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| **Chapter 16** |
| **Step One—Read the Chapter and Take Notes As You Go**  |
| This outline reflects the major headings and subheadings in this chapter of your textbook. Use it to take notes as you read each section of the chapter. In your notes, try to restate the main idea of each section. |

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| CHAPTER 16: Toward a New Worldview, 1540–1789 |
| I. Major Breakthroughs of the Scientific Revolution  |
|   | A. Scientific Thought in 1500  |
|   |   | 1. Natural Philosophy   |
|   |   | 2. Aristotelian Cosmology  |
|   |   | 3. Ptolemy  |
|   |   | 4. Scientific Consensus  |
|   | B. Origins of the Scientific Revolution |
|   |   | 1. Universities  |
|   |   | 2. The Renaissance  |
|   |   | 3. Navigation  |
|   |   | 4. Astrology and Alchemy  |
|   | C. The Copernican Hypothesis |
|   |   | 1. Nicolaus Copernicus (1473–1543)  |
|   |   | 2. Copernican Hypothesis  |
|   |   | 3. Implications |
|   | D. Brahe, Kepler, and Galileo: Proving Copernicus Right |
|   |   | 1. Tyco Brahe (1546–1601)  |
|   |   | 2. Johannes Kepler (1571–1630) |
|   |   | 3. Galileo Galilei (1564–1642) |
|   |   | 4. Conflict with the Church |
|   | E. Newton’s Synthesis  |
|   |   | 1. Isaac Newton (1642–1727)  |
|   |   | 2. Mathematical Principles of Natural Philosophy |

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| II. Important Changes in Scientific Thinking |
|   | A. Bacon, Descartes, and the Scientific Method  |
|   |   | 1. Francis Bacon (1561–1626)  |
|   |   | 2. René Descartes (1596–1650)  |
|   |   | 3. Cartesian Dualism  |
|   | B. Medicine, the Body, and Chemistry |
|   |   | 1. Paracelsus (1493–1541)  |
|   |   | 2. Andreas Vesalius (1516–1564) |
|   |   | 3. William Harvey (1578–1657) |
|   |   | 4. Robert Boyle (1627–1691) |
|   | C. Empire and Natural History |
|   |   | 1. Discoveries in the New World |
|   |   | 2. Scientific Expeditions |
|   |   | 3. Back Home |
|   | D. Science and Society |
|   |   | 1. Rise of the International Scientific Community  |
|   |   | 2. Gender and Science  |

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| III. The Enlightenment  |
|   | A. The Emergence of the Enlightenment (ca. 1690–1789) |
|   |   | 1. The Enlightenment Generation  |
|   |   | 2. Pierre Bayle (1647–1706)  |
|   |   | 3. Baruch Spinoza (1632–1677)  |
|   |   | 4. John Locke (1632–1704) |
|   | B. The Influence of the Philosophes  |
|   |   | 1. Philosophes  |
|   |   | 2. Montesquieu (1689–1755) |
|   |   | 3. Voltaire (1694–1778)  |
|   |   | 4. Diderot (1713–1784) and d’Alembert (1717-1783) |
|   | C. Jean-Jacques Rousseau  |
|   |   | 1. Jean-Jacques Rousseau (1712-1778) |
|   | D. The International Enlightenment |
|   |   | 1. The Religious Enlightenment |
|   |   | 2. The Scottish Enlightenment  |
|   |   | 3. David Hume (1711–1776) |
|   |   | 4. Immanuel Kant (1724–1804) |
|   |   | 5. Cesare Beccaria (1738-1794)  |
|   | E. Urban Culture and Life in the Public Sphere  |
|   |   | 1. Reading Revolution  |
|   |   | 2. Salons |
|   |   | 3. Rococo |
|   |   | 4. Public Sphere |
|   | F. Race and the Enlightenment  |
|   |   | 1. Carl von Linné  |
|   |   | 2. David Hume and Immanuel Kant  |
|   |   | 3. The Concept of “Race” |

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| IV. Enlightened Absolutism  |
|   | A. Frederick the Great of Prussia (r. 1740–1786) |
|   |   | 1. Territorial Expansion |
|   |   | 2. Enlightened Rule |
|   |   | 3. Limits of Enlightenment  |
|   | B. Catherine the Great of Russia (r. 1762–1796) |
|   |   | 1. German Background  |
|   |   | 2. Catherine and Enlightenment  |
|   |   | 3. Territorial Expansion   |
|   | C. The Austrian Habsburgs  |
|   |   | 1. Marie Theresa (r. 1740–1780)  |
|   |   | 2. Joseph II (r. 1780–1790) |
|   |   | 3. Leopold II (r. 1790–1792) |
|   | D. Jewish Life and the Limits of Enlightened Absolutism |
|   |   | 1. Jewish Life  |
|   |   | 2. Haskalah |
|   |   | 3. Tolerance |