

Copernicus Founder of the Heliocentric Theory Poland, 1543

Nicolas Copernicus lived in Poland. His father was a successful businessman who died and left Nicolas an orphan at age 10.



**Lucas Watzenrode, Bishop and uncle of
Nicolaus Copernicus**

Nicolas and his brothers and sisters were raised by their uncle who was a bishop in the Catholic Church.



At age 18, Nicolas Copernicus began studying science at the University of Krakow in Poland.



Krakow in the mid-1500s



Europe in the 1500s

He studied law at the University of Bologna in Italy, and he studied medicine at the University of Padua in Italy.

Copernicus' uncle the bishop got him a job in the Catholic Church as an altar boy of a cathedral in Poland.

*Astronomer Copernicus:
Conversation with God*
Painting by Jan Matejko (1872)



Copernicus would receive an income without having to work very hard and he had time to look at the stars. However, he refused to become a priest!

The “Earth-centered” or “Geocentric” Theory

According to medieval science and to the Catholic Church, the Earth was the center of the universe, and the Earth did not move while all of the planets revolved around Earth.



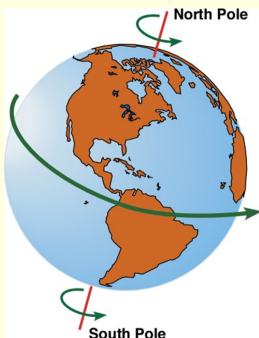
The “Sun-centered” or “Heliocentric” Theory

In 1543, Copernicus published his masterpiece, ***Concerning the Revolutions of the Celestial Spheres***. In this book, he argued that the sun lies at the center of the universe and that all the planets revolve around it. This is called the heliocentric theory. (The root “helio” is Greek for “sun.”)



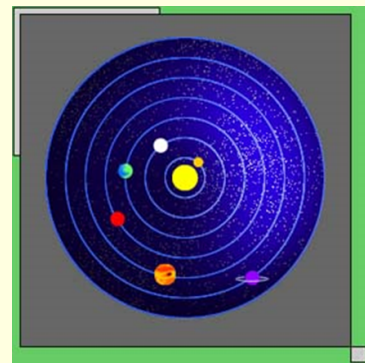
Copernicus used elaborate math
to explain that:

- The Earth revolved around the sun. This took 365 days.



- The Earth rotated on its axis. This took 24 hours.

- The Earth's axis was tilted.—
This created the seasons.

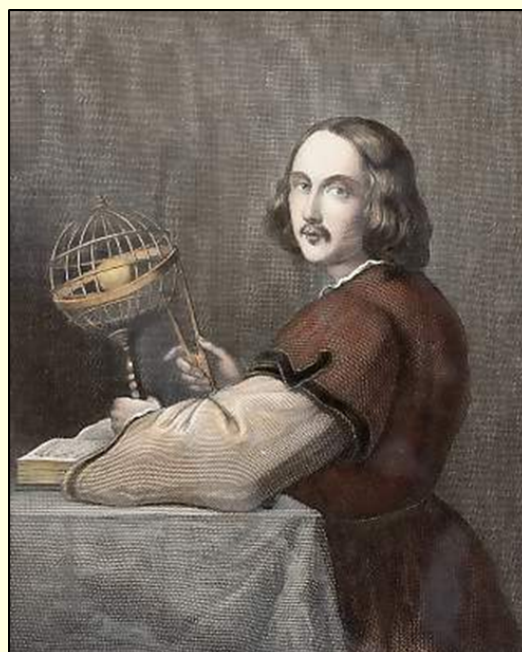


PREDICT: How do you think Europe reacted to Copernicus and his scientific discoveries?

A) Thumbs-up! Ecstatic!

B) Thumbs-down! Preposterous!

C) One Thumb-up and One Thumb-down . . . Mixed reactions.



B) Thumbs-down! Preposterous!



The idea that the Earth moved around the sun contradicted the teachings of the Catholic Church!

Copernicus' Sun Centered Universe Model



Attachments

Copernicus, Brahe, and Kepler.mp4

Copernicus.mp4