

Reading Guide – Chapter 16

Name _____

Toward a New Heaven and Earth:

The Scientific Revolution & the Emergence of Modern Science

Due: _____

1 – Background to the Scientific Revolution, pp. 476-478

1. Summarize the section. Include details from each of the five body paragraphs in the section.

2 – Toward a New Heaven: A Revolution in Astronomy, pp. 478-488

1. Describe the Middle Ages view of the universe. (Ptolemy, geocentric, Aristotle)

2. What were the theories put forth by Copernicus?

How did religious leaders react to Copernicus' ideas?

3. What was the primary accomplishment of Tycho Brahe?

4. How did Kepler build on what Brahe had accomplished?

What were the important theories put forth by Johannes Kepler?

5. Explain Galileo's contributions to the scientific world.

How did Galileo get into trouble? What was his punishment?

6. Explain the importance of Newton's *Principia*

3 – Advances in Medicine and Chemistry & Toward a New Earth, pp. 488-493

1. In what ways was medicine unscientific prior to the sixteenth century?
2. Who was the father of 16th century anatomy? How did he make his discoveries?
3. How did William Harvey change medical views of blood circulation?
4. Who were the two founders of modern chemistry? What did they each do?
5. What was the only substantial educational opportunity for women in the Middle Ages?
6. How did scientists attempt to prove the inferiority of women?
7. What happened to the status of midwives?
8. In what way was Cartesian Dualism a revolutionary concept?

4 – The Scientific Method and the Spread of Scientific Knowledge, pp. 492-498

1. How did Bacon's system of reasoning differ from Descartes'?
2. How did scientists communicate their ideas to each other and the public?
3. Explain the economic and political factors that helped lead to the rapid acceptance of the new science of the 17th century.
4. How did some Europeans try to unite the differing views of religion and science in the 17th century?