The Scientific Revolution: The Search For Meaning

Part A. Use your textbook to research answers to the following questions for homework.

1. What was the Ptolemaic concept of astronomy?

2. What was the Copernican concept of astronomy?

3. What was the Christian vision of the world based on Genesis?

4. What factors limited the immediate impact of the new science on the masses?

5. What is the scientific method?

6. What was Galileo’s mechanistic concept of the universe?

7. How did Newton summarize the achievements of the Scientific Revolution?

Part B. Assume that you will have to teach the Ptolemaic and Copernican concepts to a class such as your own. In your groups, create a visual, perhaps a cartoon or diagram, to use as a teaching tool in contrasting the two systems to your class.

Part C. Read the following quotes from Galileo and Martin Luther and explain why each would have been disturbed by the other’s concept of the universe.

I, Galileo Galilei . . . swear that I have always believed, do now believe, and by God’s help will for the future believe, all that is held, preached, and taught by the Holy Catholic and Apostolic Roman Church. But whereas . . . I wrote and printed a book in which I discuss this [heliocentric] doctrine already condemned, and adduce arguments of great cogency in its favour, without presenting any solution of these; and for this cause I have been pronounced by the Holy Office to be vehemently suspected of heresy, that is to say, of having held and believed that the sun is the centre of the world and immovable, and that the earth is not the centre and moves:—

Therefore, desiring to remove from the minds of your Eminences, and of all faithful Christians, this strong suspicion, reasonably conceived against me, with sincere heart and unfeigned faith I abjure, curse, and detest the aforesaid errors and heresies . . . and I swear that in future I will never again say or assert, verbally or in writing, anything that might furnish occasion for a similar suspicion regarding me. . . .

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I, the said Galileo Galilei, have abjured, sworn, promised, and bound myself as above.

--Sentence and Recantation (June 22, 1633)

He is reported to have said under his breath, "But it does move."


"So it goes now. Whoever wants to be clever must agree with nothing that others esteem. He must do something of his own. This is what that fellow does who wishes to turn the whole of astronomy upside down. Even in these things that are thrown into disorder I believe the Holy Scriptures, for Joshua commanded the sun to stand still and not the earth [Josh. 10:12]."

—Martin Luther