**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ UNIT 3—A TIME OF REVOLUTIONS AND REASON**

*Period 1 (1450-1648) Scientific Revolution and Review: 10/17-10/28*

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| **Monday 10/17** | **Tuesday** | **Wednesday** | | **Thursday** | **Friday** |
| Historiography: 30 years’ war  Turning point of Westphalia | QUIZ????  Scientific Revolution - Unit 4 intro lecture and discussion questions  Part 1 | QUIZ????  Scientific Revolution - Unit 4 intro lecture and discussion questions  Parts 1 and 2 | | QUIZ????  Scientific Revolution -  Part 2  Scientific Revolution Seminar Review of DBQ | Bring Highlighters  Peer and Self-assessment |
| **Homework**  **Extra Credit: Power and Truth (weebly) paragraph summary and paragraph on your review of the video** | | | | | |
| * **Questions 1-9** | * **Questions 1-9** * **Questions 10-17** | **Questions 10-17** | | **Write the DBQ- Absent- see the weebly. Sci. Rev Page** | **Extra credit – Due**  **Period 1- BookCamp Review** |
| **Monday 10/24** | **Tuesday** | **Wednesday** | | **Thursday** | **Friday** |
| 1st Quarter Summary  Project | 1st Quarter Summary  Project | 1st Quarter Summary  Project  LEQ Review | | **Period 1 LEQ-**  **One period Test Grade)** | Bring Highlighters  Peer and Self-assessment |
| **Homework** | | | | | |
| 1st Quarter Summary Project | | **Prepare for an essay.** | | **Kagan 416-428 (Dutch and English)**  **Sherman 460-477** | |
| *Enduring Understandings* | | | *Essential Questions* | | |
| 1. Causes and the effects of the Scientific Revolution 2. Important accomplishments of Bacon, Descartes, Harvey, Newton, Galileo, Copernicus, & Kepler forever changed mankind’s conception of the universe and the world. 3. The scientific revolution is a “revolution,” not only because of the many new discoveries, but also because of the development of the scientific method. 4. **The inductive method changed traditional scientific inquiry.** | | | 1. In what ways were the Scientific Revolution and the Enlightenment a culmination of Renaissance thinking, & and how were they a rejection of traditional modes of thought? 2. How did scientific findings influence Enlightenment ideas about government & society? 3. What is the ideal form of government? 4. How do we know anything with certainty? | | |
| FRQ: Scientific Era   1. Analyze how Galileo, Descartes, and Newton altered traditional interpretations of nature and challenged traditional sources of knowledge. 2. Analyze the intellectual foundations of religious toleration in eighteenth century Europe. 3. Analyze how political, religious, and social factors affected the work of scientists in the sixteenth and seventeenth centuries 4. Assess the impact of the Scientific Revolution on religion and philosophy in the period 1550 to 1750. | | | | | |

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| **Terms: SCIENTIFIC REVOLUTION** | | |
| 1. Witch trials 2. Scientific Revolution 3. Ptolemy's System/ Geocentric 4. Copernicus 5. heliocentric view 6. Tycho Brahe 7. Johannes Kepler 8. 3 laws of planetary motion | 1. Galileo 2. laws of motion 3. telescope 4. Index of Prohibited Book 5. Council of Trent 6. Francis Bacon 7. empiricism 8. inductive method 9. Rene Descartes | 1. deductive reasoning 2. *cogito ergo sum* (“I think; therefore, I am”) 3. Cartesian dualism 4. scientific method 5. Isaac Newton 6. principle of universal gravitation 7. *Principia,* 1687 8. Deism / Mechanism 9. The Royal Society of London |
| 1. How did the Scientific Revolution effect European society (e.g. intellectually, religiously, economically)? | | |

Scientific Revolution Study guide

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| Students will be called on to answer one or more of these questions ( Quiz Grade)  These questions may also be collected and/or check as a homework classwork grade. |

1. Questions 1-9: Kagan (452-459, 470-471) or Sherman (483-489)
2. Questions 10- 17: Kagan (460-1, 466-469, 472-3) or Sherman (491-494)

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| “There is talk of a new astrologer [Nicolaus Copernicus] who wants to prove that the earth moves and goes around instead of the sky, the sun, the moon, just as if somebody were moving in a carriage or ship might hold that he was sitting still and at rest while the earth and the trees walked and moved. But that is how things are nowadays: when a man wishes to be clever he must . . . invent something special, and the way he does it must needs be the best! The fool wants to turn the whole art of astronomy upside-down. However, as Holy Scripture tells us, so did Joshua bid the sun to stand still and not the earth. ― [**Martin Luther**](http://www.goodreads.com/author/show/29874.Martin_Luther) |
| 1. Why would Martin Luther and the Catholic Church have the same view of Copernicus’ Heliocentric theory? |
| “To know that we know what we know, and to know that we do not know what we do not know, that is true knowledge.”  ― [**Nicolaus Copernicus**](http://www.goodreads.com/author/show/3072638.Nicolaus_Copernicus) |
| 1. How does this view of knowledge show a change from medieval thinking? |

1. What was the Scientific Revolution?
2. Create a chart with the causes of the Scientific Revolution, Explain or show analysis of each cause. Some are in the Readings some are not- think (Example)

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| invention of the printing press | created numerous books and newsletters to keep people informed of science. |
| Renaissance: Painters /Perspective |  |
| Causes: Humanism, Exploration, New Monarchy, Technology, Constant war (Wars of Religion 1550-1648), Growth of University’s, Protestant Reformation, Scientific Method and Reasoning | |

As you complete the read create a charts for each of the Natural Philosophers: Copernicus, Brache, Kepler, Galileo, Newton, Descartes, Bacon, Part 2: Leeuwenhoek, Harvey, Vesalius, Boyle.

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| Natural Philosophers | Works- Dates of Publish | Impact |

1. If you lived in the 15th and 16th century, would you agree with the geocentric theory? Why or why not?
2. Explain and draw the geocentric model devised by Ptolemy.
3. Explain and draw the heliocentric model.
4. Evaluate the reasons why the Catholic Church rejected Copernicus’ and Galileo’s ideas. (Kagan 470-1)
5. Analyze Newton’s beliefs. Why do you think that many historians of science consider Sir Isaac Newton's Law of Gravitation to be "the greatest achievement of the human mind"?
   1. Put into practice your knowledge of Newton to show how he changed theories on motion and movement. (get up and drop some around your house in the name of science- not breakable stuff-make some observations)
6. What is the scientific method?
7. Explain Francis Bacon’s inductive reasoning.
8. How did Bacon impact science?
9. Explain Descartes’ deductive reasoning?
10. How did Descartes’ impact science?
11. Compare and contrast the English and French Scientific societies
12. With the exception of a few individuals, why were women excluded from participation in the Scientific Revolution? Why is denying a group access to knowledge or the opportunity to make use of their abilities harmful to all members of society?
13. Develop an overall opinion on Margret Cavendish and what effect she had on the scientific revolution?