

Women in science



Final task: tell us about a woman who changed the course of science

Pair work: In pairs, you will have to create something about a woman who worked in the scientific field.

How to hand in your work? If your creation is digital, you must upload it on EcoleDirecte in the *Cahier de Texte* section. I will not accept emails. If your creation is physical, you must hand it in to your teacher the day of the due date. Any extra days taken will cost you points.

Due date:

FORM

The form of your work will be randomly assigned through a die roll.

List of the possible forms:

- 1- Podcast
- 2- Magazine/newspaper's article
- 3- Children's book
- 4- Interview (audio or video)
- 5- Game (board game or video game)
- 6- Free



CONTENT

Your final task must answer a list of questions/items:

I. Presentation

The Person

- a) Dates: birth and death
- b) Where does she come from?
- c) Did her family's occupation show her the way?

The background

- d) The century
- e) What happened in **political life** and society at that time?
(Specially related to women's rights or anything that changed her way of life like a war for example)
- f) What happened in the **scientific field** at that time?

II. Work and discoveries

- a) What is she most famous for? (Give details)
- b) Which less famous work did she do?
- c) Has she published something? (Titles, dates...)
- d) How was her work accepted? Which problems did she face?

ASSESSMENT

You will be assessed on the content of you work but also on:

- Your communication skills (voice modulation, intonation, rhythm, fluency...)
- Your language skills (pronunciation, vocabulary, grammar...)
- Your ability to follow the instructions I gave you (duration/length of your work, way to hand it in, respect of the due date...)
- Your creativity and investment during class and at home

WARNING

Be careful with plagiarism! You cannot use sentences that you find online: *create your own*. If I hear something that I can find online, your grade will be severely affected!

Here are 55 women who made undeniably vital contributions to science. You don't have to choose one of those, you are welcome to talk about someone else as long as she worked in the scientific field (past or present).

Pre-16th century

- 1- Hypatia (c. 370-415),
ancient Greek mathematician

17th century

- 2- Maria Cunitz (1610-1664), German astronomer
- 3- Margaret Cavendish (1623-1673),
English natural philosopher
- 4- Maria Margarethe Kirch (1670-1720),
German astronomer
- 5- Jeanne Dumée (unknown-1706),
French astronomer

18th century

- 6- Émilie du Châtelet (1706-1749),
French mathematician and natural philosopher
- 7- Laura Bassi (1711-1778),
Italian natural philosopher
- 8- Maria Gaetana Agnesi (1718-1799),
Italian mathematician
- 9- Nicole-Reine Lepaute (1723-1792),
French astronomer
- 10- Caroline Herschel (1750-1848),
German astronomer
- 11- Sophie Germain (1776-1831),
French mathematician
- 12- Mary Somerville (1780-1872),
British astronomer
- 13- Elizabeth Fulhame (c. 1794), British chemist

19th century

- 14- Ada Lovelace (1815-1851),
British mathematician
- 15- Maria Mitchell (1818-1889),
American astronomer
- 16- Ellen Swallow Richards (1842-1911),
American chemist
- 17- Margaret Lindsay Murray Huggins (1848-1915), Irish-British astronomer
- 18- Sofia Kovalevskaya (1850-1891),
Russian mathematician
- 19- Hertha Marks Ayrton (1854-1923),
British mathematician and engineer
- 20- Williamina Fleming (1857-1911),
British-American astronomer
- 21- Margaret Eliza Maltby (1860-1944),
American physicist
- 22- Annie Jump Cannon (1863-1941),
American astronomer
- 23- Marie Skłodowska-Curie (1867-1934),
Polish-French chemist and physicist
- 24- Henrietta Swan Leavitt (1868-1921),
American astronomer
- 25- Annie Russell Maunder (1868-1947),
British astronomer
- 26- Harriet Brooks (1876-1933), Canadian
physicist

- 27- Lise Meitner (1878-1968),
Austrian physicist and chemist

- 28- Ellen Gleditsch (1879-1968),
Norwegian chemist

- 29- Emmy Noether (1882-1935),
German mathematician

- 30- Edith Quimby (1891-1982), American physicist

- 31- Marietta Blau (1894-1970), Austrian physicist

- 32- Ida Noddack (1896-1978),
German chemist and physicist

- 33- Irène Joliot-Curie (1897-1956), French chemist

- 34- Charlotte Moore Sitterly (1898-1990),
American astronomer

20th century

- 35- Mary Cartwright (1900-1998),
British mathematician

- 36- Cecilia Payne-Gaposchkin (1900-1978),
British-American astronomer

- 37- Kathleen Lonsdale (1903-1971),
British physicist

- 38- Katharine Way (1903-1995), American physicist

- 39- Grace Hopper (1906-1992),
American computer scientist

- 40- Maria Goeppert-Mayer (1906-1972),
German-American physicist

- 41- Dorothy Crowfoot Hodgkin (1910-1994),
British chemist

- 42- Chien-Shiung Wu (1912-1997),
Chinese-American physicist

- 43- Leona Woods (1919-1986), American
physicist

- 44- Rosalind Franklin (1920-1958), British chemist

- 45- Marie Maynard Daly (1921-2003),
American chemist

- 46- Vera Rubin (1928-2016), American astronomer

- 47- Valentina Tereshkova (1937),
Russian cosmonaut and physicist

- 48- Ada Yonath (1939), Israeli chemist

- 49- Helen Quinn (1943), American physicist

- 50- Jocelyn Bell Burnell (1943), British astronomer

- 51- Sandra Moore Faber (1944),
American astronomer

- 52- Sally Ride (1951-2012),
American physicist and astronaut

- 53- Carolyn Porco (1953),
American planetary scientist

- 54- Lene Vestergaard Hau (1959), Danish physicist

- 55- Fabiola Gianotti (1962), Italian physicist