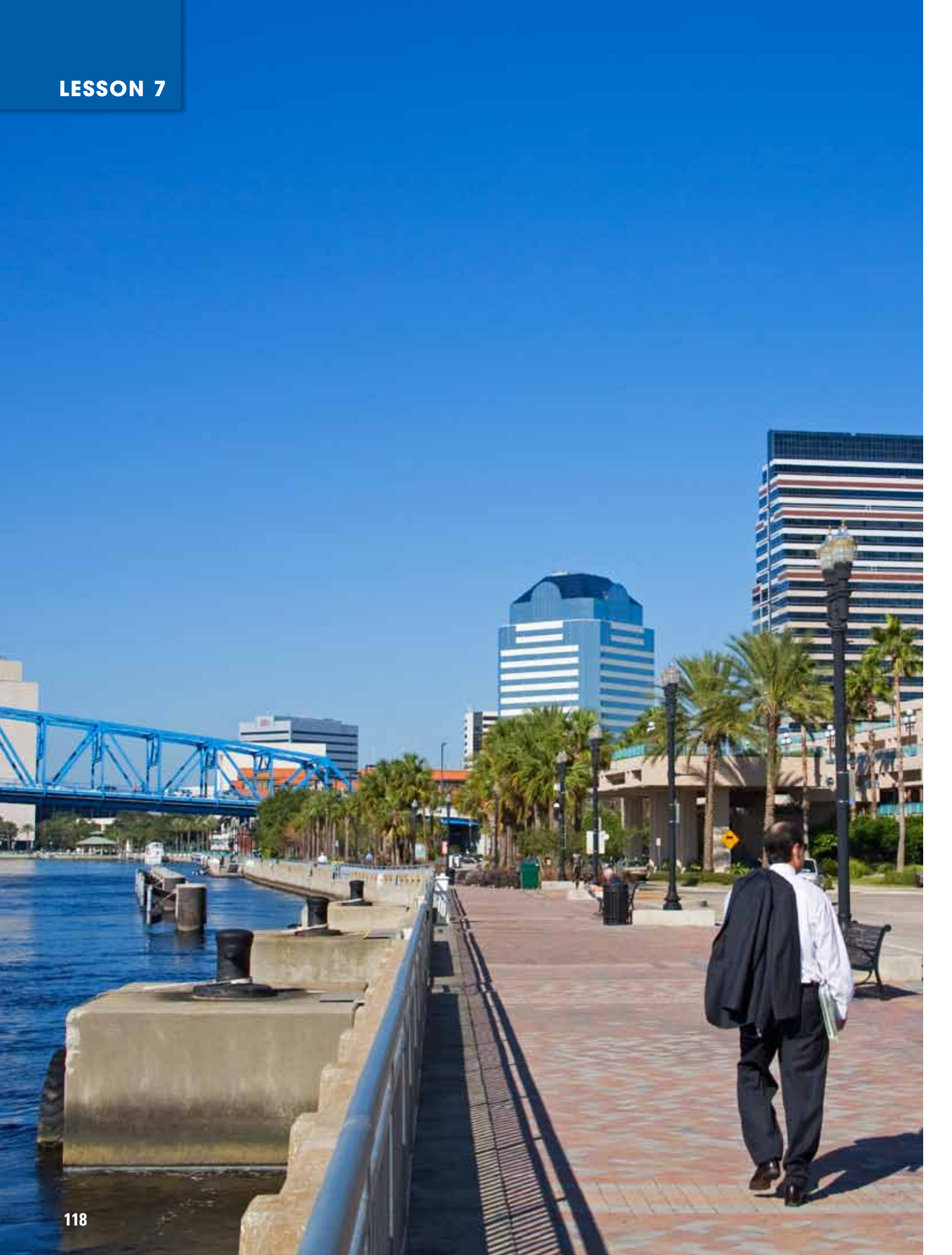


**LESSON 7**



# The Effects of Geography on Life in the Southeast

## *How has geography helped shape daily life in the Southeast?*

### Introduction

If you brought your lunch to school today, what did you bring? For some of you, the answer may be “a bit of the Southeast.”

Start with the paper lunch bag itself. It may be made of paper that came from a southern pine tree. These trees are used to make paper. Papermaking is important throughout the Southeast, and the paper products that are made here are sold around the United States.

What’s in your lunch bag? Maybe you brought a peanut butter and jelly sandwich to school today. You may have also packed some orange juice or a piece of fruit. Much of the contents of a typical lunch could have come from the Southeast. Georgia grows more peanuts than any other state. Florida grows more than half of our nation’s oranges. Even the plastic wrap around the sandwich may have been made from oil found in the Southeast.

In this lesson, you will find out why so many of the things we use or eat every day are from the Southeast. At the same time, you will see how geography has shaped life in the Southeast long ago and today.

### Social Studies Vocabulary

agriculture

fall line

floodplain

foothills

industry

natural resource

navigable

tornado

◀ Geography affects where cities are in the Southeast. Many cities in the Southeast are near rivers.



Economics



Geography

Lowlands are common in the Southeast. During high tide, seawater flows onto these lowlands.



## 1. Elevation: Lowlands and Highlands

The Southeast is a region of lowlands and highlands. The low Coastal Plain stretches along the southeastern coast from Virginia to Louisiana. The water level of the rivers and swamps in this region rise and fall with the ocean tides each day. When the ocean rises at high tide, seawater flows onto this lowland area. When the tide pulls back, water levels drop.

**foothills** a hilly region at the base of a mountain range

The Coastal Plain ends at the **foothills** of the Appalachian Mountains. This area of low, rolling hills is called the *Piedmont*. *Piedmont*, in French, means “foot of the mountains.” Beyond the *Piedmont* rise the Appalachian Mountains. Some of the peaks in this mountain chain are more than 6,000 feet high.

Elevation affects life here in many ways. For example, elevation affects climate. The higher the elevation of a place, the colder it is. Plants that grow well in the warm lowland freeze in the cool highland. Elevation also affects soil. Lowland soil is rich and good for farming. Highland soil is rocky and not easy to farm.

Elevation also affects travel. Travel in the lowlands is faster and easier, while travel in the highlands is slower and more difficult. People from the mountains sometimes joke that the only way to get to some of the tiny Appalachian towns is to be born there!

The Appalachian mountain range stretches through many states. These mountains are in North Carolina.



# Geographic Features of the Southeast





Shipping by boat is important for cities in the Southeast. These cargo ships are carrying goods along the Mississippi River.



## 2. Rivers and Ocean

The Southeast has a long coastline and many rivers. Most of its rivers begin in the Appalachian Mountains. On the eastern side of the Appalachians, rivers flow across the Piedmont and the Coastal Plain to the Atlantic Ocean. In the southern Appalachians, rivers flow into the Gulf of Mexico. On the western side of the mountains, they flow into the Mississippi River.

Southerners use their rivers and the ocean for fun. Swimming, fishing, and boating are popular water sports.

People here also use their waterways for transportation. Shipping by boat is an inexpensive way to move crops and goods over long distances.

Many port cities developed along the coast where rivers reach the sea. One of the busiest port cities is Miami, which is located near the southern tip of Florida. Much of its trade is with countries in Central and South America. For this reason, Miami calls itself the “Gateway of the Americas.”

The port of Miami is also home to many cruise ships. Each year, millions of people leave Miami on cruise ships for vacations at sea. No wonder Miami is also known as the “Cruise Capital of the World.”

### 3. The Fall Line

Many of the rivers that cross the Coastal Plain are **navigable**. A navigable river is one that is both deep and wide enough for ships to use. But when ships reach the Piedmont, they stop. The place where they stop is called the **fall line**. A fall line is an imaginary line at the point where rivers drop from higher land to lower land.

In this case, the fall line is where the Piedmont meets the Coastal Plain. The edge of the Piedmont drops sharply at this point. As rivers flow over this drop, they form waterfalls. Ships cannot continue to sail upstream beyond these falls.

For early settlers in the Southeast, the fall line was a problem. Settlers on the Coastal Plain depended on rivers to send their crops to market. But when settlers moved up to the Piedmont, they had no good way to ship their crops to the coast.

Some people saw this problem as an opportunity. Traders set up trading posts right on the fall line, where goods that arrived by boat from the coast could be traded for meat and crops raised in the highlands.

Other people settled on the fall line because they knew how to use falling water to run machines. They built sawmills, flour mills, and workshops that ran on waterpower. Many fall-line towns—like Richmond, Virginia; Raleigh, North Carolina; and Macon, Georgia—grew into large cities.

**navigable** deep enough and wide enough for ships to use

**fall line** an imaginary line, marked by rapids and waterfalls, where rivers start to drop from higher land to lower land



This powerful rapids area of the Potomac River shows the presence of a fall line. Ships cannot travel past the fall line to trade goods.

## 4. Natural Resources

While many people choose to live in the Southeast for its many rivers, others live in the area because it is rich in **natural resources**. Natural resources include land, oceans, forests, minerals, and fuels.

Land was the first natural resource that attracted people to the Southeast. Growing crops and raising animals were two of the largest **industries** for many years. An industry is all the businesses that produce one kind of good or provide one kind of service.

Today, many industries are important to the economy of the region. On your tour of the Southeast, you learned about two industries that developed from resources hidden under the ground. One is the coal-mining industry. Another is the oil industry.

The Southeast's steel industry is built on another hidden resource. In the 1800s, people discovered iron at Red Mountain in Alabama. Iron ore is used to make steel. Built at the foot of Red Mountain, Birmingham, Alabama, became a steelmaking center.

Some industries are based on the Southeast's large forests. Sawmills cut trees into lumber. Paper mills grind wood into gooey wood pulp. This pulp is then used to make paper. Furniture makers turn trees into tables and chairs. Right now, you may be sitting on a chair that was made in the Southeast.

**natural resource** a material found in nature that is useful to people

**industry** an organized economic activity connected with the production, manufacture, or construction of a particular product or range of products

A forest is an important natural resource in the Southeast. Industries, such as the paper industry, use this resource to make goods we want.







## 5. A Long Growing Season

The business of growing crops and raising animals is called **agriculture**. Agriculture is an important part of the economy of the Southeast. Most farmers need three things from nature: good soil, plenty of rain, and a long growing season. The Southeast has all three.

Many crops grow well in the Southeast, cotton being a good example. Cotton plants need plenty of water and six months of warm weather, and the Southeast meets these needs perfectly.

In the 1800s, cotton was the main crop grown in the Southeast. Then disaster struck when a little bug called the boll weevil invaded cotton fields. The boll weevil destroyed the cotton before it was ready for harvest, leaving many farmers ruined. Those who survived learned a hard lesson. No longer could they depend on just one crop.

Today, the Southeast is a region of mixed agriculture. Farmers on the Coastal Plain grow rice, cotton, peanuts, and other warm-weather crops. Orange groves cover large parts of Florida. Piedmont farmers raise dairy cattle, peaches, and tobacco. Farmers in Appalachia grow corn and apples in mountain valleys.

Citrus fruits and cotton are important crops in the Southeast. People around the United States use these crops every day.

**agriculture** the business of growing crops and raising animals



## 6. Dangerous Weather

Not every day is sunny in the Southeast. The Southeast has many different types of weather. Some weather is dangerous and can hurt people or destroy property.

Rain falls all year long in Southeast. Sometimes, storms bring too much rain, which sometimes results in a flood. During a flood, a river fills with more water than it can hold. The extra water flows over the river's banks onto its **floodplain**, or a low, flat land along a river.

Most rivers flood from time to time, but floods become dangerous when people live and work on floodplains. Floods do much more than cover the floodplain with muddy water. The water can destroy homes, crops, and people's lives.

Though floods can cause a lot of damage, the most dangerous storms are hurricanes. Hurricanes are powerful storms with winds of 74 miles per hour or more. Hurricanes form over warm water, but they can move onto land. As a hurricane grows, it produces heavy rain and high waves. Almost every year, at least one hurricane strikes the Southeast.

**floodplain** the low, flat land along a river that may be underwater during a flood

Floods can cause lots of damage to buildings in towns and cities. In Miami, store owners put sand bags in front of doors to prevent water from getting inside.





**Tornadoes** are another threat to the Southeast. A tornado is a violent and powerful windstorm shaped like a funnel. Tornadoes form over land and can have wind speeds of 300 miles per hour. The winds of powerful tornadoes are strong enough to lift cars and destroy houses. The people of the Southeast have to prepare for several tornadoes each year.

It is hard for scientists to predict the paths of hurricanes and tornadoes. Many cities in the Southeast have tornado and hurricane warning systems so that people can do their best to prepare for them.

Tornadoes are very dangerous. They can cause a lot of damage to property and nature.

**tornado** a violent and powerful windstorm that is shaped like a funnel

## Lesson Summary

No matter where you go in the Southeast, you will find that geography helps shape how people live in the region. You will also find that geography will affect people differently because of where they live.

If you were in Miami, Florida, people might talk about the importance of the ocean. But in New Iberia, Louisiana, people might talk about dangerous weather. You might hear some scary stories about floods and hurricanes.

People in Dawson, Georgia might tell you about the importance of a long growing season. In High Point, North Carolina, people might mention the importance of forests. Though geography affects everyone in the Southeast, different types of geography affect people differently.



# Your State's Natural Resources and Natural Hazards

We all depend on natural resources. People need clean water for drinking, fishing, boating, and shipping. We need healthy soil for growing food. And we need minerals and fuels from under the ground. Your state has natural resources. What are they?

Look in books, encyclopedia articles, and Web sites about your state. Make a list of some of the important natural resources there. For example, if you lived in Wisconsin, you might discover that almost half the state is covered in forests. These trees are an important natural resource. They are important for building homes, making paper products, and providing shelter for animals. Lakes are another important natural resource in Wisconsin. There are thousands of lakes in that state. People use them for fishing, boating, and swimming.

Unfortunately, natural resources can be destroyed. Many things threaten the health of resources such as clean water, clean air, and healthy soil. People cannot always protect our resources from the threats like tornados, hurricanes, and wildfires. We can, however, control such threats as air pollution, water pollution, and destructive animals.

There are 15,000 lakes in Wisconsin. Thousands of volunteers work to protect the lakes from pollution and fast-spreading weeds.







Groups that want to save the trees put signs like this one up in forests and parks.

## Threats to Your Natural Resources

Many natural resources face serious threats. However, people and groups often work to solve these problems. For instance, trees in Wisconsin have been invaded by beetles called emerald ash borers. They came to the United States accidentally, in wooden shipping crates from China. The insects eat through ash trees, killing them by the thousands.

Wisconsin's Department of Natural Resources works hard to keep these beetles from killing more trees. With signs and events, it is telling people in their state not to move affected trees, leaves, or firewood from one place to another. The beetles can hitch a ride in any of these things and spread out to kill more trees.

Pick one of your state's natural resources that you especially care about. What are the biggest threats to this resource? It may be wildfires, insects, pollution, or something else. You can find out more about a particular place or a topic, like forests, in trustworthy sources, such as books or Web sites.

Research Web sites for groups that are trying to protect this or a similar natural resource. Help this group by educating people in your community. Start by talking to your teacher, parents, and classmates. Explain why it is important to work together on this problem and how you think your actions will help. With your classmates, choose some ways to communicate your message. You might write a letter to a mayor or governor. You could write an article for your town newspaper or perform a play at your school. Also you could make signs and post them in your community.

# Hurricane Andrew

Hurricanes are a fact of life in the Southeast. But Hurricane Andrew was different. It was one of the worst disasters in the history of the United States. How did Hurricane Andrew affect daily life in Florida?

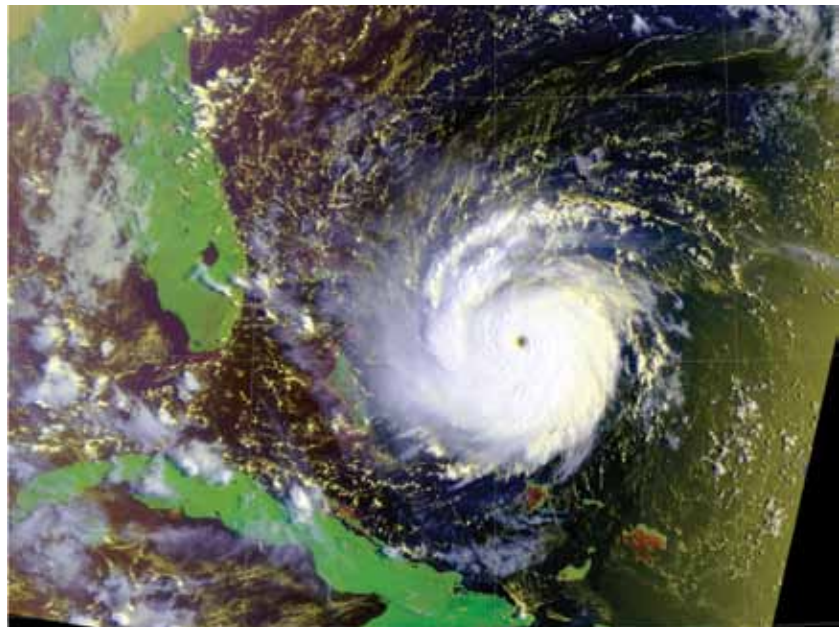
On August 24, 1992, Hurricane Andrew hit south Florida. The howling winds sounded almost hungry to some people.

David Fisher turned on his television to find out what was happening. The news reporter said that the instruments measuring the wind had just blown off the roof of the National Hurricane Center. Then the lights—and the television—went out in the Fisher house.

Dan Sanabria also remembers the noise. He thought that it sounded like a jet plane taking off. He will also never forget what the storm did to his house. “When the eye of [the storm] passed over, I went out for a look, and we had no roof.”

After Hurricane Andrew, the Shropshire family had only one thing left. It was the bed that Pearlie Shropshire and her son, Travis, were hiding under. Everything else was gone.

This picture was taken about one day before Hurricane Andrew hit Florida. The dot on this satellite photograph shows the eye, or center, of the storm.





## A Storm Is Coming

One week before Hurricane Andrew hit Florida, the National Weather Service announced that a storm was on the way. It said that the first tropical storm of 1992 was moving slowly toward the United States. It had winds of about 50 miles per hour, which meant that it was already a stronger storm than most. However, not many people paid attention because many storms and hurricanes occur in Florida every year.

The warm, sunny climate is one of the main reasons why so many people go to Florida—to visit and to live. In fact, Florida is one of the fastest-growing states in the country. More than 5,000 people move to Florida every week. However, the warm climate there also leads to the formation of hurricanes.

The number of hurricanes that threaten Florida each year varies. An average year might have about three big hurricanes. But not all of them hit land. In 2004, four hurricanes hit Florida. That was more than in any other year on record. In 2006, not one hurricane hit the state.

Hurricanes like Andrew are rare. But three-fourths of all people in Florida live on or near the coasts. So, when a storm like Andrew hits, it creates problems for most people in the state.

More than 13 million people live along Florida's coasts. They live in small towns and in big cities like Miami.





Hurricane Andrew brought violent winds and flooding rains to Florida and other states. This person is walking through the powerful winds of the hurricane.

## The Storm Hits

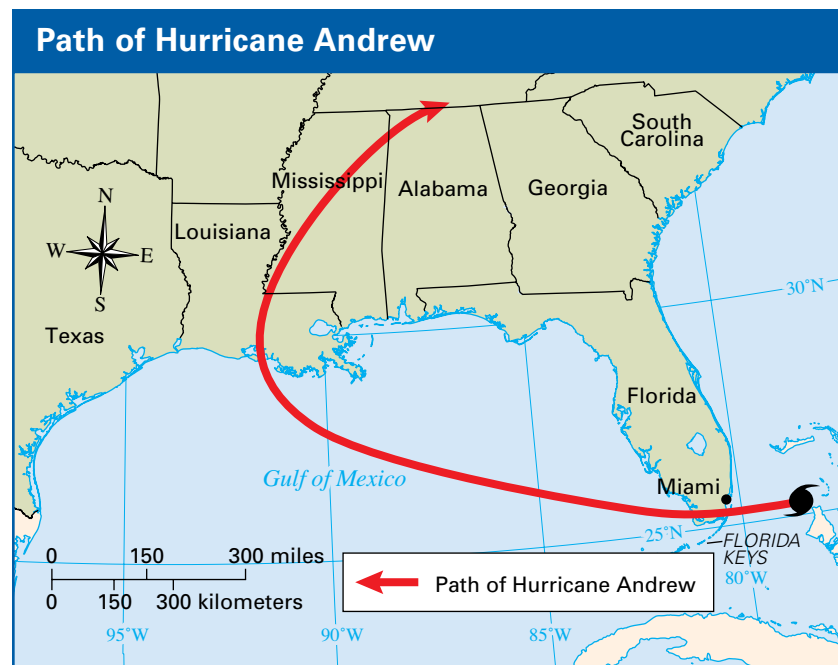
As Hurricane Andrew came closer to the United States, its winds grew stronger and stronger. Now people began to pay attention.

Television and radio announcers urged people to leave the area. More than a million people did leave. As they did, highways going north became jammed solid with cars. But millions of other people chose to stay.

According to scientist David Fisher, "the scariest place on Earth is directly in the path of an onrushing hurricane." Others have compared the energy of a hurricane to that of a very powerful bomb exploding.

Andrew was 60 miles wide before it touched land. Compared to other hurricanes, it wasn't large, but it was very strong. Its winds reached 175 miles an hour. That is strong enough to tear buildings apart, blow big trees down, and pick up cars and people as if they were toys.

Scientists choose a number from 1 to 5 to describe the force of a hurricane. Category 1 is the mildest. Hurricane Andrew was named a Category 5 hurricane.





Hurricane Andrew's winds caused a lot of destruction around Miami. This car was overturned by the hurricane.

## After the Storm

Eventually, Andrew moved on into the Gulf of Mexico toward Louisiana. But it left behind a huge disaster in Florida.

More than forty people were dead. More than 250,000 people were homeless, and thousands of houses were completely destroyed. Many businesses were gone. The damage to homes, businesses, and land eventually cost about 30 *billion* dollars.

People's lives were changed forever. "I went to bed with two jobs and a home," Charles Wilson said. "I woke up with no jobs and a piece of a home."

Many people went back to Florida to rebuild their homes and communities. But about 30,000 people left the heavily populated south Florida county, Dade County, for good.

For a long time after the storm, whenever Dan Sanabria walked outside, he would look around for places he could take shelter in a storm. For Dan and for all those people who lived through Hurricane Andrew, the memory of that fierce storm is hard to forget. ♦



Hurricane Andrew devastated Florida's communities. But the people of Florida worked together to help others find food, clothing, and shelter.