

# GALILEO GALILEI



*Galileo Galilei*

**Galileo Galilei** was born in Pisa, Italy in 1642. In Galileo's time, many still thought that the sun revolved around the Earth, though we now know the opposite is true. Though he had an early interest in mathematics and science, his father persuaded him to study medicine because doctors earned more than mathematicians. However, after accidentally sitting in on a geometry class, Galileo talked his father into letting him study math.

In 1608, Galileo heard of a machine that would later be called the telescope, which was being used to observe objects far away. With just a description of the device, Galileo was able to build his own version, making many improvements to the original design. This allowed him to view space like never before.

The astronomer Copernicus had already suggested that the Earth might revolve around the sun. In 1616, however, the Catholic Church, who made the laws in Italy at the time, decided that the theory went against religious teachings. Church leaders banned astronomers from using the theory of *heliocentrism*, the idea that the Earth and other planets revolved around the sun. In 1633, Galileo was called to Rome to stand trial for a book he had written that included descriptions of heliocentrism. Galileo was found guilty and was ordered never to publish another book.

Galileo continued his work in secret and went on to make many important discoveries. For example, he figured out that Jupiter has its own *satellites*, or moons. Galileo made contributions to the fields of astronomy, technology, physics and mathematics. His work was important enough that Einstein once called Galileo "the father of modern science".

## VOCABULARY

*Look at the text and define these key concepts:*

Heliocentrism \_\_\_\_\_

Satellites \_\_\_\_\_

What did Galileo see on the surface of the moon?

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Why was Galileo put on trial in 1633?

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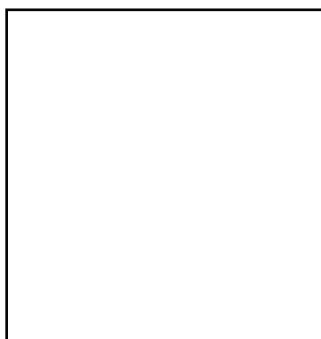
What do you think science would be like today if Galileo had given up after his trial? Would you have been brave enough to work in secret like Galileo?

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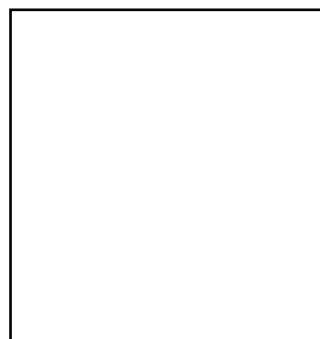
Today, we have advanced instruments that can prove that the Earth revolves around the sun, but in Galileo's time, he had to come up with the theory with both feet planted firmly on planet Earth. Record the location of the sun at different times of the day on the chart below.



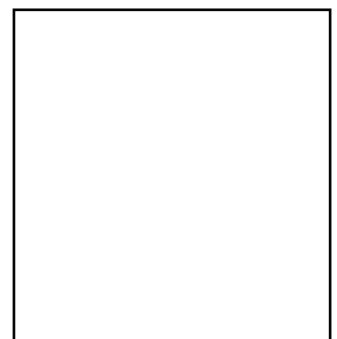
8:00 A.M.



12:00 P.M.



4:00 P.M.



8:00 P.M.

Can you prove heliocentrism with these observations?

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