# Enlightenment & Revolution, 1550-1789

#### Scientific Revolution

- Change in European thought in the mid-1500s
- Study of the natural world began to be characterized by careful observation and questioning previously accepted beliefs of ancient thinkers and the church



Views of the Universe

#### Geocentric Theory

 belief that the earth was the center of the universe

 All planets, the moon and the sun moved around the earth

#### Heliocentric Theory

 Sun-centered theory discovered by Copernicus



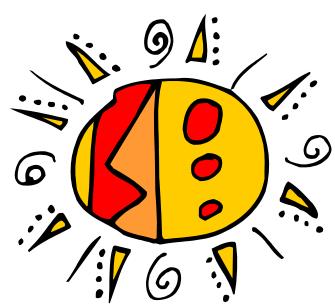
## What did they do?

#### Nicolaus Copernicus

Discovered the heliocentric theory in the 1500s, but did not publish his ideas because he feared persecution from the church

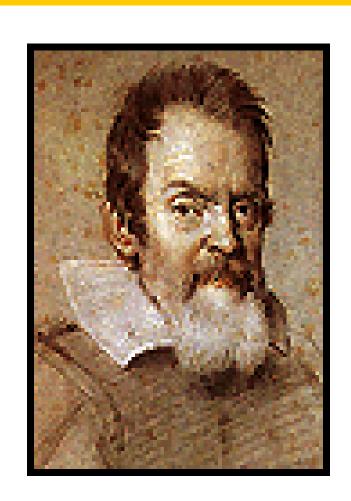
### Johannes Kepler

Discovered that the planets revolve around the sun in elliptical orbits rather than circles, proving mathematically the heliocentric theory



### Galileo Galilei

- Discovered...
  - The law of the pendulum
  - All objects fall at the same speed
- Built his own telescope in 1609
- Supported the heliocentric theory, which angered the Catholic Church... why?
- Stood trial before the Inquisition in 1633,
   where he signed a confession claiming
   Copernicus's ideas were false
- Lived under house arrest until he died in 1642



## What did they do?

## Francis Bacon

Urged scientists to use experimentation, such as the <u>scientific</u> method: a logical procedure for gathering and testing data

#### René Descartes

Mathematician who believed everything should be doubted until proven by reason. The only thing he knew for certain was that he existed... *I think, therefore I am.*..

#### Isaac Newton

Developed the law of gravity

## The Enlightenment

- The Age of Reason that reached its height in the mid-1700s
- Thinkers tried to apply reason and the scientific method to all aspects of society
  - REVIEW: What is the scientific method?



Scientific Method: a logical procedure for gathering and testing data

#### Views on Government

- ♦ OLD IDEA: The king's or queen's rule is justified by DIVINE RIGHT
  - REVIEW: What is Divine Right?

Divine Right: The idea that monarchs are God's representatives on earth and answer only to God

WNEW IDEA: The government's power comes from the consent of the governed... in other words, from ordinary people like you and me

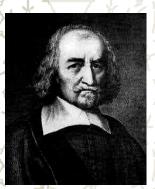
#### Views on Government

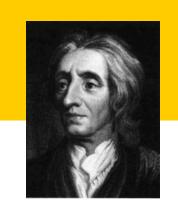


- MAIN IDEA: People need
   a strong government to
   keep order
- people define and limit their own rights in order to create a strong government and an organized society



- MAIN IDEA: People have the natural ability to govern themselves
- Belief that people are born with <u>natural rights</u> of life, liberty and property
- If government withholds these natural rights, people have the right to overthrow it





## Philosophes

What are the philosophes?

French social critics of the Enlightenment who believed that reason could be applied to all aspects of life

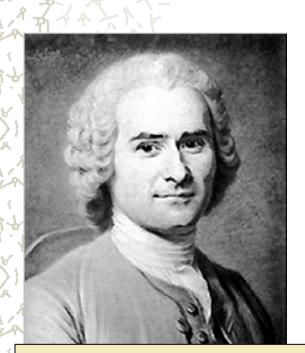
- What 5 important concepts made up the philosophes' philosophy?
- 1. Reason could be applied to all aspects of life
- 2. Nature what was natural was good
- 3. Happiness if you lived by nature's laws you would be happy
- 4. Progress believed society & humankind could be perfected
- 5. Liberty through reason, society could be set free

## Important Philosophes

What ideas are expressed in these quotes?

#### Montesquieu

Power should be a check to power.



Jean Jacques Rousseau

Man is born free, and everywhere he is in chains.





Voltaire

I disapprove of what you say, but I will defend to the death your right to say it.

## Mary Wollstonecraft

- 1792 A Vindication of the Rights of Women
- Wollstonecraft believed:
  - Women's education was necessary for them to become virtuous and better mothers
  - Believed women could be doctors
     AND participate in politics
- How did the philosophes view the roles of women in the 18th century?

They took traditional views towards women



## Key Ideas of the Enlightenment

Y V	IDEA	THINKER	
	Natural Rights	Locke	
Y X	Separation of Powers	Montesquieu	5
	Freedom of Thought and Expression	Voltaire	(0)
気いい	Religious Freedom	Voltaire	
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Women's Equality	Wollstonecraft	

## Spread of Enlightenment Ideas

Salons: social gathering of intellectuals held in the homes of wealthy women in Paris and other European cities during the Enlightenment



Encyclopedia: brought together most current ideas about science, technology, art, politics

Which class was most influenced by Enlightenment ideas?

The Middle Class... WHY?

## **Changing Styles**

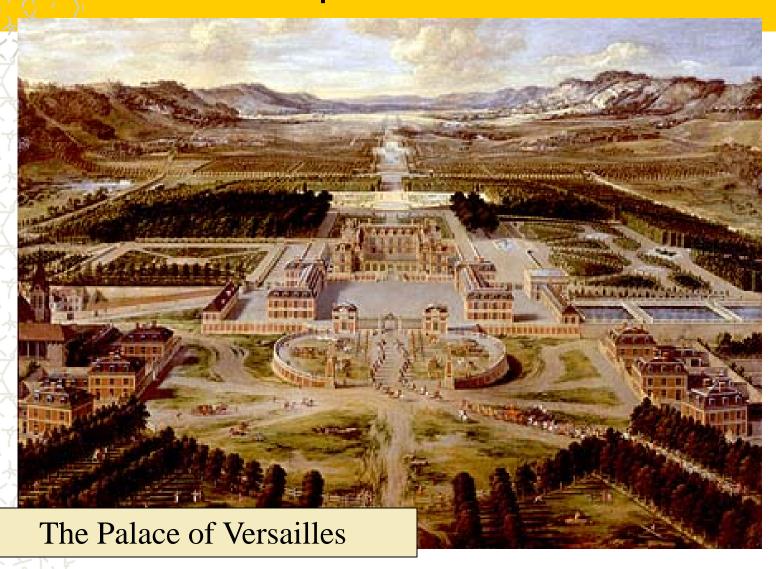
#### Baroque

- Art of the 1600s and early 1700s
- Grand style (example: Palace of Versailles)
- Dramatic music of Bach and Handel



- Art of the late 1700s
- Emphasis on order and balance
- Borrowed simple, elegant ideas from the Greeks and Romans
- Music of Mozart and Beethoven (classical music)

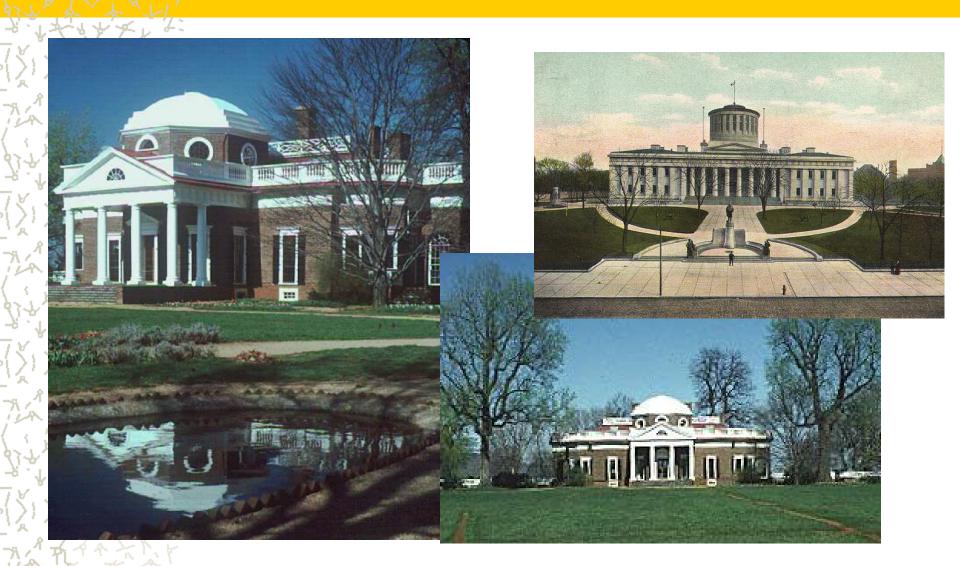
## Baroque Architecture



## **Neoclassical Architecture**



## Neoclassical Architecture





#### Enlightened Despots

 Monarchs who embraced the new ideas and made reforms that reflected the Enlightenment spirit

 Had no intention of giving up power, but wanted to make their countries stronger and wanted to rule more effectively





- Frederick the Great of Prussia
  - Granted religious freedoms
  - Reduced censorship
  - Improved education
  - Abolished torture
  - Saw himself as the first servant of the state
  - DID NOT end serfdom even though he believed it was wrong

- Catherine the Great of Russia
  - Proposed to allow religious freedom and abolish torture in Russia (it didn't happen...)
  - Favored an end to serfdom until a peasant uprising convinced her she needed the nobles' support to remain in power

#### **American Revolution**





- Navigation Acts (1660s) prohibited colonists from selling goods to any country except Britain
- Stamp Act (1765) colonists had to pay a tax for an official stamp on printed documents
- Boston Tea Party (1773) in response to a tax on imported tea

On April 19, 1775, the Revolutionary War began between the American colonists and the British... in 1781 the colonists declared their independence from Britain





## Impact of the Enlightenment on the American Revolution

Declaration of Independence: Written by Thomas Jefferson and based on John Locke's argument for natural rights.

REVIEW: What are natural rights?

Life, liberty and property

REVIEW: According to Locke, what do the people have the right to do if the government abuses their natural rights?

The people have the right to overthrow the government... just as the American colonists did in the Revolution

Bill of Rights: First 10 Amendments to the Constitution guaranteeing basic freedoms of religion, speech, etc.



## Impact of the Enlightenment on the American Revolution

- Federal System of Government:
  - Checks and balances: ensures that no one branch of government gains too much power
  - Federal system: power divided between the national and state governments

GLOBAL IMPACT: The American Revolution impacted French people who sought reform in France... which we will discuss in Chapter 7