

Women’s History Month: Women Scientists

Ask your students to name some famous scientists and put the names on the board. After 5–7 names, see if any of them are women. It’s quite likely that there aren’t any on the list. Ask your students to name famous women scientists. Marie Curie might be the only name they can come up with. (Or they may only know of one scientist at all—Einstein!) Erase the list and put these five names up. Then share the information that follows with your class:

- **Caroline Herschel** (1750–1848)—astronomer, worked with her brother; discovered 8 comets and many new nebulae; compiled a catalogue of nebulae; honored by a gold medal from the Royal Astronomical Society.
- **Mary Anning** (1799–1847)—paleontologist; fossil hunter, collector, and expert, self taught but consulted by scientists from around the world.
- **Marie Curie** (1867–1934)—physicist, chemist, studied radioactivity and won two Nobel Prizes, one in 1903 for physics and one in 1911 in chemistry (the only person to win in two different science categories); discovered the theory of radioactivity and applications; eventually died from her exposure to radioactive substances.
- **Lise Meitner** (1878–1968)—studied radioactive elements with her science colleague, Otto Hahn. She had to flee Nazi Germany because she was Jewish; in 1944 her partner got the Nobel Prize for their joint work discovering nuclear fission, which led to the creation of the atom bomb.
- **Barbara McClintock** (1902–1992)—geneticist who won the Nobel Prize in 1983 for her work on genes that move in and between chromosomes; for many years other scientists didn’t believe her theory, but she was right.

Discuss why few people know about these women. Historically, how has being a woman made scientists less likely to have access to labs, opportunities, and recognition? Have things changed? What about the decision to study science in the first place? Why aren’t there more women scientists today? Women’s History Month is a good time to talk about the ways women have not had opportunities historically to study math and science, or even to learn to read and write.

Assign your students to teams based on these broad areas of science:

1. Team Space: Astronomy and Aeronautics
2. Team Biology: Botany, Oceanography, Zoology (not Human)
3. Team Tech: Computers, Robotics, Engineering, Inventions

4. Team Earth Science: Geology, Ecology, Meteorology, Paleontology
5. Team Human Biology: Genetics and Medicine
6. Team Matter: Physics and Chemistry
7. Team Social Science: Psychology, Anthropology, Archaeology

Assign each team to search the following websites and then to do further online research to find 6–8 outstanding women scientists to report on. Some additional research will be needed for further details about the lives and work of their chosen scientists. They should include both historic and living scientists when possible.

50 Women of Science (Discover Magazine)

<http://discovermagazine.com/2002/nov/feat50/>

80 Women Scientists (About.com)

<http://womenshistory.about.com/od/airspace/science/math/tp/Famous-Women-Scientists.htm>

10 Women Scientists (Smithsonian)

<http://www.smithsonianmag.com/science-nature/ten-historic-female-scientists-you-should-know-84028788/?page=1>

Have students fill out the following as they do their research. They should also take notes and/or make printouts regarding the top 6–8 women in their assigned fields. After they research, assign them to prepare presentations that are colorful and engaging using strategies such as videos, skits, a talk show format, artwork, poetry—whatever clever approach they can think of for conveying the way these women have changed or are changing the world. Some of the science theories are difficult, so students will need to find ways of summarizing the scientists’ work simply and clearly for the class.

Your science area _____

What does it mean? _____

Why is it important? _____

Women Scientists Chart

Name, Birth–Death Dates	Background and Education	Obstacles	Accomplishments: Theories, Findings and Inventions	Awards and Recognition