

Name: _____

Class Period: _____

Copernicus

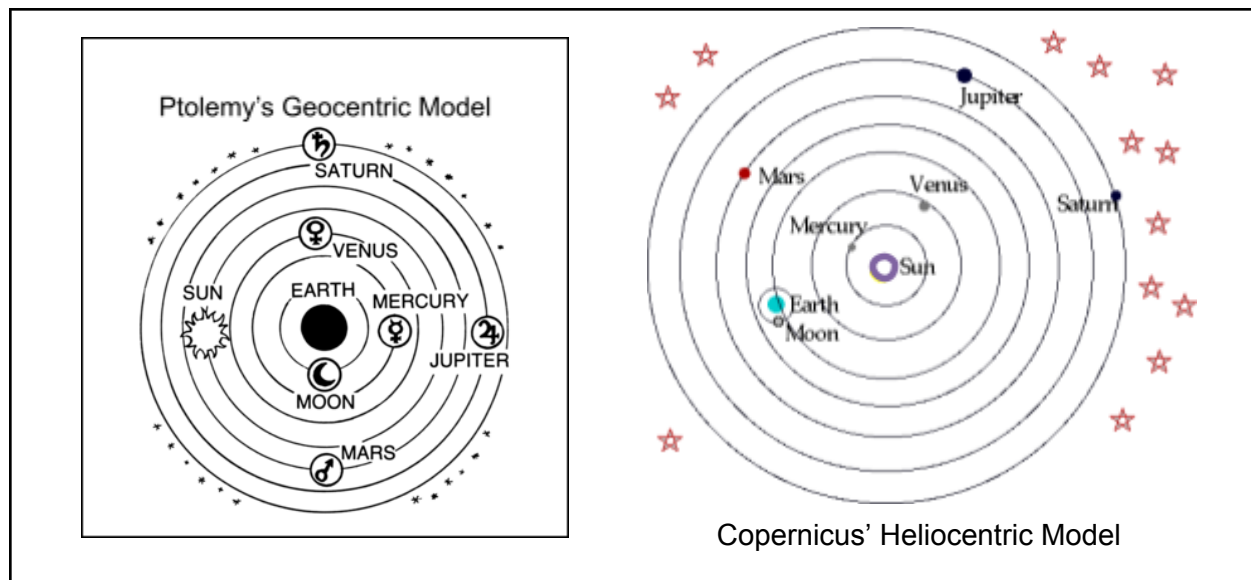
Document A: Source: World History by McDougal Littell, 2006

Although backed by authority and common sense, the geocentric theory did not accurately explain the movements of the sun, the moon, and planets. This problem troubled a Polish astronomer named Nicolaus Copernicus. In the early 1500s, Copernicus became interested in an old Greek idea that the sun stood at the center of the universe. After studying planetary movements for more than 25 years, Copernicus reasoned that indeed, stars, the earth, and other planets revolved around the sun.

1. *What ideas did Copernicus call into question?*

Document B: Source: The Copernican Model: A Sun-Centered Solar System, Department of Physics & Astronomy, University of Tennessee

The following are diagrams of the universe showing the relationship between the planets and the sun.



2. *What is the major difference between the heliocentric model and the geocentric model?*

3. *Why might people have problems accepting Copernicus' model? What would the Catholic Church say to his ideas?*

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Galileo Galilei

Document C: Source: Galileo Galilei, "Letter to the Grand Duchess Christina" (1615)

This is an excerpt from a letter written by Galileo Galilei defending his approach to science.

Some years ago, as Your Highness well knows, I discovered in the heavens many things that had not been seen before our own age. The newness of these things contradicted ideas commonly held among academic philosophers (older scientists)...

Showing a greater fondness for their own opinions than for truth, they sought to deny and disprove the new things ... To this end they hurled various charges and published numerous writings filled with inaccurate arguments, and they made the grave mistake of sprinkling these with passages taken from places in the Bible which they had failed to understand properly, and which were poorly chosen to support their argument.

4. According to Galileo, what happened when he challenged long held ideas?

Document D:

5. What device is Galileo using to make his observations of the moon in the cartoon?

6. According to this cartoon, what is the Catholic Church's view of Galileo's observations of the moon and laws of motion that supported Copernicus' heliocentric model?



Galileo discusses his discoveries with the church.

Document E

After being excommunicated by the Catholic Church and sentenced to house arrest by the Inquisition, Galileo issued this statement:

"With sincere heart and unprecedented faith I (reject)..., and detest the aforesaid errors and heresies (of Copernicus) and also every other error...contrary to the Holy Church, and I swear that in the future I will never again say or assert...anything that might cause a similar suspicion toward me." - Galileo

7. Why would Galileo have made this statement?

Document F:

Galileo- "The Bible shows the way to go to heaven, not the way the heavens (stars/planets) go."

8. What is Galileo trying to say in the quote above?