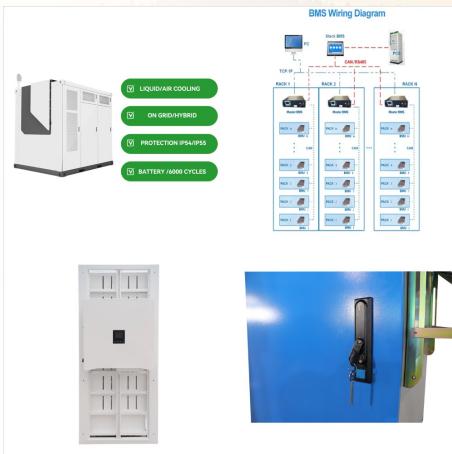




Galileo's discoveries caused many more people to accept the heliocentric model of the universe, although Galileo himself was found guilty of heresy for his ideas. Watch this animation of the Ptolemaic and Copernican models of the solar system. Ptolemy made the best model he could with the assumption that Earth was the center of the



Galileo sparked the birth of modern astronomy with his observations of the Moon, phases of Venus, moons around Jupiter, sunspots, and the news that seemingly countless individual stars make up the Milky Way a?|



Galileo Galilei (1564-1642) a?? Italian astronomer, scientist and philosopher, who played a leading role in the Scientific Revolution. Galileo improved the telescope and made many significant discoveries in astronomy. His findings encouraged him to speak out for the Copernican view that the earth revolved around the sun.

GALILEO S MODEL OF THE SOLAR SYSTEM

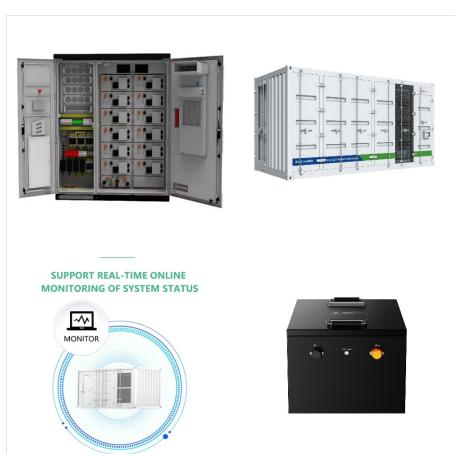
SOLAR[®]



These ellipses show that Earth does indeed have the expected orbital velocity around the solar system " s center of mass. Final proof of the heliocentric theory for the solar system came in 1838, when F.W. Bessel (1784-1846) determined the first firm trigonometric parallax for the two stars of 61 Cygni (Gliese 820).



Galileo Galilei's observations that Venus appeared in phases -- similar to those of Earth's Moon -- in our sky was evidence that Venus orbited the sun and contributed to the downfall of the centuries-old belief that the sun and a?|



Galileo's observations of Venus were exactly what was predicted by the _____ model of the Solar System. heliocentric. Galileo's observations of the phases of Venus proved that the _____ model of Ptolemy is incorrect. geocentric. Galileo's observations of _____ showed that it orbits the Sun and not the Earth.

GALILEO S MODEL OF THE SOLAR SYSTEM

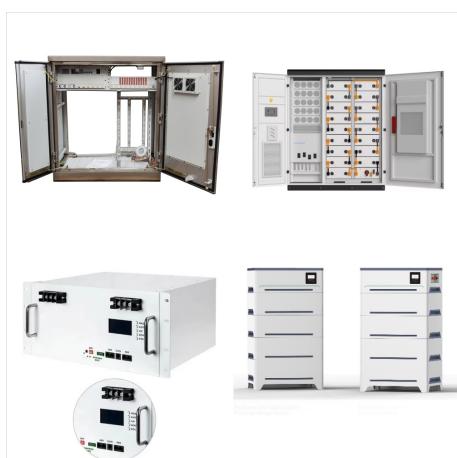
SOLAR[®]



Galileo's observations extended to the sun and Venus as well. Galileo noted the presence of sunspots, which contradicted the idea that the sun was an unblemished and unchanging entity. Galileo observed the phases of Venus, a phenomenon that further supported the heliocentric model of the solar system.



Ptolemaic model. In the second century CE, Ptolemy, who lived in the Egyptian town of Alexandria, produced a mathematical representation based on observation of the known Solar System. In Ptolemy's model, the Earth was at the centre of the Universe, with the Sun and planets revolving in a series of circular orbits moving out from the Earth.



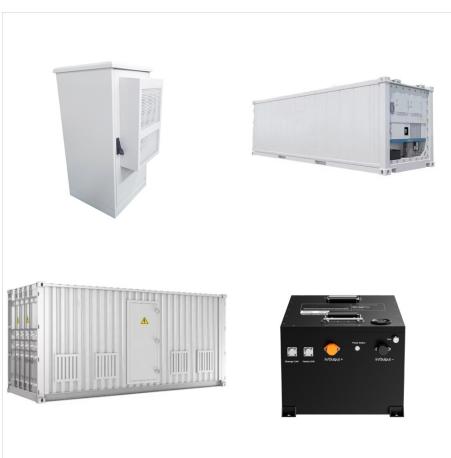
However, when Galileo saw the moon through a telescope and discovered that it was actually cratered and mountainous, he argued against Aristotle's interpretation. Galileo included drawings of the moon in his treatise *Sedarius Nuncius* as evidence to support his argument about the nature of the cosmos.

GALILEO S MODEL OF THE SOLAR SYSTEM

SOLAR[®]



Study with Quizlet and memorize flashcards containing terms like 1. At the center of the geocentric model of the Solar System is the a. Sun. b. Moon. c. Earth. d. Venus. e. Jupiter., 2. An inferior planet is one that is a. smaller than Earth. b. larger than Earth. c. closer to the Sun than Earth. d. farther from the Sun than Earth. e. made of lighter materials than Earth., 3. A superior a?|



Study with Quizlet and memorize flashcards containing terms like An inferior planet is one that is, Who of the following was not a proponent of the heliocentric model of the solar system?, When Earth catches up to a slower moving outer planet and passes it like a faster runner overtaking a slower runner in an outside lane, the planet and more.



The book did not include Galileo's most famous work, his Dialogue Concerning the Two Chief World Systems, which had been added to the Index of Forbidden Books. Still, the artist included visual reference to this work. Below the moons of Jupiter, one can clearly see a model of a Sun-centered system. Frontispiece to *Opere di Galileo Galilei*. 1656

GALILEO S MODEL OF THE SOLAR SYSTEM

SOLAR[®]



Galileo's observations of the different phases of the planet Venus provided further support for the heliocentric model of the solar system developed by Nicolaus Copernicus. In his model, all phases would be visible because the orbit of Venus around the Sun would cause its illuminated hemisphere to face the Earth when it was on the opposite



The Galileo model is explained as: The Galileo model of the solar system involved the sun at the center of the solar system. He used his telescope to prove that all planets revolve around the Sun, in a solar system. Galileo proved the Ptolemy model wrong by proving that Venus went through full sets of phases similar to the moon.



Match Galileo's discoveries with the reasons they support Copernicus's model of the Solar System. Angular size _____. (Select all that are correct.) A _____ model places the Sun at the center of the Solar System, with the planets orbiting around it.

GALILEO S MODEL OF THE SOLAR SYSTEM

SOLAR[®]



Galileo Galilei (1564-1642) was a Tuscan (Italian) astronomer, physicist, mathematician, inventor, and philosopher. He was born in Pisa, and was the oldest of six children in his family. Still, Galileo's observations have confirmed Copernicus' model of a heliocentric Solar System. They refuted the basic principles of Ptolemaean cosmology



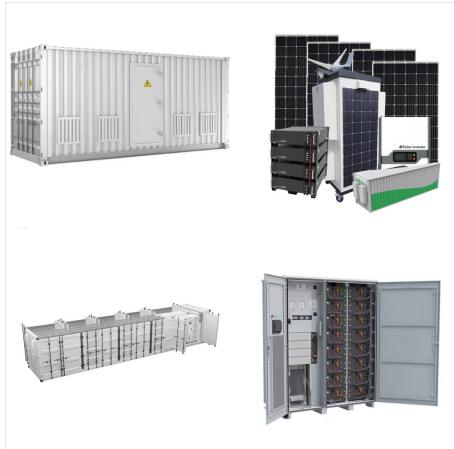
Study with Quizlet and memorize flashcards containing terms like Which model is most similar to that of Aristarchus?, Why was Aristarchus's model not accepted? Check all that apply., Choose the correct answer to complete the paragraph about the acceptance of the heliocentric model. In the second century BCE, the Greek astronomer Ptolemy tried to explain the backward a?|



The geocentric model of the solar system outlined above represents a perfected version of Ptolemy's model, constructed with a knowledge of the true motions of the planets around the sun. Not surprisingly, the model actually described in the Almagest deviates somewhat from this ideal form. In the following, we shall refer to these deviations as

GALILEO S MODEL OF THE SOLAR SYSTEM

SOLAR[®]



Galileo's startling discoveries provided pivotal support for Nicolaus Copernicus's heliocentric model (in 1543) of the Solar System 1,2. Figure 1: The "magnificent desolation" of the Earth



Galileo's discovery of the Galilean moons provided substantial support for the heliocentric model of the solar system, which posits that the Earth and other planets revolve around the Sun. Heliocentric model, proposed by a?|



Explain how Copernicus developed the heliocentric model of the solar system; Explain the Copernican model of planetary motion and describe evidence or arguments in favor of it; Describe Galileo's discoveries concerning the study of motion and forces; Explain how Galileo's discoveries tilted the balance of evidence in favor of the Copernican

GALILEO S MODEL OF THE SOLAR SYSTEM

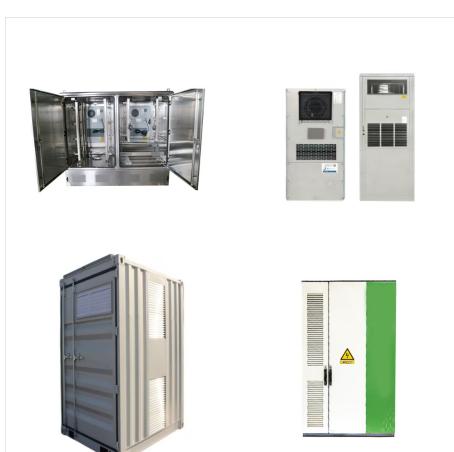
SOLAR[®]



Geocentric model, any theory of the structure of the solar system (or the universe) in which Earth is assumed to be at the center of it all. The most highly developed geocentric model was that of Ptolemy of Alexandria (2nd century CE). It was generally accepted until the 16th century.



Copernicus" model for the solar system is heliocentric, with the planets circling the sun rather than Earth. Galileo's observations of Venus were particularly compelling. In Ptolemaic models



Galileo's observations led him to publicly support the Copernicus model, which consequently resulted in him receiving a formal censure from the Catholic Church in 1616. Galileo persisted with his views, which appeared again in his Dialogue on the Two Chief Systems of the World (1632). This was too much for the Church, and Galileo was put on

GALILEO S MODEL OF THE SOLAR SYSTEM

SOLAR[®]



Examine Aristotle's model of the solar system and note its failure to explain phenomena like retrograde motion Nicolaus Copernicus, universe, Galileo, solar system. Transcript. NARRATOR: Aristotle's influence in learned circles was such that even centuries after a?|



Before the 17th century, people generally believed that Earth was at the center of the universe. Galileo, however, was not afraid to challenge existing beliefs when he published his work in support of the Sun-centered, or heliocentric, Copernican theory. In this video segment adapted from NOVA, learn about the two opposing worldviews and the strong piece of evidence Galileo a?|



However, Galileo championed Copernicus's theory of heliocentrism (Sun-centered model) which challenged the widely accepted view. The Catholic Church considered his views heresy and he was forced to publicly repent. The Heliocentric View of the Solar System. One of Galileo Galilei's greatest contributions to science is that he proved a

GALILEO S MODEL OF THE SOLAR SYSTEM

SOLAR[®]



The book did not include Galileo's most famous work, his Dialogue Concerning the Two Chief World Systems, which had been added to the Index of Forbidden Books. Still, the artist included visual reference to this work. Below the moons a?|