

Reading Outline: 348 - 353

The Scientific Revolution

THE SCIENTIFIC REVOLUTION

Cite 2 examples of the Scientific Revolution's complexity

Nicolaus Copernicus Rejects An Earth-Centered Universe

Easter-based science?

The Ptolemaic System

How did this system explain to order and movement of the heavens?

Copernicus's Universe

How different was the Copernican system from Aristotle's?

Tycho Brahe and Johannes Kepler Make New Scientific Observations

What major contributions were made by these two men?

Galileo Galilei Argues For A Universe Of Mathematical Laws

What is the significance of Galileo's work? How did he get his research funded?

Isaac Newton Discovers The Laws Of Gravitation

What was so "attractive" about Newton's discoveries?

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PHILOSOPHY RESPONDS TO CHANGING SCIENCE

Nature As Mechanism

How did thinking about nature as a machine change people's understanding of nature and of God?

Francis Bacon: The Empirical Method

Views about "truth"

What was "empirical evidence?"

Why did Bacon compare himself to Columbus?

What was the goal of human knowledge according to Bacon?

René Descartes: The Method of Rational Deduction

What was the difference between Bacon and Descartes concerning how they arrived at knowledge?

What was a similarity between Bacon and Descartes concerning "old" knowledge?

Why was the "knowledge" of his own and God's existence so important to Bacon?