

The Early Modern World

Chapter 20 Science and Exploration Chapter 21 Enlightenment and Revolution

What You Will Learn...

The world changed dramatically with the Scientific Revolution and the Age of Exploration. New inventions allowed European explorers to sail around the globe. They found new continents and began to see what the shape of the world was really like. Contacts between distant peoples and lands changed societies and economies around the world.

At the same time, European thinkers developed new ideas about government during a period known as the Enlightenment. These ideas led people to take up arms in revolutions and fight for their freedom.

In the next two chapters, you will learn how both European exploration and the Enlightenment helped shape the world.

Explore the Art

In this scene, young sailor Diego Bermúdez tends a sail on Columbus's first voyage to the Americas. Why might a young boy like Diego have joined Columbus on such a dangerous voyage?



Essential Question How did new ideas lead to exploration and cultural and economic changes?



What You Will Learn...

In this chapter you will learn about the discoveries and inventions of the Scientific Revolution and the changes brought about by the European Age of Exploration.

SECTION 1: The Scientific Revolution...... 588

The Big Idea Europeans developed a new way of gaining knowledge, leading to a Scientific Revolution that changed the way people thought about the world.

SECTION 2: Great Voyages of Discovery 593

The Big Idea European explorers brought knowledge, wealth, and influence to their countries.

SECTION 3: New Systems of Trade..... 597

The Big Idea Exchanges between the Old World and the New World influenced the development of new economic systems: mercantilism and capitalism.

FOCUS ON SPEAKING

An Informative Report A teacher at an elementary school has asked you to create an informative oral report for fifth graders about changes in Europe, Africa, Asia, and the Americas during the Scientific Revolution and the Age of Exploration. As you read this chapter, look for the important people and events that you will discuss. After you have finished the chapter, you will prepare a short speech and create a simple visual aid to refer to during your presentation.





Sir Isaac Newton: The Gravity of Genius

This photo shows a powerful telescope that astronomers use to study the skies.

1519 Magellan sails around the tip of South America.

1530s Copernicus develops his theory of the sun-centered solar system.

1609 Galileo uses his telescope to study , planets.





1687 Sir Isaac Newton publishes Principia Mathematica.

1700

c. 1500 Askia the Great rules Songhai.





1649 Shah Jahan finishes building the Taj Maĥal.

1690 John Locke argues that people have certain natural rights.

Reading Social Studies

Economics	Geography	Politics	Religion	Joercey	Science and Technology		
	Focus on Then read about how a r developed, as well led to profound cha You will also learn	new way of looking as how the Scienti anges in society a	at science was ific Revolution and culture.	who sailed to the A followed to get the explorations led to system called capi	ere. You will also lea the creation of a r	arn how their	

Vocabulary Clues

Focus on Reading When you are reading your history textbook, you may often come across a word you do not know. If that word isn't listed as a key term, how do you find out what it means?

Using Context Clues Context means surroundings. Authors often include clues to the meaning of a difficult word in its context. You just have to know how and where to look.

Clue	How It Works	Example	Explanation	
Direct Definition	Includes a definition in the same or a nearby sentence	European countries practiced mer- cantilism, in which a government controls all economic activity in a country and its colonies to make the government stronger and richer.	The phrase "in which a government controls all economic activity in a country and its colonies to make the government stronger and richer" defines mercantilism.	
Restatement	Uses different words to say the same thing	Observation of the real world had disproved, or shown to be false, the teachings of an ancient authority.	The word <i>disproved</i> is another way to say shown to be false.	
Comparisons or Contrasts	Compares or contrasts the unfamiliar word with a familiar one	Kepler discovered that the planets moved in elliptical, rather than in circular, orbits.	The word <i>rather</i> indicates that <i>elliptical</i> means something different from <i>circular</i> .	

You Try It!

The following sentences are from this chapter. Each uses a definition or restatement clue to explain unfamiliar words. See if you can use the context to figure out the meaning of the words in italics.

Vocabulary Clues

- **1.** These thinkers were *rationalists*, people who looked at the world in a rational, or reasonable and logical, way. (p. 589)
- Its author was Polish astronomer Nicolaus Copernicus. The book was called *On the Revolution of the* Celestial Spheres. (p. 590)
- **3.** Although Magellan was killed before he could complete the voyage, his crew became the first to *circumnavigate*, or go all the way around, the globe. (p. 595)
- **4.** Capitalism is an economic system in which individuals and private businesses run most industries. (p. 601)

After you read the sentences, answer the following questions.

- 1. In example 1, what does the word *rationalists* means? What hints did you find in the sentence to figure that out?
- **2.** In example 2, what is the meaning of *Celestial Spheres*? What hint helps you understand what this phrase means?
- **3.** What is the definition of *circumnavigate* in example 3? What kind of context clues did you find in that sentence?
- 4. In example 4, what does *capitalism* mean? How do you know?

Key Terms and People

Chapter 20

Section 1

Scientific Revolution (p. 588) theories (p. 588) Ptolemy (p. 589) Nicolaus Copernicus (p. 590) Johannes Kepler (p. 590) Galileo Galilei (p. 591) Sir Isaac Newton (p. 591) scientific method (p. 592)

Section 2

Henry the Navigator (p. 595) Vasco da Gama (p. 595) Christopher Columbus (p. 595) Ferdinand Magellan (p. 595) circumnavigate (p. 595) Sir Francis Drake (p. 596) Spanish Armada (p. 596)

Section 3

plantations (p. 598) mercantilism (p. 599) capitalism (p. 601) market economy (p. 601)

Academic Vocabulary

Success in school is related to knowing academic vocabulary the words that are frequently used in school assignments and discussions. In this chapter, you will learn the following academic words:

logical (p. 589) principles (p. 592)

As you read Chapter 20, look for phrases between commas or dashes. Those phrases might be the definition or restatement of an unfamiliar word or term.

SECTION

What You Will Learn...

Main Ideas

- 1. The Scientific Revolution marked the birth of modern science.
- 2. Discoveries and inventions helped scientists study the natural world.
- 3. The Scientific Revolution had broad effects on society, changing ideas about the physical world, human behavior, and religion.

The Big Idea

Europeans developed a new way of gaining knowledge, leading to a Scientific Revolution that changed the way people thought about the world.

Key Terms and People

Scientific Revolution, p. 588 theories, p. 588 Ptolemy, p. 589 Nicolaus Copernicus, p. 590 Johannes Kepler, p. 590 Galileo Galilei, p. 591 Sir Isaac Newton, p. 591 scientific method, p. 592



Use the graphic organizer online to take notes on the new ideas, inventions, and thinkers of the Scientific Revolution.

The Scientific Revolution

If **YOU** were there...

You are a student in Germany in the early 1500s. You love to watch the changing phases of the moon and draw the star patterns at different times of the year. You've asked your teachers many questions. Why does the moon hang in the sky? Why do the stars move? But their answers don't seem convincing to you.

How can you find the answers to your questions?

BUILDING BACKGROUND In the 1500s, Europe was undergoing dramatic changes. The Renaissance was well under way. During the Renaissance, educated people began to focus more on the world they lived in. It was a time of great advancements in art, writing, and education. The stage was set for another revolution in thinking.

The Birth of Modern Science

The series of events that led to the birth of modern science is called the **Scientific Revolution**. It occurred in Europe between about 1540 and 1700. Before the Scientific Revolution, most educated people who studied the world relied on explanations from authorities like ancient Greek writers or Catholic Church officials. After the Scientific Revolution, educated people felt freer to question old beliefs. They gained knowledge by studying the world around them and using logic to explain what they saw.

Understanding Science

The word *science* comes from a Latin word meaning "knowledge" or "understanding." So it is not surprising that science involves a particular way of gaining knowledge about the world. Science starts with observation. Scientists observe, or look at, the world. By observing the world they can identify facts about it. But scientists do more than identify facts. They use logic to explain what they have observed. The explanations scientists develop to explain observed facts are called **theories**.

Scientists design experiments to test whether their theories are correct. If the experiments show that the theory makes sense, the theory is accepted. If the experiments do not support the theory, scientists develop a new theory.

As you can see, scientific knowledge is based on observations, facts, and <u>logical</u> ideas, or theories, about them. Before the Scientific Revolution, this method of gaining knowledge was uncommon.

Roots of the Revolution

Many scientific ideas had been expressed in ancient times. Greek thinkers, such as Aristotle and **Ptolemy** (TAHL-uh-mee), wrote about astronomy, geography, and logic. These thinkers were rationalists, people who looked at the world in a rational, or reasonable and logical, way. Muslim scholars translated the works of Greek thinkers into Arabic. They also added their own ideas about how the world worked. Arabic writings were later translated into Latin, allowing Europeans to study past rational thought. As the Europeans learned from these writings, their own view of the world became more rational.

Developments in Europe also helped bring about the Scientific Revolution. One such development was the growth of humanism during the Renaissance. Humanist artists and writers encouraged study of the natural world. Another development was the popularity of alchemy (AL-kuh-mee). A forerunner of chemistry, alchemy involved experiments whose aim was to turn common metals into gold.

READING CHECK Finding Main Ideas What was the Scientific Revolution?

ACADEMIC VOCABULARY

logical reasoned, well thought out

Philosophers like Plato and Aristotle used reason and logic to understand the world.

Greek Thinkers

The ancient Greeks developed theories about how the world worked that influenced later scientific thinkers. This famous painting from the early 1500s by the Italian artist Raphael shows some influential Greek thinkers.

> Euclid discovered basic mathematical laws that helped explain the natural world.

Pythagoras studied numbers and believed that things could be predicted and measured.

Discoveries and Inventions

During the Renaissance, European scholars eagerly studied the works of Greek rationalists. Then an event took place that caused Europeans to doubt the Greeks. In 1492 Christopher Columbus sailed west across the Atlantic Ocean in hopes of reaching Asia. To navigate, he relied in part on a map of the world that Ptolemy had created.

Columbus never reached Asia. He ran into North America instead, a land mass Ptolemy knew nothing about. Europeans were stunned that observation of the real world had disproved the teachings of an ancient authority. Soon scholars began to question the accuracy of other authorities. They also began to make important discoveries of their own.

Advances in Astronomy

In 1543 an astronomer published a book that contradicted Ptolemy on another matter. Many historians think the publication of this book marks the beginning of the Scientific Revolution. The book was called *On the Revolution of the Celestial Spheres.* Its author was Polish astronomer **Nicolaus Copernicus** (kuh-PUHR-ni-kuhs).

Nearly 1,400 years before Copernicus, Ptolemy had written that the sun and planets orbited, or circled around, the earth. As Copernicus studied the movements of the planets, however, he learned that Ptolemy's theory made little sense.

So Copernicus came up with a different explanation for what he observed. His theory was that the planets moved around the sun in circular orbits. Though he never proved this theory, Copernicus inspired fresh thinking about science.

Another leading astronomer, Tycho Brahe (TEE-koh BRAH-huh), worked in Denmark. In the late 1500s, he charted the positions of more than 750 stars. In his work, Brahe set an example by emphasizing careful observation and detailed, accurate records. Careful recording of information is necessary so that other scientists can use what has previously been learned.

Brahe was assisted by German astronomer **Johannes Kepler**. Later, Kepler tried to map the orbits of the planets. But Kepler

Great Scientists

Nicolaus Copernicus 1473–1543

Nicolaus Copernicus realized his ideas about the universe were revolutionary. He feared persecution or even death at the hands of church leaders who insisted that the earth was the center of the universe. He also worried that the scientific community would reject his theories. Eventually, he was persuaded to publish his theories, and the "Copernican system" became a landmark discovery of the Scientific Revolution.

Galileo Galilei 1564–1642

Galileo Galilei believed that scientific study would change the way people understood themselves and their world. Science, he felt, would lead to higher standards of living and would weaken the social and economic barriers that separated people. But since his findings challenged traditional church beliefs, church leaders kept him from writing about his ideas. ran into a problem. He discovered that the planets did not move in circular orbits as Copernicus had thought. The planets instead move in elliptical, or oval, orbits around the sun. Kepler's basic ideas about the planets' movements are still accepted by scientists today.

Italian scientist **Galileo Galilei** (gal-uh-LEE-oh gal-uh-LAY) was the first person to study the sky with a telescope. Galileo saw craters and mountains on the moon and discovered that moons orbit Jupiter.

Galileo was also interested in how falling objects behave. Today, we use the term *mechanics* for the study of objects and motion. Galileo's biggest contribution to science was the way he learned about mechanics. Instead of just observing things in nature, he set up experiments. In fact, Galileo was the first scientist to routinely use experiments to test his theories.

Sir Isaac Newton

The high point of the Scientific Revolution came with the publication of *Principia Mathematica*. The author of this book,

Sir Isaac Newton

Sir Isaac Newton was interested in learning about the nature of light, so he conducted a series of experiments. In Newton's time, most people assumed that light was white. Newton proved, however, that light is actually made up of all of the colors of the rainbow. His research on light became the basis for his invention of the reflecting telescope-the type of telescope that is found in most large observatories today.

published in 1687, was the English scientist **Sir Isaac Newton**. Newton was one of the greatest scientists who ever lived. Some of his theories have been proven so many times that they are now called laws.

One of Newton's laws is called the law of gravity. You may know that gravity is the force that attracts objects to each other. It's the force that makes a dropped apple fall to the ground and that keeps the planets in orbit around the sun.

Newton's other three laws are called the laws of motion. They describe how objects move in space. Newton went on to explain how much of the physical world worked. His laws became the foundation of nearly all scientific study until the 1900s.

New Inventions

During the Scientific Revolution, scientists made dramatic advances in technology. Around 1590 a Dutch lens maker invented a simple microscope. By the mid-1600s, a microscope was used to observe tiny plants and animals living in drops of pond water.

In 1593 Galileo invented the thermometer to measure temperature. In 1609

he built a much-improved telescope that he used to make his important observations and discoveries.

In 1643, an Italian scientist invented the barometer, a device that measures

> air pressure. Used to help forecast the weather, the barometer, like other inventions of the time, gave scientists new ways to learn about their world.

READING CHECK

Summarizing What were two major achievements in astronomy during this era?

Focus on Reading

Which sentence in this paragraph contains a direct definition of an unfamiliar word?



THE IMPACT

Astronomers still

ideas, which they call his laws of

planetary motion.

study Kepler's

Effects on Society

The Scientific Revolution changed the way we learn about the world. People started to pursue science in a systematic fashion. Two men in particular, Francis Bacon and Rene Descartes (ruh-NAY day-CART), encouraged the use of orderly experiments and clear reasoning. Their ideas helped shape the **scientific method**, a step-by-step process for performing experiments and other scientific research. The basics of this method observation and experimentation—are the main **principles** of modern science.

ACADEMIC VOCABULARY principles

basic beliefs, rules, or laws The Scientific Revolution affected other areas of life too. Philosophers thought observation and logic could explain problems like poverty and war. By using reason, they hoped to find ways to improve society.

As scientists discovered laws that governed nature, some thinkers began to believe that certain laws governed human behavior as well. If all people were governed by the same laws, then it stood to reason that all people must be equal. This idea of equality was important in the development of democratic ideas in Europe.

Science also created conflict as some scientific discoveries raised questions about church teachings. Church officials feared that science might lead people to doubt key elements of their faith, undermining the church's influence.

Catholic leaders tried to force scientists to reject any findings that contradicted church teachings. For example, they threatened Galileo with torture unless he accepted the church's belief that the earth did not move. Despite such conflicts, science continued to develop rapidly.

READING CHECK Analyzing Why was the church troubled by the Scientific Revolution?

SUMMARY AND PREVIEW The Scientific Revolution was the birth of modern science. Scientists developed new methods and inventions to make key discoveries. Next, you will learn about the age of European exploration.

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ONLINE QUIZ

Section 1 Assessment

Reviewing Ideas, Terms, and People

1. a. Recall When did the **Scientific Revolution** take place?

b. Analyze Why was the Scientific Revolution important in world history?

c. Predict What might cause scientists to reject a popular **theory**?

- 2. a. Recall What event caused Europeans to doubt the ideas of ancient Greek authorities?
 b. Analyze What was the most important contribution Galileo Galilei made to modern science?
 c. Evaluate Why do you think Sir Isaac Newton is considered to be one of the greatest scientists of all time?
- **3. a. Describe** What is the scientific method?**b. Contrast** How did the views of science and the church differ?

c. Elaborate What effect did the Scientific Revolution have on some philosophers?

Critical Thinking

4. Identifying Effects Based on your notes, list four major thinkers of the Scientific Revolution and their greatest achievements. Then write a statement that summarizes their effects on society.



FOCUS ON SPEAKING

5. Organizing Information To prepare for your presentation, create a two-column chart. Label one column "Scientific Revolution," and the other "Exploration." From your notes, select the key people and events that you will discuss in your report. Put these in your first column.

Great Voyages of Discovery

If **YOU** were there...

Your uncle is a Portuguese ship captain who has just come back from a long sea voyage. He shows you a map of the new lands he has seen. He tells wonderful stories about strange plants and animals. You are studying to become a carpenter, but you wonder if you might like to be an explorer like your uncle instead.

How would you decide which career to choose?

BUILDING BACKGROUND A spirit of adventure swept across Europe in the 1400s. Improved maps showed new lands. Travelers' tales encouraged people to dream of finding riches and adventure.

Desire and Opportunity to Explore

Why did people seek to explore the world in the 1400s? First, they wanted Asian spices. Italy and Egypt controlled the trade routes to Asia, charging very high prices for spices. As a result, many countries wanted to find a direct sea route that led to Asia.





What You Will Learn...

Main Ideas

- **1.** Europeans had a desire and opportunity to explore in the 1400s and 1500s.
- 2. Portuguese and Spanish explorers discovered new trade routes, lands, and people.
- 3. The English and French claimed land in North America.

The Big Idea

European explorers brought knowledge, wealth, and influence to their countries.

Key Terms and People

Henry the Navigator, *p. 595* Vasco da Gama, *p. 595* Christopher Columbus, *p. 595* Ferdinand Magellan, *p. 595* circumnavigate, *p. 595* Sir Francis Drake, *p. 596* Spanish Armada, *p. 596*



Use the graphic organizer online to take notes about the major explorers of the Age of Exploration and their discoveries.

European Exploration, 1487–1580



This way they could get spices without having to buy from Italian or Egyptian traders.

Religion gave explorers another reason to set sail. European Christians wanted to convert more people to their religion to counteract the spread of Islam in Europe, Africa, and Asia.

Advances in technology made exploration possible. Sailors used the astrolabe and the compass to find routes to faraway places. More accurate maps allowed sailors to sail from port to port without having to stay right along the coast the entire way. Other advances came in shipbuilding. The Portuguese began building ships called caravels (KER-uh-velz). Caravels used triangular sails that, unlike traditional square sails, allowed ships to sail against the wind. By replacing oars on the ship's sides with rudders at the back of the ship, the Portuguese also greatly improved steering. The new caravels helped Portugal take the lead in the European Age of Exploration.

READING CHECK Finding Main Ideas What advances in technology aided exploration?



- come from?2. Movement Which explorers' expeditions went all
- the way around the world?

Portuguese and Spanish Explorations

Prince **Henry the Navigator** was responsible for much of Portugal's success on the seas. He built an observatory and a navigation school to teach sailors how to find their way on long ocean voyages. Some Portuguese sailors sailed south along the coast of Africa. In 1498 **Vasco da Gama** sailed around Africa and landed on the west coast of India. A sea route to Asia had been found.

Reaching the Americas

An Italian sailor, **Christopher Columbus**, thought he had already figured out a shorter way to Asia—sailing west across the Atlantic. He told the Spanish monarchs Ferdinand and Isabella his plan and promised them riches, new territory, and Catholic converts if they funded his journey. Isabella agreed.

In August 1492 Columbus set sail with 88 men and three small ships. On October 12, he and his crew landed on an island in the Bahamas. Columbus believed he had reached Asia. He didn't realize the continent of North America lay in front of him.

A Portuguese explorer later discovered South America by accident while trying to sail around Africa. Then, in 1519, **Ferdinand Magellan** (muh-JEHL-uhn) led a voyage around South America's southern tip. He continued sailing into the Pacific even though his ships were low on food and water. Although Magellan was killed before he could complete the voyage, his crew became the first to **circumnavigate**, or go all the way around, the globe.

Conquest of the "New World"

Spanish explorers called the Americas the "New World." When they arrived in these lands in the early 1500s, the Aztec Empire in Mexico and the Inca Empire in Peru were at the height of their powers. The Spanish saw these empires as good sources of gold and silver. They also wanted to convert the native peoples to Christianity.

Having better weapons, the Spanish quickly conquered the Aztecs and Incas. The Spanish also brought new diseases that over time killed possibly three-quarters of the native peoples. Soon, Spain ruled large parts of North and South America.

READING CHECK Identifying Points of View Why do you think European explorers called the Americas the "New World"? hmhsocialstudies.com ANIMATED HISTORY Magellan's Circumnavigation

The English and French in America

England and France also wanted to find a new route to Asia. After Spain and Portugal gained control of the southern routes, the English and French sent explorers to look for a waterway through North America. Though these explorers did not find such a passage, they claimed land in North America for England and France.

Competing for Land and Wealth

Besides looking for a route to Asia, England hoped to find riches in the New World. But Spain controlled the gold and silver of the former Aztec and Inca empires. When English sailors, such as **Sir Francis Drake**, began stealing treasure from Spanish transport ships, Spain became furious.

In 1588 Spain sent 130 ships to attack England. This fleet, called the **Spanish Armada**, was part of Spain's large navy. But the English had faster ships and better guns. They defeated the Armada and saved England from invasion. Spain now had a rival for rule of the seas.

A New European Worldview

The voyages of discovery changed the way Europeans thought about their world. The explorations brought new knowledge about geography and proved some old beliefs wrong. Europeans learned that the Americas were a separate landmass from Asia. Geographers made more accurate maps that reflected this new knowledge.

As Europeans studied the new maps and laid claim to new lands, they saw the potential for great wealth. They began to establish colonies and set up new trade networks. These actions would have wideranging consequences.

READING CHECK Generalizing Why did France and England send explorers to America?

SUMMARY AND PREVIEW European explorers sailed on voyages of discovery in the 1400s and 1500s. They found wealth, converts for Christianity, and new continents. In the next section, you will read how these discoveries affected peoples around the world.

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ONLINE QUIZ

Section 2 Assessment

Reviewing Ideas, Terms, and People

 a. Describe What were caravels? How were they better than what they replaced?
 b. Explain What motivated Europeans to explore

the world in the 1400s and 1500s?

 a. Identify Who led the first voyage to circumnavigate the globe?
 b. Analyze How did the Spanish conquer the

b. Analyze How did the Spanish conquer the Aztec and Inca empires?

3. a. Recall Where did the English and French look for a route to Asia?

b. Draw Conclusions How did power shift in Europe after the defeat of the Spanish Armada?
c. Evaluate When claiming land in the New World for themselves, Europeans ignored the ownership rights of native peoples. What is your opinion of this?

Critical Thinking

4. Drawing Conclusions Add another column to the chart you created. In this last column, write a statement drawing a conclusion about the significance of each discovery.

Explorer	Discovery	Significance

FOCUS ON SPEAKING

5. Collecting Information Review your notes and this section. Select what you consider to be the three most important events of the European Age of Exploration. Describe these in the second column of your chart.

New Systems of Trade

If **YOU** were there...

You live in a coastal town in Spain in the 1500s. This week, several ships have returned from the Americas, bringing silver for the royal court. But that's not all. The crew has also brought back some strange foods. One sailor offers you a round, red fruit. Natives in the Americas call it a "tomatl," he tells you. He dares you to taste it, but you are afraid it might be poison.

Will you taste the tomato? Why or why not?

BUILDING BACKGROUND New fruits and vegetables such as tomatoes and potatoes looked very strange to Europeans in the 1500s. But new foods were only one part of a much larger exchange of products and ideas that resulted from the voyages of discovery.

Exchanging Plants, Animals, and Ideas

The exchange of plants, animals, and ideas between the New World (the Americas) and the Old World (Europe) is known as the **Columbian Exchange**. It changed lives around the world.

European manufactured goods, like this mirror, were new to the Americas.

Europeans brought new ideas and technologies when they settled new lands. This illustration shows a scene in what is now New Mexico.

Missions and settlements helped spread Christianity and European languages. Europeans brought animals like oxen to pull carts.



What You Will Learn...

Main Ideas

- 1. Europe, Asia, Africa, and the Americas exchanged plants, animals, and ideas.
- 2. In the 1600s and 1700s, new trade patterns developed and power shifted in Europe.
- 3. Market economies changed business in Europe.

The Big Idea

Exchanges between the Old World and the New World influenced the development of new economic systems: mercantilism and capitalism.

Key Terms

plantations, *p. 598* mercantilism, *p. 599* capitalism, *p. 601* market economy, *p. 601*



Use the graphic organizer online to take notes about the changes in Europe during the 1500s and 1600s.



Europeans introduced many new plants to the Americas, including bananas, sugarcane, oranges, onions, and lettuce. Europeans also brought new animals such as cows, goats, sheep, pigs, horses, and chickens to the New World.

In the Americas, Europeans found plants and animals they had never seen. They took some back to Europe, as well as to Africa and Asia. This exchange of plants changed the eating habits of people around the world. Some of the foods new to Europeans were tomatoes, potatoes, beans, squash, and chocolate.

In addition, Europeans introduced their culture to the places they explored. Missionaries went to Asia, Africa, and the Americas to convert the peoples there to Christianity. Missionaries taught European languages to native peoples as well. Europeans also brought technologies such as guns and steel to the New World. The introduction of sheep and sugarcane created new industries. Artisans made new kinds of textiles from the wool that the sheep provided. Colonists also began to grow sugarcane on **plantations**, or large farms.

Plantations and mines in the Americas made money for Portugal and Spain. However, many American Indians who were forced to work on the land died from harsh treatment and European diseases. Europeans then started using enslaved Africans as workers. Soon, thousands of Africans were being shipped to the Americas as slave labor. The use of slave labor continued in parts of the Americas until the late 1800s.

READING CHECK Identifying Cause and Effect What caused the Columbian Exchange?

Trade and Economic Power

The exchange of products between European countries and their colonies changed economic relations around the world. European countries saw their colonies as a way to get rich.

This view of the colonies was part of an economic system called **mercantilism**—a system in which a government controls all economic activity in a country and its colonies to make the government stronger and richer. Mercantilism was the main economic policy in Europe between 1500 and 1800.

Under mercantilism, governments did everything they could to get more gold and silver, which were considered to be the measure of a country's strength. Countries also tried to export more goods than they imported. In this way, they could keep a favorable balance of trade—the relationship between the value of imports and exports.

New Trading Patterns

Mercantilism created new patterns of global trade. One involved the exchange of raw materials from colonies in the Americas, manufactured products from Europe, and slaves from Africa. This three-pronged network was known as the triangular trade.

The Atlantic slave trade was a major part of the triangular trade. European traders crammed enslaved Africans on ships for the long voyage to the Americas. Chained together without enough food and water, many slaves got sick and died. Between the late 1500s and early 1800s Europeans shipped millions of enslaved Africans to colonies in the New World.

Power Shifts in Europe

In the 1500s Portugal and Spain, the early leaders in exploration, were also the leading economic powers. That changed as the Dutch and English became stronger.

LINKING TO TODAY

Effects of the Columbian Exchange

Many of the foods you eat today didn't exist in America before 1492. Think of a cheeseburger, for example. Without foods from the Old World, you would have no bun, no patty, no cheese, and no lettuce. European explorers brought to the New World wheat for bread, cattle for beef and cheese, and lettuce. They also brought many other vegetables, grains, and fruits. Now, of course, you can find foods from all over the world in your local grocery store. People in other countries also can get foods that originally were found only in America. The Columbian Exchange affects what you have for dinner nearly every day.

Old World

- Bread
- Beef
- CheeseLettuce

SKILL ANALYZING INFORMATION

How does the Columbian Exchange affect one of your favorite dinners?

New World

Corn

Potato

Tomato

Supply and Demand

Market economies are based on the idea of supply and demand. This idea states that people will produce goods that other people want. In Europe, market economies developed as populations grew and the world economy developed.



Population grew in Europe. With more people, there was a greater demand for goods.



2 Since people wanted more goods, companies worked to make, or supply, more goods.

The Netherlands became a great trading power in the 1600s as the Dutch used their shipbuilding, sailing, and business skills to boost their overseas commerce. Dutch merchants formed a company to trade directly with Asia. The Dutch soon controlled many islands in Southeast Asia and trading posts in India, Japan, and southern Africa.

England also benefited greatly from increased trade. New trading posts in India and China, along with its colonies in North America, gave England access to huge markets and many resources.

Banking

Increased trade created a need for banks. Realizing this, the Dutch and the English each set up banks. Banking improved business in a number of ways. For example, with the growth of international trade, merchants had to deal with money from different countries. At banks, merchants could exchange money from one country for money from another and be certain that they were getting the proper value. Banks also loaned money to people who wanted to start new businesses. In doing so, banks contributed to economic growth. Banking and new trade routes, along with increased manufacturing, brought wealth to England and the Netherlands. The economic power in Europe shifted.

READING CHECK Identifying Cause and Effect Why did power shift from Spain and Portugal to England and the Netherlands in the 1600s?

Market Economies

Economic growth and new wealth changed business in Europe. Because more people had wealth, they started buying more manufactured goods.

There were several reasons for the increased demand for manufactured goods. First, Europe's population was growing. More people meant a need for more goods. Second, farmers were growing food at lower costs. With lower expenses for food, people had more money to spend on manufactured goods. A third reason was that newly founded colonies had to get their manufactured goods from Europe.

As the demand rose, businesspeople realized they could make more money by finding better ways to make manufactured



Finally, the supply of goods met the demand for goods.

goods. They wanted to increase the supply of goods offered to meet the demand. This new way of doing business can be considered the beginning of capitalism. **Capitalism** is an economic system in which individuals and private businesses run most industries. Competition among these businesses affects how much goods cost.

Competition among different businesses is most successful in a market economy.

Section 3 Assessment

Reviewing Ideas, Terms, and People

- a. Identify Name some plants and animals that were part of the Columbian Exchange.
 b. Evaluate Who do you think benefitted more from the Columbian Exchange—Europeans or people in the Americas?
- **2. a. Describe** What was the triangular trade?**b. Analyze** How did economic power shift in Europe in the 1600s?

c. Elaborate How were colonies important to a country that was following the economic policy of **mercantilism**?

3. a. Recall In what kind of an economic system do individuals and private businesses run most of the industries?

b. Explain How do supply and demand work in a market economy?

In a **market economy**, individuals decide what goods and services they will buy and sell. The government does not make these decisions for people. A market economy works on a balance between supply and demand. If there is a great demand for a product, a seller will increase the supply in order to make more money.

The ability of individuals to control how they make and spend money is a benefit of a market economy and capitalism. In the 1800s capitalism would become the basis for most economic systems in western Europe and the Americas.

READING CHECK Summarizing What is a market economy?

SUMMARY AND PREVIEW The Columbian Exchange brought new plants, animals, and technology, as well as social and cultural changes, to Europe, Africa, Asia, and the Americas. New economic systems were developed too—mercantilism and, later, capitalism. Next, you'll learn about political changes in Europe.



Critical Thinking

4. Analyzing Using your notes, explain how the availability of new products led to new trade patterns and new economic systems in Europe. Write your explanations in the arrows of a diagram like the one below.



Focus on Speaking

5. Understanding Economics From your notes and reading, select the three most important effects of the interaction between the Old and New Worlds. Describe these in your chart.

Literature in **History**

Girl with a Pearl Earring

GUIDED READING

WORD HELP

inclined likely

• A major canal connected Delft to the cities of Rotterdam and The Hague.

What tells you that the canal was a central part of Griet's life?

• Griet claims that she is a realist—that she saw things "as they were."

What does this tell you about the description of the city that follows?

• What details in this paragraph and the next suggest that Delft had a thriving economy?

by Tracy Chevalier (1964–

About the Reading *The 1999 novel* Girl with a Pearl Earring *is a work* of historical fiction. It is set in the bustling city of Delft, the Netherlands, during the 1660s. At this time, the Netherlands was one of the wealthiest, most powerful nations in the world. Nevertheless, many Dutch commoners struggled to pay high taxes. The main character of this novel is the teenaged daughter of one such commoner. To help support her family, Griet works as a maid to the family of a middle-class artist. The artist, Johannes Vermeer, was one of the greatest Dutch painters of his time.

AS YOU READ Picture the city of Delft in your mind.

I had walked along that street all my life, but had never been so aware that my back was to my home. When I reached the end and turned out of sight of my family, though, it became a little easier to walk steadily and look around me. The morning was still cool, the sky a flat grey-white pulled close over Delft like a sheet, the summer sun not yet high enough to burn it away. The canal I walked along was a mirror of white light tinged with green. As the sun grew brighter the canal would darken to the color of moss.

Frans, Agnes, and I used to sit along that canal **1** and throw things in—pebbles, sticks, once a broken tile—and imagine what they might touch on the bottom—not fish, but creatures from our imagination, with many eyes, scales, hands and fins. Frans thought up the most interesting monsters. Agnes was the most frightened. I always stopped the game, too inclined to see things as they were **2** to be able to think up things that were not.

3 There were a few boats on the canal, moving towards Market Square. It was not market day, however, when the canal was so full you couldn't see the water. One boat was carrying river fish for the stalls at Jeronymous Bridge. Another sat low on the water, loaded with bricks. The man poling the boat called out a greeting to me. I merely nodded and lowered my head so that the edge of my cap hid my face. I crossed a bridge over the canal and turned into the open space of Market Square, even then busy with people criss-crossing it on their way to some task—buying meat at the Meat Hall, or bread at the baker's, taking wood to be weighed at the Weigh House. Children ran errands for their parents, apprentices for their masters, maids for their households. Horses and carts clattered across the stones. To my right was the Town Hall, with its gilded front and white marble faces gazing down from the keystones above the windows. To my left was the New Church, where I had been baptized sixteen years before. Its tall, narrow tower made me think of a stone birdcage. Father had taken us up it once. I would never forget the sight of Delft spread below us, each narrow brick house and steep red roof and green waterway and city gate marked forever in my mind, tiny and yet distinct. I asked my father then if every Dutch city looked like that, but he did not know. He had never visited any other city, not even The Hague, two hours away on foot.

I walked to the center of the square. There the stones had been laid to form an eight-pointed star set inside a circle. Each point aimed towards a different part of Delft. I thought of it as the very center of the town, and as the center of my life. Frans and Agnes and I had played in that star since we were old enough to run in the market. In our favorite game, one of us chose a point and one of us named a thing—a stork, a church, a wheelbarrow, a flower—and we ran in that direction looking for that thing. We had explored most of Delft that way.

One point, however, we had never followed. I had never gone to Papists' Corner, where the Catholics lived. The house where I was to work was just ten minutes from home, the time it took a pot of water to boil, but I had never passed by it.

• I knew no Catholics. There were not so many in Delft, and none in our street or in the shops we used. It was not that we avoided them, but they kept to themselves.

> Girl with a Pearl Earring (1665), by Johannes Vermeer

GUIDED READING

WORD HELP

apprentices people who work for or train under a master craftsman gilded overlaid with a thin layer of gold

keystones the top center stones in an arch

Most people in the Netherlands were Protestant.

How does Griet's description of Delft reflect what you learned about the Reformation?

CONNECTING LITERATURE TO HISTORY

- 1. Analyzing New trade routes and banking, along with increased manufacturing, brought wealth to the Netherlands. What details in this excerpt point to the economic success of the Dutch?
- 2. Drawing Inferences The Netherlands became a great trading power. What geographical feature of Delft—and, more broadly, the Netherlands—helped its merchants to succeed in trade?

Social Studies Skills

Analysis

Critical Thinking

Economics

Study

Analyzing Tables

Understand the Skill

Like graphs, tables present numerical data. The figures are usually listed side by side for easy reference and comparison. A table is especially useful for organizing several categories of data. Since the figures in each row or column are related, you can easily compare numbers, and see relationships.

Learn the Skill

Follow these guidelines to read and analyze a table.

- Read the table's title to determine its subject. All the data presented in the table will be related in some way to this subject.
- 2 Identify the data. Note the headings and labels of the table's columns and rows. This will tell you how the figures are organized. A table may also contain notes in parentheses. These explain the units in which the data should be read.

- 3 Study the information. Note the numbers in each row and column. Read across rows and down columns.
- Use critical thinking skills to compare and contrast numbers, identify cause-and-effect relationships, note patterns of information, and draw conclusions.

Practice and Apply the Skill

The table below provides information on the planets in the solar system. Interpret the table to answer the following questions.

- 1. Which planets were unknown to Kepler, Galileo, and other scientists of the 1500s and 1600s?
- **2**. What relationship does the table show between the length of a planet's year and its distance from the sun?
- 3. Which planet is nearest in size to Earth?

	Planets of the Solar System						
Planet	When discovered	Diameter (in miles)	Minimum distance from Earth (in millions of miles)	Distance from Sun (in millions of miles)	Length of year (in Earth years)		
Mercury	ancient times	3,024	57	36	0.24		
Venus	ancient times	7,504	26	67	0.62		
Earth		7,909		93	1.00		
Mars	ancient times	4,212	49	141	1.88		
Jupiter	ancient times	88,534	390	482	11.86		
Saturn	prehistoric times	74,400	792	885	29.46		
Uranus	1781	32,488	1,687	1,780	84.01		
Neptune	1846	31,279	2,695	2,788	164.80		

Chapter Review

Visual Summary

CHAPTER

Use the visual summary below to help you review the main ideas of the chapter.

History's Impa

- ▶ video series
 - Review the video to answer the focus question: What were some effects of the Columbian Exchange?



Reviewing Vocabulary, Terms, and People

For each statement below, write T if it is true and F if it is false. If the statement is false, write the correct term that would make the sentence a true statement.

- **1. Galileo Galilei** was the first person to study the sky with a telescope.
- **2.** An explanation that a scientist develops to explain observed facts is called a **scientific method**.
- **3. Sir Isaac Newton** developed the theory that the planets orbit around the sun.
- **4. Christopher Columbus** led the first voyage to **circumnavigate** the globe.
- **5.** In 1588 an English navy was sent to destroy a fleet of ships called the **Spanish Armada**.
- **6. Henry the Navigator** was responsible for much of Portugal's success on the seas.
- **7.** The Spanish created large farms called **plantations** in the Americas.

Comprehension and Critical Thinking

SECTION 1 (Pages 588–592)

8. a. Recall When did the Scientific Revolution occur?

b. Compare and Contrast How were Copernicus's and Kepler's theories about the movement of the planets similar? How were they different?

c. Elaborate Choose one new invention from the period of the Scientific Revolution and explain how it affects your life.

SECTION 2 (*Pages 593–596*)

9. a. Recall What did these people achieve: Vasco da Gama, Christopher Columbus, and Ferdinand Magellan?

b. Draw Conclusions How did new navigation tools, caravels, and better maps affect travel by sea?

c. Predict If the Spanish Armada had defeated the English, how might history have changed?

SECTION 3 (Pages 597–601)

10. a. Identify Name three plants and three animals that Europeans brought to the Americas.

b. Compare and Contrast What were some positive and negative results of the Columbian Exchange?

c. Evaluate How did the founding of colonies affect manufacturing?

Social Studies Skills

Analyzing Tables An invention from the Scientific Revolution—the barometer—is used to record air pressure during a hurricane. Scientists measure the strength of a hurricane on a scale from 1–5, with 5 being the strongest. Study the data in the table below about Hurricane Frances in 2004. Use the table to answer the questions that follow.

Date and time	Wind speed (mph)	Air pressure (mb)	Category
9/1 12:00 noon	120	937	4
9/2 12:00 noon	125	939	4
9/3 12:00 noon	110	957	3
9/4 12:00 noon	90	960	2
9/5 11:00 am	80	963	1

- **11.** What happened to the air pressure as the hurricane got weaker?
- **12.** On what days did the air pressure of the hurricane measure 950 mb or greater?



13. Activity: Researching Scientists and Their

Discoveries Amazing discoveries were made during the Scientific Revolution. Use your online textbook to conduct research on important scientists of that time. Then create a chart of their key discoveries or inventions, the way the discoveries influenced society, and how information about the discoveries has evolved over time.

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Reading Skills

Vocabulary Clues *Read the sentence, then answer the questions.*

Catholic Church leaders tried strongly to impel scientists to reject any findings that contradicted church teachings.

- **14.** What is the meaning of the word *impel*? What clues tell you its meaning?
- **15.** What does the word *contradict* mean? How can you tell from the sentence? How could you restate the meaning by using words you know?

Reviewing Themes

- **16.** Society and Culture How did the birth of science lead to the growth of democratic ideas?
- **17. Economics** What led to the shift from mercantilism to capitalism?
- 18. Economics To make wise buying decisions in a market economy, individuals must know how to analyze advertisements, determine if they can afford a particular item, and judge whether their money might be better spent in other ways. Think of an item that you might like to buy. Describe the steps you would take in deciding whether to make the purchase.

Focus on Speaking

19. Giving Your Report Look over the notes you made in your chart. Decide on an organized way to present your information. Then write your speech. Remember that your audience is young, so keep your content simple. Support your key points with interesting details. Use plenty of expressive language to keep your audience interested. Create a colorful, easy-to-follow visual to refer to as you speak.

Standardized Test Practice

DIRECTIONS: Read each question, and write the letter of the best response.

1 Use the diagram to answer the following question.



The pioneering work of which early scientist produced this understanding of the solar system?

- A Francis Bacon
- **B** Nicolaus Copernicus
- C Ptolemy

CHAPTER

- D Isaac Newton
- 2 The fundamental principles of the modern scientific method are
 - A logic and mathematical theories.
 - B common beliefs of science and religion.
 - C very detailed record keeping.
 - **D** observation and experimentation.

3 Who was the first person to lead a voyage that went all the way around the world?

- A Pedro Cabral
- B Ferdinand Magellan
- C Vasco da Gama
- D Francis Drake

- The Columbian Exchange is responsible for all of the following *except*
 - A the spread of disease from Europe to America.
 - **B** the introduction of the horse to Europe.
 - **C** the spread of American crops to Africa and Asia.
 - **D** the introduction of firearms to America.
- **5** According to the policy of mercantilism, what was the main purpose of colonies?
 - A to be a source of slaves to work in the ruling country
 - **B** to provide a place where the ruling country could send undesirable people
 - **C** to help the ruling country have a favorable balance of trade
 - **D** to serve as bases from which the ruling country could launch attacks on enemies

Connecting with Past Learnings

- **6** The event you learned about earlier in this course that was *most* responsible for the Scientific Revolution was
 - A the Renaissance.
 - B the fall of Rome.
 - C the development of feudalism.
 - **D** the invention of the printing press.
- One result of the Columbian Exchange was the spread of Christianity. What other reason for Christianity's spread have you learned about this year?
 - A the Crusades
 - B the Spanish Inquisition
 - **C** the Reformation
 - D the Catholic Reformation



MULTIMEDIA CONNECTIONS

Cance de Leon

The Spanish conquistador Juan Ponce de Leon was the first European to set foot on land that later became part of the United States. Ponce de Leon first sailed to the Americas with Christopher Columbus on his second voyage in 1493. Once in the Caribbean region, he helped conquer what is now Puerto Rico and was named ruler of the island. In Puerto Rico, Ponce de Leon heard about a nearby island that supposedly held the legendary Fountain of Youth. Its waters were said to make old people young again. In 1513, Ponce de Leon set out to find the island but instead landed in what is now Florida. He named Florida and claimed it for Spain.







Caribbean Island Encounters

Watch the video to learn about the first encounters between Spanish explorers and the people of the Caribbean.



Claiming Florida for Spain

Watch the video to learn about Ponce de Leon's first landing on the coast of what is now Florida.



Ponce de Leon's 1513 Route

Study the map to learn about the region of the Americas that Ponce de Leon explored in 1513.

PONCE DE LEON 607 MC2



Enlightenment and Revolution

Essential Question What impact did the Enlightenment have in Europe and the Americas?



What You Will Learn...

In this chapter you will learn how ideas of the Enlightenment led to revolutions around the world.

The Big Idea Enlightenment thinkers built on ideas from earlier movements to emphasize the importance of reason.

The Big Idea Enlightenment ideas influenced the growth of democratic governments in Europe and America.

The Big Idea Revolutions changed the governments of Britain, the American colonies, and France.



Focus on Writing

A Persuasive Article Imagine that you are a philosopher writing an article arguing for the ideas of the Enlightenment. How would you persuade people who don't agree with the new ideas? How will you change their minds? You will write a persuasive article in favor of Enlightenment ideas to be published in a pamphlet.







Declaration of Independence

hmhsocialstudies.com VIDEO

This photo shows a reenactment of one of revolution from this period—the American Revolution.

1690

John Locke argues that government's power should be limited.

1700

1707 The Mughal Empire ends in India.





1759 Mary Wollstonecraft is born in London. **1776** The American colonies declare their independence.

1789 The French Revolution begins.





1780 Tupac Amaru leads a peasant revolt against Peru's colonial rulers.

Reading Social Studies

Economics	Geography	Politics	Religion	Society	Science and Technology
		rontics		and Culture	

Focus on Themes This chapter will introduce you to the Enlightenment, an era of great **political** thinkers, writers, and activists. You will learn about some of these figures, among the most influential people in all of world history. In their ideas, you will see the roots of our modern government, a government brought about by bold statesmen who inspired a revolution. You will also see how similar revolutions changed **society and culture** in countries around the world.

Understanding Points of View

Focus on Reading History is made up of issues, questions about what to do in a particular situation. Throughout history, people have looked at issues from all sides. Each person's view of the issue shaped what he or she thought should be done.

Identifying Points of View The way a person views an issue is called his or her **point of view**, or perspective. Points of view can be shaped by many factors, such as a person's background or political beliefs. When you read a historical document, figuring out the author's point of view can help you understand his or her opinions about an issue.

Thomas Jefferson, from the Declaration of Independence

The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct object the establishment of a direct Tyranny over these States. To prove this, let Facts be submitted to a candid world.

He has refused his Assent to Laws, the most wholesome and necessary to the public good.

He has forbidden his Governors to pass Laws of immediate and pressing importance, unless suspended in their operation till his Assent should be obtained; and when so suspended, he has utterly neglected to attend to them.





You Try It!

Read the following passage from this chapter. Then answer the questions that follow.

Rousseau

French thinker Jean-Jacques Rousseau criticized divine right. He believed in popular sovereignty—the idea that governments should express the will of the people. In *The Social Contract*, published in 1762, Rousseau declared, "Man is born free, but he is everywhere in chains." According to Rousseau, citizens submit to the authority of government to protect their own interests, entering into a "social contract." This contract gives the government the power to make and enforce laws as long as it serves the people. The government should give up that power if it is not serving the people.

From Chapter 21, p. 618

Think about the passage you have just read and then answer the questions below.

- 1. What do you think was Rousseau's point of view about France's government?
- **2.** What words or phrases in this passage helped you identify his point of view?
- 3. How did Rousseau's own beliefs and ideas affect his point of view?
- **4.** Do you think Rousseau's point of view was similar to or different from that of the king of France?
- 5. Who do you think would more likely share Rousseau's point of view: a wealthy French noble or a colonist planning a rebellion? Why do you think so?

Key Terms and People

Chapter 21

Section 1

Enlightenment (p. 612) secular (p. 613) Voltaire (p. 614) salon (p. 615) Mary Wollstonecraft (p. 615)

Section 2

John Locke *(p. 617)* natural rights *(p. 618)* Charles-Louis Montesquieu *(p. 618)* Jean-Jacques Rousseau *(p. 618)* popular sovereignty *(p. 618)* Benjamin Franklin *(p. 619)* Thomas Jefferson *(p. 619)*

Section 3

English Bill of Rights (p. 623) Declaration of Independence (p. 624) Declaration of the Rights of Man and of the Citizen (p. 627)

Academic Vocabulary

Success in school is related to knowing academic vocabulary the words that are frequently used in school assignments and discussions. In this chapter, you will learn the following academic words:

contract (*p.* 617) ideals (*p.* 624)

As you read Chapter 21, try to determine the points of view of the various people you are studying.

SECTION

What You Will Learn...

Main Ideas

- 1. The Enlightenment was also called the Age of Reason.
- The Enlightenment's roots can be traced back to earlier ideas.
- **3.** New ideas came mainly from French and British thinkers.

The Big Idea

Enlightenment thinkers built on ideas from earlier movements to emphasize the importance of reason.

Key Terms and People

Enlightenment, *p. 612* secular, *p. 613* Voltaire, *p. 614* salon, *p. 615* Mary Wollstonecraft, *p. 615*



Use the graphic organizer online to take notes on the ideas of the Enlightenment and their roots in earlier ideas.

Ideas of the Enlightenment

If **YOU** were there...

You are a student in the early 1700s. It seems your teacher can pass or fail whomever he wants. You think the teacher should make his decisions about grades based on what a student has learned. You come up with a new idea—testing students so they can prove what they know. You think this idea will improve your grades as well as relations in your school.

Will you challenge the teacher's authority?

BUILDING BACKGROUND In the 1600s and 1700s, people like the student mentioned above began to question sources of authority in society—particularly those of religion and government. They thought that using reason and logic would lead to improvements in society. Their ideas spread quickly in Europe.

The Age of Reason

Discoveries made during the Scientific Revolution and on the voyages of discovery led to changes in Europe. A number of scholars were beginning to challenge long-held beliefs about science, religion, and government.

These new scholars relied on reason, or logical thought, instead of religious teachings to explain how the world worked. They believed human reason could be used to achieve three great goals—knowledge, freedom, and happiness—and that achieving these goals would improve society. The use of reason in guiding people's thoughts about philosophy, society, and politics defined a time period called the **Enlightenment**. Because of its emphasis on the use of reason, the Enlightenment was also known as the Age of Reason.

READING CHECK Finding Main Ideas How did the Enlightenment thinkers explain the world?

The Enlightenment's Roots

The main ideas of the Enlightenment had their roots in other eras. Enlightenment thinkers looked back to the Greeks, Romans, and the history of Christianity. The Renaissance, Reformation, and Scientific Revolution provided ideas also.

Greek and Roman Philosophers

Enlightenment thinkers used ideas from the ancient Greeks and Romans. Greek philosophers had observed an order and regularity in the natural world. Aristotle, for example, taught that people could use logic to discover new truths. Building on Greek ideas, Roman thinkers developed the concept of natural law, the idea that a law governed how the world operated.

With Greek and Roman beliefs as guidelines, Enlightenment thinkers began studying the world in a new way. They applied these beliefs not just to the natural world but also to the human world of society and government.

Christianity

The history of Christianity in Europe provides other clues about ideas that emerged in the Enlightenment. One theologian, Thomas Aquinas, had taught in the Middle Ages that faith paired with reason could explain the world. In spite of Aquinas's use of reason, the Enlightenment was mostly a **secular**, or non-religious, movement. Enlightenment thinkers disagreed with the church's claims to authority and its intolerance toward non-Christian beliefs.

The Renaissance and Reformation

Other reactions to the Christian Church in Europe also influenced the ideas of the Enlightenment. For example, some Renaissance thinkers used Greek and Roman ideas to raise questions about established religious beliefs. These Renaissance thinkers were known as humanists.

Although most humanists were religious, they focused on human value and achievement rather than the glory of God. hmhsocialstudies.com ANIMATED HISTORY Cultural Centers, 1700s



The Enlightenment is also called the Age of Reason because reason, or logical thought, is a basic part of all Enlightenment ideas.

Ideas of the Enlightenment

- The ability to reason is what makes humans unique.
- Reason can be used to solve problems and improve people's lives.
- Reason can free people from ignorance, superstition, and unfair government.
- The natural world is governed by laws that can be discovered through reason.
- Like the natural world, human behavior is governed by natural laws.
- Governments should reflect natural laws and encourage education and debate.

Renaissance humanists believed people could improve their world by studying it and changing it. These ideas contributed to the Enlightenment idea of progress the idea that humans were capable of improving their world.

Some Reformation ideas also reappeared during the Enlightenment. Like Martin Luther and other reformers, Enlightenment scholars questioned church authority. They found that religious beliefs didn't always fit in with what they learned from their logical study of the world.

The Scientific Revolution

The Scientific Revolution also influenced Enlightenment thinkers. Through experiments, scientists like Newton and Galileo had discovered that the world did not work exactly the way the church explained it. Using scientific methods of study, scientists discovered laws that governed the natural world. Enlightenment thinkers took the idea of natural laws one step further. They believed that natural laws must also govern human society and government.

READING CHECK Identifying Main Ideas

What were some movements that influenced the Enlightenment?

New Ideas

Enlightenment thinkers borrowed ideas from history to develop a new worldview. They believed the use of reason could improve society. To achieve this progress, they had to share their ideas with others.

French Philosophers

French philosophers popularized many Enlightenment ideas. One philosopher, **Voltaire** (vohl-TAYR), mocked government and religion in his writings. Instead of trusting God to improve human happiness, Voltaire believed humans could improve their own existence.

Having gotten in trouble for some of his writings, Voltaire also spoke out against censorship—removal of information considered harmful. He argued, "I [may] disapprove of what you say, but I will defend to the death your right to say it." His statement emphasized the Enlightenment goal of freedom of thought.

Enlightenment thinkers made an effort to share their thoughts with the public. Philosopher Denis Diderot (dee-DROH) edited a book called the *Encyclopedia*. This book included articles by more than 100 experts on science, technology, and history. The French king and the pope both banned the *Encyclopedia*. In spite of censorship, Enlightenment ideas spread. One important place for the exchange of ideas was the **salon**, a social gathering held to discuss ideas. Women often hosted the salons. Most Enlightenment thinkers did not view women as equal to men. However, in hosting salons women could influence opinions.

British Writers

Women and men also began to publish their ideas in books, pamphlets, and newspaper articles. British writer **Mary Wollstonecraft**, for example, argued that women should have the same rights as men.

Enlightenment thinkers even applied their ideas of freedom and progress to economics. British writer Adam Smith believed economics was governed by natural laws. He argued that governments should not try to control the economy and that economic growth came when individuals were free to make their own choices. Like many Enlightenment thinkers, his ideas would have a lasting effect.

READING CHECK Summarize How did Enlightenment thinkers spread their ideas?

BIOGRAPHY

Voltaire 1694–1778

Voltaire is the pen name of the French philosopher and author François-Marie Arouet. He used his wit, intelligence, and sense of justice to poke fun at religious intolerance. Voltaire's skill and bold ideas made him a popular writer. In his writings he argued that the purpose of life is the pursuit of human happiness through progress in science and the arts.

Drawing Inferences Why did Voltaire poke fun at religious intolerance?

SUMMARY AND PREVIEW Scholars during the Enlightenment drew on ideas from previous eras. They proposed ideas about the importance of reason and progress. In the next section you will learn how the Enlightenment changed ideas about government.

Section 1 Assessment

Reviewing Ideas, Terms, and People

- a. Define What was the Enlightenment?
 b. Explain What was the main goal of most Enlightenment thinkers?
- 2. a. Define What does it mean to say that the Enlightenment was a secular movement?
 b. Explain What was the connection between the discoveries of the Scientific Revolution and the Enlightenment?

c. Elaborate How did the idea of natural law contribute to the Enlightenment?

3. a. Describe How did **Voltaire** feel about censorship?
 b. Explain What did Adam Smith contribute to Enlightenment ideas?

Critical Thinking

4. Summarize Draw a chart like this one. Using your notes, summarize how each source contributed to Enlightenment ideas.



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ONLINE QUIZ

FOCUS ON WRITING

5. Arguing for Enlightenment Ideas Review the section for new ideas about science, religion, women's rights, and economics. How may these ideas help people? Write down what you could say in favor of Enlightenment ideas on these topics.


What You Will Learn...

Main Ideas

- The Enlightenment influenced some monarchies.
- Enlightenment thinkers helped the growth of democratic ideas.
- In America, the Enlightenment inspired a struggle for independence.

The Big Idea

Enlightenment ideas influenced the growth of democratic governments in Europe and America.

Key Terms and People

John Locke, *p. 617* natural rights, *p. 618* Charles-Louis Montesquieu, *p. 618* Jean-Jacques Rousseau, *p. 618* popular sovereignty, *p. 618* Benjamin Franklin, *p. 619* Thomas Jefferson, *p. 619*

hmhsocialstudies.com TAKING NOTES

Use the graphic organizer online to take notes on how the Enlightenment influenced democratic ideas in Europe and America.

New Views on Government

If **YOU** were there...

You are in a coffee house, discussing everything from politics to religion with friends. It is 1770. Suddenly, someone next to you questions the king's right to rule. Other people begin to agree with that person. As you listen to their logic, you wonder about other ways to run a government.

Would you support a government that didn't include a king or queen? Why or why not?

BUILDING BACKGROUND For centuries, Europe's monarchs had struggled with nobles and with church leaders for power. In England, Parliament limited the monarch's power. In some other countries, however, the kings and queens ruled without limits. The Enlightenment would change governments in Europe and in America.

Enlightenment Influence on Monarchies

In the 1600s and 1700s kings, queens, and emperors ruled Europe. (See the map.) Many of these monarchs believed that they ruled through divine right. That is, they thought that God had given them the right to rule as they chose. They also thought they shouldn't be limited by bodies such as England's parliament. King Louis XIV of France saw himself as the entire government. He declared, *"L'état, c'est moi!"* or "I am the state."

Although monarchs such as Louis XIV held the most power, other groups in society also had privileges. In France, for example, the nobles paid few taxes and held the highest positions in the army. The French clergy paid no taxes at all. However, most of the French people, the commoners, were poor, paid high taxes, and had no role in their government.

Outside of France, some monarchs began to change their ideas about how they ruled. They applied Enlightenment ideas to government. These rulers became known as enlightened despots.



A despot is a ruler with absolute power. The enlightened despots tried to make life better for the commoners. They also thought they could make their countries stronger if the commoners were happier. Frederick II of Prussia was one such ruler. He approved reforms in law and education. Empress Catherine the Great of Russia was another enlightened despot. Her reforms gave the Russian nobility greater rights and powers.

Although the enlightened despots made some improvements in their countries, many Enlightenment thinkers looked for bigger changes. They began to consider the need for democracy.

READING CHECK Contrasting How do rule by divine right and rule by an enlightened despot differ?

Democratic Ideas

Some Enlightenment thinkers only challenged the idea of rule by divine right. Others went further. They developed some completely new ideas about how governments should work. Three of these thinkers— Locke, Montesquieu, and Rousseau—tried to identify the best possible form of government. The ideas of these Enlightenment thinkers contributed to the creation of modern democracy.

Locke

The English philosopher **John Locke** had a major influence on Enlightenment political thought. In 1690, he published *Two Treatises on Government*. In this work, Locke argued for government as a **contract** between the ruler and the people.

ACADEMIC VOCABULARY

contract a binding legal agreement

Because a contract bound both sides, the ruler's power would be limited. In fact, Locke thought that government existed only for the public good of the people.

Locke also declared that all people had certain **natural rights**, which included the rights to life, liberty, and property. He thought that no person was born with special privileges. According to Locke, the government should protect the natural rights of its citizens. If it didn't, the people had the right to change rulers.

Montesquieu

Frenchman **Charles-Louis Montesquieu** (mohn-te-SKYOO) was a member of the nobility. He built on Locke's ideas in *The Spirit of the Laws*, published in 1748. Montesquieu claimed that a government should be divided into separate branches to protect people's freedom. In this idea, known as the separation of powers, each branch of government is limited by the others. As

a result, the separate branches must share power. None of them can control the government completely.

Rousseau

French thinker **Jean-Jacques Rousseau** (roo-SOH) criticized divine right. He believed in **popular sovereignty** (SAHV-ruhn-tee)—the idea that governments should express the will of the people. In *The Social Contract*, published in 1762, Rousseau declared, "Man is born free, but he is everywhere in chains." According to Rousseau, citizens submit to the authority of government to protect their own interests, entering into a "social contract." This contract gives the government the power to make and enforce laws as long as it serves the people. The government should give up that power if it is not serving the people.

READING CHECK Analyzing What idea appears in the works of both Locke and Rousseau?

Enlightenment Thinkers

The ideas of Locke, Montesquieu, and Rousseau contributed to the creation of modern democracy.

Who believed in separation of government powers?



John Locke 1632–1704

Government's power is limited.
 People have natural rights, such as life, liberty, and property.



Charles-Louis Montesquieu 1689–1755

The powers of government should be separated into separate branches.

The Enlightenment in America

The ideas of these three philosophers spread throughout Europe. From Europe, they spread to the British colonists living in North America. Enlightenment ideas would have a big effect on America's history.

The British colonists already knew basic ideas about participation in government. Because they were British citizens, the colonists knew about Parliament and its control over the British monarch. When the British government began to chip away at what the colonists saw as their rights, the colonists fought back.

British Policy in North America

To learn more about this struggle, we must go back to the founding of the colonies. Other countries besides Britain settled and controlled land in North America. One of them was France.



Jean-Jacques Rousseau 1712–1778

- Governments should express the will of the people.
- People enter into a social contract with their government, giving it the right to create and enforce laws.

In North America the French and British had many disagreements. These conflicts led to war. Even though the British eventually defeated the French, years of fighting cost Britain a lot of money.

To raise funds, the British government created new taxes in the colonies. One tax added to the cost of molasses. Another new tax, called the Stamp Act, required colonists to pay more for newspapers, some legal documents, and other printed materials. People in England didn't have to pay these taxes. As a result, the colonists thought the taxes were unfair. The colonists wanted to be treated as British citizens. They wanted the same rights as Europeans.

Colonists' Views

Many colonial leaders were familiar with the ideas of the Enlightenment. Two leaders in particular—**Benjamin Franklin** and **Thomas Jefferson**—would apply those ideas to the colonists' complaints.

In 1766 philosopher and scientist Benjamin Franklin went to London. There he addressed the House of Commons in Parliament. He argued that the British government had no right to tax the colonists because they had no representative in Parliament. His argument against "taxation without representation" inspired riots against the tax in the colonies. The riots persuaded the British government to get rid of the Stamp Act.

Thomas Jefferson was a farmer, scientist, and scholar. He had been influenced by the Scientific Revolution. John Locke was another source of inspiration. In keeping with Locke's ideas, Jefferson believed that Britain had no right to govern or impose taxes on the colonies. He supported the idea of independence for the colonies. Jefferson also supported the separation of religious and political power. In this way, he reflected the Enlightenment's secular attitudes.

FOCUS ON READING

Why did the colonists' point of view on taxes differ from the view of the British government?

The Enlightenment Reaches America



Jefferson would later become president of the United States. His philosophies and achievements, based on Enlightenment ideas, helped to establish the democratic government and the rights we enjoy today in the United States.

READING CHECK Finding Main Ideas Why did some colonists want to be independent of Britain?

SUMMARY AND PREVIEW In the 1600s and 1700s some European monarchs thought they had a divine right to rule. As Enlightenment thinkers proposed new ways of thinking, people questioned the monarchs' rights. Democratic ideas spread. In the next section you will learn how these ideas changed governments in England, France, and America.

Section 2 Assessment

Reviewing Ideas, Terms, and People

- a. Define What does divine right mean?
 b. Explain What did enlightened despots try to do?
- 2. a. Define What are natural rights?
 b. Explain What did Locke believe was the purpose of government?
 c. Elaborate Why would separation of powers protect people's freedoms?
- **3. a. Describe** What role did **Benjamin Franklin** play in the American colonists' disagreement with the British government?

b. Elaborate Why do you think many Americans consider **Thomas Jefferson** a hero?

Critical Thinking

4. Summarizing Draw a chart like the one here. Using your notes, list 5 important people. Explain how each person's idea influenced democracy in Europe and America.



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ONLINE OUIZ

Focus on Writing

5. Organizing Ideas about Government Note ways Enlightenment ideas might improve government by making it more effective or fair. How would you present your arguments to someone who favors monarchy or rule by divine right?

John Locke

Would you risk arrest for your beliefs in people's rights?

When did he live? 1632–1704

Where did he live? England and the Netherlands

What did he do? Locke worked as a professor, physician, and government official. He wrote about the human mind, science, government, religion, and other topics.

Why is he important? Locke believed in the right of common people to think and worship as they pleased and to own property. He also had great faith in science and people's basic goodness. Not everyone liked his ideas. At one point Locke fled to Holland to avoid arrest by political enemies. Locke's ideas have inspired political reforms in the West for some 300 years.

Drawing Inferences Why do you think some people disliked Locke's ideas?



KEY IDEAS

"Men being, as has been said, by nature, all free, equal, and independent, no one can be . . . subjected to the political power of another, without his own consent. The only way whereby any one divests himself of his natural liberty . . . is by agreeing with other men to join and unite into a community."

> –John Locke, from Second Treatise of Civil Government

This book printed in 1740 is a collection of John Locke's writings.



What You Will Learn...

Main Ideas

- 1. Revolution and reform changed the government of England.
- 2. Enlightenment ideas led to democracy in America.
- The French Revolution caused major changes in France's government.

The Big Idea

Revolutions changed the governments of Britain, the American colonies, and France.

Key Terms

English Bill of Rights, *p. 623* Declaration of Independence, *p. 624* Declaration of the Rights of Man and of the Citizen, *p. 627*



Use the graphic organizer online to take notes on major events that led to changes in government in England, America, and France.

The Age of Revolution

If **YOU** were there...

You live near Boston, Massachusetts. British soldiers have moved in and taken over your house. They say that the law allows them to take whatever they need. But your father doesn't want the soldiers living in your house and eating your food. What can he do to fight the king's laws?

Should your father disobey the king? Why or why not?

BUILDING BACKGROUND British soldiers in the North American colonies were just one sign that trouble was brewing. Ideas about the rights of the people were in conflict with ideas about the rights of monarchs. In England, the North American colonies, and France, this conflict led to violent revolutions.

Revolution and Reform in England

Enlightenment ideas inspired commoners to oppose monarchies that ruled without concern for the people's needs. However, the monarchs wouldn't give up their privileges. In England, Parliament forced the monarchy to change.

Trouble with Parliament

For many years, the English Parliament and the English monarchy had had an uneasy relationship. Parliament demanded that its rights and powers be respected. However, the monarchy stood for rule by divine right. The relationship between English monarchs and Parliament got worse.

The conflict led to a civil war in 1642. Representatives of Parliament led by Oliver Cromwell took over the country. The king, Charles I, was charged with various crimes and beheaded in 1649. Cromwell became a dictator. The years of his rule were troubled and violent. <complex-block>

By 1660 many English people were tired of turmoil and wanted to restore the monarchy. They invited the dead king's son to return and rule England as Charles II. They made Charles promise to allow Parliament to keep the powers it had won in the civil war. These powers included the right to approve new taxes. Parliament was able to work with Charles II during most of his rule. However, when Charles died and his brother James became king, the trouble began again.

James II, an unpopular Catholic, tried to promote his religious beliefs in England, a Protestant country. As a result, Parliament invited the Protestant William of Orange, James's son-in-law, to invade England. When William and his wife, Mary, arrived in England in 1688, James and his family fled to France.

New Rights for the English People

Parliament offered the throne to William and Mary on one condition. They had to accept the **English Bill of Rights**, a document that listed rights for Parliament and the English people. This document, approved in 1689, drew on the principles of Magna Carta, which limited a ruler's power and recognized some rights for the people.

Magna Carta had been in place for hundreds of years, but the monarchs had not honored it. William and Mary agreed to honor Magna Carta. They also agreed that Parliament could pass laws and raise taxes. As a result, the monarchs ruled according to laws passed by Parliament. Divine right to rule had ended in England.

READING CHECK Sequencing What events led to the creation of the English Bill of Rights?

Democracy in America

Although the power of the monarchs was limited in England, some people in North America were not satisfied. Colonists there grew increasingly unhappy with both the king and Parliament.

A New Country

Some colonists disliked the laws and taxes that the British government had imposed. In addition, colonists were used to ruling themselves through their own assemblies, or congresses. They also believed that a faraway king and parliament could not understand life in America.

Many colonists protested British laws they thought were unfair. As conflict continued, colonial leaders met to resolve the crisis. At this meeting, called the First Continental Congress, the delegates decided to resist the British. Not all colonists wanted independence, but they did want to have fair laws and to feel safe. They created militias, or groups of armed men, to protect themselves from the British troops stationed in the colonies.

Fighting began in April of 1775 when a militia exchanged fire with British troops. In 1776 the colonial leaders gathered again. At that meeting, Thomas Jefferson wrote the **Declaration of Independence**, a document declaring the colonies' independence from British rule. Like Magna Carta, the Declaration stated people's rights to certain liberties. The Declaration begins with a sentence that also expresses Enlightenment <u>ideals</u>:

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the Pursuit of Happiness.

-from the Declaration of Independence

In this passage, the word *unalienable* means "cannot be taken away." This wording shows the influence of John Locke's ideas

Documents of Democracy

The growth of modern democracy was greatly influenced by several key documents, which are shown here.

Which two documents contain some of John Locke's ideas?



Magna Carta (1215) Limited the power of the

- monarchy
- Identified people's rights to property
- Established people's right to trial by a jury



The English Bill of Rights (1689)

 Outlawed cruel and unusual punishment
 Guaranteed free speech for members of Parliament

ACADEMIC VOCABULARY ideals ideas or

goals that people try to live up to about natural rights. In addition, the Declaration of Independence said that people unhappy with their government had the right to change it. This statement builds on the ideas of Rousseau as well as Locke.

The Declaration of Independence was signed by representatives from all of the colonies. A new nation—the United States of America—was born.

A New Government

The British government finally agreed to end the fighting and recognize the United States. American leaders then met to form a new government. They wrote a set of rules called the Articles of Confederation. Under the Articles, the central government was weak. The Americans were afraid that a strong central government would be too much like a monarchy. However, the weak government didn't serve the needs of the people. A new government plan was needed. Virginia farmer James Madison was a main author of the new plan—the Constitution. This document reflected the ideas of Montesquieu, who had proposed the separation of powers in 1748. In keeping with Montesquieu's idea, the Constitution divided power among three branches of government:

- The legislative branch, called Congress, would make laws.
- The executive branch, headed by the president, would enforce laws.
- The judicial branch, or court system, would interpret laws.

The Constitution did not address the rights of women or of slaves, and men without land couldn't vote. It did, however, guarantee the rights of most citizens.

READING CHECK Finding Main Ideas How were ideas of Enlightenment thinkers reflected in the American Revolution and the new American government?





In CONGRESS June of Married

The United States Declaration of Independence (1776)

- Declared that people have natural rights that governments must protect
- Argued that people have the right to replace their government



The French Declaration of the Rights of Man and of the Citizen (1789)

- Stated that the French government received its power from the people
- Strengthened individual rights and equality

Women's March on Versailles During the French Revolution, about 6,000 women marched to the palace at Versailles to demand bread from the king.

The French Revolution

As the Americans fought for and created a new nation, the French people paid close attention to events. They were inspired by the Americans to fight for their own rights.

An Unfair Society

The French king ruled over a society split into three groups called estates. The clergy were members of the First Estate and enjoyed many privileges. Nobles made up the Second Estate. They held important positions in the military, the government, and the courts.

Most French people belonged to the Third Estate. Included were peasants, craftworkers, and shopkeepers. The Third Estate paid the highest taxes but had few rights. Many members of the Third Estate were poor and hungry. They felt that the king didn't understand their problems. While the common people starved, King Louis XVI had fancy parties. His queen, Marie-Antoinette, spent huge amounts of money on clothes.

Meanwhile, the government was badly in debt. Louis XVI wanted to raise money by taxing the rich. To do so, in 1789 he called together members of the three estates.

The meeting did not go smoothly. Some members of the Third Estate were familiar with Enlightenment ideas. These members demanded a real voice in the meeting's decisions. Eventually, the Third Estate members formed a separate group called the National Assembly. This group demanded that the king accept a constitution limiting his powers.

Louis XVI refused to agree to such demands, angering the common people of Paris. Violence broke out on July 14, 1789. On that day a mob stormed a Paris prison, the Bastille. After forcing the guards to surrender, the mob took guns stored inside the building and freed the prisoners. The French Revolution had begun.



Revolution and Change

After the Bastille fell, the revolution spread to the countryside. Peasants there were afraid that the king and nobles would crush the revolution. In events called the Great Fear, peasants took revenge on their noble landlords for years of poor treatment. In their rage and fear, the peasants burned country houses and monasteries.

Other leaders of the revolution were taking peaceful steps. The National Assembly wrote a constitution. It included some of the same ideas found in the writings of Enlightenment philosophers, the English Bill of Rights, and the Declaration of Independence. Called the **Declaration of the Rights of Man and of the Citizen**, this document guaranteed some freedoms for citizens and distributed the payment of taxes more fairly. Among the rights the Declaration supported were freedom of speech, of the press, and of religion. It also guaranteed that men could take part in the government.

Louis XVI was forced to accept the new laws, but new laws did not satisfy the revolution's leaders. In 1792 they ended the monarchy and created a republic. The next year, the leaders put Louis XVI on trial and executed him.

Facing unrest, in 1793 the new French government began to order trials of anyone who questioned its rule. In the period that followed, called the Reign of Terror, thousands of people were executed with the guillotine. This machine beheaded victims quickly with a heavy blade. The Reign of Terror ended when one of its main leaders, Maximilien Robespierre, was himself executed in July of 1794.

Although the Reign of Terror was a grim chapter in the story of the French Revolution, the revolution wasn't a failure. Eventually, France created a democratic government. Enlightenment ideas about freedom were powerful. Once they took hold, they would not go away. Many Europeans and Americans enjoy freedoms today thanks to Enlightenment ideas.

READING CHECK Summarizing What is the Declaration of the Rights of Man and of the Citizen?

SUMMARY AND PREVIEW Questions about divine right led to struggles between the English monarchy and Parliament. Enlightenment ideas inspired the American Revolution and led to democracy in the United States. The French also formed a republic. In the next chapter you will learn about revolutions and independence in countries around the world.



5. Exploring Changes in Government Consider how Enlightenment ideas improved governments in England, the United States, and France. How would you answer someone who said that the Enlightenment caused only trouble?

Social Studies Skills

Analysis

Critical Thinking

Economics

Study

Understanding Continuity and Change

Understand the Skill

A well-known saying claims that "the more things change, the more they stay the same." Nowhere does this observation apply better than to the study of history. Any look back over the past will show many changes—nations expanding or shrinking, empires rising and falling, changes in leadership, and people on the move, to name just a few.

The reasons for change have not varied, however. The same general forces have driven the actions of people and nations across time. These forces are the "threads" that run through history and give it continuity, or connectedness. They are the "sameness" in a world of continuous change.

Learn the Skill

You can find the causes of all events of the past in one or more of these major forces or themes that connect all history.

- Cooperation and Conflict: Throughout time, people and groups have worked together to achieve goals. They have also opposed others who stood in the way of their goals.
- 2 Cultural Invention and Interaction: The values and ideas expressed in peoples' art, literature, customs, and religion have enriched the world. But the spread of cultures and their contact with other cultures have produced conflict also.
- **3 Geography and Environment:** Physical environment and natural resources have shaped how people live. Efforts to gain, protect, or make good use of land and resources have been major causes of cooperation and conflict in history.

- Science and Technology: Technology, or the development and use of tools, has helped people make better use of their environment. Science has changed their knowledge of the world, and changed their lives, too.
- **5** Economic Opportunity and Development: From hunting and gathering to herding, farming, manufacturing, and trade, people have tried to make the most of their resources. The desire for a better life has also been a major reason people have moved from one place to another.
- **6 The Impact of Individuals:** Political, religious, military, business, and other leaders have been a major influence in history. The actions of many ordinary people have also shaped history.
- Nationalism and Imperialism: Nationalism is the desire of a people to have their own country. Imperialism is the wish to control other peoples. Both have existed through history.
- 8 Political and Social Systems: People have always been part of groups—families, villages, nations, or religious groups, for example. The groups to which people belong affect how they relate to people around them.

Practice and Apply the Skill

Check your understanding of the sources of continuity and change in history by answering the following questions.

- **1**. How does the Enlightenment illustrate cultural invention and interaction in history?
- **2**. What other forces in history were at work during the Enlightenment? Explain your answer.



Reviewing Vocabulary, Terms, and People

Match the words or names with their definitions or descriptions.

- a. Enlightenment
- **b.** English Bill of
- Rights
- **c.** Voltaire
- **d.** John Locke
- e. natural rights
- 1. non-religious
- 2. argued for the colonists' rights before Parliament
- **3.** a period also known as the Age of Reason
- 4. proposed the separation of powers
- 5. document that William and Mary had to sign before they could rule
- 6. spoke out against censorship

- 7. the idea that governments should express the will of the people
- 8. included life, liberty, and property in Locke's view
- 9. argued against divine right in Two Treatises on Civil Government

Comprehension and Critical Thinking

SECTION 1 (Pages 612–615)

10. a. Identify What three goals did Enlightenment thinkers believe the use of reason could achieve?

b. Compare How was the influence of Greek and Roman ideas similar to the influence of the Scientific Revolution on the Enlightenment?

c. Elaborate Voltaire and others have argued against censorship. Is censorship ever acceptable? Explain your answer.

f. popular sovereignty

- g. secular

- **h.** Charles-Louis
 - Montesquieu
 - i. Benjamin Franklin

SECTION 2 (Pages 616–620)

11. a. Identify Who were two important leaders in the American colonies?

b. Compare and Contrast What ideas did Locke and Rousseau share? How did these ideas differ from most monarchs' ideas about government?

c. Elaborate Do you think things would have happened the same or differently in the colonies if colonial leaders had not been familiar with Enlightenment ideas? Explain your answer.

SECTION 3 (*Pages 622–627*)

12. a. Identify What event started the French Revolution?

b. Analyze What basic ideas are found in both the English Bill of Rights and Magna Carta?

c. Elaborate The way people interpret the Constitution has changed over the years. What do you think is a reason for this change?

Social Studies Skills

13. Understanding Continuity and Change in History

The Enlightenment was a period of great change in Europe and America. However, it was also driven by some of the same forces that have driven the actions of people and nations across time. Choose one of the factors listed below that helped promote change during the Enlightenment. Write a sentence explaining how this factor influenced the Enlightenment. Then, choose one factor that shows historical continuity during the Enlightenment. Write a sentence explaining the influence of that factor on the Enlightenment.

Cooperation and Conflict	Economic Opportunity and Development
Cultural Invention and Interaction	Impact of Individuals
Geography and	Nationalism and
Environment	Imperialism
Science and	Political and
Technology	Social Systems

Reviewing Themes

- **14. Politics** How did the English Bill of Rights and the Declaration of the Rights of Man and of the Citizen change the power of monarchs?
- **15. Society and Culture** How would daily life have changed for a peasant after the French Revolution?

Using the Internet

16. Activity: Making a Collage The Age of Enlightenment was a time of religious, political, and economic change. Enlightenment thinkers such as John Locke, Benjamin Franklin, and Charles-Louis Montesquieu created ripples of change in democratic thought and institutions. Using your online textbook, learn more about these and other Enlightenment figures. Pick your favorite person and create a collage about his or her life and ideas.

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Reading Skills

Understanding Points of View *Read the passage below and answer the questions that follow.*

¹¹ From whatever side we approach our principle, we reach the same conclusion, that the social compact sets up among the citizens an equality of such a kind, that they all bind themselves to observe the same conditions and should therefore all enjoy the same rights. ¹¹ –Jean-Jacques Rousseau, from *The Social Contract*

17. What is Rousseau's point of view about rights?18. Who might disagree with Rousseau?

Focus on Speaking



19. Writing Your Article Use the work you have already done to write your persuasive article. In 3–4 sentences, introduce the ideas of the Enlightenment. In the next paragraph, discuss the benefits of these ideas to society and government. Conclude with a summary of your main points and a call to action—what you want readers of your article to do or think.

Standardized Test Practice

DIRECTIONS: Read each question, and write the letter of the best response.

1

CHAPTER

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the pursuit of Happiness. That to secure these rights, Governments are instituted [organized] among Men, deriving [getting] their just powers from the consent of the governed, That whenever any Form of Government becomes destructive of these ends it is the Right of the People to alter or abolish it, and to institute new Government ...

-from The Declaration of Independence, 1776

This passage is based *mainly* on the ideas of which Enlightenment thinker?

- A Voltaire
- B John Locke
- C Adam Smith
- D Charles-Louis Montesquieu
- 2 The idea that a king's rule is limited is contained in which earlier document in English history?
 - A Magna Carta
 - B Ninety-Five Theses
 - C Proclamation of 1763
 - D The Declaration of Independence
- 3 The period of history known as the Enlightenment grew out of all of the following *except*
 - A the Renaissance.
 - **B** the ideas of the ancient Greeks.
 - **C** the Scientific Revolution.
 - **D** the writings of Confucius.

- The U.S. Constitution divides the power to govern among the president, the Congress, and the courts. This approach to government is based on the ideas of which Enlightenment thinker?
 - A John Locke
 - **B** Denis Diderot
 - C Charles-Louis Montesquieu
 - D Mary Wollstonecraft
- 5 What view did the political thinkers of the Enlightenment share with the scientists of the Scientific Revolution?
 - A a belief in reason
 - **B** a belief in human rights
 - C a belief in divine right
 - D a belief in democracy

Connecting with Past Learnings

- 6 You already learned about the Greek philosopher Plato, who taught that society should be based on fairness and justice for all. Which European later *best* expressed Plato's idea?
 - A Oliver Cromwell
 - B Sir Isaac Newton
 - C Adam Smith
 - D Jean-Jacques Rousseau
- You have learned about various forms of government. The Enlightenment idea that governments should express the will of the people was illustrated in ancient history by
 - A the Ten Commandments.
 - **B** the Roman Republic.
 - C the city-states of Mesopotamia.
 - **D** the teachings of the Buddha.



THE

MULTIMEDIA CONNECTIONS

American

REVOLUTION

The American Revolution led to the formation of the United States of America in 1776. Beginning in the 1760s, tensions grew between American colonists and their British rulers when Britain started passing a series of new laws and taxes for the colonies. With no representation in the British government, however, colonists had no say in these laws, which led to growing discontent. After fighting broke out in 1775, colonial leaders met to decide what to

do. They approved the Declaration of Independence, announcing that the American colonies were free from British rule. In reality, however, freedom would not come until after years of fighting.

Explore some of the people and events of the American Revolution online. You can find a wealth of information, video clips, primary sources, activities, and more at number of humbsocial studies.com.

"I know not what course others may take; but as for me, give me liberty or give me death!"

a contraction and

- Patrick Henry

"Give Me Liberty or Give Me Death" Read an excerpt from Patrick Henry's famous speech, which urged the colonists to fight against the British.





Seeds of Revolution

Watch the video to learn about colonial discontent in the years before the Revolutionary War.



Independence!

Watch the video to learn about the origins of the Declaration of Independence.



Watch the video to learn how the American colonists won the Revolutionary War.

Assignment

Write a paper explaining one of the following topics:(1) The effects of the Columbian exchange(2) The causes of the French Revolution

Adding Facts and

Details For each cause or effect you identify, you need supporting facts and examples.

Example

TIP

Effect: New plants and animals introduced to Americas

- European seeds
- Bananas, sugarcane, onions
- Domesticated animals
- Cows, goats, sheep

Unit 9 The Early Modern

Cause and Effect in History

hy did it happen?" "What happened as a result?" Historians ask questions like these in order to study the causes and effects of historical events. In this way, they learn more about historical events and the links that form the chain between them.

1. Prewrite

Identifying Causes and Effects

A **cause** is an action or event that causes another event or situation to happen. An **effect** is what happens as a result of an event or situation. To understand historical events, we sometimes look at causes, sometimes look at effects, and sometimes look at both. For example, we could look at the causes behind Columbus's discovery of a new land, but we could also limit our discussion to the effects.

Collecting and Organizing Information

After choosing the topic you want to write about, gather information from the chapter in this textbook, an encyclopedia, or another library source. You can use graphic organizers like the ones below to organize your information:



2. Write

You can use this framework to help you write your first draft.

Introduction

 Briefly identify the event that you will discuss. [Columbian Exchange or French Revolution]

A Writer's Framework

 Identify at least three causes or effects you will discuss.

Body

- Explain the causes or effects one at a time, providing supporting facts and examples for each.
- Present the causes or effects in order of importance, placing the most important point last.

Conclusion

 Summarize your ideas about the causes or effects of the event.

3. Evaluate and Revise

Evaluating

Use the following questions to discover ways to improve your draft.

Evaluation Questions for an Explanation of Causes or Effects

- Does your introduction identify the event you are going to explain?
- Does your introduction identify the causes or effects you will discuss?
- Do you explain the causes or effects one at a time, using facts and examples to support each one?
- Do you present the causes or effects in order of importance? Do you discuss the most important cause or effect last?
- Does the conclusion summarize causes or effects and their importance?

Revising

Keep a sharp eye out for false cause-and-effect relationships. The fact that one event happened after another does not mean that the first event caused the second.

Historical events: Columbus sailed to America in 1492. John Cabot sailed to Canada in 1497.

False cause-and-effect relationship: Because Columbus sailed to America in 1492, John Cabot sailed to Canada in 1497. [Although Columbus's voyage happened before Cabot's discovery, it was not a cause.]

4. Proofread and Publish

Proofreading

As you proofread your paper, check to see whether you have unclear pronoun references. They occur when you have two different nouns or phrases the pronoun might refer to.

Unclear After the explorers conquered the native peoples, many of *them* died. [Does *them* refer to the explorers or the native peoples?]

Clear After the explorers conquered the native peoples, many of the native peoples died.

Publishing

With classmates who wrote about the same topic, create a booklet of essays to display in your classroom or in the school library.

Practice and Apply

Use the steps and strategies outlined in this workshop to write an explanation of causes or effects.

Saving the Best for the Last Why would you place the most important cause or effect at the end of your paper, rather than at the beginning? Think about your own experience. When you read something, what part do you remember best—the first or the last? When you hear a speech or your teacher presents a lesson, what sticks in your mind?

Most of the time, we remember what we heard last or read last. That is why it is often a good idea to "save the best for last."

TIP Signaling Causes and

Effects Signal that you are about to discuss a cause or an effect with words and phrases like these:

- Words and phrases that signal causes: because, due to, given that, since
- Words and phrases that signal effects: therefore, thus, consequently, so, as a result, for that reason