

# Enlightenment and Revolution

*An Age of Revolutions*  
(1750–1914)



The Scientific Revolution

The Enlightenment

The American Revolution

## Thematic Icons



Economics and business



Geography and environment



Historical concepts and questions



Politics, government and citizenship



Religion and thought



Society and culture



War, diplomacy and foreign policy

**Icons:** For more detailed instructions, see the *User Guide*



Flash activity (these activities are not editable)



Teacher notes included in the Notes page



By the end of this section, you will have learned about the Scientific Revolution and be able to answer the following key questions:

- What was the Scientific Revolution and how did it change methods of thinking?
- What were some of the key developments of the period?
- Who were the important thinkers during the Scientific Revolution?



In order to contextualize the Enlightenment era, use this timeline to recap previous key historical events.

Either press on a date or drag the pointer along the timeline to find out information about what happened in each year.

Press **start** to begin.

**start**







The **Scientific Revolution** was a period of history in the 16<sup>th</sup> and 17<sup>th</sup> centuries during which new methods of scientific inquiry were developed and embraced.

It was strongly influenced by the early **industrial revolution** beginning in England. Its pioneers believed that the world could be explained in mechanical terms. There was less emphasis on divine mystery and greater emphasis on a more complicated, interrelated natural mechanistic world.



As the scientist J.D. Bernal put it, “Religion, superstition and fear were replaced with reason and knowledge.”

How did the revolution affect people’s everyday lives?



As time progressed, men of learning began to think differently and seek explanations for natural events. During the 17<sup>th</sup> century, there was a change in methods and learning from what had come before.

Drag each statement to the correct place, depending on the time period it refers to.

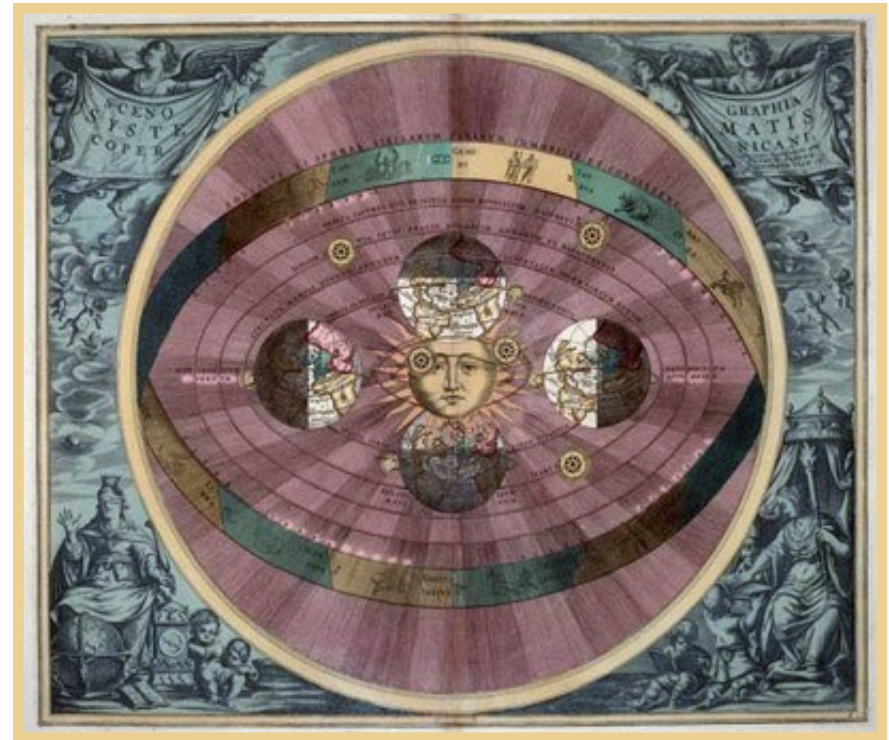
Press **start** to begin.

start



From the time he wrote *Almagest* in 150 C.E., **Ptolemy's** explanation of a **geocentric** universe, with the Earth in the center, had been accepted.

In 1543, a Polish astronomer named **Nicolaus Copernicus** wrote *On the Revolutions of the Celestial Spheres*. This gave the western world an alternative explanation – a **heliocentric** universe with the Sun at the center.



Why do you think this idea was so revolutionary?





The new understanding of the heavens and the heliocentric model of the universe were developed slowly over time by several key individuals.

Press on the buttons to find out more about the key players and their developments.

Press **start** to begin.

start







**Francis Bacon** (1561–1626) was an English philosopher and scientist. He believed that empirical methods of observation and experimentation were better than assumption. He did not believe that all knowledge had already been discovered.

“If a man will begin with certainties, he shall end in doubts; but if he will be content to begin with doubts, he shall end in certainties.”

He advocated that knowledge should be used to improve the human condition and that people could actually be improved.



How does the quote fit in with the Scientific Revolution?



**René Descartes** (1596–1650) was a French philosopher and mathematician. He invented analytic geometry and also helped to develop the **scientific method**, a systematic way of deducing information from uniform observations.



Descartes believed that each person had the ability to reason and therefore grasp the world around them. This challenged the social structure because it meant that everyone could improve themselves and better their position in life.

The thoughts of Descartes, along with Bacon's ideas on the improvement of the human condition also challenged the idea of a social class with no movement.





Several key individuals made important discoveries and breakthroughs in the fields of medicine, health and anatomy. Can you match each medical pioneer to his portrait and description?

Press **start** to begin.

**start**





The scientific revolution saw many important developments in a variety of different fields.

Decide whether you think these statements are true or false.

Press **start** to begin.

start



What other developments were made at this time?

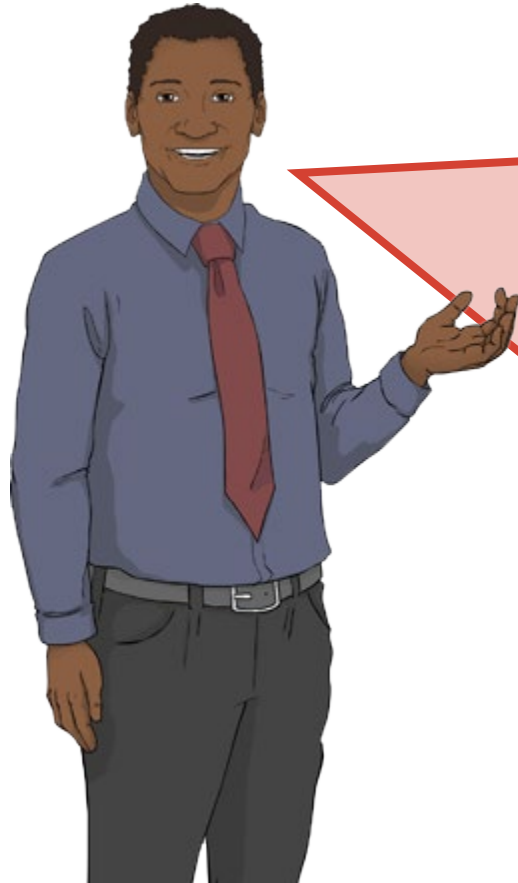




# Was it a revolution?



Many people doubt the revolutionary nature of the period, as revolution infers a relatively fast, far-reaching change.



The ideas of the time were built slowly over decades and few people were impacted by them. In society very little changed as a result. Not all of the ideas were new; many great thinkers of the time built upon earlier thought. Science did not replace religion as the primary source of natural understanding, but approaches to thinking changed, allowing for further changes later.

Do you think it was a revolution?