

Galileo's Telescope

[MUSIC PLAYING] From the beginning of human history, people have gazed up in wonder at the sky. Filled with curiosity, some people wanted a closer look at what they saw in the heavens. What are those twinkling lights? How big are they? What are they made of? How old are they? How are they moving? There was only so much they could see with the naked eye. But by 1600, a spectacular new tool had been invented, the telescope.

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Telescopes collect the dim light from distant planets and stars, and help astronomers to see them better. Today, NASA's Hubble telescope is hard at work. It orbits the Earth 380 miles from the surface, demonstrating how much telescopes have evolved. These are some of the first telescopes ever built. They are 300 years old, and were made by an Italian man who lived in the 1600s, Galileo Galilei.

As a young student, Galileo studied math and physics. The ideas he developed in these areas are some of the most important ever. His ideas on how objects fall and on the movement of pendulums, influenced how we measure time. But he is best remembered for his work in astronomy, the study of the stars and planets and other objects in space.

Galileo did not invent the telescope. That credit goes to a Dutchman named Hans Lippershey. Lippershey's invention was designed to give ships a closer look of the enemy at wartime. Galileo was the first to point the telescope towards the heavens. He first published his findings in a journal called, The Starry Messenger. This article is about Galileo's observation of the moon.

He stated that the moon was not a smooth sphere as people thought, but was covered with mountains. And he did not stop there. He went on to look at the largest planet, Jupiter. It was Galileo who realized that there were four large moons orbiting the planet. But these ideas were very radical for the time.

Galileo went against the church's belief that the Earth was the center of the universe, and he spent the last years of his life in prison as a result of his beliefs. He died in 1642. 350 years later, Pope John Paul finally recognized Galileo's enormous contributions to science and honored Italy's greatest astronomer. Today, his name is on.

Italy's first national telescope is called the Galileo, and NASA's first space probe, designed to study the planet Jupiter close up, was also named in his honor. Galileo turned a weapon of war into an instrument of science. And because of him, today's telescopes can see to the farthest reaches of the universe.

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