



## Massachusetts State Standards

- WHI.33 Summarize how the Scientific Revolution and the scientific method led to new theories of the universe and describe the accomplishments of leading figures of the Scientific Revolution, including Bacon, Copernicus, Descartes, Galileo, Kepler, and Newton. (H)
- WHI.34 Describe the concept of Enlightenment in European history and describe the accomplishments of major Enlightenment thinkers, including Diderot, Kant, Locke, Montesquieu, Rousseau, and Voltaire. (H)
- WHI.35 Explain how the Enlightenment contributed to the growth of democratic principles of government, a stress on reason and progress, and the replacement of a theocentric interpretation of the universe with a secular interpretation. (H)
- ELA 2.4 Integrate relevant information gathered from group discussions or interviews for reports.
- ELA 3.12 Give oral presentations to different audiences for various purposes showing appropriate changes in delivery
- VA 5.7 Demonstrate a fundamental awareness of architectural styles and the ways that these have influenced painting and sculpture

# Bacon and Descartes

## “Fathers of the Enlightenment”

---

- Insert United Streaming Video Segment

**The Scientific Method: Francis Bacon and René Descartes** (02:24) Many historians consider Francis Bacon and René **descartes** to be the "Fathers of the Enlightenment". Their ideas proved to be extremely important because they led to the development of the scientific method, a series of simple steps that can be followed to help solve even the most complicated scientific problems. Grade(s) : 6-8

© 2004 United Learning

# 18<sup>th</sup> Century Europe

What is “The Enlightenment Era” or “Age of Reason” ?  
(A Time of Illumination)      (Rational Thought)

During the 1800's a group of new age thinkers known as philosophers began exploring new ways of thinking and understanding the world. They wanted to rid the world of superstition and ignorance. Using reason, their influence and discoveries changed the operating systems in Europe and revolutionized science, math, political systems and the arts.

Who were these men?

Where did they come from?

# Enlightened thinkers came from....



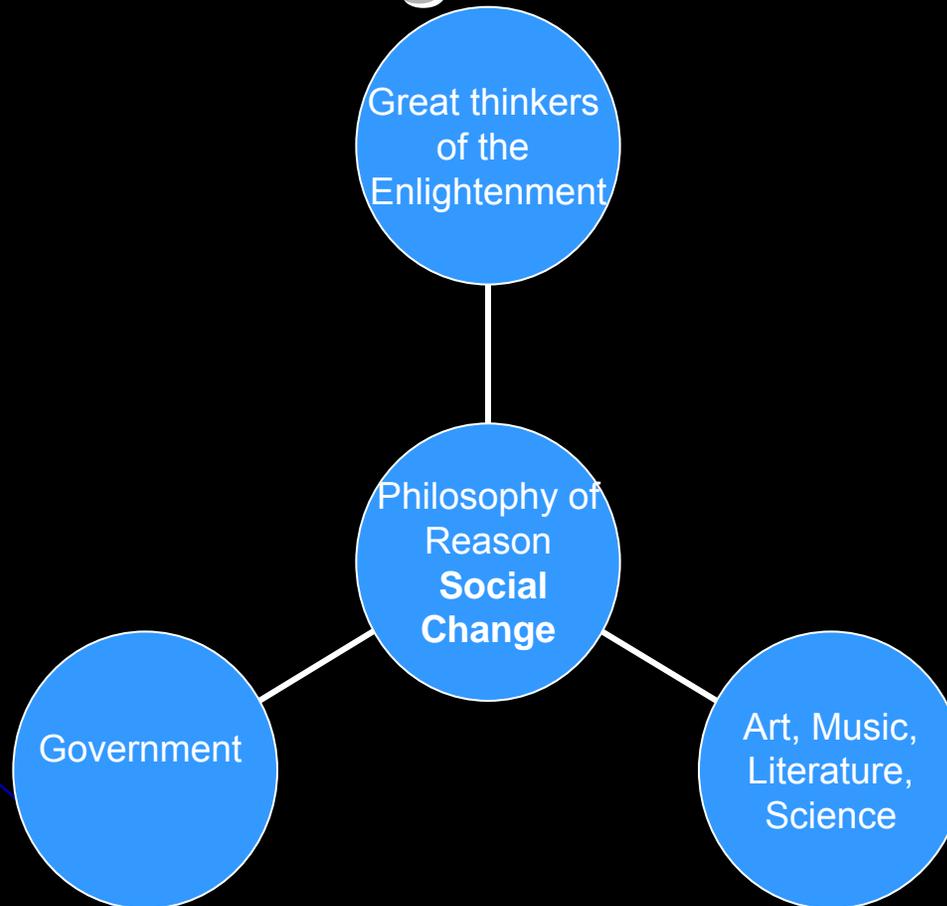
# What you need to remember

 **All About the Enlightenment: The Age of Reason :Enlightenment Philosophers:Locke, Voltaire, and Montesquieu (3:23)** This valuable program examines **the** amazing historical era known as **the enlightenment** or “Age of Reason.” It examines **the** key contributions of Isaac Newton, **the** French philosophers, Denis Diderot, and Carolus Linnaeus in helping to shape brand-new way of seeing and relating to **the** worldGrade(s) : 6-8

 © 2004 United Learning



# “The Age of Enlightenment” or “The Age of Reason”





## So What do I need to know?

---

- ❑ You should recognize that the Enlightenment was an historic period of 18<sup>th</sup> century Europe when philosophies (or ideas) about the world began to change.
- ❑ The people who began thinking outside the box were known as Philosophers and because of their labors, major advances were made in science, math and government.

# Changes in Belief Systems

---

- **Theism** – the belief in one God as the creator and ruler of the universe, without rejection of revelation
- VS
- **Deism** - belief in the existence of a God on the evidence of reason and nature only, with rejection of supernatural revelation

**Enlightenment** – a time period when reason (as opposed to faith) was used to examine science.

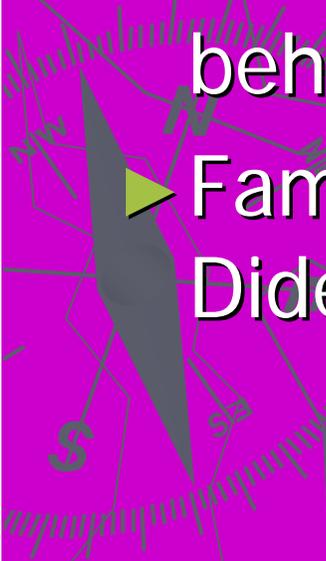
---

*So how does one come to know things?*

- Rationalist Thought
  - Empiricist Thought
  - Believed that as in mathematical truths, knowledge was based on the reasoning inside our minds
  - Reasoning was a powerful tool, but the knowledge came from the impressions of the sense
-

# In France

- ▶ Philosophers known as Encyclopedists, wanted to document the Enlightenment ideals. They were afraid the world might destroy itself and they wanted to make sure an “enlightened” guide would be left behind.
- ▶ Famous members of the design team were Diderot, Rousseau, Voltaire



# Montesquieu (mon-tess-cue)

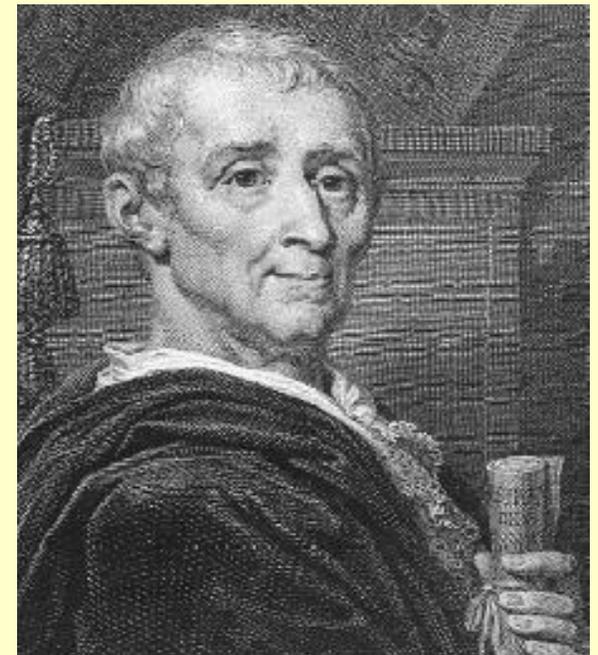
---

- ❑ Insert Video Segment United Streaming (3:25)

During the Enlightenment, philosophers concentrated on the mind, political subjects, and other, more abstract concepts as well. Englishman John Locke focuses on political subjects while Frenchmen Voltaire and **montesquieu** wrote passionately about human rights and democracy.

- ❑ Grade(s) : 6-8 ©  
2004 United Learning

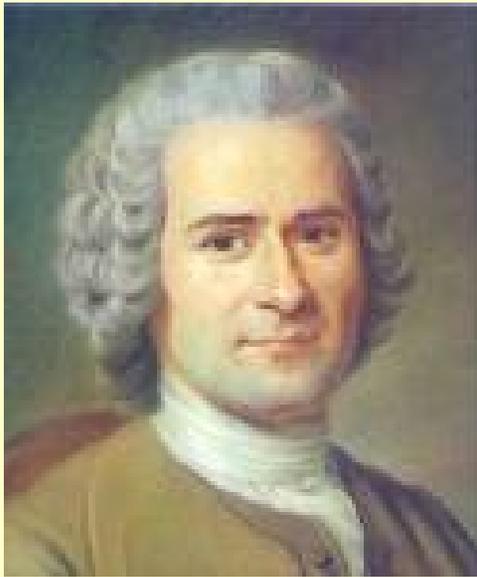
“Liberty is the right to do what the law permits.”



# Jean Jacques Rousseau

(zjawn zjak roo-soh)

---



- Although the Crown supported the spread of the scientific theories of the Enlightenment, it tried to halt the spread of its political ideas. Both Crown and Church prohibited the circulation of the works of Montesquieu, Voltaire, and Rousseau, judging them as "dangerous."

“The world of reality has its limits; the world of imagination is boundless.”

# Denis Diderot (dee-dare-oh)



"All things must be examined, debated, investigated without exception and without regard for anyone's feelings."  
Explaining the goal of the *Encyclopedia*

## □ French philosopher and Encyclopedists Insert Video Clip from United Streaming

This valuable program examines the amazing historical era known as the Enlightenment or "Age of Reason." It examines the key contributions of Isaac Newton, the French philosophers, Denis Diderot, and Carolus Linnaeus in helping to shape brand-new way of seeing and relating to the world

Copyright: 2004

Grades: Gr. 6 - Gr. 8

All About the Enlightenment: The Age of Reason. United Learning  
(2004). Retrieved October 26, 2008, from  
Discovery Education:  
<http://streaming.discoveryeducation.com/>

# Voltaire (vol-tare)



“No snowflake in an avalanche ever feels responsible.”

- ❑ Insert Video Segment United Streaming
- ❑ <http://player.discoveryeducation.com/index.cfm?guidAssetId=0D9D0FB7-46F3-4B8D-80A2-C4AD4F36EF57&blnFromSearch=1&productcode=US>
  
- ❑ Francois-Marie Arouet was known as **Voltaire**. He wrote plays, novels, historical and philosophical works. His outspokenness constantly landed him in prison twice. He became the leading liberal voice of the French Enlightenment and has had a worldwide influence ever since. The essence of **voltaire** can be discerned in *Candide* and *Lettres Philosophiques*.
  
- ❑ Grade(s) : 9-12 ©  
2002 United Learning



# Emanuel Kant

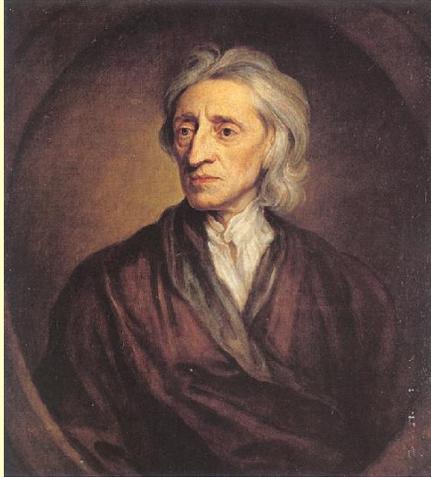
---

Insert Video Clip (3.35)

- "Science is organized knowledge. Wisdom is organized life."
- All About the Enlightenment: The Age of Reason. United Learning (2004). Retrieved September 25, 2008, from unitedstreaming:  
<http://streaming.discoveryeducation.com/>

# John Locke

---



“The end of law is not to abolish or restrain, but to preserve and enlarge freedom. For in all the states of created beings capable of law, where there is no law, there is no freedom.”

- Insert Video segment John Locke
- During the Enlightenment, philosophers concentrated on the mind, political subjects, and other, more abstract concepts as well. Englishman John Locke focusee on political subjects while Frenchmen Voltaire and Montesquieu wrote passionately about human rights and democracy.
- Copyright: 2004  
Grades: Gr. 6 - Gr. 8
- United Learning. "All About the Enlightenment: The Age of Reason."  
Discovery Education:  
<http://streaming.discoveryeducation.com/>

## To Summarize

Montesquieu was a French Philosopher who argued for a monarchy but under a system of “Separation of Powers”

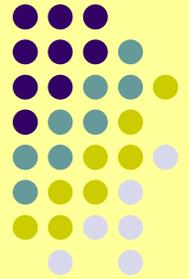
Rousseau was a Swiss philosopher who believed direct democracy would best ensure peoples’ freedoms

Locke was an English philosopher who argued governments are created to protect our “natural rights” of life, liberty and property.

Voltaire was a French philosopher who argued for civil liberties including freedom of religion and free trade

Diderot was a French philosopher who wanted to give everyone access to knowledge through his encyclopedia.

Kant was a Prussian philosopher who wanted to find a compromise between rational and empirical thought.



# Architecture and Natural Beauty

---

- Insert Video Clip United Streaming
- Age of Reason, The: Europe After the Renaissance (1642-1800). United Learning. 1995.  
Discovery Education. 26 October 2008  
<<http://streaming.discoveryeducation.com/>>
- In this program students will discover how the English philosopher **john locke** and his contemporary, the scientist Isaac Newton, provided the foundation for a truly unique period of history. They will learn how the teachings of this era inspired scientific achievements and a revolution in political thought.
- Grade(s) : 6-8                      **classic**                      © 1995                      United Learning

# Jefferson's Monticello Neoclassical Architecture

---

- Insert United Streaming Video Segment: (1:23) Monticello
- Jefferson's imagination was captured by the grandeur and the glamour of Europe. He attempted to incorporate the architectural style of Paris's Great Dome into buildings across America.
- Copyright: 1997  
Grades: Gr. 6 - Gr. 8
- Discovery Channel School. "The Real Thomas Jefferson."  
Discovery Education: <http://streaming.discoveryeducation.com/>



---

# Let's look at some examples of Neoclassical art and architecture!

Materials: Lesson Handout can be adapted

From the J. Paul Getty Trust website listed below.

[http://www.getty.edu/education/for\\_teachers/curricula/neoclassicism/neocl\\_lesson04.html](http://www.getty.edu/education/for_teachers/curricula/neoclassicism/neocl_lesson04.html)

Transparency pictures or projected pictures via the web should be utilized.

# Changes in 17<sup>th</sup> Century Music

---

- **Insert Video Segment United Streaming**
- **Mozart** was born into a musical family and his extraordinary musical talent was evident at an early age. As a child prodigy, he traveled to all the capitals of Europe and developed into one of the greatest composers of all time.
- **Grade(s) : 9-12**                      © 1996                      **United Learning**

# Newton and the Scientific Revolution (optional)

---

- Insert United Streaming Video Segment
- Isaac Newton and the Scientific Revolution. United Learning. 1995.  
Discovery Education. 26 October 2008  
<<http://streaming.discoveryeducation.com/>>
- Isaac Newton revolutionized contemporary science by theorizing a new scientific approach based on observation and experimentation. His studies lead to a new understanding of force and motion, as well as the concept of gravity.
- Copyright: 1995  
Grades: Gr. 6 - Gr. 8

# Presentation Complete

- Enlightenment Philosophers: Locke, Voltaire, and Montesquieu . United Learning (2004). Retrieved September 25, 2008, from <http://streaming.discoveryeducation.com/>>
- John Locke (1632-1704).. IRC (2005). Retrieved September 25, 2008, from unitedstreaming: <http://streaming.discoveryeducation.com/>
- All About the Enlightenment: The Age of Reason. United Learning (2004). Retrieved September 25, 2008, from unitedstreaming: <http://streaming.discoveryeducation.com/>
- Jean-Jacques Rousseau (1712-1778).. IRC (2005). Retrieved September 25, 2008, from unitedstreaming: <http://streaming.discoveryeducation.com/>
- J. Paul Getty Museum Education Staff, "If These Walls Could Talk." [J. Paul Getty Trust](http://www.getty.edu/education/for_teachers/curricula/neoclassicism/neocl_lesson04.html). The Getty. 26 Oct 2008 <[http://www.getty.edu/education/for\\_teachers/curricula/neoclassicism/neocl\\_lesson04.html](http://www.getty.edu/education/for_teachers/curricula/neoclassicism/neocl_lesson04.html)>