

**7.60 Gather relevant information from multiple print and digital sources explaining the significance of new scientific theories, the accomplishments of leading figures including Sir Francis Bacon, Nicolaus Copernicus, Rene Descartes, Galileo Galilei, Johannes Kepler, and Sir Isaac Newton, and new inventions, including the telescope, microscope, thermometer, and barometer**

- I. Sir Francis Bacon (1561-1626)
  - A. Father of the \_\_\_\_\_
  - B. Articulated \_\_\_\_\_
  - C. Emphasis on \_\_\_\_\_, useful \_\_\_\_\_
  - D. New attitude toward \_\_\_\_\_
- II. Nicolaus Copernicus (1473-1543)
  - A. \_\_\_\_\_ universe (\_\_\_\_\_)
  - B. Challenged \_\_\_\_\_ orbits
  - C. \_\_\_\_\_ no different than any other \_\_\_\_\_
  - D. *On the Revolutions of Heavenly Spheres* (1543)
- III. Rene Descartes (1596-1650)
  - A. Significance of \_\_\_\_\_
  - B. The \_\_\_\_\_ Method
  - C. Spatial relationships can be expressed in \_\_\_\_\_ formulas
  - D. Father of “\_\_\_\_\_”
- IV. Galileo Galilei (1564-1642)
  - A. Early practitioner of the \_\_\_\_\_ method
  - B. Mathematical formula for \_\_\_\_\_ of falling objects
  - C. Law of \_\_\_\_\_
  - D. His discoveries made using the \_\_\_\_\_
  - E. Found \_\_\_\_\_ of heresy and died under \_\_\_\_\_
- V. Johannes Kepler (1571-1630)
  - A. \_\_\_\_\_ motion conforms to \_\_\_\_\_ formula
  - B. \_\_\_\_\_ orbits
  - C. Planets do not move at \_\_\_\_\_ speed in their orbits
- VI. Sir Isaac Newton (1642-1727)
  - A. Argued for a \_\_\_\_\_ governed by \_\_\_\_\_
  - B. Laws of \_\_\_\_\_ and \_\_\_\_\_

C. Invented \_\_\_\_\_

D. *Principia; Mathematical Principles of Natural Philosophy* (1687)

VII. Consequences of the Scientific Revolution

A. Rise of the “\_\_\_\_\_”

1. Royal Society of London (1662)

2. Academy of Royal Sciences (1666)

B. The modern \_\_\_\_\_

C. A universe ordered according to \_\_\_\_\_

D. Laws discovered by \_\_\_\_\_

E. “De-spiritualized” and de-mystified the \_\_\_\_\_

F. \_\_\_\_\_ view of the universe