## CHAPTER 16 TOWARD A NEW HEAVEN AND A NEW EARTH: THE SCIENTIFIC REVOLUTION AND THE EMERGENCE OF MODERN SCIENCE

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## **CHAPTER OUTLINE**

- I. Background to the Scientific Revolution
  - A. Ancient Authors and Renaissance Artists
  - B. Technological Innovations and Mathematics
  - C. Renaissance Magic
- II. Toward a New Heaven: A Revolution in Astronomy
  - A. Copernicus
  - B. Brahe
  - C. Kepler
  - D. Galileo
    - 1. Galileo and the Inquisition
    - 2. Galileo and the Problem of Motion
  - E. Newton
    - 1. Newton and the Occult
    - 2. Universal Law of Gravitation
- III. Advances in Medicine and Chemistry
  - A. Paracelsus
  - B. Vesalius
  - C. William Harvey
  - D. Chemistry
- IV. Women in the Origins of Modern Science
  - A. Margaret Cavendish
  - B. Maria Merian
  - C. Maria Winkelmann
  - D. Debates on the Nature of Women
- V. Toward a New Earth: Descartes, Rationalism, and a New View of Humankind
- VI. The Scientific Method and the Spread of Scientific Knowledge
  - A. The Scientific Method
    - 1. Francis Bacon
    - 2. Descartes
  - B. Spread of Scientific Knowledge
    - 1. The Scientific Societies
    - 2. Science and Society
  - C. Science and Religion in the Seventeenth Century
    - 1. Spinoza
    - 2. Pascal
- VII. Conclusion