

# Marie Curie

*“Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less.”*

Marie Curie was a Polish and French physicist, chemist and feminist. She did research on radioactivity. She was also the first woman to win a Nobel Prize and the only person to win a Nobel Prize in two different sciences. She received a Nobel Prize in physics for her research on uncontrolled radiation. Marie Curie was the first woman professor at the University of Paris. Learn more about Marie Curie in this monthly patch!

Complete 3-Daisy, 4-Brownie, 5-Junior, 6-Cadette, and 7-Senior/Ambassador steps to earn your patch.

*\*\*All monthly patches are custom designed patches. Once we get the final number of patches after the 15<sup>th</sup> of each month we place the order, they take about a month to be mailed to the Girl Scout office and then we mail them to you. You will get a confirmation email once the patches are mailed to you.\*\**

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## Discover

1. Marie Curie was the first woman to win a Nobel Prize and was the first person to ever win two Nobel Prizes. She helped discover two elements and made advances in the world of medicine with x-ray machines. Learn more about Marie and what she had to overcome in her early life to achieve all that she did.
2. After high school, Marie wanted to go to college and be a scientist but this was unheard of for girls in Poland at the time. College was primarily

for men at that time in history. Marie and her sister saved up money to go to France for school. Find out more about what girls could and couldn't do in the 1800's in the U.S and other countries. How do you think being told you can't go to school would make you feel?

3. Marie spent most of her adult life in Paris. Learn more about Paris, France. What are some things you already know about Paris? How is Paris different today than it was in 1800's? Discuss with your troop what you learn.
4. Growing up, Marie was the youngest of five children. They did not have a lot of money for toys, so for fun Marie loved to read. Check out a new book from your local library.

## Connect

5. Marie was the first woman to win a Nobel Prize. Learn about the five different types of Nobel Prizes. Try designing your own Nobel Prize. Think about your own life and the things you are good at, to determine what your Nobel Prize would be for, or think about something you would like to accomplish in the future.
6. Marie and her husband Pierre discovered and named two elements on the periodic table, polonium and radium. Check out these cool experiments you can do with different elements and decide on one to do as a group. <https://www.science-sparks.com/wp-content/uploads/2018/07/ScienceSparksPeriodicTableofExperimentslinks.pdf>
7. Marie also studied x-rays. Before World War I, she helped make x-ray machines stronger and more accurate with the help of her new element, radium. She developed small x-ray machines called "Little Curies" that could be taken out in the field to help soldiers. This helped save many lives. Come up with an invention that would help people. Describe how it would work and how it would look.

8. If you could ask or tell Marie anything what would it be? Has she inspired you in anyway? Would you like to thank her for any of her scientific discoveries? Write a letter to Marie.

## Take Action

9. In order to make money for her sister to go to school, Marie helped children learn how to read and write. Help someone learn something new. This someone could be a sibling, a friend or a neighbor. Afterwards, think about how people reacted to you helping them and how it made you feel?
10. Marie made a large impact in the medical world with her advancements to x-ray machines and her discovery of radium; which scientist found they could use to help fight cancer. Do something nice for a local hospital. This could be making cards, hosting a fundraiser or collecting items they need such as toys for kids or supplies for babies.
11. Many soldier's lives were saved by Marie's work with x-rays during World War I. Write a letter or make a card to thank a veteran, assemble a care package to send overseas, or collect items for a local VFW organization.