SECTION



What You Will Learn...

Main Ideas

- Vikings were skilled sailors, and they were the first Europeans to reach North America.
- 2. Prince Henry the Navigator established a school for sailors and provided financial support that enabled the Portuguese to start exploring the oceans.
- 3. Portuguese sailors sailed around Africa and found a sea route to Asia.

The Big Idea

Europeans explored the world, searching for new lands and new trade routes.

Key Terms and People

Leif Eriksson, *p. 38* Henry the Navigator, *p. 39* astrolabe, *p. 40* caravels, *p. 40*



Use the graphic organizer online to take notes on Viking and Portuguese voyages of exploration.

Europeans Set Sail

If **YOU** were there...

You are a sailor living in Portugal in the mid-1400s. Several of your friends are excited about joining an expedition to sail to new lands. Although Portuguese navigators have made improvements to sailing ships and advancements in ocean travel, you have heard about the dangers other sailors have faced on the open seas.

Will you join the expedition or stay behind? Why?

BUILDING BACKGROUND Europeans were interested in the goods of Africa and Asia. In order to find new routes to these goods and to find new lands to settle, many European nations sent explorers on voyages.

Viking Sailors Reach North America

The Vikings were the first Europeans to make contact with North America. They came from Scandinavia, a peninsula that includes the present-day countries of Denmark, Norway, and Sweden. The Vikings were skilled sailors who developed a new style of ship, called the longship, that curved up at both ends. Viking vessels traveled the rough North Atlantic seas better than earlier ships because their designs were more stable.

The Vikings raided countries throughout Europe, but they also developed large trading networks. Viking ships sailed to the British Isles and the Mediterranean and Black seas. Eventually, the Vikings sailed west into the North Atlantic. There they founded a settlement on the island of Iceland in about 874. More than 100 years later, Viking Erik the Red left Iceland to settle Greenland.

Leif Eriksson, the son of Erik the Red, shared his father's love of adventure. In the year 1000, he was sailing from west Norway to Greenland when strong winds blew his ship off course and carried his ship all the way to the North American coast.

Eriksson and his crew landed on the Labrador Peninsula in present-day Canada. The Vikings then sailed farther south to the island of Newfoundland, and perhaps to what is now New England. According to their myths, Vikings saw forests, meadows, and rivers that held "larger salmon than they had ever seen." Eriksson settled in a coastal area he called Vinland, but the Vikings left after only a few years. Attacks by Native Americans posed a constant threat, and the area may have been too far from other Viking settlements to be supported.

After the Vikings left North America, Europeans did not return to the continent for centuries. In the 1400s, however, a growing interest in discovery and exploration spread across Europe.

READING CHECK Sequencing List the stages of exploration that led to the Vikings' landing in North America.

Prince Henry the Navigator

In the early 1400s Portugal became a leader in world exploration. One man in particular, Prince **Henry the Navigator**, was responsible for advances that would make exploration more successful. Although he never set out on a voyage himself, Henry greatly advanced Portugal's exploration efforts. In the early 1400s Prince Henry built an observatory and founded a school of navigation to teach better methods of sailing. He also financed research by mapmakers and shipbuilders. Finally, he paid for expeditions to explore the west coast of Africa.

Riches in Asia

During the 1400s, Europeans had several reasons to explore the world. First, they wanted Asian spices. They hoped to bypass the merchants who had a monopoly on, or economic control of, the Asian products that reached the Mediterranean. If a sea route to Asia could be found, countries could buy spices and other items directly.

Second, religion played a role in exploration. Christians in Europe wanted to convert more people to their faith. Third, many Europeans had become interested in Asian cultures. Explorer Marco Polo's book about his travels throughout Asia remained popular in Europe long after his death in 1324. Many Europeans wanted to learn more about Asia and its cultures.

History Close-up

The Caravel

A special type of ship called the caravel became the workhorse of many European explorers. Though small, caravels were sturdy. They could sail across huge oceans and up small rivers. Caravels featured important advances in sailing technology.

The smooth, rounded hull handled high seas well.

> The large center rudder made quick turns possible.

Triangular sails enabled the caravel to sail into the wind.

SKILL ANALYZING VISUALS

What features made the caravel an excellent sailing ship?

Causes and Effects of the Discovery of a Sea Route to Asia

Several factors led to the discovery of a sea route from Europe to Asia.

Causes

- Financial backing from Prince Henry the Navigator
- New technology (caravel and mariner's astrolabe)
- Seeking trade with Asia and financial gain
- Converting people to Christianity
- Curiosity

Effects

- Discovery of a sea route to Asia
- Face-to-face contact with traders in distant lands
- · Awareness of different cultures and ways of life

SKILL ANALYZING INFORMATION

Why was trade with Asia so important to Europeans?

ACADEMIC VOCABULARY

effect the result of an action or decision

FOCUS ON READING

Make an outline for the heading "A Sea Route to Asia."

Technological Advances

New technology played a major role in advancing world exploration. Sailors began to use tools such as the magnetic compass and the **astrolabe**, a device that enabled navigators to learn their ship's location by charting the position of the stars. Better instruments made it possible for sailors to travel the open seas without landmarks to guide them.

The Portuguese also made advances in shipbuilding. They began designing ships that were smaller, lighter, and easier to steer than the heavy galleons they had used before. These new ships, called **caravels** (ker-uh-velz), used triangular sails that, unlike traditional square sails, allowed ships to sail against the wind. By placing rudders at the back of the ship, the Portuguese also improved the steering of ships.

READING CHECK Analyzing How did Henry the Navigator promote exploration?

A Sea Route to Asia

By the 1400s Portugal had several motives, financial support, and the technology necessary for exploration. Portuguese explorers set out to find new lands.

Rounding Africa

Even with new technology, travel on the open seas was dangerous and difficult. One person described the <u>effect</u> on sailors of a voyage south from Portugal.

** Those which survived could hardly be recognized as human. They had lost flesh and hair, the nails had gone from hands and feet . . . They spoke of heat so incredible that it was a marvel that ships and crews were not burnt.
*** -Sailor, quoted in World Civilizations, edited by Edward McNall Burns, et al.

In spite of the dangers, Portuguese explorers continued sailing south, setting up trading posts along the way.

In 1488 Portuguese navigator Bartolomeu Dias led an expedition from Portugal southward along the African coast. A storm blew his ships around the southern tip of Africa. This point became known as the Cape of Good Hope. Dias wanted to continue his voyage, but his men did not. Since supplies were very low, Dias decided to call off the voyage and return to Portugal.

Later, King Manuel of Portugal sent another explorer, Vasco da Gama, on an expedition around the Cape of Good Hope. Da Gama left Lisbon, Portugal, in July 1497 and arrived in southwestern India the next year. Portugal had won the European race for a sea route to Asia.

When da Gama reached the Indian port of Calicut, Muslim traders met him and his men. The Muslims surprised the sailors by speaking to them in Portuguese. Soon da Gama and his crew learned that the people of India had been trading with Muslim and Italian merchants who knew Portuguese. Da Gama made two more trips back to India. He even governed a small colony there.

Results of Exploration

Portugal's explorations would have major results, including the start of the Atlantic slave trade. As Portuguese sailors explored the west coast of Africa, they negotiated for gold, ivory, and slaves. The slave trade devastated African communities. It led to increased warfare among kingdoms and broke up many families. The Portuguese sent many enslaved Africans to Europe and to islands in the Atlantic, where they lived and worked under brutal conditions.

The other nations of Europe watched as new trade routes brought increased wealth and power to Portugal. They soon launched voyages of exploration to find their own water routes to Asia.

READING CHECK Predicting How would continued exploration affect Africans?

SUMMARY AND PREVIEW In the 1400s, the Portuguese started a new era of exploration. In the next section you will learn how Europeans reached the American continents.



Section 1 Assessment

Reviewing Ideas, Terms, and People

a. Identify Who was Leif Eriksson?
 b. Summarize How did the Vikings eventually establish Vinland?

c. Draw Inferences Why do you think the Vikings did not try to colonize the Americas?

- 2. a. Identify Who was Prince Henry the Navigator?b. Compare Why were caravels able to sail against the wind while other ships could not?
- **3. a. Recall** Who was the first explorer to find a sea route from Europe to Asia?

b. Explain How did Muslims living in India learn Portuguese?

c. Draw Conclusions How did the slave trade affect West Africa?

Critical Thinking

4. Summarizing Review your notes on European exploration. Then copy the chart below and use it to explain the reason for the explorations, the technology that made explorations possible, and the results of the explorations.



Focus on Writing

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ONLINE QUIZ

5. Taking Notes on Early Explorers Review the section and make notes on groups of explorers. Make sure to list the differences and similarities between the groups, where they traveled, and why.