

# Mapping Lesson Plan

## Mapping of Maria Mitchell's Journeys

**Grades:** 6-7

**Time:** 2-3 hours

### Materials:

- Maria Mitchell journal entries
- Blank maps of the world
- Pen
- Pencil
- Access to internet and library books for research

### Description:

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This lesson will introduce students to Maria Mitchell (Ma-Rye-ah) and discuss her various journeys around the world using primary sources. Students will read Maria Mitchell's journal entries detailing her various trips throughout Europe and the United States. After reading a journal entry, students will work together to map the location on a blank map given to them. If they cannot figure out where the location is, they will look it up as a class. After the maps have been completed, students will be divided up into groups and given a location Maria visited during her travels. As a group, they will research and write a short, 1-2 paged history of the location. Then they will look up pictures of the location in the nineteenth century and the twenty-first century and compare and contrast the pictures. Once these are completed, the student groups will present to the class.

### Objectives

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- Read various passages from Maria Mitchell's journals
- Find locations on a world map
- Write a short history about a location on the map
- Compare and contrast the location in both the nineteenth and twenty-first centuries images
- Present the findings to the class

### Curriculum Connections

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#### History and Social Science Educational Experiences Will Ensure That Students:

- Demonstrate map reading skills to distinguish countries, capitals and other cities
- Extend students' knowledge of the physical and political geography of the world
- Locate Rome on a map

### **English Language Arts and Literacy Educational Experiences Will Ensure That Students:**

- Conduct a short research project to answer a question, drawing on several sources
- Engage effectively in a range of collaborative discussions
- Interpret information presented in diverse media formats
- Write informative texts to examine a topic and convey ideas, concepts and information through the selection, organization, and analysis of relevant content

### **Order of the Lesson Plan**

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1. Educate students about the life of Maria Mitchell through the biography provided.
2. Have students read Maria Mitchell's journal entries provided with the lesson plan.
3. Divide students up into small groups to figure out where the locations are in each journal entry on a blank map of the world. Have the students mark these locations in pencil.
4. After a period of time have the class come together and discuss what the groups had on their maps. At this time go through each location on the map and see if the students are correct. If they are not have them erase the dot and show them the correct location on the map. Have the students mark this in pen.
5. Divide students up into groups and assign each group a location listed on the lesson plan.
6. Each group will research and write a short 1-2 paged history about their given location.
7. Each group will find pictures of the location in the nineteenth century and the twenty-first century and compare and contrast the pictures.
8. Once all the groups have finished, have them present their findings to the class.

### **All About Maria Mitchell**

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Maria Mitchell is America's first professional female astronomer. She is famous because she discovered a telescopic comet, and because of this discovery, she was awarded a medal from the King of Denmark. She was the first American and the first woman to receive this honor. Maria was the first female member of the American Academy of Arts and Sciences in 1848 and was the only woman until the next was inducted in 1943. She was born on August 1, 1818 on Nantucket Island, Massachusetts. She was the third eldest of ten children born to parents William and Lydia Mitchell. From a young age, Maria was always interested in the study of the skies. At age 12, she helped her father, William, count the seconds of a solar eclipse. This helped to pinpoint the longitude and latitude of her house, which made it an official observatory!

While Maria studied reading, writing, and mathematics in school, her favorite subjects were mathematics and astronomy. Maria was formally educated until age 16 and from then on she was self-taught. Much of the information she learned came from the library on Nantucket – the Atheneum. Maria was the first librarian at the Atheneum. She was there for twenty years,

during which she taught herself multiple languages and increased her knowledge of mathematics and astronomy. On October 1, 1847, Maria discovered a comet from the roof of the Pacific Bank, the family's new residence. Maria's father alerted the Danish government of this discovery and she was awarded a gold medal from the King of Denmark for her discovery of the comet.

Maria was the first professor hired at Vassar College for women when it opened in 1865. She originally turned down this offer because she did not have a college degree, so she thought she was not qualified enough to be a professor of mathematics and astronomy. She was a favorite professor of the students at the College. With her students, she traveled to view two solar eclipses; one in Burlington, Iowa and another in Denver, Colorado.

Because of her accomplishments Maria became a world famous astronomer. When she traveled around Europe in 1858, she was the first woman to be admitted to the Vatican Observatory with special permission from the Pope. She not only traveled to Vatican City during her travels abroad, but also visited the UK, France, and Russia. Before Maria's trip to Europe, she traveled throughout the United States. She visited places like Savannah, Georgia, and New Orleans, Louisiana. Maria thought life was very different in the South because of slavery. Maria was from Massachusetts, where slavery had been abolished in 1783; however in 1857, it was still legal in states like Georgia and Louisiana.

#### **List of Locations for Presentations**

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- Versailles, France
- The Roman Forum, Rome
- Vassar College, Poughkeepsie, New York
- Mammoth Cave, Kentucky
- Vatican Observatory, Vatican City
- Trinity College, Cambridge, England