The Age of Exploration

A Resource to Accompany

History Alive! The United States Through Industrialism

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In this reading, you will learn about the Age of Exploration. This period of discovery lasted from about 1418 to 1620. During this time, European explorers made many daring voyages that changed world history.

A major reason for these voyages was the desire to find sea routes to east Asia, which Europeans called the Indies. When Christopher Columbus sailed west across the Atlantic Ocean, he was looking for such a route. Instead, he landed in the Americas. Columbus thought he had reached the Indies. In time, Europeans would realize that he had found what they called the "New World." European nations soon rushed to claim lands in the Americas for themselves.

Early explorers often suffered terrible hardships. In 1520, Ferdinand Magellan set out with three ships to cross the Pacific Ocean from South America. He had guessed, correctly, that the Indies lay on the other side of the Pacific. But Magellan had no idea how vast the ocean really was. He thought his crew would be sailing for a few weeks at most. Instead, the crossing took three months. While the ships were still at sea, the crew ran out of food. One sailor wrote about this terrible time. "We ate biscuit... swarming with worms.... We drank yellow water that had been putrid [rotten] for days... and often we ate sawdust from boards."

Why did explorers brave such dangers? In this reading, you will discover some of the reasons for the Age of Exploration. Then you will learn about the voyages of explorers from Portugal, Spain, and other European countries. You will also learn about the impact of their discoveries on Europe and on the lands they explored.
Why did European exploration begin to flourish in the 1400s? Two main reasons stand out. First, Europeans of this time had several motives for exploring the world. Second, advances in knowledge and technology helped make voyages of discovery possible.

Motives for Exploration For early explorers, one of the main motives for exploration was the desire to find new trade routes to Asia. By the 1400s, merchants and crusaders had brought many goods to Europe from Africa, the Middle East, and Asia. Demand for these goods increased the desire for trade.

Europeans were especially interested in spices from Asia. They had learned to use spices to help preserve food during winter and to cover up the taste of food that was no longer fresh.

Trade with the East, however, was expensive and difficult. Muslims and Italians controlled the flow of trade. Muslim traders carried goods to the east coast of the Mediterranean Sea. Italian merchants then brought the goods to Europe. Problems arose when Muslim rulers sometimes closed the trade routes from Asia to Europe. Also, the goods went through many hands, and each trading party raised their price.

European monarchs and merchants wanted to break the hold that Muslims and Italians had on trade. One way to do so was to find a sea route to Asia. Portuguese sailors looked for a route that went around Africa. Christopher Columbus tried to reach Asia by sailing west across the Atlantic.

Other motives also came into play. Many people were excited by the opportunity for new knowledge. Explorers saw the chance to earn fame and glory as well as wealth. Some craved adventure. And as new lands were discovered, nations wanted to claim the lands’ riches for themselves.

A final motive for exploration was the desire to spread Christianity. Both Protestant and Catholic nations were eager to make new converts. Missionaries followed the path blazed by explorers, sometimes using force to bring native peoples into their faiths.

Advances in Knowledge and Technology The Age of Exploration began in the midst of the Renaissance, a time of new learning. A number of advances made it easier for explorers to venture into the unknown.

One key advance was in cartography, the art and science of mapmaking. In the early 1400s, an Italian scholar translated an ancient book called *Guide to Geography* from Greek into Latin. The book had been written by Ptolemy in the second century C.E. Printed copies of the book inspired new interest in cartography. European mapmakers used Ptolemy’s work to draw more accurate maps.

Discoveries by explorers gave mapmakers new information to work with. The result was a dramatic change in Europeans’ view of the world. By the 1500s, globes showed Earth as a sphere, or ball. In 1507, a German cartographer made the first map that clearly showed North and South America separated from Asia.

In turn, better maps helped explorers by making navigation easier. The most important Renaissance geographer, Gerardus Mercator, created maps using improved lines of longitude and latitude. Mercator’s mapmaking technique was a great help to navigators.

An improved ship design also helped explorers. By the 1400s, Portuguese and Spanish shipbuilders were making caravels. These ships were small, fast, and easy to maneuver. Their shallow bottoms made it easier for explorers to travel along coastlines where the water was not deep. Caravels also used lateen (triangular) sails, an idea borrowed from Muslim ships. These sails
Reasons for the Age of Exploration

could be positioned to take advantage of the wind no matter which way it blew.

Along with better ships, new navigational tools helped sailors to travel more safely on the open seas. By the end of the 15th century, the compass was much improved. Sailors used compasses to find their bearing, or direction of travel. The astrolabe helped sailors figure out their distance north or south from the equator.

Finally, improved weapons gave Europeans a huge advantage over the people they met in their explorations. Sailors could fire their cannons at targets near the shore without leaving their ships. On land, the weapons of native peoples often were no match for European guns, armor, and horses.

Questions
1. What were some key motives for Europeans during the Age of Exploration?
2. Which motive do you think was the strongest for encouraging European exploration? Why?
3. What key advances in knowledge and technology allowed Europeans to explore these new areas?
4. Which advance do you think was the most important? Why?
European Exploration and Land Claims, 1488–1610

Questions
1. Which explorer was the first to establish a sea route to Asia? For which European country did he sail?
2. Which explorer was the first to sail to the east coast of South America? For which European country did he sail?
3. By 1600, on which continents did Portugal claim or control territory or cities?
4. Which explorer was the first to sail to what are today the Caribbean Islands, between North and South America? For which European country did he sail?
5. Which explorer was the first to lead a voyage that eventually went around the world? For which European country did he sail?

6. Which country had explorers who led expeditions into the lands of the Aztecs and Incas in North and South America? Who were these explorers?
7. By 1600, on which continents did Spain claim territory?
8. Which European countries during this period sent explorers to North America’s east coast? Name three of these explorers.
Portugal Begins the Age of Exploration

The Age of Exploration began in Portugal. This small country is located on the southwestern tip of Europe. Its rulers sent explorers first to nearby Africa and then around the world.

Key Explorers The key figure in early Portuguese exploration was Prince Henry, the son of King John I. Nicknamed “the Navigator,” Henry was not an explorer himself. Instead, he encouraged exploration and directed many important expeditions.

Beginning in about 1418, Henry sent explorers to sea almost every year. He also started a school of navigation where sailors and mapmakers could learn their trades. His cartographers made new maps based on the information captains brought back.

Henry’s early expeditions focused on the west coast of Africa. He wanted to continue the crusades against the Muslims, find gold, and take part in trade.

Gradually, Portuguese explorers made their way farther and farther south. In 1488, Bartolomeu Dias became the first European to go around the southern tip of Africa. Later, Dias died in a storm at sea.

In July 1497, Vasco da Gama set sail with four ships to chart a sea route to India. Da Gama’s ships rounded Africa’s southern tip and then sailed up the east coast of the continent. With the help of a sailor who knew the route to India, they crossed the Indian Ocean.

Da Gama arrived in the port of Calicut, India, in May 1498. There he obtained a load of cinnamon and pepper. On the return trip to Portugal, da Gama lost half of his ships. Many of his crewmembers died of hunger or disease. Still, the valuable cargo he brought back paid for the voyage many times over. His trip made the Portuguese even more eager to trade directly with Indian merchants.

In 1500, Pedro Cabral set sail for India with a fleet of 13 ships. Cabral first sailed southwest to avoid calms (areas where there are no winds to fill sails). But he sailed so far west that he reached the east coast of present-day Brazil. After claiming this land for Portugal, he sailed east and rounded Africa. Arriving in Calicut, he established a trading post and signed trading treaties. He returned to Portugal in June 1501 after battling several Muslim ships.

The Impact of Portuguese Exploration Portugal’s explorers changed Europeans’ understanding of the world in several ways. They explored the coasts of Africa and brought back gold and slaves. They also found a sea route to India. From India, explorers brought back spices like cinnamon and pepper and goods such as porcelain, incense, jewels, and silk.

After Cabral’s voyage, the Portuguese took control of the eastern sea routes to Asia. They seized the seaport of Goa in India and built forts there. They attacked towns on the east coast of Africa. They also set their sights on the Moluccas, or Spice Islands, in what is now Indonesia. In 1511, they attacked the main port of the islands and killed the Muslim defenders. The captain of this expedition explained what was at stake. If Portugal could take the spice trade away from Muslim traders, he wrote, then Cairo and Makkah “will be ruined.” As for Italian merchants, “Venice will receive no spices unless her merchants go to buy them in Portugal.”

Portugal’s control of the Indian Ocean broke the hold of Muslims and Italians on Asian trade. The prices of Asian goods like spices and fabrics dropped, and more people in Europe could afford to buy them.

During the 1500s, Portugal also began to establish colonies in Brazil. The native people of
Brazil suffered greatly as a result. The Portuguese tried to get the native people to give up their religion and convert to Christianity. They also forced them to work on sugar plantations. Missionaries sometimes tried to protect them from abuse, but countless numbers died from overwork and European diseases. Others fled into the interior of Brazil.

The colonization of Brazil also had an impact on Africa. As the native population of Brazil decreased, the Portuguese needed more laborers. Starting in the mid 1500s, they turned to Africa. Over the next 300 years, ships brought millions of enslaved West Africans to Brazil.

Questions
1. What contributions did each of these individuals make to Portuguese exploration?
   • Prince Henry “the Navigator”
   • Bartolomeu Dias
   • Vasco da Gama
   • Pedro Cabral

2. What impact did Portuguese exploration have on the people of these continents?
   • Africa
   • Asia
   • the Americas