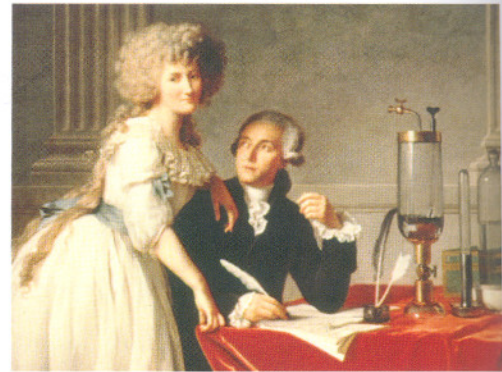


Scientific Revolution and Enlightenment

The 17th and 18th centuries have been called the **Age of Reason**. People began to question religion, science, and government.

- Scientists developed the scientific method, testing old ideas against new observations made with more precise instruments.
- The resulting **Scientific Revolution** completely changed how people saw the world.
- Philosophers and governments hoped to replace older ideas of government and society with new ones that worked better. This movement was called the **Enlightenment**.
- Enlightenment philosophers concluded that society was a voluntary group of free and equal people. This encouraged people to fight for freedom and equality.



B Marie Anne and Antoine Lavoisier conducted experiments together. She recorded the results, translated them into English, and drew illustrations of the equipment used.

SCIENCE & TECHNOLOGY Scientific Revolution, 1543–1800

A Some of these scientists, particularly Copernicus and Galileo, were denounced by religious authorities. Their discoveries contradicted the Bible.

1609
Johannes Kepler (German) finds planets follow an elliptical orbit around the sun.

1543
Nicolaus Copernicus (Polish) publishes theory that 7 planets revolve around sun.

1610
Galileo Galilei (Italian) discovers Jupiter's moons with his telescope.

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1674
Anton van Leeuwenhoek (Dutch) improves the microscope and observes bacteria.

1687
Isaac Newton (English) publishes theory of gravity explaining why planets stay in orbit.

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1772–1774
Antoine Lavoisier (French) proves that matter cannot be created or destroyed—it only changes in form.

1774
Joseph Priestley (English) and Carl Scheele (Swedish) isolate oxygen.

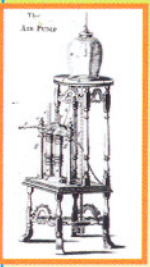
1781
William Herschel (English) discovers the planet Uranus.

1550 1600 1650 1700 1750 1800

1543
Andreas Vesalius (Flemish) publishes the first illustrated manual of human anatomy.

1662
Robert Boyle (Irish) discovers a relationship between pressure and volume of a gas.

1628
William Harvey (English) publishes his findings on how blood circulates through the body.



1665
Robert Hooke (English) studies plants under a microscope and discovers cells.



1753
Carl von Linné (Swedish) establishes a method for naming and classifying plants.

1782
James Watt (Scottish) invents a new steam engine.