

# Mary Somerville

Mary Somerville was born in Jedburgh on 26th December 1780. Educating girls was not thought of as very important in those days, so Mary only attended a local school for girls for one year as a child.

In her teenage years, Mary read as much as she could – which most of her family thought very unladylike! Mary's family wanted her to learn the skills thought necessary for a young lady, such as needlework and playing the piano. She was also given lessons in painting from an artist. The artist introduced her to a book which he felt was useful in helping Mary understand how to draw and place things in her pictures. This book was also about astronomy and other sciences.



In 1804, Mary married Samuel Greig and went to live in London. When her husband died three years later, Mary returned to Scotland with their two sons. Mary's friends encouraged her to continue studying mathematics and science.

In 1812, Mary married William Somerville. William was also very interested in science and he supported his wife's studies. Together, they studied geology and Mary also studied botany, French and Greek. Mary wrote and published her first science paper in 1826. In 1827, she was asked to translate a French science text. Her book was published in 1831 and was very successful. In her translation, Mary explained in detail the mathematics used in the text; most of which was new to mathematicians in Britain.

Mary's next book was published in 1834. In a later edition, published in 1842, Mary discussed the possibility of another unknown planet in the solar system. This led to the investigation and then discovery of the planet Neptune by other astronomers. Mary was now a well-known and well-respected authority on many subjects.

In 1838, the family moved to Italy because of William's ill health. Most of the rest of Mary's life was spent there, where she continued to write. One of her books, titled 'Physical Geography', was published in 1848. It was used in schools and universities until the beginning of the 1900s and was her most successful text.

Mary Somerville was a strong supporter of equality for women. In 1879, Somerville College at Oxford University was named after Mary because of her strong support for women's education. Mary Somerville died in Italy on 29th November 1872.

# Questions

Read the text carefully and answer the questions by completing the sentences below.

1. Where and when was Mary Somerville born?

Mary Somerville was born in \_\_\_\_\_

2. What skills did Mary's family want her to learn?

Mary's family wanted her to learn \_\_\_\_\_

\_\_\_\_\_

3. Why was Mary's book, published in 1842, important?

This book was important because \_\_\_\_\_

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4. Which of Mary's books was the most successful?

Mary's book \_\_\_\_\_

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5. In what way was Mary's support for equality and education for women recognised?

Mary's support for equality and education for women was recognised \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# Answers

1. Where and when was Mary Somerville born?  
Mary Somerville was born in **Jedburgh on 26th December 1780.**
2. What skills did Mary's family want her to learn?  
Mary's family wanted her to learn **the skills thought necessary for a young lady, such as needlework and playing the piano.**
3. Why was Mary's book, published in 1842, important?  
This book was important because **Mary discussed the possibility of another unknown planet in the solar system. This led to the investigation and then discovery of the planet Neptune by other astronomers.**
4. Which of Mary's books was the most successful?  
Mary's book **Physical Geography, was published in 1848. It was used in schools and universities until the beginning of the 1900s and was her most successful text.**
5. In what way was Mary's support for equality and education for women recognised?  
Mary's support for equality and education for women was recognised **in 1879 when Somerville College at Oxford University was named after her because of her strong support for women's education.**

# Mary Somerville

Mary Somerville was born in Jedburgh on 26th December 1780. Although Mary had two brothers who were both given an education, educating girls was not thought of as very important in those days.

In her teenage years, Mary read as much as she could – which most of her family thought very unladylike! When Mary admitted to her uncle that she had been teaching herself Latin, he encouraged her to keep studying. Mary's family wanted her to learn the skills thought necessary for a young lady of that time, such as needlework and playing the piano. She was also



given lessons in painting from an artist called Alexander Nasmyth. Nasmyth introduced Mary to a book which he felt was useful in understanding perspective in drawing. This book, called 'Euclid's Elements', was also about astronomy and other sciences. Mary studied the text with the help of her brother's tutor. She also became interested in studying algebra when she saw equations being used in a women's magazine. Mary quickly became fascinated by mathematics.

In 1804, at the age of 24, Mary married Samuel Greig and went to live in London. Samuel did not understand her need to learn. When her husband died three years later, Mary returned to Scotland with their two sons. Mary's friends encouraged her to continue studying mathematics and science. She read many mathematics and astronomy texts and wrote about what she had read.

In 1812, Mary married William Somerville. William was also very interested in science and he supported his wife's research and studies. Together, they studied geology and Mary also studied botany, French and Greek. Mary wrote and published her first science paper in 1826. In 1827, she was asked to translate a French science text. Her book was published in 1831 and was very successful. In her translation, Mary explained in detail the mathematics used in the text; most of which was new to mathematicians in Britain.

Mary's next book was published in 1834. In a later edition, published in 1842, Mary discussed the possibility of another unknown planet that affected the path of Uranus. This led to the investigation and then discovery of the planet Neptune by other astronomers. Mary was now a well-known and well-respected authority on many subjects.

In 1838, the family moved to Italy because of William's ill health. Most of the rest of Mary's life was spent there, where she continued to write. One of her books, titled 'Physical Geography', was published in 1848. It was used in schools and universities until the beginning of the 1900s and was her most successful text.

Mary Somerville was a strong supporter of equality for women. In 1879, Somerville College at Oxford University was named after Mary because of her strong support for women's education. Mary Somerville died in Italy on 29th November 1872.

# Questions

Read the text carefully and answer the questions in full sentences.

1. Where and when was Mary Somerville born?

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2. What did most of Mary's family think of her love of reading?

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3. Which two very different texts inspired Mary in her studies?

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4. During her marriage to Samuel Greig, do you think Mary would have studied the subjects that interested her?

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5. How do you think British mathematicians felt about Mary following the publication of her text in 1831?

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6. Why was Mary's book, published in 1834, of such significance?

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7. Why was much of Mary's later life spent in Italy?

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8. How was Mary's support for equality and education for women recognised?

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# Answers

1. Where and when was Mary Somerville born?  
**Mary Somerville was born in Jedburgh on 26th December 1780.**
2. What did most of Mary's family think of her love of reading?  
**Most of her family thought her love of reading as very unladylike.**
3. Which two very different texts inspired Mary in her studies?  
**Euclid's Elements; a book about astronomy and science and a woman's magazine that contained some equations, inspired Mary in her studies.**
4. During her marriage to Samuel Greig, do you think Mary would have studied the subjects that interested her?  
**OPEN Perhaps she did and kept it secret OR perhaps she did not study or read as much as she would have liked and instead concentrated on her family and her home.**
5. How do you think British mathematicians felt about Mary following the publication of her text in 1831?  
**OPEN Perhaps they were amazed at the new maths being explained by Mary and thought very highly of her.**
6. Why was Mary's book, published in 1834, of such significance?  
**It was significant because in it she discussed the possibility of another unknown planet that affected the path of Uranus. This led to the investigation and then discovery of the planet Neptune by other astronomers.**
7. Why was much of Mary's later life spent in Italy?  
**The family moved to Italy due to William's ill health.**
8. How was Mary's support for equality and education for women recognised?  
**Mary's support for equality and education for women was recognised in 1879 when Somerville College at Oxford University was named after her because of her strong support for women's education.**



# Mary Somerville

Mary Somerville was born in Jedburgh on 26th December 1780. Although Mary had two brothers who were both given an education, educating girls was not thought of as very important in those days. When Mary was ten years old, however, she did spend a year at a school for girls.

In her teenage years, Mary read as much as she could – which most of her family thought very unladylike! When Mary admitted to her uncle that she had been teaching herself Latin, he encouraged her to keep studying. Mary's family wanted her to learn the skills thought necessary for a young lady of that time, such as needlework and playing the piano. She was also given lessons in painting from an artist called Alexander Nasmyth, who introduced her to a book which he felt was useful in understanding perspective in drawing. This book, called 'Euclid's Elements', was also about astronomy and other sciences. Mary studied the text with the help of her brother's tutor. She also became interested in studying algebra when she saw equations being used in a women's magazine. Mary quickly became fascinated by mathematics.



In 1804, at the age of 24, Mary married Samuel Greig. She and her husband went to live in London. Mary soon found that Samuel did not understand her need to learn. When her husband died three years later, Mary returned to Scotland with their two sons. Mary's friends encouraged her to continue studying mathematics and science. She read many mathematics and astronomy texts and wrote about what she had read.

In 1812, Mary married William Somerville. William was also very interested in science and he supported his wife's research and studies. Together they studied geology and Mary also studied botany, French and Greek. Mary wrote and published her first science paper in 1826. In 1827, she was asked on behalf of the Society for the Diffusion of Useful Knowledge to translate a French science text. Her book *The Mechanism of the Heavens* was published in 1831 and was

very successful. In her translation, Mary explained in detail the mathematics used in the text; most of which was new to mathematicians in Britain.

Mary's next book, 'The Connection of the Physical Sciences', was published in 1834. In a later edition, published in 1842, Mary discussed the possibility of another unknown planet that affected the path of Uranus. This led to the investigation and then discovery of the planet Neptune by other astronomers. Mary was now a well-known and well-respected authority on many subjects. She was elected to the Royal Astronomical Society in 1835 and was given honorary membership of other scientific organisations in Geneva and Ireland.

In 1838, the family moved to Italy because of William's ill health. Most of the rest of Mary's life was spent there, where she continued to write. One of her books, titled 'Physical Geography', was published in 1848. It was used in schools and universities until the beginning of the 1900s and was her most successful text. This book also saw her elected to join geographical societies in America and Italy. In 1870, she received the Victoria Gold Medal of the Royal Geographical Society.

Mary Somerville was a strong supporter of equality for women. In 1879, Somerville College at Oxford University was named after Mary because of her strong support for women's education. Mary Somerville died in Italy on 29th November 1872.

# Questions

Read the text carefully and answer the questions in full sentences.

1. Why do you think educating girls was not thought of as being very important when Mary was a child?

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2. Why do you think some of the skills thought necessary for a young lady of that time were needlework, playing the piano and painting?

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3. Why did Alexander Nasmyth feel that Mary should read the text Euclid's Elements?

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4. Why might Samuel, Mary's first husband, not understand her need to study?

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5. Why do you think Mary's friends encouraged her to continue studying mathematics and science after her return to Scotland?

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6. Why do you think William Somerville's opinions were so different from Samuel Greig's?

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7. Why do you think Mary grew to be a well-known and well respected authority on many subjects?

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8. How was Mary's well-respected authority recognised?

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9. How did Mary's text *Physical Geography*, published in 1848, further establish her reputation as a respected scientist, mathematician and geographer?

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10. Why do you think Oxford University chose to name a college after Mary in 1879?

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# Answers

- Why do you think educating girls was not thought of as being very important when Mary was a child?

**OPEN Perhaps because women were expected to look after the home and family.**
- Why do you think some of the skills thought necessary for a young lady of that time were needlework, playing the piano and painting?

**OPEN Perhaps because women were expected to be able to sew for practical and creative purposes and were expected to be able to entertain through music or art. Perhaps these were skills that would keep them amused and amuse others.**
- Why did Alexander Nasmyth feel that Mary should read the text Euclid's Elements?

**Alexander felt that Mary should read this text to help her to understand perspective in her painting.**
- Why might Samuel, Mary's first husband, not understand her need to study?

**OPEN Perhaps this is because women were expected to only look after the house and family at this time and so this is what Samuel thought his wife should do.**
- Why do you think Mary's friends encouraged her to continue studying mathematics and science after her return to Scotland?

**OPEN Perhaps they encouraged her because they knew she loved learning and that she was good at it.**
- Why do you think William Somerville's opinions were so different from Samuel Greig's?

**OPEN Perhaps William saw that Mary loved studying and learning and he recognised her academic ability and potential. Perhaps he wanted her to do whatever made her happy!**
- Why do you think Mary grew to be a well-known and well respected authority on many subjects?

**OPEN Perhaps because of the texts she had published, their content and how they had been received by the scientific world.**
- How was Mary's well-respected authority recognised?

**Mary was elected to the Royal Astronomical Society in 1835 and was given honorary membership of other scientific organisations in Geneva and Ireland.**
- How did Mary's text Physical Geography, published in 1848, further establish her reputation as a respected scientist, mathematician and geographer?

**This book was used in schools and universities until the beginning of the 1900s and was her most successful text. Due to the popularity of this book she was elected to join geographical societies in America and Italy. In 1870, she received the Victoria Gold Medal of the Royal Geographical Society.**

10. Why do you think Oxford University chose to name a college after Mary in 1879?

**OPEN Perhaps they chose to do so because Mary was a great example of a woman who had received no real formal education yet had become a leading authority on so many scientific areas in a society that still did not treat women equally. Mary strongly supported women's education.**