



Chapter

10

654-655 Buddy Mays/CORBIS

The Age of Exploration

A lighthouse stands among the ruins of Prince Henry the Navigator's school of navigation in Algarve, Portugal. ▶



Where & When?



1400

1420

Portugal begins mapping Africa's coast

1475

1492

Columbus reaches the Americas

1550

1520

Magellan's crew sails around the world

1625

1588

England defeats the Spanish Armada

The Big Ideas

Section 1 Europe Explores the World

The interaction of different societies brings about the development of new ideas, art, and technology. In the 1400s, many trade routes collapsed. At the same time, Europeans learned new technologies from Asia and the Arab world and invented some of their own. This led to an age of exploration.

Section 2 Trade and Empire

The interaction of different societies brings about the development of new ideas, art, and technology. Exploration led to the creation of new empires. It also encouraged the development of new ideas in commerce.

Section 3 A Global Exchange

Exploration and trade spread ideas and goods. European exploration and trade spread new goods and ideas throughout the world. This had both positive and negative effects.

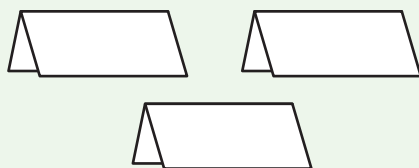


View the Chapter 10 video in the Glencoe Video Program.

FOLDABLES Study Organizer

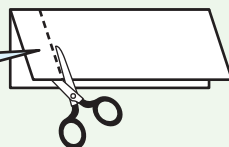
Organizing Information Make this foldable to help you organize and analyze information by asking yourself questions about the Age of Exploration.

Step 1 Fold three sheets of paper in half from top to bottom.



Step 2 On each folded paper, make a cut 1 inch from the side on the top flap.

Cut 1 inch from the edge through the top flap only.



Staple here.



Step 3 Place the folded papers one on top of the other. Staple the three sections together and label the top three tabs: Europe Explores the World, Trade and Empire, A Global Exchange.

Reading and Writing

As you read the chapter, write the main ideas for each section under the appropriate tabs of your foldable. Then write one statement for each tab that summarizes all of the main ideas in that tab.

Monitoring

Reading Skill

1 Learn It!

A key strategy to help you improve your reading is monitoring, or finding your reading strengths and weaknesses. As you read, monitor yourself to make sure that the text makes sense. Discover different monitoring techniques that you can use at different times, depending on the type of text and situation. Read the following paragraph and the examples of monitoring.

Sometimes reading ahead will help you understand the meaning. Cartography is defined in the text immediately following the term.

Do you recognize these terms? Have you ever used longitude and latitude to read a globe or map?

With the invention of the printing press, books like Ptolemy's could be printed and sold all over Europe. Ptolemy's theories about cartography, or the science of mapmaking, were very influential. His basic system of longitude and latitude is still used today.

— from page 488

What do you remember about the emergence of printing? Check back in the book to help you remember.

Do you know who Ptolemy was? The index may show you where to find more information about him.

Reading Tip

A useful monitoring strategy is to slow down or speed up your reading, depending on the text.

- If the text does not make sense, reread what you do not understand. Reading the text before or after the passage may help.
- Look at related graphs, charts, illustrations, or photographs on the page.
- Think about what you already know about the text, based on what you may have read, seen, or experienced.

2 Practice It!

The paragraph below appears in Section 2. Read the passage and answer the questions that follow. Discuss your answers with other students to see how they monitor their reading.

Mercantilism encouraged Europeans to set up trading posts and colonies in Asia and North America. By the end of the 1500s, Spain had set up a colony in the Philippines. The Spanish shipped silver to the Philippines from America and then used it to buy Asian spices and silk for sale in Europe.

—from page 497

- What questions do you still have after reading?
- Do you understand all the words in the passage?
- Did you read the passage differently than you would have read a short story or a newspaper article? How do you read various types of text differently?
- Did you have to stop reading often? Is the reading the appropriate level for you?

Read to Write

As you reread a section from this chapter, monitor yourself to see how well you understand. Then describe in a short paragraph what kind of strategies are most helpful to you before, during, and after you read.

▼ Ships of the Dutch East India Company



3 Apply It!

Identify one paragraph in each section of the chapter that is difficult to understand. Discuss each paragraph with a partner to improve your understanding.

Section

1

Europe Explores the World

Guide to Reading



History Social Science Standards

WH.7.11 Students analyze political and economic change in the sixteenth, seventeenth, and eighteenth centuries (the Age of Exploration, the Enlightenment, and the Age of Reason).

Looking Back, Looking Ahead

You have learned how Italy's cities grew rich from trade. In the 1400s, other European states began exploring the world in search of wealth.

Focusing on the Main Ideas

- In the 1400s, trade, technology, and the rise of strong kingdoms led to a new era of exploration. (page 487)
- While the Portuguese explored Africa, the Spanish, English, and French explored America. (page 489)

Locating Places

- Azores (AY•ZOH•RZ)
- Madeira (muh•DIHR•uh)
- Hispaniola (HIHS•puh•NYOH•luh)
- Strait of Magellan (muh•JEH•luhn)
- Newfoundland (NOO•fuhn•luhnd)
- St. Lawrence River (LAWR•uhns)

Meeting People

Vasco da Gama (VAS•koh duh GA•muh)

Christopher Columbus

Magellan (muh•JEH•luhn)

John Cabot (KA•buht)

Jacques Cartier

(ZHAK kahr•TYAY)

Content Vocabulary

astrolabe (AS•truh•LAB)

compass (KUHM•puhs)

caravel (KAR•uh•VEHL)

cartography (kahr•TAH•gruh•fee)

Academic Vocabulary

fund

locate

Reading Strategy

Cause and Effect Complete a diagram like the one below showing why Europeans began to explore.



Where & When?



1400

1420

Portugal begins mapping Africa's coast

1475

1492

Columbus reaches the Americas

1550

1520

Magellan's crew sails around the world



WH7.11.1 Know the great voyages of discovery, the locations of the routes, and the influence of cartography in the development of a new European worldview.

WH7.11.2 Discuss the exchanges of plants, animals, technology, culture, and ideas among Europe, Africa, Asia, and the Americas in the fifteenth and sixteenth centuries and the major economic and social effects on each continent.

Europe Gets Ready to Explore

Main Idea In the 1400s, trade, technology, and the rise of strong kingdoms led to a new era of exploration.

Reading Connection Do you like traveling to places that you have never been to? Read to learn why Western Europeans set off to explore the world.

In the 1400s and 1500s, nations in Western Europe began exploring the world. They soon gained control of the Americas and parts of India and Southeast Asia as well. Why did they begin exploring in the 1400s? Many events generated just the right conditions for exploration.

Trade With Asia As you have read, in the Middle Ages, Europeans began buying vast amounts of spices, silks, and other goods from Asia. In the 1400s, however, it became harder to get those goods.

First of all, the Mongol Empire had collapsed. The Mongols had kept the Silk Road running smoothly. When their empire collapsed, local rulers along the Silk Road imposed new taxes on merchants. This made Asian goods more expensive.

Next, the Ottoman Turks conquered the Byzantine Empire and blocked Italian merchants from entering the Black Sea. The Italians had trading posts on the coast of the Black Sea where they bought goods from Asia. Now, they could no longer reach them. They had to trade with the Turks instead, and this drove prices even higher.

Europeans still wanted the spices and silks of East Asia. Anyone who could find a way to get them cheaply would make a lot of money. Merchants began looking for a route to East Asia that bypassed the Middle East. If they could not get there by land, maybe they could get there by sea.



◀ Early compass



▲ European explorers and traders began to use smaller, faster ships called caravels in the 1400s. **What advantage did triangular sails offer a ship?**



Astrolabe ▲

New Technology Even though the Europeans wanted to go exploring, they could not do it without the right technology. The Atlantic Ocean was too dangerous and difficult to navigate.

By the 1400s, they had the technology they needed. From the Arabs, Europeans learned about the astrolabe and the compass. The **astrolabe** (AS•truh•LAB) was an ancient Greek device that could be used to find latitude. The **compass** (KUHm•puhs), invented by the Chinese, helped navigators find magnetic north.

Even with these new tools, the Europeans needed better ships. In the 1400s, they began using triangular sails developed by the Arabs. These sails let a ship zigzag into the wind.





▲ Prince Henry's school for navigation helped make possible the discovery of new water routes and new lands. Here, Prince Henry is shown watching for the return of his ships. **What types of professionals did Prince Henry invite to his research center?**

They also began building ships with many masts and smaller sails to make their ships go faster. A new type of rudder made steering easier. In the 1400s, these inventions came together in a Portuguese ship called the caravel. With ships like the **caravel** (KAR • uh • VEHL), Europeans could begin exploring the world.

The Rise of Strong Nations Even with new technology, exploration was still expensive and dangerous. For most of the Middle Ages, Europe's kingdoms were weak and could not **fund** exploration. This situation began to change in the 1400s.

The rise of towns and trade helped make governments stronger. Rulers could tax the trade in their kingdom and then use the money to build armies and navies. Using their new power and resources, they were able to build strong central governments.

By the end of the 1400s, four strong kingdoms—Portugal, Spain, France, and England—had been built in Europe. They had harbors on the Atlantic Ocean and were anxious to find a sea route to Asia. The question was where to go.

Did Maps Encourage Exploration? By the 1400s, most educated people in Europe knew the world was round, but they only had maps of Europe and the Mediterranean. When the Renaissance began, however, people began to study ancient maps as well as books written by Arab scholars.

Twelve hundred years earlier, a Greek-educated Egyptian geographer named Claudius Ptolemy had drawn maps of the world. His book *Geography* was discovered by Europeans in 1406 and printed in 1475.

With the invention of the printing press, books like Ptolemy's could be printed and sold all over Europe. Ptolemy's theories about **cartography** (kahr • TAH • gruh • fee), or the science of mapmaking, were very influential. His basic system of longitude and latitude is still used today.

European cartographers also began reading a book written by al-Idrisi, an Arab geographer. Al-Idrisi had published a book in 1154 showing the parts of the world known to Muslims. By studying the works of al-Idrisi and Ptolemy, Europeans learned the geography of East Africa and the Indian Ocean. If they could find a way around Africa, they could get to Asia.

Reading Check Summarize What were the main reasons the Europeans began exploring the world in the 1400s?





WH7.11.1 Know the great voyages of discovery, the locations of the routes, and the influence of cartography in the development of a new European worldview.

Exploring the World

Main Idea While the Portuguese explored Africa, the Spanish, English, and French explored America.

Reading Connection Have you ever done something daring or tried something new not knowing how it would turn out? Read to learn how European explorers took chances and went places no Europeans had ever been before.

By the early 1400s, Europeans were ready to explore. England and France were still fighting each other, however, and Spain was still fighting the Muslims. This gave Portugal the chance to explore first.

Who Was Henry the Navigator? In 1419 Prince Henry of Portugal, known as “Henry the Navigator,” set up a research center in southern Portugal. He invited sailors, cartographers, and shipbuilders to come and help him explore the world.

In 1420 Portugal began mapping Africa’s coastline and trading with Africa’s kingdoms. It also seized the **Azores** (AY•ZOHRRZ), **Madeira** (muh•DIHR•uh), and Cape Verde islands. Soon after, the Portuguese discovered sugarcane would grow on the islands.

Sugar was very valuable in Europe. To work their sugarcane fields, the Portuguese began bringing enslaved Africans to the islands. This was the beginning of a slave trade that would eventually bring millions of enslaved people to the Americas as well.

In 1488 the Portuguese explorer Bartolomeu Dias reached the southern tip of Africa. Nine years later, **Vasco da Gama** (VAS•koh duh GA•muh) rounded the tip of Africa, raced across the Indian Ocean, and landed on India’s coast. A water route to East Asia had at last been **located**.

Santa María

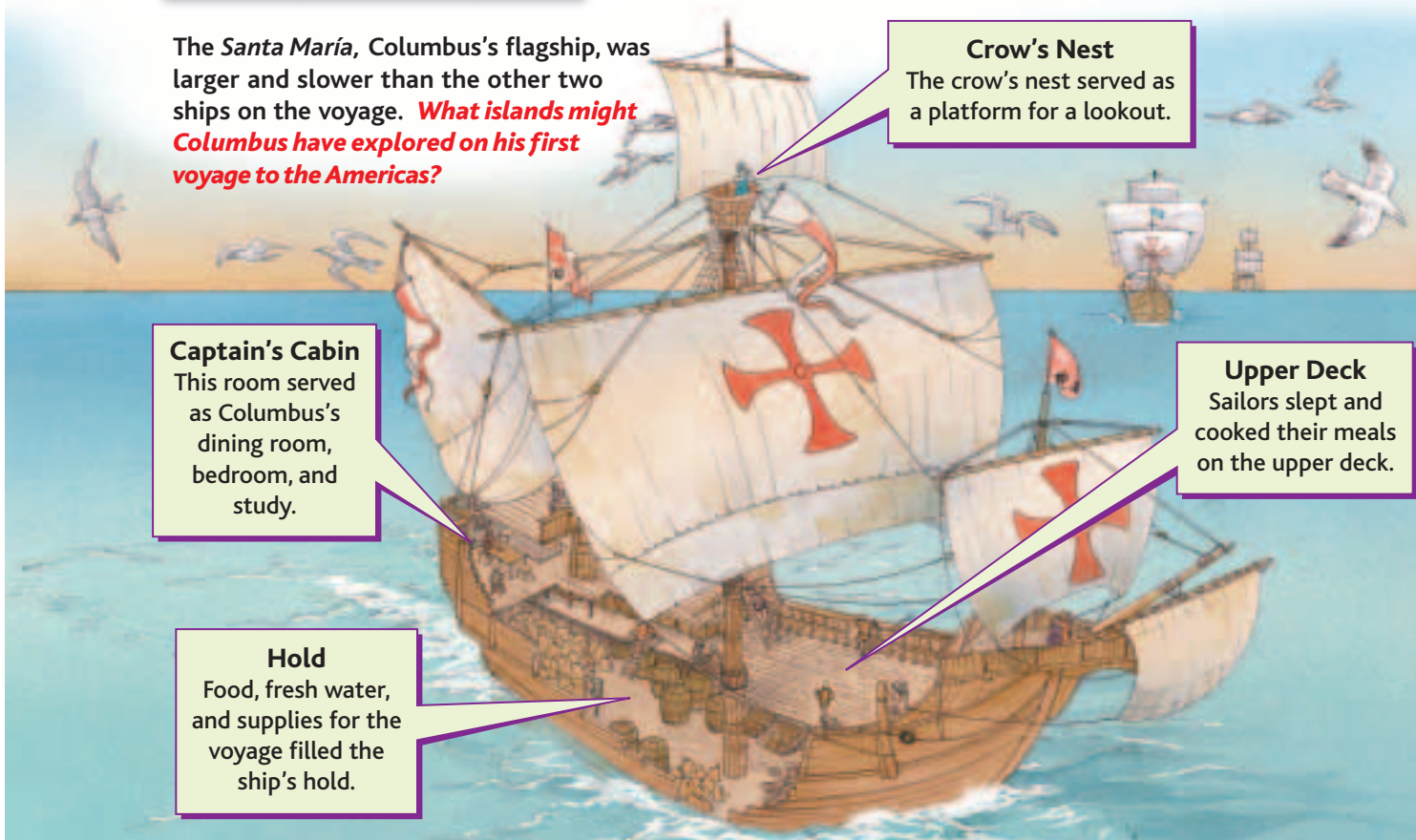
The *Santa María*, Columbus’s flagship, was larger and slower than the other two ships on the voyage. **What islands might Columbus have explored on his first voyage to the Americas?**

Crow’s Nest
The crow’s nest served as a platform for a lookout.

Captain’s Cabin
This room served as Columbus’s dining room, bedroom, and study.

Upper Deck
Sailors slept and cooked their meals on the upper deck.

Hold
Food, fresh water, and supplies for the voyage filled the ship’s hold.





Using Geography Skills

For more than 100 years, Europeans undertook voyages of exploration.

- 1. Location** Based on this map, which continents were not visited by European explorers?
- 2. Regions** What general region did the English explore?

Find NGS online map resources @ www.nationalgeographic.com/maps

Christopher Columbus While the Portuguese explored Africa, an Italian navigator named **Christopher Columbus** came up with a daring plan to get to Asia. He would sail across the Atlantic Ocean.

Columbus needed someone to finance the trip. The rulers of Portugal, England, and France all turned him down. Finally in 1492 Ferdinand and Isabella of Spain said yes. Earlier that year, they had finally driven the Muslims out of Spain. They could now afford to pay for exploration.

Columbus outfitted three ships: the *Santa María*, the *Niña*, and the *Pinta*. In 1492 they left Spain and headed west. As the weeks passed, the crew grew desperate. Finally they sighted land, probably the island of San Salvador. Columbus claimed the land for Spain and then explored Cuba and **Hispaniola** (HIHS•puh•NYOH•luh).

Columbus thought he was in Asia. He conducted three more voyages to the region but never realized he had arrived in the Americas. Eventually, Europeans realized they had found two huge continents.

Who Was Magellan? Many Spaniards explored the Americas in the 1500s, but only Ferdinand **Magellan** (muh•JEH•luhn) tried to finish what Columbus had set out to do. In 1520 he left Spain and headed west to sail around the Americas and then all the way to Asia.

Magellan sailed south along South America. Finally, he found a way around the continent. The passage he found is named the **Strait of Magellan** (muh•JEH•luhn).



Important European Explorers



Christopher Columbus

Voyages: 1492, 1493, 1498, 1502

First European to sail west searching for a water route to Asia



Vasco da Gama

Voyage: 1497-1499

First European to sail around the south of Africa and reach India



Ferdinand Magellan

Voyage: 1519-1522

Led the first expedition to sail completely around the world



Jacques Cartier

Voyages: 1534, 1535, 1541

Explored the St. Lawrence River



Henry Hudson

Voyages: 1607, 1608, 1609, 1610

Explored the Hudson River and Hudson Bay

After passing through the stormy strait, his ship entered a vast sea. It was so peaceful, or pacific, that he named the sea the Pacific Ocean.

Magellan then headed west. His sailors nearly starved and had to eat leather, sawdust, and rats. Finally, after four months at sea, they reached the Philippines. After local people killed Magellan, his crew continued west across the Indian Ocean, around Africa, and back to Spain. They became the first

known people to circumnavigate (SUHR • kuhm • NA • vuh • GAYT), or sail around, the world.

The First English and French Explorers

As the news spread about Columbus's journey, England decided to search for a northern route to Asia. In 1497 an English ship commanded by **John Cabot** (KA • buht) headed across the Atlantic.

Cabot encountered a large island he named **Newfoundland** (NOO • fuhn • luhnd).





He then traveled south along the coast of present-day Canada but did not find a path through to Asia. Cabot disappeared on his second trip and was never heard from again.

In 1524 France sent Giovanni da Verrazano to map America's coast and find a route through to Asia. Verrazano mapped from what is today North Carolina north to Newfoundland but found no path to Asia.

Ten years later, the French tried again. This time they sent **Jacques Cartier** (ZHAK kahr•TYAY). Cartier sailed past Newfoundland and entered the **St. Lawrence River** (LAWR•uhns). After two more trips, France stopped exploring. By the mid-1500s,



▲ The St. Lawrence River today

French Protestants and Catholics were fighting a civil war. There was no more exploring until it was settled.

Reading Check Identify Who was the first European to sail to India? Whose crew was first to sail around the world?

History online
Study Central Need help understanding European explorers? Visit ca.hss.glencoe.com and click on Study Central.

Section 1 Review

Reading Summary

Review the Main Ideas

- Rising prices of Asian goods, increased wealth from trade, strong central governments, new sailing technology and maps, and Renaissance attitudes caused Europeans to begin exploring the world in the 1400s.
- Portugal found a route around Africa to India, Spain began building an empire in America, and England and France sent explorers to America and Asia.

What Did You Learn?

1. What was a caravel, and why was it important?
2. Describe the accomplishments of Ferdinand Magellan.

Critical Thinking

3. **Organize Information** Draw a chart like the one below. Use it to name the explorers discussed in this section, the country they sailed for, and the places they explored. **CA 7RC.2.0**

Explorer	Country Sailed For	Area Explored

4. **Persuasive Writing** Which explorer do you think accomplished the most? Why? Write an essay defending your position. **CA 7WA.2.4**

5. **The Big Ideas** What knowledge and inventions of other cultures did Europeans use in their explorations? How did they help the explorers? **CA HI.2.**

6. **Monitoring** Write a 10-question multiple choice test to help you review the important information in this section. Exchange tests with a classmate. **CA HRI.**



Section

2

Trade and Empire

Guide to Reading

Looking Back, Looking Ahead

One effect of European exploration was the creation of new empires. At the same time, a commercial revolution occurred as companies engaged in early forms of capitalism.

Focusing on the **Main Ideas**

- The Spanish and Portuguese built world empires by establishing colonies in the Americas. (page 494)
- To increase trade, Europeans set up colonies and created joint-stock companies. (page 497)

Locating Places

Netherlands (NEH•thuhr•luhnz)

Moluccas (muh•LUH•kuhz)

Meeting People

Henry VIII

Elizabeth I

Pedro Alvares Cabral (PAY•throo
AHL•vahr•ihs kuh•BRAHL)

Content Vocabulary

mercantilism (MUHR•kuhn•TUH•LIH•zuhm)

export (EHK•SPOHRT)

import (IHM•PORHT)

colony (KAH•luh•nee)

commerce (KAH•muhrs)

invest (ihn•VEHST)

capitalism (KA•puh•tuhl•IHZ•uhm)

Academic Vocabulary

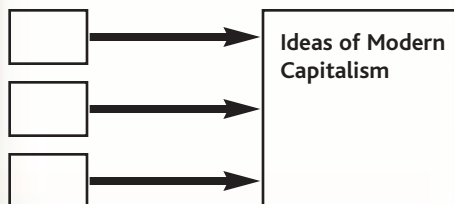
primary (PRY•MEHR•ee)

aid

anticipate (an•TIH•suh•PAYT)

Reading Strategy

Cause and Effect Complete a diagram like the one below showing what led to the rise of modern capitalism.



History Social Science Standards

WH7.11 Students analyze political and economic change in the sixteenth, seventeenth, and eighteenth centuries (the Age of Exploration, the Enlightenment, and the Age of Reason).



Where & When?



1500

1500
Cabral takes control of Indian Ocean trade

1550

c. 1550
Portuguese plantations set up in Brazil

1600

1588
England defeats the Armada

1619
Dutch arrive in Java



WH7.11 Students analyze political and economic change in the sixteenth, seventeenth, and eighteenth centuries (the Age of Exploration, the Enlightenment, and the Age of Reason). **WH7.11.3** Examine the origins of modern capitalism; the influence of mercantilism and cottage industry; the elements and importance of a market economy in seventeenth-century Europe; the changing international trading and marketing patterns, including their locations on a world map; and the influence of explorers and map makers.

Europe's Empires

Main Idea The Spanish and Portuguese built new empires by establishing colonies in the Americas.

Reading Connection Have you ever been to a store that did not have what you wanted and then bought something else instead? Read to learn how the Spanish hoped to find spices and silk in the Americas but found gold and silver instead.

As you have learned previously, Spain and Portugal built vast empires by establishing colonies in the Americas and trading posts in Asia in the 1500s. To create

these empires, they first had to conquer the Aztec and Inca.

The Fall of the Aztec and Inca As you read in Chapter 9, when the Spanish conquistadors arrived, both the Aztec and Inca ruled large empires. The Aztec empire ruled more than five million people. To support this population, they designed complex farming methods, built irrigation systems, and drained swamps. They also had made advances in science, developed a calendar, and built impressive buildings and bridges.

As you have learned, the Inca also ruled a vast empire, stretching thousands of miles through the Andes. To govern effectively, they built a huge network of roads covering about 25,000 miles. Their buildings reveal highly advanced engineering skills. They used no mortar to hold their stone blocks together, yet their buildings could survive earthquakes.

Both the Inca and the Aztec were expert metalworkers and had great quantities of precious metals. These included silver and gold. They also commanded large, well-organized armies. Nonetheless, neither could fight well against the steel swords and guns of the Spanish troops led by Cortés and Pizarro.

The Spanish had another advantage. They carried diseases with them. Among these were whooping cough, smallpox, and the measles. These diseases proved especially deadly to the Native Americans because they had never been exposed to them before. The result was devastating. Millions of people died, and much of their native culture vanished as well.

Spain and Portugal's Empires After the Spanish conquered the Aztec and Inca, they set up governments to rule the region. The

NATIONAL GEOGRAPHIC Empires in America

KEY
■ Portuguese territory c. 1500
■ Spanish territory c. 1500

Using Geography Skills

- Location** Which country controlled the most territory in the Americas?
- Region** What geographical traits did the territories of Spain and Portugal have in common?



Aztec Empire became New Spain, and the Inca Empire became New Castile. The Spanish appointed local governors who reported to the king. The **primary** responsibility of these governors was to mine gold and silver and send as much as possible back home to Spain. Vast amounts of gold and silver began to flow to Europe from Spain's empire in America.

The Spanish did not rule all of the Americas. A large portion of South America was controlled by the Portuguese. They called this region Brazil.

Unlike the Spanish, the Portuguese colonists focused on producing one specific cash crop—sugarcane. As you learned previously, sugarcane is used to produce sugar, a product that had become very popular in Europe by that time.

Beginning around 1550, the Portuguese set up large sugarcane plantations along the Brazilian coast. They then began bringing enslaved people from Africa to Brazil to work on the plantations. Soon more than half the population of Brazil had come from Africa.

Spain Fights England In the meantime, England had become Spain's enemy. As you have read, in 1527 King **Henry VIII** of England broke from the Catholic Church and made his kingdom Protestant. By the 1560s, the Dutch had converted to Protestantism too, even though they were part of Spain's empire at that time. Spain was strongly Catholic and tried to stop Protestantism in the **Netherlands** (NEH • thuhr • luhn-z). When the Dutch people rebelled against Spain, England came to their **aid**.

To help the Dutch, Queen **Elizabeth I** of England let English privateers attack Spanish ships. Privateers are privately owned ships that have a license from



▲ To defeat the Spanish Armada, the English sent ships that had been set on fire toward the Spanish warships. **Why was the defeat of the Spanish Armada important?**

the government to attack ships of other countries. People nicknamed the English privateers “sea dogs.” They raided the Spanish treasure ships that were bringing gold back from America.

England's raids frustrated Philip II, the king of Spain. In 1588 he sent a huge fleet known as the Spanish Armada to invade England. In July 1588, the Armada headed into the English Channel—the narrow body of water between England and Europe.

The Spanish ships, called galleons, were large and had many guns, but they were hard to steer. The smaller English ships moved much more quickly than the galleons. Their attacks forced the Armada to retreat north. There a great storm arose and broke up the Armada.

The defeat of the Spanish Armada was an important event. The Spanish were still strong, but England now had the power to stand up to them. This encouraged the English and Dutch to begin exploring both Asia and North America. Soon afterward they begin establishing colonies in North America as well.

Reading Check Explain How did the arrival of the Spanish change the Americas?



Biography



WH7.11 Students analyze political and economic change in the sixteenth, seventeenth, and eighteenth centuries (the Age of Exploration, the Enlightenment, and the Age of Reason).

ELIZABETH I

1533–1603

Elizabeth I was one of the most popular British rulers—but she was more loved by the people of England than by her father, King Henry VIII. Elizabeth's young life was filled with change and sadness. She was born to Henry VIII and his second wife, Anne Boleyn. The king was upset when Elizabeth was born, because he wanted a boy to inherit the throne.

When Elizabeth became queen, she surrounded herself with intelligent advisers. Together they turned England into a strong, prosperous country. Elizabeth supported Protestantism in England and in the rest of Europe. She sent aid to the French Huguenots and Protestants in Scotland and the Netherlands. She worked well with Parliament but called few sessions during her reign. She was a skilled writer and speaker and won the love and support of the English people.

Elizabeth never married, which was unusual at that time. Many men were interested in marrying her, but she turned down their proposals. One reason Elizabeth probably remained single was to maintain control of the government at a time when most rulers were men. She also used her status to the advantage of England. Many prominent men wanted to marry her, and she sometimes threatened to marry someone's enemy in order to get him to do what she wanted.

Elizabeth's personality also influenced England's society. She loved horse riding, dances, parties, and plays. Her support of the arts resulted in the development of new English literature and music. Elizabeth was so popular by the time of her death that the date she became queen was celebrated as a national holiday for 200 years.



▲ Queen Elizabeth I

“I have the heart and stomach of a king and of a king of England, too.”

—Elizabeth I, “Armada Speech”

Then and Now

Even though Queen Elizabeth I had an unhappy childhood, she overcame it to become one of England's most popular leaders. Today England's Queen Elizabeth II has also faced sad situations. Research her life and write a short essay comparing her life to the life of Elizabeth I.



WH7.11.2 Discuss the exchanges of plants, animals, technology, culture, and ideas among Europe, Africa, Asia, and the Americas in the fifteenth and sixteenth centuries and the major economic and social effects on each continent. **WH7.11.3** Examine the origins of modern capitalism; the influence of mercantilism and cottage industry; the elements and importance of a market economy in seventeenth-century Europe; the changing international trading and marketing patterns, including their locations on a world map; and the influence of explorers and map makers.

The Commercial Revolution

Main Idea To increase trade, Europeans set up colonies and created joint-stock companies.

Reading Connection Do you know anyone who works at home? Read to learn how merchants in the 1600s gave people jobs at home and changed the world trade system.

While Spain built its empire in America, Portugal began building a trading empire in Asia. In 1500, shortly after Vasco da Gama's trip, the Portuguese sent 13 ships back to India. Led by **Pedro Alvares Cabral** (PAY•throo AHL•vahr•ih•s kuh•BRAHL), the Portuguese fought a war against the Muslim merchants in the Indian Ocean.

After defeating the Arab fleet, the Portuguese built trading posts in India, China, Japan, the Persian Gulf, and in the **Moluccas** (muh•LUH•kuhz), or Spice Islands of Southeast Asia. From these bases, they controlled most of southern Asia's sea trade.

What Is Mercantilism? As Europeans watched Spain and Portugal grow wealthy from their empires, they tried to figure out how they had become rich. They came up with the idea of **mercantilism** (MUHR•kuhn•TUH•lih•zuhl). Mercantilism is the idea that a country gains power by compiling a large supply of gold and silver.

Mercantilists believe the way to do this is to **export** (EHK•sPOHRT), or sell to other countries, more goods than you **import** (IHM•POHRT), or buy from them. If you export more than you import, more gold and silver flows in from other countries than goes out.

Mercantilists also thought countries should set up colonies. A **colony** (KAH•luh•nee) is a settlement of people living in a new territory controlled by their home country. Colonists are supposed to produce goods their country does not have at home. That



▲ These ships sailed for the Dutch East India Company. **Which European nation did the Dutch replace in the spice trade?**

way, the home country will not have to import those goods from other countries.

Trade Empires in Asia Mercantilism encouraged Europeans to set up trading posts and colonies in Asia and North America. By the end of the 1500s, Spain had set up a colony in the Philippines. The Spanish shipped silver to the Philippines from America and then used it to buy Asian spices and silk for sale in Europe.

In the 1600s, English and French merchants landed in India and began trading with the people there. In 1619 the Dutch built a fort on the island of Java, in what is now Indonesia. They slowly excluded the Portuguese from the spice trade.

What Are Joint-Stock Companies? In the 1600s, new ways of doing business developed in Europe. Historians call this the "commercial revolution." **Commerce** (KAH•muhrs) is the buying and selling of goods in large amounts over long distances.

To trade long distance, merchants needed a lot of money. They had to buy goods, store them in warehouses, and transport them over land and sea. They had to





know what people in distant lands wanted to buy and what prices were like there.

In other words, European merchants were making decisions based on the concept of supply and demand. Demand refers to what people want to buy and how much they are willing to pay for it. Supply refers to things people want to sell and the price they can afford to sell it.

If people want a certain good very much, the demand is high, and if there is very little of the good available, the price will be high too—because people will pay a lot of money to get it. If manufacturers make a lot of a particular good and people do not want it, the price will be low to get people to purchase the surplus.

Merchants usually tried to find goods that were cheap in one place and in high demand in another place. They then moved the goods from where they were cheap to

where prices were high. This process enabled them to make a profit on the trade.

The rise of commerce created a new type of businessperson called an entrepreneur. Entrepreneurs **invest** (ihn•VEHST), or put money into a project. Their goal is to make even more money when the project is done.


Many projects were so large that a group of entrepreneurs had to come together and form a joint-stock company. A joint-stock company is a business that people can invest in by buying a share of the company. These shares are called stocks.


What Was Cottage Industry? To trade over a long distance, merchants need a large supply of goods. They also have to buy goods at low prices so they can make money selling them at higher prices.

By the 1600s, merchants had become frustrated with artisans who charged too

NATIONAL GEOGRAPHIC

European Trade in Asia c. 1700





Using Geography Skills

Europeans set up trading posts in India and Southeast Asia.

1. **Movement** Which countries had trading posts along the coasts of India?
2. **Movement** Which country controlled the most ports?

KEY

<ul style="list-style-type: none"> ● England ● France ● Netherlands 	<ul style="list-style-type: none"> ● Portugal ● Spain
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------



much and worked too slowly. So merchants began asking peasants to make goods for them. In particular, they asked the peasants to make wool cloth.

The peasants were happy to make extra money and glad to find jobs they could do in their homes. Merchants would buy wool and give it to the peasants. This system is often called the “cottage industry,” because the small houses where peasants lived were called cottages.

The rise of joint-stock companies and the cottage industry were important contributions to early capitalist society. **Capitalism** (KA•puh•tuhl•IHZ•uhm) is a system in which people, rather than governments, own property and make goods. Individuals and private companies owned by individuals decide what products to buy and sell.

Although these early ventures in capitalism were directed by individuals and companies, they were supported by

governments. This was especially true in England and Holland, where merchants were particularly active in creating new commercial opportunities. Governments **anticipated** that helping entrepreneurs grow their business would bring in more tax money to the government. As a result, northern European seaports became very successful as trade expanded commercial opportunities.

By the mid-1600s, both England and Holland began supporting Jewish entrepreneurs. Many European Jews had become merchants because they were not allowed to own land. As you recall, many cities in Europe had expelled Jews during the Middle Ages. By allowing them to return to England and Holland, these countries benefited from the experience and wealth these Jewish entrepreneurs had to offer.

Reading Check Explain How did merchants raise the money for overseas trade?

Section 2 Review

History Online
Study Central Need help understanding the commercial revolution? Visit ca.hss.glencoe.com and click on Study Central.

Reading Summary

Review the Main Ideas

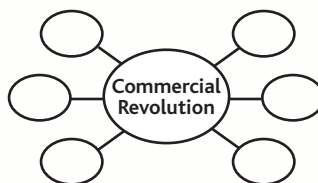
- The Spanish and Portuguese built large empires in the Americas where they used Native Americans and enslaved Africans to grow sugarcane and mine gold and silver.
- Europeans built trading posts in Asia following the ideas of mercantilism while a commercial revolution led to the rise of joint-stock companies and cottage industry.

What Did You Learn?

1. What contributed to the fall of the Aztec and Incan people?
2. How did mercantilism lead to the establishment of colonies?
4. **The Big Ideas** What new economic ideas encouraged countries to build trade empires? **CA HI.2.**

Critical Thinking

3. **Organizing Information**
Use a graphic organizer like the one below to identify the causes of the commercial revolution. **CA CS.2.**



5. **Persuasive Writing** Write an essay in which you support or reject the decision by Queen Elizabeth I to use privateers to fight Spanish ships. **CA 7WA2.4**

6. **Analysis Economics Connection** How did joint-stock companies help merchants overcome the high costs of overseas trade? **CA HI.6.**



You Decide . . .



WH.7.11.2 Discuss the exchanges of plants, animals, technology, culture, and ideas among Europe, Africa, Asia, and the Americas in the fifteenth and sixteenth centuries and the major economic and social effects on each continent.

Graudon/Art Resource, NY

Exploration and Trade: Good or Bad for the World?

Beginning in the 1400s, Europeans began exploring Africa, Asia, and the Americas and greatly increased their trade with other parts of the world. Was this exploration and trade good for the world?

Yes

Many historians and economists believe that European trade and exploration was good for the world. They argue that people in one part of the world often had solutions to problems that people in other parts of the world were still struggling to solve. Some of the major benefits and advantages of exploration and trade include the following:

- Exploration led to more accurate maps. This made travel safer and increased knowledge of the world's geography.

▼ Columbus arriving in the Americas



- Trade led to a sharing of technology. The Europeans obtained the compass, gunpowder, porcelain, and silk from Asia. The Asians received glass products, woolen cloth, wine, telescopes, and eyeglasses from Europe.
- Foods such as the potato from the Americas and rice from Asia helped reduce famine in the world. Salt from Africa helped preserve food so it could be shipped long distances.
- European ideas about democracy and individual rights eventually spread to the world and helped improve many societies.
- Trade produced more wealth for all societies involved. Although only a few people became rich, trade improved the standard of living for many people in each society.
- Exploration and trade brought more cultures into contact with each other. It increased people's knowledge of other people in the world. Although it took many centuries, this helped promote tolerance and acceptance of diversity.



▲ French explorers battling natives

No

While many historians and economists think that European exploration and trade was good for the world, many others argue that the problems and costs outweigh the benefits. Some of the major problems include the following:

- Exploration and trade spread many diseases to parts of the world where the people had no resistance. These diseases killed millions of people.
- Trade in sugarcane and exploration of Africa led to the rise of the European slave trade. Millions of Africans were enslaved and transported to the Americas to work on plantations.
- European ideas and technology greatly changed traditional societies in America, Asia, and Africa. Many people lost their traditional ways of life.

- European trade led to the rise of colonies and empires. Many local people were conquered by the Europeans and forced to work for European landowners.
- European colonies and trade changed the economy in many societies. Local people made goods for trade and no longer produced goods they needed for themselves.

One historian wrote:

“Just twenty-one years after Columbus’ first landing in the Caribbean, the vastly populous island that the explorer had renamed Hispaniola was effectively desolate; nearly 8,000,000 people . . . had been killed by violence, disease, and despair. [W]hat happened on Hispaniola was the equivalent of more than fifty Hiroshimas. And Hispaniola was only the beginning.”

—David E. Stannard *American Holocaust*

What do you think? Did the Age of Exploration benefit the world or cause more problems than it solved?

You Be the Historian

Checking for Understanding

1. Which benefit from exploration and trade do you think is the most important? Explain your answer. **CA 7RC2.3**
2. What does Stannard mean when he compares the impact of Columbus’s visit on Hispaniola to “more than fifty Hiroshimas”? **CA HR4.; HR5.**
3. What arguments would a European have used to defend exploration? What arguments would an Asian or African have made against it? Write two fictional narratives one from a European viewpoint and one from an African or Asian viewpoint that show the two sides.

CA 7WA2.1 CA HR5.

Section

3

A Global Exchange

Guide to Reading



History Social Science Standards

WH7.11 Students analyze political and economic change in the sixteenth, seventeenth, and eighteenth centuries (the Age of Exploration, the Enlightenment, and the Age of Reason).

Looking Back, Looking Ahead

European exploration and trade led to an exchange of goods and ideas throughout the world. This had both positive and negative consequences.

Focusing on the **Main Ideas**

- Exploration and trade led to a worldwide exchange of products, people, and ideas. *(page 503)*
- While the global exchange had a positive impact in many ways, it also created problems. *(page 504)*

Locating Places

Argentina (AHR•juhn•TEE•nuh)

Great Plains

Caribbean (KAR•uh•BEE•uhn)

Content Vocabulary

Columbian Exchange

pampas (PAM•puhz)

East India Company

Dutch East India Company

Academic Vocabulary

transfer (trans•FUHR)

positive (PAH•zuh•tihv)

Reading Strategy

Organizing Information Create a chart like the one below showing the positive and negative effects of the global exchange.

The Global Exchange	
Positive Effects	Negative Effects



Where & When?



1500

1492

Columbus brings goods from America to Europe

1600

1657

First chocolate shop opens in England

1700

c. 1668

Coffee plants arrive in America



WH7.11.2 Discuss the exchanges of plants, animals, technology, culture, and ideas among Europe, Africa, Asia, and the Americas in the fifteenth and sixteenth centuries and the major economic and social effects on each continent.

The Columbian Exchange

Main Idea Exploration and trade led to a worldwide exchange of products, people, and ideas.

Reading Connection Have you ever eaten rice or wheat bread? Neither rice nor wheat grew in America when Columbus arrived here. Read to learn how the movement of goods and people between America and the rest of the world caused great changes.

After the Age of Exploration, the economies of Europe, Africa, Asia, and America changed. As Europe traded with the world, a global exchange of people, goods, technology, ideas, and even diseases began. We call this transfer the **Columbian Exchange**, after Christopher Columbus who began it by bringing back goods from America to Europe in 1492.

Two important foods—corn and potatoes—were taken to Europe from North America. Corn was used to feed animals. Larger, healthier animals resulted in more meat, leather, and wool. The potato also

had a significant impact. Europeans discovered that if they planted potatoes instead of grain, about four times as many people could live off the same amount of land.

Other American foods, such as squash, beans, and tomatoes, also made their way to Europe. Tomatoes greatly changed cooking in Italy, where tomato sauces became very popular. Chocolate was a popular food from Central America. By mixing it with milk and sugar, Europeans created a sweet that is still popular today. The first chocolate shop in England opened in 1657.

Some American foods, such as chili peppers and peanuts, were taken to Europe, but they also made their way to Asia and Africa where they became popular. Both Europeans and Asians also began smoking tobacco, an American plant.

Many European and Asian grains, such as wheat, oats, barley, rye, and rice, were planted in the Americas. Many tropical fruits, such as bananas, were brought to America, as was coffee. Coffee, which

©Jeff Greenberg/Photo Researchers, (b)The Art Archive/Harper Collins Publishers



NATIONAL GEOGRAPHIC

The Columbian Exchange



Using Geography Skills

- 1. Movement** Which grains were taken to the Americas?
- 2. Movement** Besides food, what else was exchanged?



WH7.11.2 Discuss the exchanges of plants, animals, technology, culture, and ideas among Europe, Africa, Asia, and the Americas in the fifteenth and sixteenth centuries and the major economic and social effects on each continent.

comes from southwest Asia, was first planted in the Americas about 1668. Eventually, large coffee and banana farms employed thousands of workers in Central and South America.

New animals, including pigs, sheep, cattle, and chickens were brought to North America. The Europeans began raising cattle on the plains of North America and the **pampas** (PAM•puhz), or grassy plains, of **Argentina** (AHR•juhn•TEE•nuh). European horses changed the lives of Native Americans on the **Great Plains** of North America. Horses provided a faster way to move from place to place. As a result, Native Americans began hunting buffalo as their main food source.

The great exchange of food products dramatically increased the world's food supply. This, in turn, helped increase the world's population.

Reading Check Describe Describe the Columbian exchange.

Problems With the Exchange

Main Idea While the global exchange had a positive impact in many ways, it also created problems.

Reading Connection Have you heard about insects from other countries that hurt American crops? Read to learn how the global exchange created many new problems for people around the world.

Not everything exchanged between Europe and America was **positive**. You read earlier that Europeans carried germs that could kill Native Americans. European diseases caused widespread outbreaks in the Pacific islands as well. Between 1500 and 1800, historians estimate that as many as 100 million people died from European diseases.

In addition to disease, Europeans introduced new species of plants and animals. In some instances this hurt the local environment. Many species do not cause problems in their native habitat. However, when

NATIONAL GEOGRAPHIC Trade Routes of the Global Exchange



Using Geography Skills

- Movement** Which country had trade routes that went to five different continents?
- Location** Which continent(s) had all five European trading nations travel to it?

(l)Stapleton Collection, UK/Bridgeman Art Library, (r)David Turnley/CORBIS



introduced to a new region, some plants and animals can damage the area.

This problem still exists today. For example, in the early 2000s the Asian carp had escaped the ponds where it had been kept in the United States. It quickly grew out of control and threatened to overwhelm other fish species located along major rivers and lakes.

You have also read about the destruction that occurred among the Aztec and Inca following the Spanish conquests. Although the Spanish established new governments and new societies, their presence weakened or eliminated many native cultures.

European empires also caused a huge shift of people throughout the world. Many of them were colonists moving from Europe to America. Millions of people, however, were forcibly moved. After Europeans began growing sugarcane in the **Caribbean** (KAR•uh•BEE•uhn), they enslaved millions of Africans and moved them to the Americas.

Europeans also changed Asian society. With their guns and powerful ships, the Europeans easily defeated Arab fleets and Indian princes. Across Asia, the Europeans forced local rulers to let them set up trading posts. Within a short time, the **East India Company** of England had built an empire in India, and the **Dutch East India Company** had built an empire in Indonesia.

European contact with Japan also changed that society. Using guns and cannons imported from Europe, a new shogun was finally able to defeat the daimyo, or the feudal lords, and reunite Japan. In addition, Europeans spread their religion and their political and economic philosophies. This helped create unity and cooperation in many areas, especially those under European control.

Reading Check Explain How did the global exchange create problems?

Section 3 Review

History Online

Study Central Need help understanding the global exchange? Visit ca.hss.glencoe.com and click on Study Central.

Reading Summary

Review the Main Ideas

- European exploration and trade brought about a global exchange of goods and other items, including plants, animals, technology, and diseases.
- While the global exchange had many positive affects on the world, it also caused many problems.

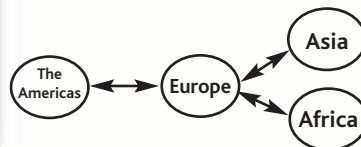
What Did You Learn?

1. Name two important foods that come from the Americas. Why were they important?
2. What sometimes happens when new plants and animals are introduced in an area?
4. **The Big Ideas** Pick a food or good from the global exchange. Use your local library and the Internet to research how it spread around the world. **CA 7WA2.3**

Critical Thinking

3. **Organize Information** Draw a diagram showing items traded between Europe and the rest of the world. **CA 7RC2.2**

5. **Analyze** How did foods imported from the Americas benefit Europe? Identify some of those foods. **CA 7RC2.0**
6. **Persuasive Writing** Write an essay explaining whether or not you think the Columbian Exchange was beneficial to the world. **CA 7WA2.4**



Analyzing Primary Sources



WH7.11.1 Know the great voyages of discovery, the locations of the routes, and the influence of cartography in the development of a new European worldview.

European Explorers

In the 1400s and 1500s, several European countries sent out explorers to map the world and find sea routes to Asia. They soon found a sea route around Africa to India and learned that two continents lay to the west across the Atlantic. With this knowledge, European goals changed. They began sending out ships to trade with Asia, to build empires, and to spread Christianity.

Read the passages on pages 506 and 507, and then answer the questions that follow.



▲ European explorers used caravels to travel the world.

Reader's Dictionary

conceive: gain

idolater (eye•DAH•luh•tuhr): person who worships idols

samorín: ambassador to the king

Columbus in America

On returning from his voyage to the Americas, Christopher Columbus wrote a letter describing the island of Hispaniola.

[The people of this island] refuse nothing that they possess, if it be asked of them; on the contrary, they invite any one to share it and display as much love as if they would give their hearts. They are content with whatever trifle of whatever kind that may be given to them, whether it be of value or valueless. I forbade that they should be given things so worthless as fragments of broken crockery, scraps of broken glass and lace tips, although when they were able to get them, they fancied that they possessed the best jewel in the world. So it was found

that for a [leather strap] a sailor received gold to the weight of two and a half castellanos, and others received much more for other things which were worth less. . . . I gave them a thousand handsome good things, which I had brought, in order that they might **conceive** affection for us and, more than that, might become Christians and be inclined to the love and service of Your Highnesses [king and queen of Spain] . . . and strive to collect and give us of the things which they have in abundance and which are necessary to us.

They do not hold any creed nor are they **idolaters**; but they all believe that power and good are in the heavens and were very firmly convinced that I, with these ships and men, came from the heavens.

—The Journals of Christopher Columbus, Cecil Jane, trans.



Vasco da Gama in Africa

In 1497 King Manuel I of Portugal sent Vasco da Gama to find a sea route to India. Below, Da Gama describes the land of Mozambique in eastern Africa, where his fleet stopped briefly on the way to India.

“The men of the land are copper-colored, well-built, and follow the religion of Mohammed. They speak the language of the Moors. Their clothes are made of fine cotton and linen fabric with many brightly colored and richly embroidered stripes. . . . They are traders and do business with the white Moors, including four ships that were anchored at port and loaded with gold, silver, fabrics, nutmeg, pepper, ginger, silver rings adorned with many pearls, seed pearls, and rubies—things also worn by the men of this country. It appeared to us, according to what they told us, that all these things had been imported, that it was the Moors who brought them, except for the gold; and that farther on, in the direction we were heading, there was more. Stones, seed pearls, and spices were so abundant, they said, that it wasn’t even necessary to barter for them: you could gather them by the basketful.”

—Francois Bellec, *Unknown Lands*

Portugal’s Empire

Vasco da Gama did indeed find India and returned to Portugal triumphant with his ships full of valuable goods. The Portuguese immediately set out to establish a trade empire based on the following plan.

“If Pedro Alvares Cabral does not manage to obtain the friendship and proof of loyalty from the *samorin* of Calicut, he should declare war and then pursue it. . . . [If] these people are so determined to follow their errors, by refusing to accept the words of the [true] Faith, denying the law of peace that must unite men and exist among them to conserve the human race, and creating obstacles and hindrances to the exercise of trade and exchange, we must then, by fire and sword, wage a cruel war. The captains have abundant and clear instructions on these points.”

—Francois Bellec, *Unknown Lands*

Vasco de Gama ▶



DBQ Document-Based Questions

Columbus in the Americas

1. List several of the most likely reasons that the natives of Hispaniola were so pleasant to the Spaniards.
2. How did the Spanish soldiers take advantage of the natives?

Vasco da Gama Sails to India

3. What can you conclude about the economic status of the people of Mozambique? Explain.
4. After his visit to Mozambique, do you think da Gama wanted to continue on to find India? Why or why not?

Portugal’s Empire

5. According to the Portuguese court, why do the people of Calicut deserve to have war waged against them?

Read to Write

6. The readings suggest that spreading religion was a reason for journeying to new lands, and for going to war. Based on these passages, do you think this was the main goal? Explain.

CA HR4.

Chapter 10 Assessment

Standard WH7.11

Review Content Vocabulary

Write the key term that completes each sentence in the blank.

- export
 - astrolabe
 - Columbian Exchange
 - mercantilism
 - cartography
- Rulers who supported _____ tried to get gold and build colonies.
 - European explorers used a(n) _____ to help them find latitude.
 - The art of mapmaking is _____.
 - Goods were traded from the Americas to Europe and back in the _____.
 - Wealthy traders wanted to _____ more than they imported.

Review the **Main Ideas**

Section 1 • Europe Explores the World

- What caused Europeans to explore other parts of the world?
- Which European nations were first to explore and conquer other parts of the world?

Section 2 • Trade and Empire

- How were the Americas divided between Spain and Portugal?
- How did the Europeans increase trade?

Section 3 • A Global Exchange

- What new goods entered Europe after the establishment of the Columbian Exchange?
- What were some of the problems with the global exchange?

Critical Thinking

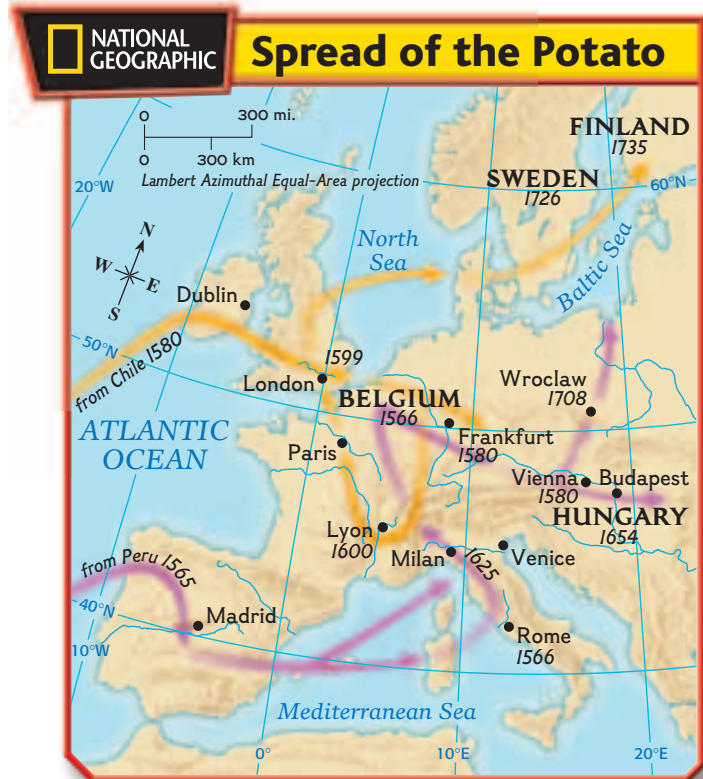
- Analyze** Do you think the Portuguese or the Spanish found the better route to East Asia by sea? **CA 7RC2.0**

- Predict** How do you think the success of colonies would have been without the use of enslaved people? **CA HI2.**
- Making Connections** How did the introduction of horses into the Americas change the way the native people lived? Do you think this was a change for the better? Why or why not? **CA 7RC2.3**

Geography Skills

Study the map below and answer the following questions.

- Place** Which city in Europe was the first to receive the potato as part of the Columbian Exchange? **CA CS3.**
- Movement** Why do you think so much time passed before the potato arrived in Sweden and Finland? **CA CS3.**
- Movement** Does it appear from the map that trade between nations followed a strict pattern? Why or why not? **CA CS3.**



Read to Write

18. Writing Research Reports

Write a report describing the ideas and inventions European explorers used to map the world and establish the global exchange. How did the exchange of ideas shape the worldwide trade system? Use information from the text as well as other research to support your report. **CA 7WA2.3**

19. Using Your FOLDABLES


Work with your classmates to create a quiz that tests your knowledge of the Age of Exploration. Use the information from your foldables to create questions about European exploration, trade and the building of empires, and the global exchange. **CA HR1.**

Using Academic Vocabulary


Replace each of the underlined words with the word that best fits in its place.


20. It is not always easy to locate something that you have lost.
a. forget b. find c. remember
21. His primary job as a chef was to make people dinner.
a. main b. only c. easiest
22. The Red Cross offers aid to sick and hurt people.
a. medicine b. help c. money
23. He reacted positively when he received an A on the test.
a. sadly b. eagerly c. happily

Economic Connections

24.  Summarizing Write a detailed summary describing the development of the economic systems that helped to increase trade and profit in Europe. **CA 7WA2.5**

Reviewing Skills

25.  Understanding Problems and Solutions Write a brief essay describing the problems facing Europeans in the 1400s and how they overcame those problems through inventions and exploration. The essay should trace the development of exploration and trade from the 1400s to the global exchange of the 1600s. **CA HI1.**

26.  Monitoring Write five questions you would ask to help you better understand the information in the following paragraph. **CA 7RC2.0** **CA HR1.**

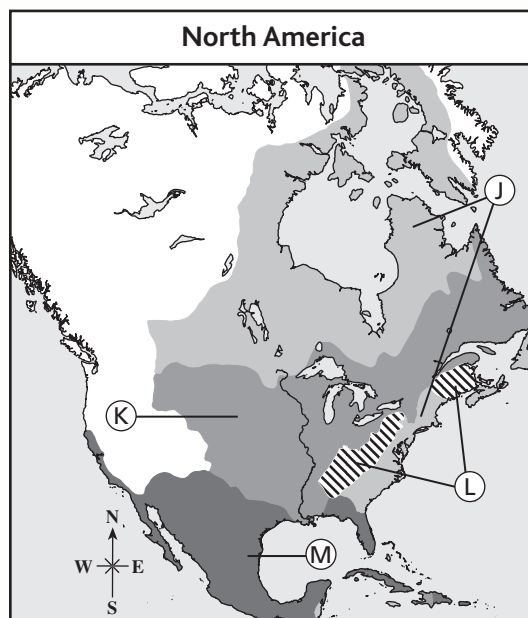
To help the Dutch, Queen Elizabeth I of England let English privateers attack Spanish ships. Privateers are privately owned ships that have a license from the government to attack ships of other countries. People nicknamed the English privateers "sea dogs." They raided the Spanish treasure ships bringing gold back from America.

—from page 495



Standards Practice

Use the map below to answer the following question.



- 27 The Spanish controlled which area of North America by 1750?

- A J
B K
C L
D M