

Name: _____

Date: _____

Galileo

Like Aristotle and Copernicus, Galileo Galilei learned from observing and measuring what he saw. Galileo lived in Pisa, a city on the northwestern coast of the Italian peninsula. In 1583, when Galileo was nineteen-year-old, he observed a priest swinging an altar lamp. No matter how wide the swing of the lamp, it seemed the time it took to move from one end to the other was always the same. Galileo had discovered what scientists today call isochronism, and his observations led to the development of the pendulum clock.

Galileo heard stories of a tool that used curved pieces of glass to magnify distant objects. The Italian scientist was unable to purchase the instrument we now call a telescope, so he built a telescope on his own. When Galileo observed the heavens, he made several discoveries that differed with Aristotle's theory of an earth centered universe.



Galileo Galilei

In Galileo's time, many people believed in a geocentric universe where all heavenly objects revolved around the earth. Galileo's discovery of moons orbiting Jupiter disproved that theory. While Galileo's discovery did not prove the earth travels around the sun, it disagreed with the way many people interpreted the Christian Bible. In 1616 Pope Paul V, the leader of Galileo's Catholic Church, commanded that the scientist never again "defend or hold" the idea of a heliocentric universe. Though he was a very religious man, Galileo continued to make new discoveries and continued to promote Copernicus' theory of a universe that revolved around the sun. Sixteen years later, Galileo went on trial for heresy. Heresy is an opinion or belief that disagrees with the official position of the church. Galileo was found guilty of teaching that the sun is the motionless center of the universe. He was sentenced to house arrest for the remaining nine years of his life. Galileo accepted his sentence, but he continued to write and study from his home.

Answer in complete sentences

1. What is isochronism?

*2. Why were Galileo's discoveries unpopular with many people?

3. Why was Galileo sentenced to house arrest?

*This is a higher order learning question. You must answer the question to the best of your ability, but any reasonable answer will be graded as correct.