

Section 1 The Tidewater Region

INTRODUCE

Outline

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- B. The Sounds
- C. Swamps and Lakes

Materials

Textbook, pages 6-11

Blackline Masters

The Tidewater: A Legacy of Lighthouses, page 4

Spanish Workbook

Ubicación geográfica de Carolina del Norte
Condados de Carolina del Norte

Teacher CD-ROM

Transparencies

www.mystatehistory.com

Online textbook

Smart Reading

Strategies for

U.S. History Test Preparation

“Development of the North American Continent,”
pages 3-4

Getting Started

Ask students this question: Why is water so important to our state? Bring a pitcher of water for classroom plants or a glass of water to drink as class begins. Point out that you are taking advantage of one of North Carolina's most valuable natural resources right now—water—an abundant resource we often take for granted. Ask them to think of the number of times they have used water in the last 24 hours.

TEACH

Map 1 Skill

Student answers will differ.

Section 1

The Tidewater Region

Map 1 North Carolina's Regions

Map Skill: In which region do you live?

As you read, look for:

- the features of the Tidewater region
- the barrier islands
- North Carolina's five major sounds
- major rivers in the Tidewater region
- vocabulary terms **sound**, **barrier islands**, **inlet**, **Gulf Stream**, **wetland**, **estuary**, **pocosin**, **savanna**



Water, water, everywhere! That describes the **Tidewater**. This narrow strip of land extends along the Atlantic Ocean. In the southern part of the state's coast, the Tidewater is no more than thirty miles wide, but in the north, where inland bodies of water are large, it goes back more than fifty miles in places. Throughout the region, the land is influenced by the daily movement of the ocean's tides. The tides alter currents in streams and sounds. **Sounds** are the inland bodies of mixed water found through much of the Tidewater. The resulting mix of salt and fresh water distinguishes the Tidewater from the other regions of the state.

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Using Photographs and Illustrations

Have students look at the map of North Carolina's regions. Using the scale, have students estimate how many miles they live from the Tidewater region. For those students living in the Tidewater region, estimate how many miles they live from the ocean.

Objectives

There are no specific objectives for this section.



Barrier Islands

The islands off the North Carolina coast form the beach for much of the Tidewater. They have influenced life in the state from the first explorations to the present. Only a few islands, like Roanoke, where the first English attempt at settlement was made, sit alone. Most are part of a long chain of sand spits called **barrier islands**, the most famous of which, along the northern half of the state coastline, are called the **Outer Banks**.

The barrier islands are really just a very long ridge of sand, spread along the ocean floor, ever shifting in the tides and storms that come off the Atlantic. Like the tips of icebergs, only the tops of the barrier islands show above the waterline. Most of the barrier islands are less than two miles across. In some places, a visitor can actually see from shore to sound. The size of the sand can vary considerably. At Cape Hatteras, the barrier island is wide enough to still support a considerable maritime forest, made up of bay, holly, and live oak trees. The highest point along the barrier islands is at Jockey's Ridge, located not far from Kitty Hawk, where the Wright Brothers first flew. Although the winds shift the sand daily, Jockey's Ridge averages about 114 feet in elevation, making it the highest natural point on the eastern seaboard. Where



Top: The Outer Banks are accessible to all state residents at the Cape Hatteras National Seashore. The sea oats shown are an important preserver of the sand dunes on the barrier islands. **Above:** Hang gliding on Jockey's Ridge imitates the earlier flights of the Wright Brothers on nearby Kill Devil Hill.

Reading Strategies

Have students look over the vocabulary terms that will be covered in this section. Using colored pencils or pens, have students write the words with which they are unfamiliar in red, the words with which they are familiar in blue, and the words that they feel they can already define in black. Have the students then write their own definition of the words in black next to each word. Have the students then write some key words or phrases that they associate with the words in blue. Have students look for the vocabulary words as they read the section, and complete the definitions of the words they have written in red and blue as well as correct any definitions they have in black.

Addressing Multiple Learning Styles

Ask students to list the ways that water—in any form, such as oceans, rivers, lakes, streams—has contributed to the growth and development of the state from its founding to today. As they offer ideas, record them on a chart pad or chalkboard for all to see and copy into their notebooks. If possible, save the list so that everyone can participate in the activity again at the close of the section and compare what they offer then with the opening list.

Critical Thinking

In some areas of the country, water is at a premium. What might happen to agriculture in the state if water was not so plentiful? What indications are there that the state has tried to ensure a ready and plentiful supply of water for various purposes?

Using Photographs and Illustrations

Have students study the photograph of the Cape Hatteras National Seashore. Ask students why sea oats are such a common sight along North Carolina's beaches. Have students discuss what alternatives there are to preserving North Carolina's beaches.

Economics Activity

As they read this section, have individuals or groups make a mobile for the Tidewater region with pictures of major crops, minerals, other resources, and top industries or businesses. Display the mobiles as you cover the chapter.

Research Activity

Have students research the area in which they live. Ask them to determine what the area looked like before it was developed. (Was it farmland, forest, flat, hilly, etc.?) Ask students to describe what kinds of wildlife existed before development and how development may have affected the wildlife.

Map 2 Skill

Cape Hatteras, Cape Lookout, and Cape Fear

Differentiated Instruction—For Less Proficient Readers

Have students create flash cards of words that they encounter frequently as they read. Model how to write a word on one side of the card and its definition on the other side. Encourage students to use a dictionary if they need help in defining the words.

Multidisciplinary Activity

Art: Using what they have learned about lighthouses, have students design a modern-day lighthouse that would serve the same purpose as the old-fashioned lighthouse, explaining how it would work to keep the seas safe.

Critical Thinking

Ask: What can cause erosion? How can erosion be prevented? In what instances does erosion help a location?

Tar Heel Trivia

Oregon Inlet and Hatteras Inlet were both created during a severe hurricane in 1846.



Map 2 North Carolina's Barrier Islands and Sounds

Map Skill: What are the three capes identified on the map?

the sand has low places, **inlets** allow the seawater to come in and out with the tides. Because the ocean is endlessly churning the sand and the water, different inlets have opened and closed at various times. For example, Roanoke Inlet, which English explorers used in the 1500s, is long gone. Today, North Carolinians in that vicinity use Oregon Inlet, which was carved out by a hurricane in 1846.

The very eastern nose of our state, Cape Hatteras, is the peak of a huge spit of sand that projects out for miles into the ocean. The ocean current running by it, heading north, is the **Gulf Stream**, one of the principal influences in the world's weather. It carries warm water from the Gulf of Mexico across the Atlantic to the British Isles. Cooler water is then pushed south toward Africa, to be warmed once again near the equator. Before airplanes, this was the "road" ships took back from the New World to the Old World. Relatively speaking, then, North Carolina is located at the place where the warm water

began to move toward the colder north. In fact, Cape Hatteras for centuries was known as the "graveyard of the Atlantic" because frigid Arctic water, known as the Labrador Current, collided with the warmer Gulf Stream just offshore. The turbulence made for unexpected storms. That is why the Cape Hatteras Lighthouse has become so legendary. It served a vital purpose in world commerce.

The only true break in the barrier islands along the state's shoreline is Cape Fear, where the Cape Fear River flows directly into the sea. Otherwise, all the other rivers in the eastern half of the state flow into the sounds behind the islands.

The Sounds

North Carolina has five major sounds. Almost half of the Tidewater area is made up of these mixed bodies of water that are just behind the barrier islands. The largest ones are Currituck Sound, in the north, followed, as one goes south, by Albemarle Sound, Pamlico Sound, Core Sound, and Bogue Sound. Pamlico is the deepest and largest, at least twenty feet deep much of the year.

Each of the major sounds is fed fresh water by a river coming from the Coastal Plain. Near the mouths of these rivers are located some of the oldest towns in North Carolina. These towns were trading centers where goods could be transferred from river flatboats onto the schoo-

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ners that would take goods into the ocean. The town of Washington, for example, sits just upstream from the mouth of the Pamlico River, which feeds into the Pamlico Sound. The Trent and the Neuse rivers come together at New Bern and also feed into the Pamlico. In addition to the sound towns are small fishing villages like Wanchese, Englehard, Atlantic, and Oriental, all of which front onto Pamlico Sound. The southernmost fishing villages are Southport and Calabash.

Sedimentation (the depositing of clay or silt or gravel) through time has kept the sounds from being deep enough for large oceangoing vessels. Thus, towns located where rivers run into the sounds, like Edenton, Bath, or New Bern, never grew into ports the size of Savannah, Georgia, or Norfolk, Virginia. The direct outlet to the sea enjoyed by the city of Wilmington, in the southeast corner of the state, is why that seaport was North Carolina's largest town through most of the state's history.

A large portion of the land in the Tidewater is **wetland** most of the year, meaning that the soil is soaked or flooded with water. All along its shores are salt marshes where shellfish breed and live. These mucky **estuaries** serve as incubators for a variety of sea life, such as shrimp.



Above: The Bodie Island Lighthouse was one of several on the Outer Banks that helped ships from becoming victims of the "Graveyard of the Atlantic." **Left:** The fishing village of Oriental is a popular destination for sailboat enthusiasts.



Did You Know?

The first lighthouse along the North Carolina coast was erected in 1793 on Bald Head Island. Bald Head Island is located at the mouth of the Cape Fear River.

Multidisciplinary Activity

Art: Have students draw a picture illustrating North Carolina's Tidewater region during each of the four seasons.

Writing Activity

Have students develop a word bank of about fifty descriptive adjectives and adverbs. As they finish reading about each region, have them use ten words from the word bank to write a descriptive paragraph about that region.

Research Activity

Instruct students to research the founding and development of Wilmington, using whatever sources they choose. Have them prepare a one-page report using the information they found.

Technology Activity

Have students write the word *estuary* vertically down the side of a piece of paper. Then, using the Internet, have them find out things about estuaries that match each letter, and write their findings in the appropriate space. (For example, next to "s," they could write "Shrimp develop in estuaries.")

Geography Activity

North Carolina has many other, smaller sounds. Using a large state map, have students identify some of them.

Tar Heel Trivia

Cape Hatteras is the largest lighthouse ever to be moved due to erosion problems.

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Critical Thinking

Ask students to list the advantages of the many lakes and rivers running through the state. List their responses on the board under the categories of Economic Advantages, Recreational Advantages, Transportation Advantages, and Political Advantages. See how many benefits of river systems they can produce.

Class Discussion

Have students suppose they and their family were being told that their home and property were being taken so that a new lake could be developed. Ask these questions: How would you feel? Do you believe that the state should be able to take personal property in this way for the good of society? Why or why not?

Geography Activity

Ask students to find out where else in the world they could find pocosins or savannas. What common geographical features do these areas have with North Carolina's Tidewater region?

Critical Thinking

Ask students what lakes and rivers are found in your area. How would the area be changed without these lakes and rivers?

Swamps and Lakes

The most common type of wetland away from the estuaries are **pocosins**. The term is an old Indian name for a particular type of swamp. It means "a swamp on a hill," made up of peat that fills with water when the water table is high. Pocosins are found from the Albemarle Sound all the way to the Cape Fear. They are distinguished by their vegetation, most often having a mix of laurel, bay, and scrub oak trees as their foliage. Alligator Pocosin makes up the bulk of the land between the Albemarle and Pamlico sounds. Big Pocosin is located near the town of Washington.

Another Tidewater habitat is the **savanna**, where tall grass mixes with scattered longleaf and other types of pine. Parts of the Green Swamp, the most extensive wetland at the southern end of the Tidewater, become savannas in the drier times of the year. The Green Swamp is the habitat for one of North Carolina's unique plants, the Venus Fly Trap, a type of trumpet plant that catches a variety of bugs with its hair-lined "pitchers." The vital parts of the bugs are gradually absorbed into the plants for nourishment.

Most of the natural lakes in North Carolina are in the Tidewater. Lake Mattamuskeet, the largest, is fifteen miles across at its longest, but averages only about six feet in depth. It is a major land-

Below: The Green Swamp is one of the largest in the state and is home to unique vegetation like the Venus Fly Trap. Bottom: Lake Waccamaw, one of the largest in the state, covers almost 9,000 acres.



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ing point for migratory birds along the Atlantic coast and is today a wildlife refuge. Not far from Mattamuskeet are Pungo and Phelps lakes, smaller but similar in appearance. On the edge of the southern part of the Tidewater, adjacent to the Green Swamp, is Lake Waccamaw. Its longest stretch is five miles, but, like the others, it is very shallow.

Through time, the Tidewater has been one of the least populated portions of the state. Many of the early families either fished or supplied goods to the fishing trade. Some families today can trace their ancestry all the way back to the 1600s. Some residents of Ocracoke, one of the Outer Banks islands, still speak with an accent that sounds like their distant ancestors. This “hoi toide” brogue uses words similar to the English spoken in the days of William Shakespeare. For example, Ocracokers might “call over the mail” instead of get the mail. They might say they “had a gutful of food” when they were full from a meal. If they got nauseous they would become “quamished in my gut.” If they met someone from another region of North Carolina, like the Coastal Plain, they would call that person not an outsider, but “a dingbatter.”

It's Your Turn

1. What are the Outer Banks?
2. What ocean current flows off the eastern coast of North Carolina?
3. What is a wetland?
4. What is the largest natural lake in North Carolina?

Map 3 North Carolina's Rivers and Lakes

Map Skill: What is the westernmost river on the map?

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Map 3 Skill

The Hiwassee River

Critical Thinking

Pollution is a major problem with many waterways. What are some of the possible sources of water pollution? What can average citizens do to help with the problem? What is the source of your school's water supply? How are your school officials sure the water is safe and not polluted?

Addressing Multiple Learning Styles

Have students list as many recreational uses of rivers as they can. Then have them choose the recreational use they most enjoy and explain why it is their favorite activity.

Multidisciplinary Activity

Math: Using available resources, tell students to calculate any of the following for North Carolina: (a) the total number of miles of rivers; (b) the five smallest and five largest cities in area (or in population); (c) the total number of miles of hard-surfaced highways.

Lesson Closure

Divide students into four or five groups. Have each group make a list of five things they learned in this section, and then share their list with the rest of the class.

ASSESS

It's Your Turn

1. A string of barrier islands along the state's northern coastline
2. Gulf Stream
3. An area that is soaked or flooded most of the year
4. Lake Mattamuskeet

Teacher CD-ROM

You can use the ExamView software on the CD-ROM to create quizzes for each section of the chapter.

Blackline Masters

You may want to use North Carolina's Geographic Regions: Summarizing Main Points, page 8, as a review of Section 1. Students can keep the blackline master for use at the end of Sections 2-4.