, and that is where her love of books came from. By reading her mother's books, Manya seemed to hear her voice, and slowly her courage and strength returned.



Manya became even more knowledgeable, the most gifted of all the children. With her head in her hands and her gaze fixed on the page, she read as if to imprint the words in her mind, and keep all noises away with her fingers by her ears.

She could go hours without moving, except to change the page, not noticing anything around her, not even being able to distinguish if the world fell or if it was simply a stack of chairs her classmates had piled behind her. Manya made a small movement and bumped into one, which fell, dragging all the others behind it with a big clang. Manya shook out her skirt, wrinkled her somewhat sore arm then looked at her companions and said, "How foolish". Their laughter remained frozen on their lips from that simple, dry comment.

When she graduated a few years later she did so as the best in the whole school, achieving the highest grade and winning a medal. Manya wanted to continue her studies, like her siblings, but she had no money to do so and had to leave Poland.





The Sorbonne University in Paris was the destination she and her sister had always dreamed of... The first to leave was her sister. Manya had to postpone the trip, and to collect enough money, she went to work for a wealthy family. Meanwhile, she tried to take advantage of all the books in the city's libraries, understanding more and more deeply how important scientific research was.

Her worry was that she could not have access to a real laboratory where she could do experiments.

After studying, she would meet in the evenings with other young people like her who dreamed of changing the world, and making it a better place to live regardless of gender, religion, race or social status.

After three years of work, she had finally managed to save enough to leave Poland on a fourth-class ticket. She said goodbye to her father and sister, "See you soon! I will write to keep in touch, and as soon as I graduate, I will come back to help our country". In her carriage people sat on the floor, she, however, had brought a small folding chair on which she sat for three days. From the window the landscape slowly flowed by, trees and cities alternated behind the glass, clear and cloudy skies of her native Poland, then

Germany and Belgium, and finally France: PARIS!

Manya looked at the city and felt her heart explode with the joy of finally arriving and the melancholy of leaving her loved ones behind.

Sorbonne University was as she had always imagined it. She attended classes, did experiments, thus, being able to evaluate her insights. As always, she was at the top of her class so often that she won a scholarship... yet life in Paris remained difficult because Manya was poor. The apartment was cold and she often forgot to eat, as if numbers and formulas could feed her, but that was not the case and soon, she became ill. "Manya, my sister, you must regain your strength, you will come and stay with me for a while", Bronia told her.

Her sister's hospitality replenished her health and, as soon as Manya was cured, she immediately went back to her studies. One day someone told her about a professor named Pierre Curie, who with his brother was doing really interesting experiments that might interest her. Young Manya introduced herself to Pierre who was not just a scientist but a modern, intelligent man who believed in collaboration and who considered that women were his equals and that their contributions could be really important.

When Manya entered the laboratory, it only took one glance for Pierre to recognise in her the person he had been waiting for. Manya, also, understood that this young scientist was like a tree and a book put together; with her deep, sharp gaze she touched his heart and realised that together they could be the perfect "formula".

Pierre was calm, slow and dreamy, Marie was quick and determined. However, that first day upon seeing her, Pierre asked: "Will you marry me..." and only a little bit later Marie answered "Yes".

Together they walked around, discussing their research, studied, loved nature immensely and made plans for themselves and the whole world. They spent hours in the laboratory studying and analysing while around them Paris became the centre of the world. Paris was bubbling with modernity, it seemed to be in tune with the workings of many creative minds, and it seemed that drinking from its fountains could infect one with its fruitful and imaginative spirit.



Marie, however, was feeling behind schedule, the birth of her first child had slowed her studies. But as always, determined more than ever she set to work again with the goal of graduating. And for her topic she chose X-rays recently discovered by another scientist.

Marie and Pierre convinced the university to get some uranium on which to begin their experiments; they wanted to demonstrate its ability to conduct electricity. They had put it in many small test tubes. Marie was so fascinated by it, she felt that the solution was not far off, and she would get up at night to go and see her glowing test tubes. It seemed like a magical sight to her, those colourful glows appeared to her like the spirit of some enchanted creature. Unfortunately, they did not imagine that instead of magical it would be very dangerous...

Lacking this foresight, Marie continued to scrutinise and observe them, writing notes in her quick handwriting and making drawings to concisely capture all the changes and all the new discoveries.

Marie understood that uranium must be composed of other substances, so every day she invented a new experiment: she boiled it, chopped it up, reduced it to powder, let it cool added sulphuric acid and bismuth nitrate until she finally found the magic formula! “We will name it Polonium, in honour of my land!” said Marie

happily. Her work was not done, which in fact led to the discovery of a new element they named radium.

“This element is many times more radioactive than Uranium and can have a thousand uses”.

Pierre and Marie could have become rich but they made their discovery available to other scientists. They realised that it could cure very serious diseases such as cancer.

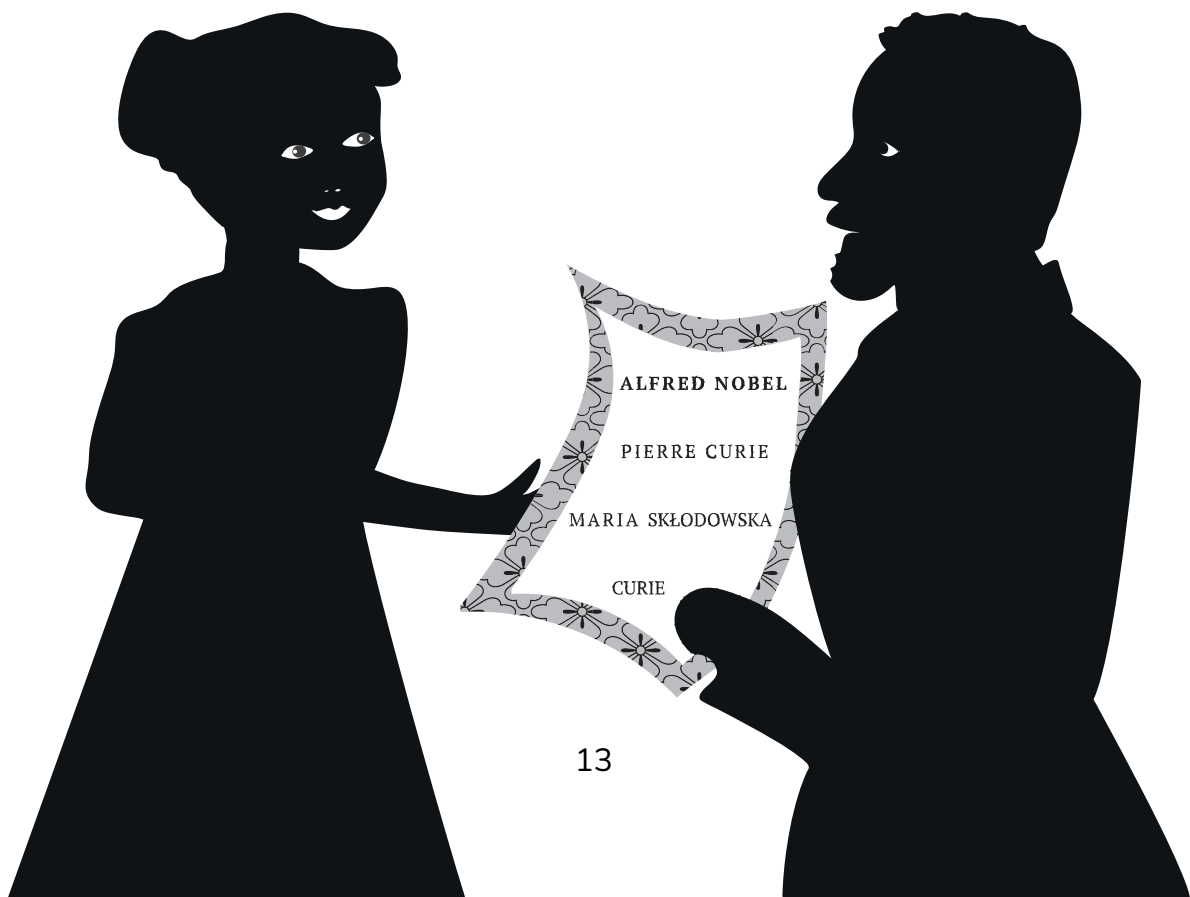
It was the beginning of a new era for science and medicine.

In 1902 Marie's beloved father also died. A year later Marie graduated. A few months later came wonderful news;

Pierre had been chosen to receive the Nobel Prize for "his" discovery. "How is it possible that in a modern age like ours we still do not recognise the value of women? This is not my discovery", Pierre said, "The discovery is both of ours.

We worked together, each contributing with our own insights. The discovery is as much mine as it is Marie's.

Without her, I don't want the prize!". The committee decided to dedicate the award to both of them, and in this way, Marie was the first woman to receive it.



The prize brought a lot of attention to the scientist couple, perhaps even too much given their shy characters that did not want for attention and fame.

They continued to study and do research; and their second daughter was also born. As always, life acts like a merry-go-round, you go up and down. Good things happen and then very bad things happen-Marie had learned this fact from an early age. Pierre was run over by a carriage and died, leaving her alone with her daughters. But because of the work and valour she had shown, the Sorbonne University offered her the teaching position held by her husband. Ten years later, her studies enabled her, a first in history, to win a second Nobel Prize in chemistry in 1911. Marie divided her time on research, soldiers who needed care during the war, and little girls and their future. Albert Einstein had deep respect and esteem for her; he called her one of the greatest female scientists. She died in 1934, in a sanatorium in Haute-Savoie, from an illness due to being too close to the elements she had discovered.

These elements proved to be dangerous but at the same time capable of revolutionising the lives of all of us.

She died looking at Mont Blanc, the spectacle of nature that had always fascinated and inspired her.





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