

PRIMARILY for U.S.*

GRADES 2-3

* Understanding Science

Volume 30 • Issue 1 2007 - 2008 Fernbank Science Center • DeKalb County School System ISSN 0742-6518

GEORGIA



- Why is Georgia divided into three regions?
- What is the Coastal Plain?
- What plants and animals live in the Coastal Plain?
- How can you help the endangered Coastal Plain Ecosystem?



Why is Georgia divided into three regions?

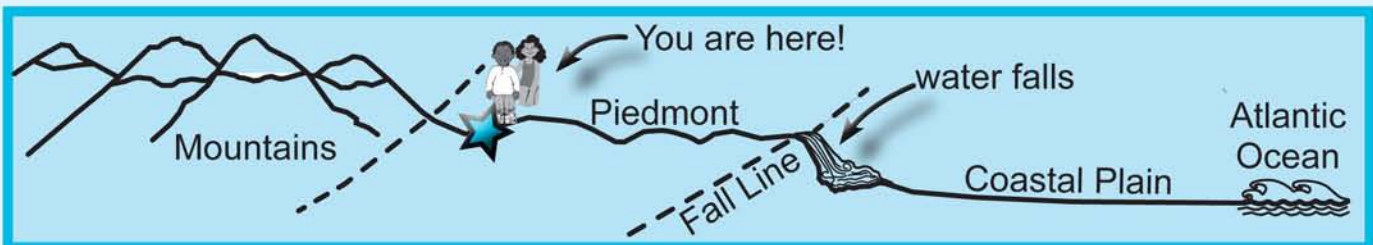
On the map on the cover, you see three parts or regions:

1. Coastal Plain
2. Piedmont
3. Mountains

Each region has different physical features.

Physical features are things you can observe or measure about a place, like air, water, weather, landforms, animals and plants.

The Coastal Plain is flat. The Piedmont has small, gentle hills. Can you think of other physical features that are different in the three regions of Georgia?



What is the Fall Line? Look at the map on page one. If you walk from Augusta to Columbus, you will see a waterfall each time you cross a river. If you draw a line on the map connecting these waterfalls, you have drawn the Fall Line. This is where the Coastal Plain begins. There are huge rocks and cliffs along this line. When



rivers flow over these rocks, a waterfall forms. Waterfalls at the Fall Line made it hard for early navigators to row their boats upstream. They had to stop, unload and carry their boats over the rocks. People made camps at the Fall Line, and after awhile, small towns formed. These towns became the first cities in Georgia.

What is the Coastal Plain?

If you start in Atlanta and drive to the Atlantic Ocean, you will enter the Coastal Plain after about 90 minutes. The Coastal Plain is the whole southern part of the state. Millions of years ago, during the time of the dinosaurs, an ocean covered the Coastal Plain. As the ocean **receded**, it left a flat, sandy plain behind. Imagine--the Coastal Plain used to be the bottom of the ocean!



The Fall Line is a geological boundary, which means that it is the place where two different geologic features meet. These features are **sedimentary rock** and **crystalline rock.**

Sedimentary rock is common in the Coastal Plain. Crystalline rock is common farther north in the Piedmont and Mountain areas.

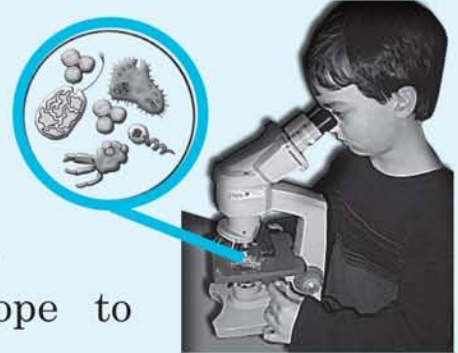


This fossil is 6 inches long.

Susan lives in **Vidalia.** She has just found something in her back yard! What is it? Why is this object here? Did you know that the shark's tooth is the state fossil of Georgia?

The soil of the Coastal Plain

Soil is what covers the earth. It is made of living and nonliving things. The **living things** are plants, animals, fungi, protists, and very tiny **microbes**. Microbes are so small that you need a microscope to see them.



When living things die, they break down into smaller parts. This takes a very long time. These small parts are usually a dark color. The **nonliving things** in soil are **minerals** and **rock fragments**. Some minerals are quartz, mica and kaolinite. Rock fragments are small pieces that break off of larger rocks by weathering. Clay, silt, and sand are very small rock fragments. Sand is

usually light brown or white.

Soil is nature's great recycling bin! Living things mix with nonliving things and with tiny parts of dead plants and animals. **Each spoonful of soil is like a little world!**

The soil in some parts of the Coastal Plain is very sandy. In other parts, the soil has more clay and less sand. Different plants grow in the different kinds of soil in the Coastal Plain.



Beach Sand
Sea Oats



Medium-sandy Soil
Longleaf Pine



Boggy Soil
Pitcher Plant

The Coastal Plain is an Ecosystem. It is made up of all the living and nonliving things in the Coastal Plain. When Europeans first came, the coastal plain was covered by a huge forest called the **longleaf pine and wiregrass forest**. This forest covered more than 90 million acres!

The Fire Forest

The longleaf pine-wiregrass ecosystem needs fire! In fact, it is called a “fire forest.” Although fires where people live are dangerous, fires in nature are often necessary to keep an ecosystems alive. Plants survive because their roots are deep underground. Even if the leaves on top of the ground are burned away, new plants soon begin to grow from their deep roots after the fire has burned out. Longleaf pine trees are **hardy** and can survive even if they are burned in a fire.

Why does the longleaf pine-wiregrass forest need fire?



1. When fire destroys the branches of tall trees, plants on the forest floor can “see” the sun.



2. Heat helps seeds open so that they can begin to grow.



3. Fire clears the forest floor and makes it easier for seeds to sprout.



4. Fire changes soil nutrients in a way that helps support more plants.

Longleaf pines can live as long as 400 years. These trees can be 120 feet tall.



The Coastal Plain Ecosystem is Endangered

Why? Because of things that people do

- People cut down trees to make furniture and other products, for farming, and to build houses.
- Factories, cars, and trash pollute the air, water, and land.
- People put out fires that the forest needs.

We Must Take Care of the Coastal Plain

Georgians love the Coastal Plain. We love to visit the beaches, walk in the forest, read a book in the cool grass, and hear the owls hoot in the night. But if we do not manage our land carefully, we will not see, feel, or hear these things any more.



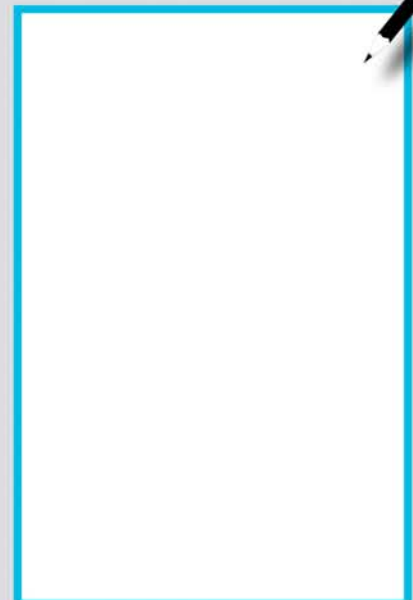
You can help save the Coastal Plain!

If you use fewer things and leave less waste, you will help the environment. Here are some suggestions:

Reduce waste! To reduce something means that you make less of it. Waste is anything that you throw away.

Reuse things instead of buying new things. Then you will use fewer things and create less waste.

Recycle things at a place where they will be collected and made into other things. Almost anything can be recycled.



Draw or write your suggestions here.

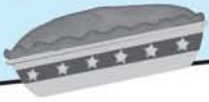
Teachers' Corner

Takin' a Macon Pie to the Beach

Students mix up a "Macon soil" pie, then add sand to get a "beach soil" pie. Then they answer the questions below.



My Nature Recipes



Macon Pie and Beach Pie

TOOLS (per group)

- 2 large mixing bowls or plastic tubs
- 1 large spoon/trowel
- 1 measuring cup

INGREDIENTS

- potting soil
- sand
- water



My Nature Recipes

Label two bowls "Macon Soil" and "Beach Soil"

- Measure 3 cups of potting soil into the "Macon Pie" bowl
- Add 1 cup sand
- Mix well with hands
- Put 1/2 of this mixture into "Beach Soil" bowl.
- Now add 2 cups of sand to the mixture in your "Beach Sand" bowl
- Mix well with hands
- Observe and compare
- Answer questions below

Questions:

How are your two pies different?

How are they similar?

*Answer: Both contain sand, both contain organic soil, both feel gritty, both feel moist, both look sandy-colored.
*Answer: Beach soil is sandier, Macon soil will stick to your hands, more Macon soil is softer, Macon soil is sander, Macon soil is lighter colored.

Plain Fun



You can learn more about hundreds of plant and animal species in the Coastal Plain at www.georgia.wildlife.com.

Wiregrass provides a tasty meal for small mammals and birds. The longleaf pine-wiregrass ecosystem gives food, shelter and nesting places for many animal species.

Help your child think of ways to reduce, reuse, and recycle. Then write or draw your suggestions in the spaces provided. The website <http://kids.niehs.nih.gov/recycle.htm> has many helpful hints.



Parent's Corner

Reduce

- Don't buy as much! What did you buy lately that you could do without?
- Use things longer before throwing them away. Draw or write the name of something you would like to replace, but maybe could use for a few more months.
- Don't use plastic bags at the grocery store. You can bring your own from home! Plastic bags never become part of the soil. They will not enter the ecosystem. Design a bag made of cloth that you could use for groceries.

Recycle

- Be sure your family has a blue recycling bin. What should you put into that bin?
- Take the whole family to a big recycling center like the one at Your DeKalb Farmers' Market, 3000 E. Ponce De Leon Avenue, Decatur, GA 30030. Take turns gently putting items into the bins and see who can recycle the most things!



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What can your family do to preserve the Coastal Plain?

Reuse

- Don't throw away plastic cups and plates—wash them and reuse them. You could offer to help your parents with this project!
- When you do need to give away something, donate it to an organization like the Salvation Army so that someone else will get to use it. Can you think of something in your house right now that you could give away?
- Unwrap your Christmas presents carefully, and you'll be able to use the wrapping paper again.

This issue addresses the following GPS:

Grade	Science	Math	Lang Arts	Soc Studies

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