**Toward a New Heaven and Earth:**

**The Scientific Revolution & the Emergence of Modern Science;**

**Chapter 16 (Spielvogel) pgs. 487-510**

**#1 Background to the Scientific Revolution, 487-489**

|  |
| --- |
| 1. Write a six sentence paragraph that summarizes the section. The six sentences should include a topic sentence derived from the introduction on page 449 and five detail sentences derived from each of the five body paragraphs in the section. *(6 points)*
 |

**Score: \_\_\_\_/6**

**#2 Toward a New Heaven: A Revolution in Astronomy, 489-499**

|  |
| --- |
| 1. Describe the Middle Ages view of the universe. *(Ptolemy, geocentric, Aristotle)*
 |
| 1. What were the theories put forth by Copernicus? *(heliocentric)*

How did religious leaders react to Copernicus’ ideas? |
| 1. What was the primary accomplishment of Tycho Brahe?
 |
| 1. How did Kepler build on what Brahe had accomplished?

What were the important theories put forth by Johannes Kepler? |
| 1. Explain Galileo’s contributions to the scientific world. *(telescope, inertia)*
2. How did Galileo get into trouble? What was his punishment?
 |
| 1. Explain the importance of Newton’s *Principia*. *(universal law of gravitation, world-machine) (3pts)*
 |

**Score: \_\_\_\_/11**

**#3 Medicine and Chemistry, Women, and Rationalism, 499-505**

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

**Score: \_\_\_\_/8**

**#4 The Scientific Method and the Spread of Scientific Knowledge, 505-510**

|  |
| --- |
| 1. How did Bacon's system of reasoning differ from Descartes'? (2pts) *(empiricism)*
 |
| 1. How did scientists communicate their ideas to each other & the public?
 |
| 1. Explain the economic & political factors that helped lead to the rapid acceptance of the new science of the 17th century. (2pts)
 |
| * 1. How did some Europeans try to unite the differing views of religion and science in the 17th century? *(Spinoza, pantheism, Pascal) (3pts)*
 |

**Score: \_\_\_\_/8**