

LEVELED BOOK • R

# Ships and Boats



Written by Ned Jensen and Elizabeth Austin

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and Elizabeth Austin



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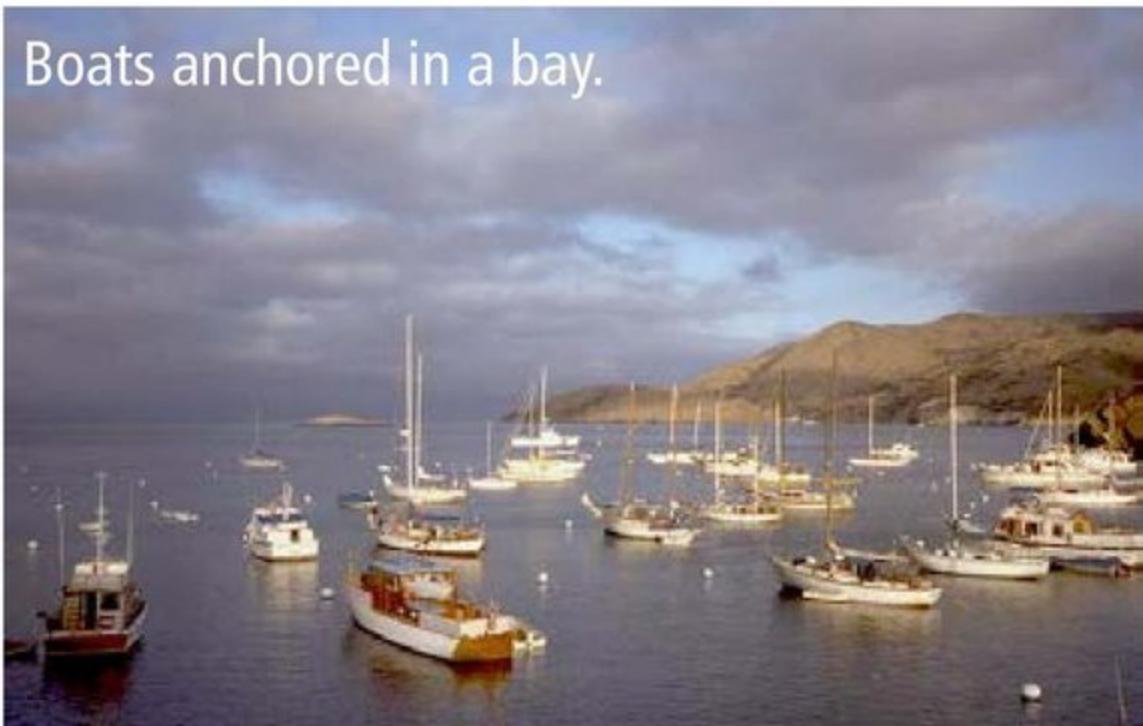
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cruise ships

## Introduction

Before there were cars, trains, or airplanes, boats were the fastest way to travel. Boats and ships helped to shape history, leading **explorers** to new lands and carrying goods, people, and ideas around the world. Ships and boats have changed a lot over the years, but they still share many features with the earliest designs. Let's take a look at some of the different kinds of ships and boats.





dugout canoe

## Early Ships and Boats

The original boats were carved from single wooden logs. Boats of this kind date back to the **Stone Age**. People used fire along with tools made of stone, shells, or wood to hollow out the logs. These dugout canoes were used in rivers, lakes, and oceans around the world. People used long poles, paddles, or oars to move the canoes through the water.

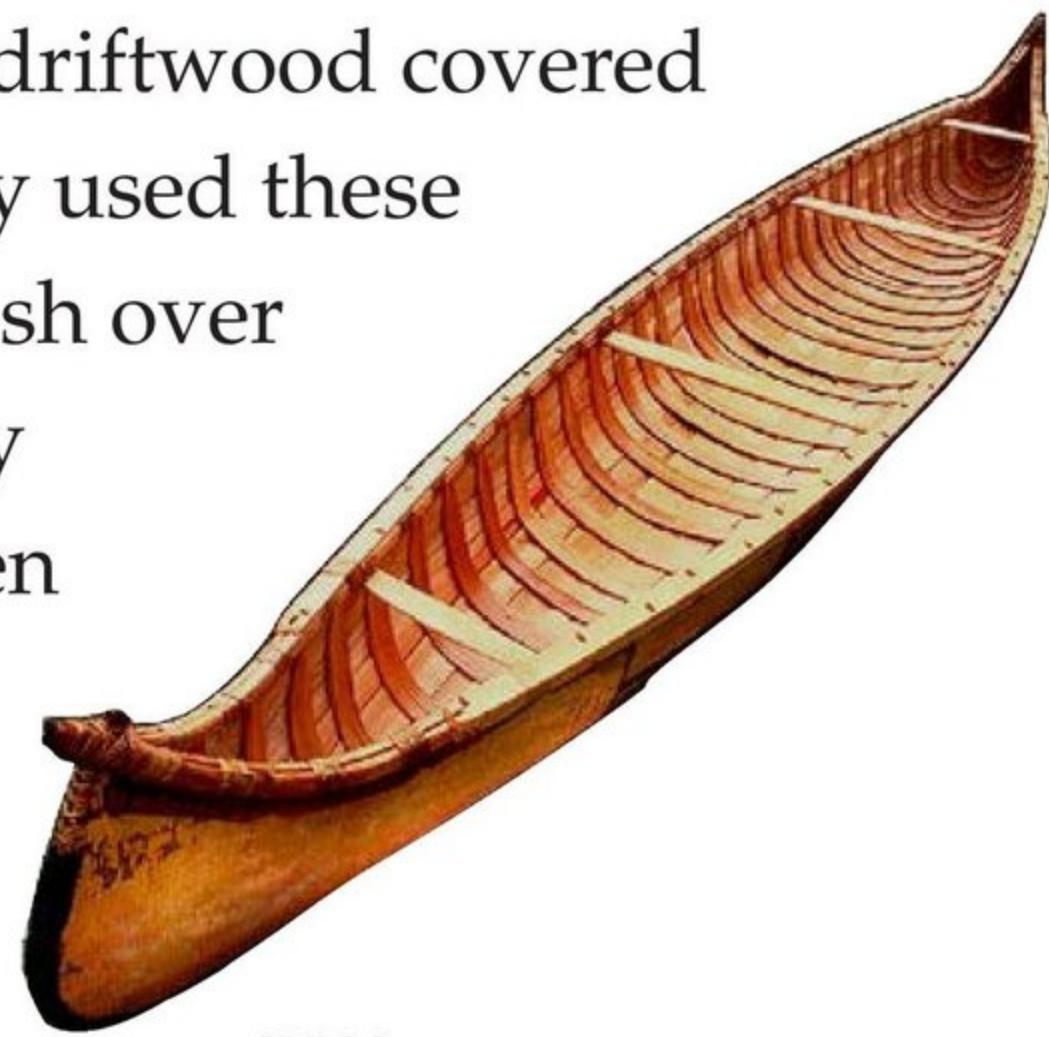
Paddles and oars are long pieces of wood with broad, flat ends that push against the water to move the boat forward.





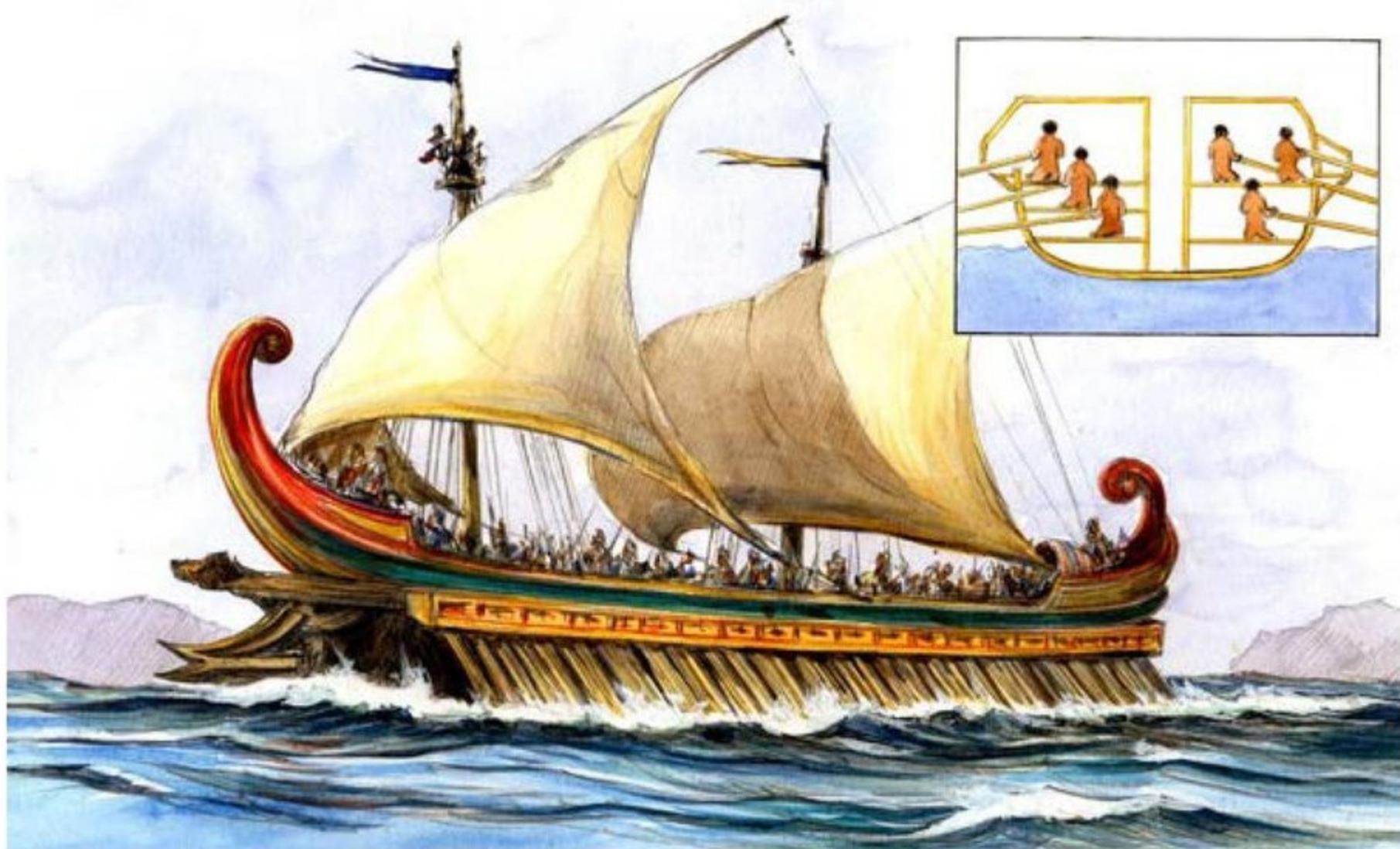
canoe

Later, people began to make boats with wooden frames. They used steam to bend the wood into the shapes they needed to make the frame of the boat. Then they covered the frame with bark or animal skins to keep out the water. People living in the far north made kayaks from driftwood covered with sealskins. They used these boats to hunt and fish over wide areas that they would not have been able to reach without boats.



canoe

Greek trireme



Some frame ships, such as galleys, were much larger than log boats. Thousands of years ago, many ancient civilizations around the Mediterranean Sea used galleys for trade and warfare. The Egyptians, the Greeks, the Persians, and the Romans all used galleys to build and maintain their empires. Galleys were frame ships covered with wood that carried many rowers. The largest galleys had hundreds of rowers sitting on several **decks**. Many galleys also had sails that could be used when the wind was blowing in the direction the ship was traveling. Some galleys designed for warfare had **rams** built into their **prows** that could pierce the sides of enemy ships.

Viking longship



Over a thousand years ago, the Vikings of Scandinavia used wooden-framed longships to cross the sea to raid coastal towns and villages in neighboring countries. A typical longship was about 28 meters (90 ft) long and carried twenty to thirty oarsmen. Like galleys, longships had sails in addition to their oars. Viking longships were sometimes called “dragon ships” because of the dragon heads carved into their prows. The Vikings were skilled sailors and warriors, and their ability to land by surprise anywhere along the coast gave them a big advantage in battle. They also used longships for trade and exploration.



Chinese junk

## Sailboats and Sailing Ships

The ancient Egyptians were using sailboats over 5,000 years ago! The earliest sails were made from animal skins or from reed mats. Later, sails were made out of strong linen or other cloth. Wind power captured by sails hanging from **masts** eventually became the main method used to move boats and ships. Sailboats could travel much farther distances than ships that relied on rowers for their power. Sailboats could even sail against the wind by sailing a zigzag **course** into the wind.

clipper ship



Around 500 years ago, larger sailing ships began to be built. These sailing ships were able to cross the Atlantic Ocean and were used for trade and exploration. Famous explorers such as Christopher Columbus and Ferdinand Magellan used sailing ships to travel from Europe to North and South America. Magellan was also the captain of the first sailing expedition to sail completely around the world, a journey that ended in 1522 after more than three years.



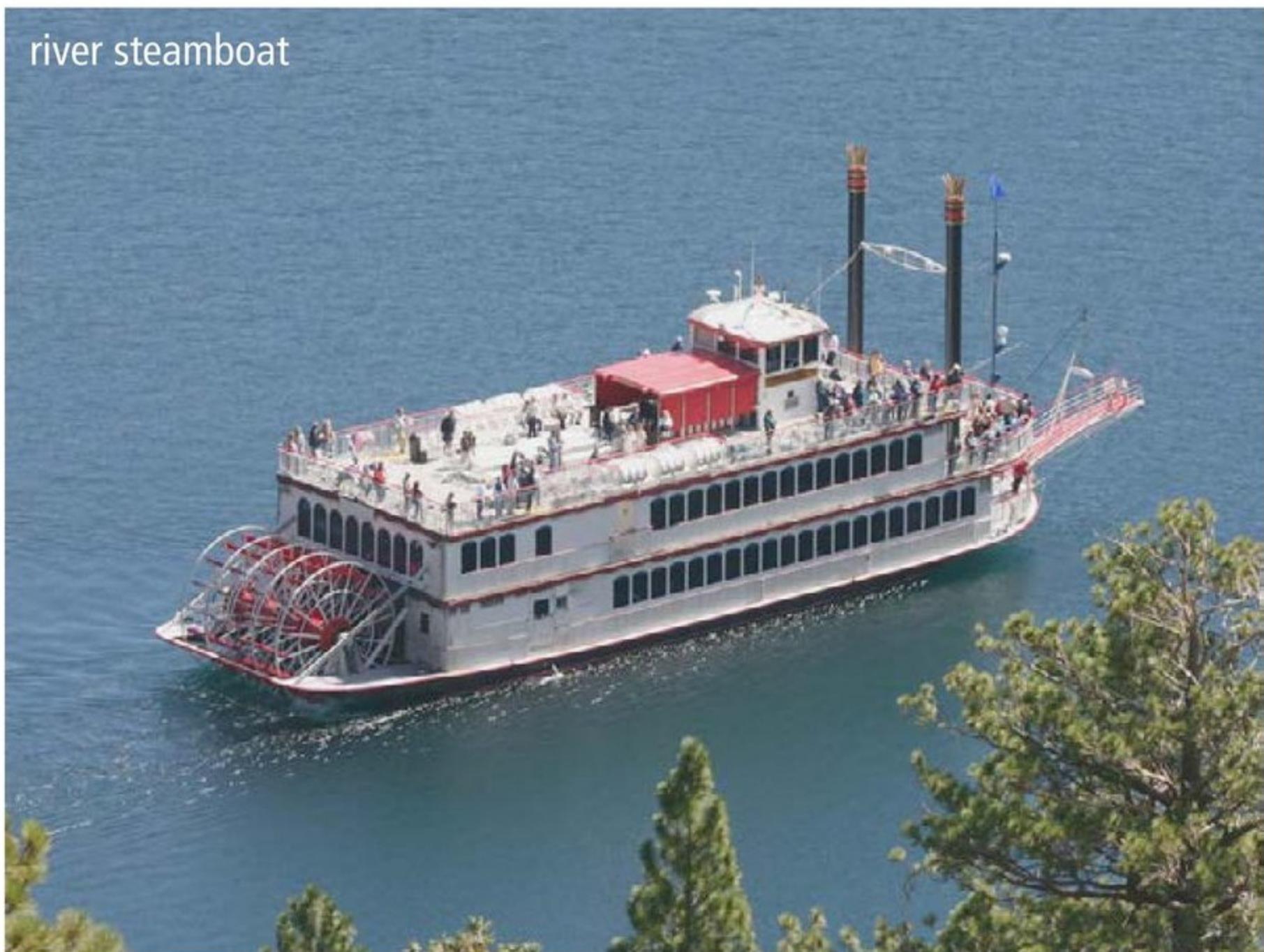
U.S. Coast Guard training ship

## Do You Know?

Sailing ships were also used by pirates around the Caribbean islands three hundred years ago. Many islands in this area were under the rule of faraway countries during this time. Their navies could not protect all the ships traveling back and forth between Europe and the Americas. Pirates looked for small or defenseless ships to plunder, stealing their valuable cargoes. After robbing the crew and passengers of enemy ships, the pirates would often put them ashore on nearby islands and burn or take their ship. The most famous of these pirates, Blackbeard (Edward Teach), was killed in battle in 1718. Modern pirates still use ships to rob people in some parts of the world.



river steamboat



## Steamships and Steamboats

When steam engines were invented, they were used in many boat and ship designs. Steamships did not depend on the wind for power; they could sail directly into the wind, or even when there was no wind at all, which no sailing ship could do. Steamboats using paddlewheels became an important way to move goods and people up and down rivers quickly. One of the largest and most famous steamships, the *Titanic*, sank in the North Atlantic Ocean after striking an iceberg in 1912.

A modern catamaran



## Modern Ships and Boats

Today, many boats are made of metal and plastic. Many ships and boats use diesel or gas-powered engines to turn their **propellers**. The propellers push the boat through the water. Some modern boats use the ancient **catamaran** design to travel very fast. A catamaran has two hulls, which keep most of the boat out of the water. This allows a catamaran to travel faster than most ships with only one hull.



Mediterranean fishing boats

Although large, modern boats with gasoline or diesel engines are everywhere, people still use smaller boats for fishing, fun, and sport. It is almost impossible to look at a river, lake, or ocean, and not see a variety of boats. Many smaller boats still use paddles, oars, or sails, just as the earliest boats did.



Some modern ships are very large. Cruise ships are like floating hotels. They can carry thousands of people to **exotic** destinations all around the world. Huge tankers carry oil and gas over the ocean. Oil tankers are very large ships that are often over 304.8 meters (1,000 ft) long. The largest oil tanker in the world is over 457.2 meters (1,500 ft) long—that's longer than the Empire State Building in New York is tall!





fireboat

## Special Ships and Boats

Some boats and ships are designed to do special work. Tugboats push and pull larger ships in places where they can't move themselves. Tugboats also guide very large boats to dock when there is little room to **maneuver** a big boat. Fireboats help put out fires on other ships. Ferryboats carry cars and people short distances.



tugboat

aircraft carrier



Navies use many types of ships and boats, large and small, to defend their coastal areas. Military transport ships carry soldiers around the world. **Submarines** hide under the surface of the water. Aircraft carriers serve as floating runways and allow planes and helicopters to fly anywhere in the world. Cruisers and destroyers patrol coastal waters.

submarine



powerboat



## Conclusion

Ships and boats have played an important part in the advancement of civilization. For thousands of years, they have allowed people to explore their world and travel to places that were once out of reach. They are still an important way to move people and things quickly over the water.

## Glossary

<b>catamaran</b> ( <i>n.</i> )	a boat with two hulls (p. 13)
<b>course</b> ( <i>n.</i> )	a direction or path (p. 9)
<b>decks</b> ( <i>n.</i> )	the floors on a ship (p. 7)
<b>exotic</b> ( <i>adj.</i> )	out of the ordinary, usually from a faraway place (p. 15)
<b>explorers</b> ( <i>n.</i> )	people who visit and learn about new places (p. 4)
<b>hulls</b> ( <i>n.</i> )	the main bodies of sailing vessels (p. 13)
<b>maneuver</b> ( <i>v.</i> )	to move around; to guide the motion of something (p. 16)
<b>masts</b> ( <i>n.</i> )	tall, vertical poles that support the sails of a ship (p. 9)
<b>propellers</b> ( <i>n.</i> )	rotating blades connected to an engine that push a boat through the water (p. 13)
<b>prows</b> ( <i>n.</i> )	the bows, or front ends, of ships (p. 7)

<b>rams</b> ( <i>n.</i> )	heavy beaks at the prows of ships designed to pierce enemy ships (p. 7)
<b>Stone Age</b> ( <i>n.</i> )	an early period in human civilization marked by the use of stone tools (p. 5)
<b>submarines</b> ( <i>n.</i> )	watercrafts that can operate completely underwater (p. 17)

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Back cover: Motorboat and cruise ship

Title page: Ocean liner

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