The Scientific Revolution & The Age of Enlightenment

Unit 8

Unit 8 Standards

- **7.59** Describe the roots of the Scientific Revolution based upon Christian and Muslim influences.
- **7.60** Gather relevant information from multiple print and digital sources explaining the significance of new scientific theories, the accomplishments of leading figures including Sir Frances Bacon, Nicolaus Copernicus, Rene Descartes, Galileo Galilei, Johannes Kepler, and Sir Isaac Newton, and new inventions, including the telescope, microscope, thermometer, and barometer.
- **7.61** Trace how the main ideas of the Enlightenment can be traced back to such movements and epochs as the Renaissance, the Reformation, the Scientific Revolution, the Greeks, the Romans, and Christianity.
- **7.62** Describe the accomplishments of major Enlightenment thinkers, including Locke and Charles-Louis Montesquieu.
- **7.63** Explain the origins of modern capitalism, the influence of mercantilism, and the cottage industry; the elements and importance of a market economy in 17th century Europe; the changing international trading and marketing patterns; including their locations on a world map; and the influence of explorers and mapmakers.

Bellwork – INB 158

Attach to your page and fill in the blanks to the best of your ability. I <u>know</u> you don't know all of this material – this is to assess what you **might** already know.

Human behavior	Improve	Reason	England
Scientific Revolution	Superstition	Government	Europe
Control	France	Middle Ages	North America

The Enlightenment

During the 1700s, a mo	ovement called the Enli	ightenment developed that used	
	_ to solve problems. Th	nis movement began on the contine	ent of
	It was inspired by a	advances made during the	•
Enlightenment thinker	s believed that they co	uld discover laws that shaped	·
Once these laws were	understood, they could	d use them to	society. During
the Enlightenment, Jol	nn Locke developed a p	olitical theory about what he thou	ght was the best type
of	·	became a center o	f Enlightenment
thinkers, including Volt	aire.		

Mastery Objective:

I can explain what the Enlightenment WAS and identify the key figures of the period and describe what they thought about man and government. What are today's State Standards?

7.61 Trace how the main ideas of the Enlightenment can be traced back through history 7.62 Describe the accomplishments of major Enlightenment thinkers, including Locke and Charles-Louis Montesquieu.

Strategies/Tasks:

- Cloze Assessment
- Graphic organizer *The Enlightenment* Compare and Contrast- Hobbes vs. Locke

END OF DAY PRODUCT: By the end of today's class you should have a completed graphic organizer about Hobbes and Locke as well as completed Venn Diagram comparing and contrasting the two thinkers.

Classwork – The Enlightenment INB 159

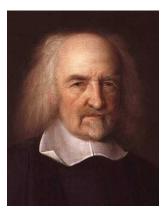
Set up the chart you see below and use textbook pages 354 – 357 to help you

Background:

<u>Thomas Hobbes</u>	<u>John Locke</u>
	•

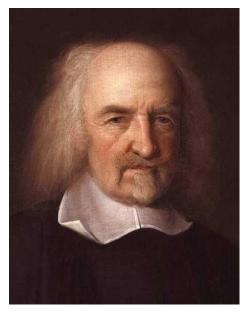
What was the Enlightenment?

- During the 1700s, European thinkers were impressed by advances in science. They believed that reason could discover the scientific laws that shaped human behavior. Once these laws were understood, thinkers believed, people could use the laws to improve society.
- The Scientific Revolution stressed the use of reason to solve problems. Before this period, people often relied on faith or tradition as guides. However, in the 1700s, many educated Europeans began to break away from tradition. They viewed reason as a "light" that uncovered error and showed the path to truth. As a result, the 1700s became known as the Age of Enlightenment.
- During the Enlightenment, political thinkers tried to use reason to improve government. They claimed that there was a natural law, or a law that applied to everyone and could be understood by reason. This natural law was the key to making government work properly. As early as the 1600s, two English thinkers used natural law to develop very different ideas about government. The two men were Thomas Hobbes and John Locke.





Who was Thomas Hobbes?

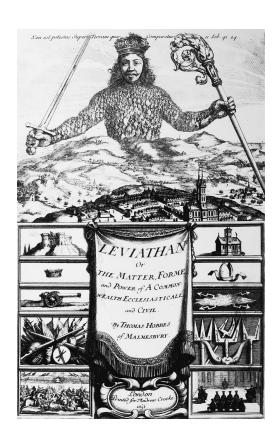


Thomas Hobbes

- English writer Thomas Hobbes wrote about England's government and society. At the time, England was torn apart by conflict. King Charles I wanted absolute power. Parliament, however, demanded a greater role in governing. The king's supporters fought those who supported Parliament.
- Parliament already had some control over the king. In the 1620s, Parliament had forced Charles to sign the Petition of Right. It said the king could not tax the people without Parliament's approval. Also, he could not imprison anyone without a just reason. The Petition also stated that the king could not declare a state of emergency unless the country was at war.
- Charles, however, ignored the Petition. His differences with Parliament led to civil war. The fighting finally forced Parliament's supporters to execute Charles. This event shocked Thomas Hobbes, who supported the monarchy.

Hobbes' Beliefs

- In 1651, Hobbes wrote a book called *Leviathan*. In this work, Hobbes argued that natural law made absolute monarchy the best form of government. According to Hobbes, humans were naturally violent and selfish. They could not be trusted to make wise decisions on their own. Left to themselves, people would make life "nasty, brutish, and short."
- Therefore, Hobbes said, people needed to obey a government that had the power of a leviathan, or sea monster. To Hobbes, this meant the rule of a powerful king, because only a strong ruler could give people direction. Under this ruler, people had to remain loyal. This political theory of Hobbes became known as absolutism, since it supported a ruler with absolute, or total, power.



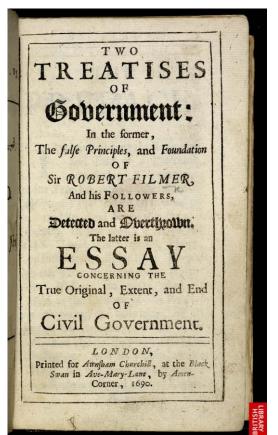
John Locke & The Glorious Revolution

- Another English thinker, John Locke, believed differently. He used natural law to support citizens' rights. He said the government had to answer to the people. During Locke's life, another English king, James II, wanted to be a strong ruler. Parliament again was opposed to the king's wishes. When civil war threatened in 1688, James fled the country. Parliament then asked Mary, the king's daughter, and her husband, William, to take the throne. This event became known as the "Glorious Revolution."
- The Glorious Revolution eventually turned England into a constitutional monarchy. This is a form of government in which written laws limit the powers of the monarch. In return for the English throne, William and Mary agreed to a Bill of Rights. This document required William and Mary to obey Parliament's laws. The Bill of Rights also guaranteed all English people basic rights. For example, people had the right to a fair trial by jury and the right to freedom from cruel punishment for a crime.



John Locke

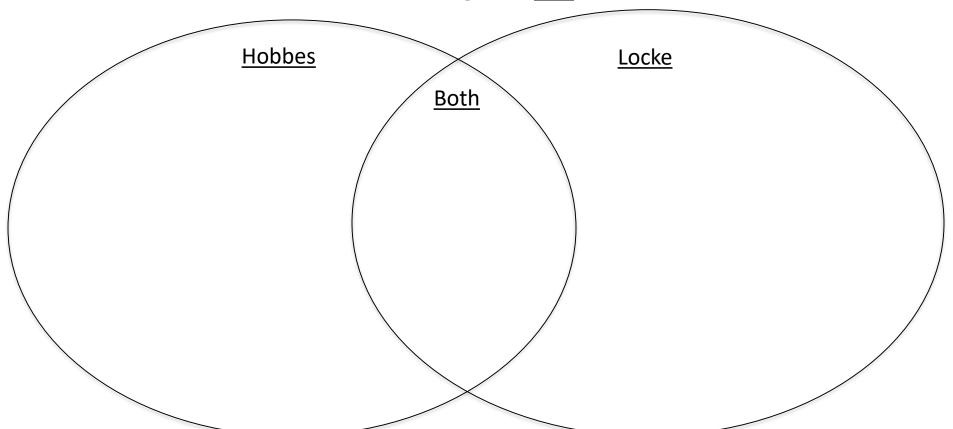
John Locke's Beliefs



- In 1690, John Locke wrote a book called Two Treatises of Government. His book explained many of the ideas of the Glorious Revolution. Locke stated that government should be based on natural law and natural rights. These rights included the right to life, the right to liberty, and the right to own property.
- Locke believed that the purpose of government was to protect people's rights. He said that all governments were based on a social contract. This is an agreement between the people and their leaders. If rulers took away people's natural rights, the people had a right to rebel and set up a new government.

<u>Closure</u> – How were Hobbes & Locke Alike and Different?

INB 158 – create a venn diagram *OR* a three column chart



Bellwork – INB 160

Who did what? Write the name of the thinker NEXT to the statement

1.	Wrote Two Treatises on Government
2.	Believed man were naturally violent and selfish
3.	Wrote Leviathan
4.	Believed that government should protect the rights of the people and was based on a "social contract".
5.	Believed the constitutional monarchy was the best form of government.
6.	Believed an absolute monarchy was the best kind of government.

You must write the statement TOO!

I can explain the differences between what Thomas Hobbes and John Locke thought about the nature of man and the purpose and best kind of government.

and Charles-Louis Montesquieu. **Strategies/Tasks: END OF DAY PRODUCT:** Quick Check - Recall Questions about Hobbes and Locke By the end of today's class you should

7.62 Describe the accomplishments of major Enlightenment thinkers, including Locke

Primary Source Analysis – Leviathan and the have a completed Quick Check questions Second Treatise of Government and Primary Source Analysis along with a Closure - Contrast the ideas of Hobbes and Locke completed ACE Writing task contrasting about government. According to each man, what should the relationship be like between the two thinkers. government and the people?

Mastery Objective:

What are today's State Standards?

What Do Hobbes and Locke THINK?

Create th	ne following chart	on INB 161
What do they think about people & government?	People	Government
Hobbes: He thinks	Evidence: ""	Evidence: "

shows

Explanation: *This evidence*

Locke: He thinks Evidence: " Explanation: *This evidence* shows

Explanation: *This evidence*

"

shows Evidence: " Explanation: *This evidence* shows

Reading 1: Thomas Hobbes – Leviathan 1651

So that in the nature of man, we find three principal [main] causes of quarrel [fighting]. First, competition; second, diffidence [being timid or meek]; thirdly, glory.

The first maketh men invade for gain; the second, for safety; and the third, for reputation. The first use violence to make themselves masters of other men's persons, wives, children, and cattle; the second, to defend them; the third, for trifles [things of little value], as a word, a smile, a different opinion, and any other sign

Hereby it is made clear that during the time men live without a common power to keep them all in awe, they are in that condition which is called war; and such a war as is of every man against every man.

Reading Two: The Second Treatise of Govt. 1690

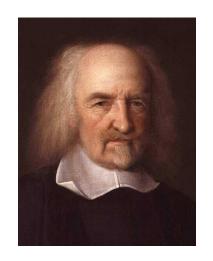
The natural liberty of man is to be free from any superior power on earth, and not to be under the will or legislative authority of any man, but to have only the law of nature for his rule. The liberty of man in society is to be under no other legislative power but that established by consent in the government. . . Freedom of men under government is to have a standing rule to live by, common to every one of that society and made by the legislative power created in it, a liberty to follow my own will in all things where the rule does not prevent me from doing so, and not to be subject to the . . . will of another man; as freedom of nature is to be under no other restraint but the law of nature.

Closure – INB 160

underneath your Bellwork

- Contrast the ideas of Hobbes and Locke about government.

 Explain what Thomas Hobbes and John Locke believe about the nature of man and the purpose of government.
- 5-7 sentences using the ACE strategy (Answer, Cite, Explain)





Bellwork – INB 162

•	Baron de Montesquieu mini biography: Read the excerpt
	on Baron de Montesquieu on textbook page 356 and
	complete the following statements.

- Baron de Montesquieu was a ______ from _____
- He wrote a book called _______.
- This book said that England had the _____ kind of government because it had _____.
- This means that power should be divided between _____ and the

Mastery Objective:

I can identify Baron Montesquieu and explain what he thought about the nature of man and government.

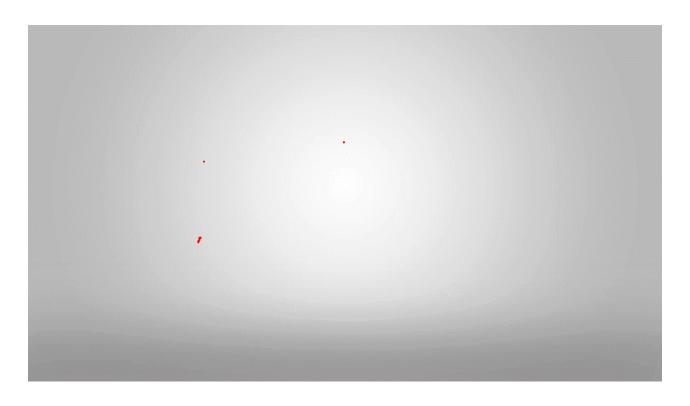
What are today's State Standards? **7.62** Describe the accomplishments of major Enlightenment thinkers, including Locke and Charles-Louis Montesquieu.

Strategies/Tasks:

- Mini-Bio Baron de Montesquieu Primary Source Analysis - excerpt from The
- Spirit of the Laws & text dependent questions Writing task- What does Baron de Montesquieu think about government and is he more like Hobbes or Locke?

END OF DAY PRODUCT: By the end of today's class you should have an accurate and complete set of TDQs with your annotated reading along with a coherent and complete written response to the closure question.

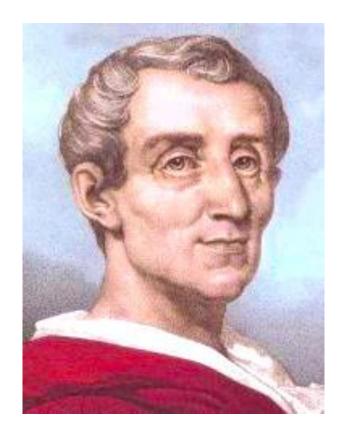
Separation of Powers



Essential Questions

(HINT! – these questions will form your closure)

- What does the French thinker Baron de Montesquieu think about what makes the best form of government?
- Do you think he agrees more with Thomas Hobbes or John Locke?



Charles, Baron De Montesquieu, the Spirit of the Laws (1748) CHAPTER 6. Of the Constitution of England

- In every government there are three types of power: **the legislative**; **the executive**, in respect to things dependent on the law of nations; and **the judiciary**, in regard to matters that depend on the civil law.
- By virtue of the first, the prince, or magistrate enacts temporary or perpetual laws, and amends or repeals those that have been already enacted. By the second, he makes peace or war, sends or receives embassies, establishes the public security, and provides against invasions. By the third, he punishes criminals, or determines the disputes that arise between individuals. The latter we shall call the judiciary power, and the other simply the executive power of the state.
- The political liberty (freedom) of the subject (person living under a ruler) is a peacefulness of mind that comes from the opinion each person has of his safety. In order to have this liberty, it is required that the government be so made as one man need not be afraid of another.

Charles, Baron De Montesquieu, the Spirit of the Laws (1748) CHAPTER 6. Of the Constitution of England

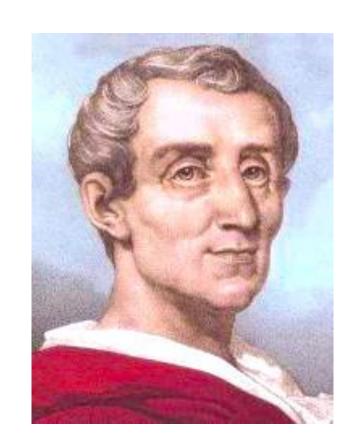
- When the legislative and executive powers are united in the same person, or in the same body of magistrates, there can be no liberty; because worries may arise, because the same monarch or senate could enact tyrannical laws, to execute them in a tyrannical manner.
- Again, there is no liberty, if the judiciary power be not separated from the legislative and executive. Were it joined with the legislative, the life and liberty of the subject would be exposed to arbitrary control; for the judge would be then the legislator. Were it joined to the executive power, the judge might behave with violence and oppression. There would be an end of everything, were the same man, or the same body, whether of the nobles or of the people, to exercise those three powers, that of enacting laws, that of executing the public resolutions, and of trying the causes of individuals.

Text Dependent Questions

- 1. According to the text what are the three types of power in every government?
- 2. What does a person need to have "liberty"?
- 3. What powers do the legislative part of government have?
- 4. What powers do the executive part of the government have?
- 5. What powers do the judiciary part of the government have?
- 6. What problems may occur if the legislative and executive parts of government are not separated?
- 7. What could happen if the judiciary branch is not separated from the first two?
- 8. Based on your previous answers what do you believe Montesquieu thinks is the best type of government?

Closure – INB 162

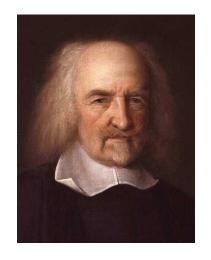
- In paragraph form answer the following:
 - What does the French thinker Baron de Montesquieu think about what makes the best form of government?
 - Do you think he agrees more with Thomas Hobbes or John Locke?
- You need to explain your answers with examples and make sure you have at least 5-7 sentences.



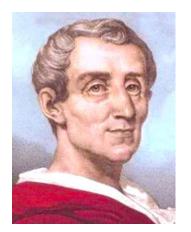
Bellwork – INB 164

use your glossary to help you

- Define the following terms:
 - Absolutism
 - Constitutional monarchy
 - Social contract
 - Separation of powers







Ideals of the Enlightenment

- Reason will lead to the truth
- Freedom is the ability to think for yourself
- All humans are equal
- We can make progress towards a better world
- Religion and government should be separate (secularism)
- People can and should govern themselves (down with the aristocracy!)

Mastery Objective: I can describe Enlightenment ideals and identify which ruler or thinker of the time period I believe MOST embodied those ideals.

7.61 Trace how the main ideas of the Enlightenment can be traced back to such movements and epochs as the Renaissance, the Reformation, the Scientific Revolution, the Greeks, the Romans, and Christianity. **7.62** Describe the accomplishments of major Enlightenment thinkers, including Locke and Charles-Louis Montesquieu.

Strategies/Tasks:

What are today's State Standards?

- Key Vocabulary
- Graphic organizer *Philosophes &* Absolute Monarchs
- Which Enlightenment figure BEST embodied the ideals of the period and whv?

END OF DAY PRODUCT:

By the end of today's class you should have a completed graphic organizer about the Philosophes and Absolute Rulers of the Era and a completed paragraph explaining which Enlightenment figure BEST embodied the ideals of the period and why?

Philosophes and Absolute Monarchs INB 165

- Use textbook pages 357
 361 to complete the chart.
- Be sure to include key details about WHO each person was and what they DID to during the Enlightenment.

ml (ml : l l	ach person was and what they DID to contribute to the Enlightenment.		
The "Philosophes" – what did they DO, what did they THINK, what did they WRITE			
Francois-Marie Arouet (Voltaire)			
Denis Diderot			
Marie Wollstonecraft			
Jean-Jacques Rousseau			
Absolute Monarchs - WHERE d	id they rule, what did they DO, and HOW did they promote Enlightenment ideals?		
Louis XIV			
Frederick II			
Maria Theresa & Joseph II			

The Philosophes

- During the 1700s, France became the most active center of the Enlightenment. Thinkers in France and elsewhere became known by the French name philosophe, which means "philosopher." Most philosophes were writers, teachers, and journalists who often discussed and debated new ideas at gatherings. These gatherings were held in the homes of wealthy citizens.
- Philosophes wanted to use reason to improve society. They
 attacked superstition, or unreasoned beliefs, and disagreed with
 religious leaders who opposed new scientific discoveries.
 Philosophes believed in freedom of speech and claimed that each
 person had the right to liberty. Their ideas spread across Europe.



Who was Voltaire

- In 1694, François-Marie Arouet was born to a middleclass family in France. He became one of the greatest thinkers of the Enlightenment. Called just Voltaire, he wrote novels, plays, and essays that brought him wealth and fame.
- Voltaire opposed the government's favoring one religion and forbidding others. He thought people should be free to choose their own beliefs. He often criticized the Roman Catholic Church for keeping knowledge from people in order to maintain the Church's power.
- Voltaire was a supporter of deism, a religious belief based on reason. Followers of deism believed that God created the universe and set it in motion. God then allowed the universe to run itself by natural law.

Who was Diderot?

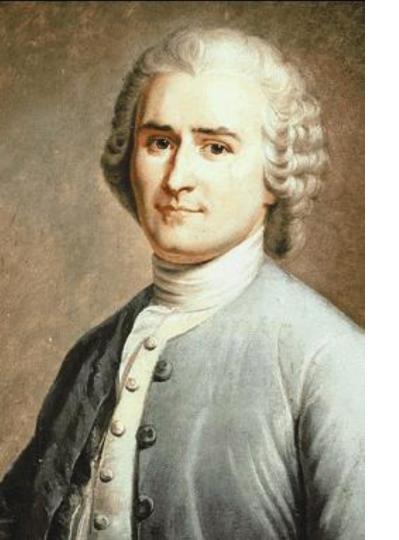
The French thinker Denis Diderot was also committed to spreading Enlightenment ideas. In the late 1700s, he produced a large, 28volume encyclopedia that took him about 20 years to complete. The Encyclopedia covered a wide range of topics including religion, government, the sciences, history, and the arts. The philosophes used it as a weapon in their fight against traditional ways. Many articles supported freedom of religion. Others called for changes to make society fairer for all people.





Who was Wollstonecraft?

- Prior to the Enlightenment, women did not have equal rights with men. By the 1700s, a small number of women began to call for such rights. In 1792, the English writer Mary Wollstonecraft wrote a book called A Vindication of the Rights of Woman. In it, she states that women should have the same rights as men. Many consider Wollstonecraft to be the founder of the women's movement.
- "In short, . . . reason and experience convince me that the only method of leading women to fulfil their peculiar [specific] duties, is to free them from all restraint [control] by allowing them to participate in the inherent [basic] rights of mankind."
 - —from A Vindication of the Rights of Woman, by Mary Wollstonecraft, 1792



Who was Rousseau

A Swiss thinker named Jean-Jacques Rousseau questioned Enlightenment ideas. In 1762 he published a book of political ideas called The Social Contract. This book states that government rests on the will of the people and is based on a social contract. This is an agreement in which everyone in a society accepts being governed by the general will. That is, what society as a whole wants should be law.

Absolute Monarchs

wanted to have their cake and eat it too!

 During the Enlightenment, thinkers called for controls on government. However, most of Europe was ruled by kings and queens who claimed to rule by divine right, or the will of God. Some absolute rulers used Enlightenment ideas to improve their societies—but they refused to give up any of their powers.

Who was France's Sun King?

- During the 1600s and 1700s, France was one of Europe's most powerful nations. In 1643, Louis XIV, called the Sun King, came to the throne. He built the grand Versailles palace. There, he staged large ceremonies to celebrate his power.
- Louis held all political authority in France. He is said to have boasted, "I am the State." (Je suis l'Etat) Louis's army won wars that expanded the area of France. These conflicts, though, cost the country a large amount of money and soldiers. The king's constant wars and spending weakened France and the monarchy.



Frederick II

- Germany consisted of many territories during the 1600s and 1700s. The two most powerful German states were Prussia and Austria. The most famous Prussian ruler was Frederick II, also called Frederick the Great. He ruled Prussia from 1740 to 1786. Frederick strengthened the army and fought wars to gain new lands for Prussia.
- Although Frederick was an absolute monarch, he saw himself as "first servant of the state." He therefore dedicated himself to the good of his people. Frederick permitted more freedom of speech and religious tolerance.



Maria Theresa and Joseph II

- The other German state, Austria, was ruled by the Hapsburg family. In 1740, a Hapsburg princess named Maria Theresa became the ruler of Austria. She introduced reforms. She set up schools and tried to improve the living conditions of the serfs, people who worked under the harsh rule of landowners.
- After Maria Theresa died in 1780, her son, Joseph II, became ruler. He carried her reforms even further. He freed the serfs and made land taxes equal for nobles and farmers. The nobles opposed his reforms. As a result, Joseph was forced to back down.





Peter the Great

- East of Austria, the vast empire of Russia was ruled by czars. One of the most powerful czars was Peter I, also known as Peter the Great. Peter tried to make Russia a strong European power. He began reforms to help the government run more smoothly. Peter also improved Russia's military and created a navy.
- Peter wanted Russia to have access to the Baltic Sea, but Sweden controlled the land. Peter went to war with Sweden in a conflict lasting 21 years. Russia won in 1721. Just three years after the war started, Peter founded the city of St. Petersburg. By 1712, this city was the Russian capital.



Catherine the Great

After Peter died, a series of weak monarchs governed Russia. Then, in 1762, a German princess named Catherine came to the throne. Catherine II expanded Russia's territory and became known as Catherine the Great. She supported the ideas of the Enlightenment and wanted to free the serfs. However, a serf revolt changed her mind. In the end, Catherine allowed the nobles to treat the serfs as they pleased.

Closure – INB 164 underneath your bellwork

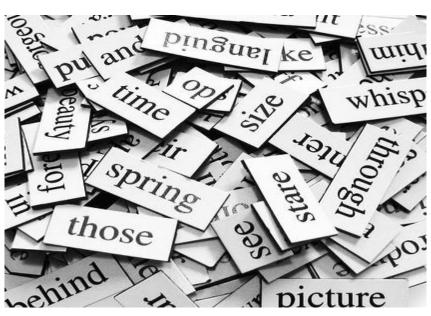
• **Prompt**: Which of the four rulers and four philosophes we studied today do you think embodied Enlightenment ideals the BEST? Why?



Bellwork – INB 166



- Define the following terms:
 - Mercantilism
 - Commerce
 - Entrepreneur
 - Cottage industry
- CHALLENGE: Use all 4 terms in a sentence or short paragraph in an original and accurate way!



I can explain how colonization of North and South America by European countries affected global trade and created new kinds of economic systems. What are today's State Standards?

7.63 Explain the origins of modern capitalism, the influence of mercantilism, and the cottage industry; the elements and importance of a market economy in 17th century Europe; the changing international trading

and marketing patterns; including their locations on a world map; and the influence of explorers and mapmakers.

Strategies/Tasks:

Vocabulary

END OF DAY PRODUCT:

By the end of today's class you should

have a completed text to notes organizer

response to the question: Do you believe

the Columbian Exchange was a benefit or

and a complete and well written

a problem for the Americas?

Vocabulary
Text to Notes Organizer – World Trade
Changes
Argumentative writing – Was the
Columbian Exchange a positive or
negative?

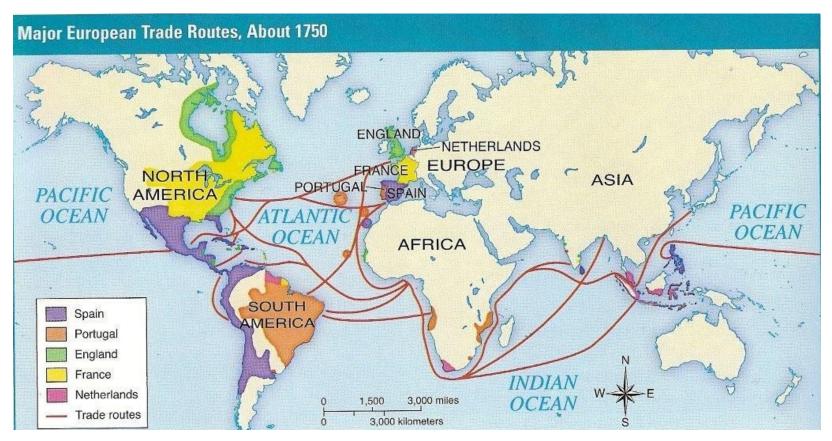
Mastery Objective:

World Trade Changes – INB Page 167 this page will be stapled in...

- Staple in your reading to <u>INB page 167</u> on the top left corner *only when you are DONE*.
- HIGHLIGHT the information you find "note-worthy ______.
- Paraphrase that information into brief notes in the column on the right.

Text to Notes Strategy

The Age of Exploration



<u>Mercantilism</u>

- Spain and Portugal took advantage of the gold and silver they gained from their empires. Other European countries wanted to do the same. This led to the theory of mercantilism. The key idea of mercantilism is that a country's power depends on its wealth. Countries can increase their wealth by owning more gold and silver. What is the best way for a country to get more gold and silver? According to mercantilism, a country must export, or sell to other countries, more goods than it imports, or buys from other countries.
- According to mercantilism, countries should establish colonies. A colony is a settlement of people living in a territory controlled by their home country. Colonists provide raw materials that are not found or made in the home country.
- These materials are then shipped to the home country. In the home country, the raw materials are used to manufacture goods so that the home country does not have to buy these goods from other countries.

Mercantilism Continued

- Europeans established trading posts and colonies in Asia and North America. By the end of the 1500s, Spain had a colony in the Philippines. In the 1600s, English and French merchants arrived in India. They began trading with the people there. In 1619, the Dutch built a fort on the island of Java, in what is now Indonesia. The Dutch became so powerful that they pushed the Portuguese out of the spice trade.
- Guns and powerful ships helped Europeans defeat Arab fleets and Indian armies. Across Asia, Europeans forced local rulers to open their lands to trade. The arrival of the Europeans in Japan caused a dramatic change in that society. A new Japanese shogun used European-made guns and cannons to dominate his enemies. He was finally able to defeat the feudal lords and the daimyo and reunite Japan.

Creating Joint-Stock Companies

- Europeans found that paying for overseas trading voyages was expensive. In the 1600s, however, Europeans developed new business methods. Historians call this the Commercial Revolution. Commerce is the buying and selling of goods in large amounts over long distances.
- This type of commerce needed large amounts of money in order to be profitable. So, a new type of businessperson called an **entrepreneur** emerged. Entrepreneurs **invest**, or put money into a project. Their goal is to make money from the success of the project.
- As overseas trade increased in the 1600s, many projects were too large for one entrepreneur to pay for. If a voyage failed, for example, that individual would lose everything. As a result, groups of entrepreneurs began to form joint-stock companies. A joint-stock company is a business in which many people can invest. Groups or individuals, called investors, buy shares in the company. These shares are called stocks. By owning stock, investors would share the expenses, the risks—and the profits.

Cottage Industries

• By the 1600s, merchants began to believe that artisans and guilds charged too much for their goods. In addition, the merchants thought that these skilled workers did not make goods fast enough. To solve these problems, merchants began hiring peasants to make goods, especially wool cloth in their homes. This system became known as the cottage industry because the small houses where peasants lived and worked were called cottages.

Closure – INB 166

answer the following analysis questions in complete sentences under your bellwork

- 1. How do you think mercantilism benefits the home country more than the colony?
- 2. Who receives the MOST benefit and profits from a joint stock company?
- 3. What do you think the advantages and disadvantages to working in a cottage industry might be?

