Annotated Bibliography

Primary Sources

"Letter to Marie Curie, Prague, 23 November 1911." in The Collected Papers of Albert Einstein, vol 5, doc. 312a, correspondence Nov. 1911- March 1912, Supplement Translation einsteinpapers.press.princeton.edu

This letter tells more about Marie Curie's affair with Paul Langevin, but also sheds light on how she was affected through this form of prejudice. It also conveys that Albert Einstein, probably the most famous scientist ever, admires her talent, helping her break the barrier of being a woman in science.

"Marie Curie - Biographical." Edited by Elsiever Company, *NobelPrize.org*, Elsevier Publishing Company, 2019, www.nobelprize.org/prizes/chemistry/1911/marie-curie/bigraphical/. We used this site to find out about Marie Curie's importance to science and how she shocked the world and inspired it through her pioneering as an important woman scientist. We found images of the Nobel Prizes certificates won for the importance of the elements she discovered with some help from Pierre.

"Women in Science." American Decades Primary Sources, edited by Cynthia Rose, vol. 3: 1920-1929, Gale, 2004, pp. 481-483. Gale In Context: Biography,
<u>https://link.gale.com/apps/doc/CX3490200566/bic?U=EPFL&SID=bic&XID=033879F.</u>
Accessed 2 Nov. 2019.

The excerpt from this book is an example of women's careers in the early 20th Century, with opinions on jobs women could or could not do in science. We used this source to read about some of the barriers that held Marie back, or slowed her down, in the process of changing science for women.

Secondary Sources

Borzendowski, Janice. *Marie Curie- Mother of Modern Physics*. Sterling Publishing Co., 2009. This book really displays examples of Marie's courage and knowledge. It gives more information on her working in the lab with Pierre and discovering her elements, and talks about the legacy she left behind.

Bradshaw, Gideon, director. *The Genius of Marie Curie: The Woman Who Lit Up the World*. BBC, 2013.

This documentary leaps from a detailed childhood of Marie Curie, explaining in a step-by-step description how Marie and Pierre conducted their experiments and made their discoveries, showing original footage and completed with reproductions by actors doing the experiments.

Brittanica, Editors of Encyclopaedia. "Marie Curie - Polish-Born French Phycisist." *Brittanica.com*, 20 July 1988, www.britannica.com/biography/Marie-Curie. This source talks about Marie's early life in Poland, her move to France and her first Nobel Prize, the death of her husband, her second prize, later work, and it focuses more on what she did in her life rather than her achievements. "The Curies." The Curies, 2012,

www.nde-ed.org/EducationResources/HighSchool/Radiography/Curies.htm.

This source shows the authors opinion on why Marie Curie deserved to win the Nobel Prize. I will use this source to give more opinion to my reader and give them a different point of view on my topic.

"The Discovery of Radioactivity: Gateway to Twentieth-Century Physics." *Science and Its Times,* edited by Neil Schlager and Josh Lauer, vol. 5, Gale, 2001. *Gale in Context: Biography,* https://link.galcom/apps/doc/CV2643450474/BIC?u=epfl&sid=BIC&xid=77d11c57

This text explains the significance of Marie Curie's discoveries and tells about the science behind those discoveries. We will use it to help us in the section on how radiation works.

Dry, Sarah. Curie. Haus Publishing Limited, 2003.

This book offers a vivid picture of a more dynamic and politically engaged Marie Curie than the isolated genius of popular belief, diving deeper into many parts of her life. We used it to get more background information on her life as a scientist and working in the lab to figure out the secret of radium.

Editors, Biography.com. "Marie Curie Biography ." *Marie Curie Biography*, A&E Television Network, 14 Oct. 2017, biography.com/scientist/marie-curie. This website talks about Curie's childhood and education, showing her situation of poverty and how she managed to study, how her life and status was affected by her marriage to Pierre Curie, her discoveries of elements, and, of course, her Nobel Prizes.

The Editors of Encyclopaedia Britannica. "Marie Curie." *Encyclopedia Britannica*, Encyclopedia Britannica, Inc., 3 Nov. 2019, <u>www.britannica.com/biography/Marie-Curie</u>.

This is a biography showing facts, events, and background information on Marie Curie's life. We used it to find some details and confirm others.

Fee, Elizabeth. "The Revolutionary Who Discovered Radium – Circulating Now from NLM."
U.S. National Library of Medicine, National Institutes of Health, 3 July 2014,
circulatingnow.nlm.nih.gov/2014/07/03/the-revolutionary-who-discovered-radium/. This website
includes valuable pictures that we can use and some interesting details about Marie's recognition
around the world, specifically the U
S. This expresses how her hard work in breaking
barriers did pay off.

Frömann, Nanny. "Marie and Pierre Curie and the Discovery of Polonium and Radium." *NobelPrize.org*, 1 Dec. 1996,

www.nobelprize.org/prizes/themes/marie-and-pierre-curie-and-the-discovery-of-polonium-and-ra

dium. This text provides explanations for how the Curies carried out their findings and developed their cooperation, and about Marie's later life after her years with Pierre and their discovery.

Goldsmith, Barbara. *Obsessive Genius: The Inner World of Marie Curie*. Atlas Books, 2004. This biography focuses more on Curie's personality and her private life, based on personal letters, diary entries, and interviews. It digs deeper on how she found her place in the science community, and how her status affected her daily life, both positively and negatively.

Huso, Deborah. "For the Love of Science: Marie Curie Overcame Poverty, Grief and Prejudice to Become a Woman of Discovery." *Success*, Nov. 2011, p. 84+.

This magazine article shows barriers and obstacles that Marie Curie faced during her life, and provides some ideas about how her triumph is still important today.

Macklis, R. M. "PORTRAITS OF SCIENCE: Scientist, Technologist, Proto-Feminist, Superstar." *Science*, vol. 295, no. 5560, 2002, pp. 1647–1648., doi:10.1126/science.1069943

This journal text is dedicated to Marie Curie's achievements and discoveries that advanced science and the world. It also offers examples of why she is important today. "Marie Curie." *World of Scientific Discovery,* Gale, Cenegage Company, 2006. *Gale In Context: Biography,* https://link.gale.com/apps/doc/K1648000148/BIC?u=epfl&sid=BIC&xid=cd870972.

This text shows facts about Marie Curie's life and how her discoveries were used at first.

McGrayne, Sharon B. "Maria Sklodowska Curie." *Nobel Prize Women In Science*, edited by Sharon B. McGrayne, 2nd ed., Joseph Henry Press, 1993, pp. 11–36. In this book we learned more about her studies in Poland and France, and about the barriers she had to break for being a woman, and how she overcame being poor through grit and determination.

Quinn, Susan. *Marie Curie: A Life*. Simon & Schuster, 1995. This book focuses on many aspects of Curie's life, but we mainly used it to learn more about her discoveries of radium and her legacy and reputation as a scientist today.

Swaby, Rachel. *Trailblazers - 33 Women in Science Who Changed the World*. Random House Usa Inc, 2017.

This book presents other young scientists and even some friends of Marie Curie. The book helped us find information on how Marie Curie inspires young women scientists around the globe. Stine, Megan. *Who Was Marie Curie*. Penguin Workshop, 2014. This is a brief biography that explains every stage of Curie's life. We used it mostly to learn about the Floating University, her main competitor, Henri Becquerel, and the two elements she discovered.

Young, Lisa. "Marie Curie." *A To Z of Women in Science and Math*, Fact on File, 2008, pp. 66–68.

This book has many chapters for each great female scientist. In Marie Curie's chapter it shows how she struggled with the Russian overtaking of her native Poland forcing her as a kid to study in Russian and practice their religion. We used this as a source of one of the initial barriers she had to break.

Image Credits (organized per page)

<u>Home</u>

1. Portrait of Marie Curie c. 1900 (DIG17379.jpg) Wikimedia Commons.

<u>Thesis</u>

 Portrait of Marie Curie and daughter Irene. Paris, 1927. Photographer: Anonymous. Credit: Wellcome Collection.

Early Years in Poland

- Children of Sklodowski family, Children of the Sklodowski family, Polish, c1870-1875.
 Photographer: Ann Ronan Picture Library/Heritage-Images The Print Collector / Alamy Stock Photo
- 4. Map of Central and Eastern Europe c. 1900, http://easteurotopo.org
- Sklodowski sisters, Manya Sklodowska (Marie Curie) and her sister Bronya (seated), 1886.
 Photographer: Ann Ronan Picture Library/Heritage-Images

Later Years in France

- 6. Portrait of Marie Curie, 1898. Photographer: Anonymous, Credit: Emilio Segre Visual Archives
- The Sorbonne (main entrance). Private collection S. Nicolas Uploaded to Cairn.info on 01/11/2017 https://doi.org/10.4074/S0003503316000427
- 8. Quartier Latin, cover of student magazine. Paris 1896, Paul Merwart. Wiki-Commons.
- 9. Pierre and Marie Curie, "Meeting Pierre Curie" in history.aip.org
- 10. Marie and Pierre Curie, A Marriage of True Minds, in mariecurie.org.uk
- Pierre and Marie Curie with daughter Irene, U.S. National Library of Medicine, in <u>http://resource.nlm.nih.gov/101448038</u>
- 12. Paul Langevin, Paul Langevin, courtesy AIP Emilio Segre Archives, researchgate.net

<u>Discovery</u>

- 13. Pierre and Marie Curie in their lab in Paris. Bettmann/Corbis Collection.
- 14. Marie Curie in her lab. Nobelprize.org, copyright Sveriges Television AB, 2010.

- 15. Marie Curie's Theses at La Sorbonne for a doctorate of science (PhD) in physics, 1903. www.nobelprize.org
- 16. Periodic Table of Elements, sci-news, Oct 4, 2017 by News Staff / Source
- 17. The laboratories of Marie and Pierre Curie, Paris, ca. 1900 Wellcome Collection (CC by 4.0)

Nobel Prize

- Nobel Prize medals depict Alfred Nobel (1833-1896). C Nobel Media. Photo: Alexander Mahmoud
- "Le Petit Parisien" from 1904, colored illustration of Marie and Pierre Curie [Source: The National Library of Medicine] http://resource.nlm.nih.gov/101459367
- 20. Nobel diploma. Pierre and Marie Curie. NobelPrize.org. Nobel Media AB
- 21. Nobel diploma. Marie Curie. NobelPrize.org. Nobel Media AB

Impact and Legacy

- 22. Marie Curie in her lab. Wikimedia Commons
- 23. The Curie Pavilion at the Radium Institute, Paris 1925 © Association Curie Joliot-Curie in

https://www.nobelprize.org/womenwhochangedscience/stories/marie-curie

24. Marie Curie in her chemistry laboratory at the Radium Institute in France © Nationaal Archief of the Netherlands,

https://www.nobelprize.org/womenwhochangedscience/stories/marie-curie

- 25. Marie Curie receives the American College of Radiology gold medal in 1931. Video RadiologyACR, PATHE NEWS, 1931
- 26. "La Nuit au Panthéon," 2018, in Arts-in-the-city.com