

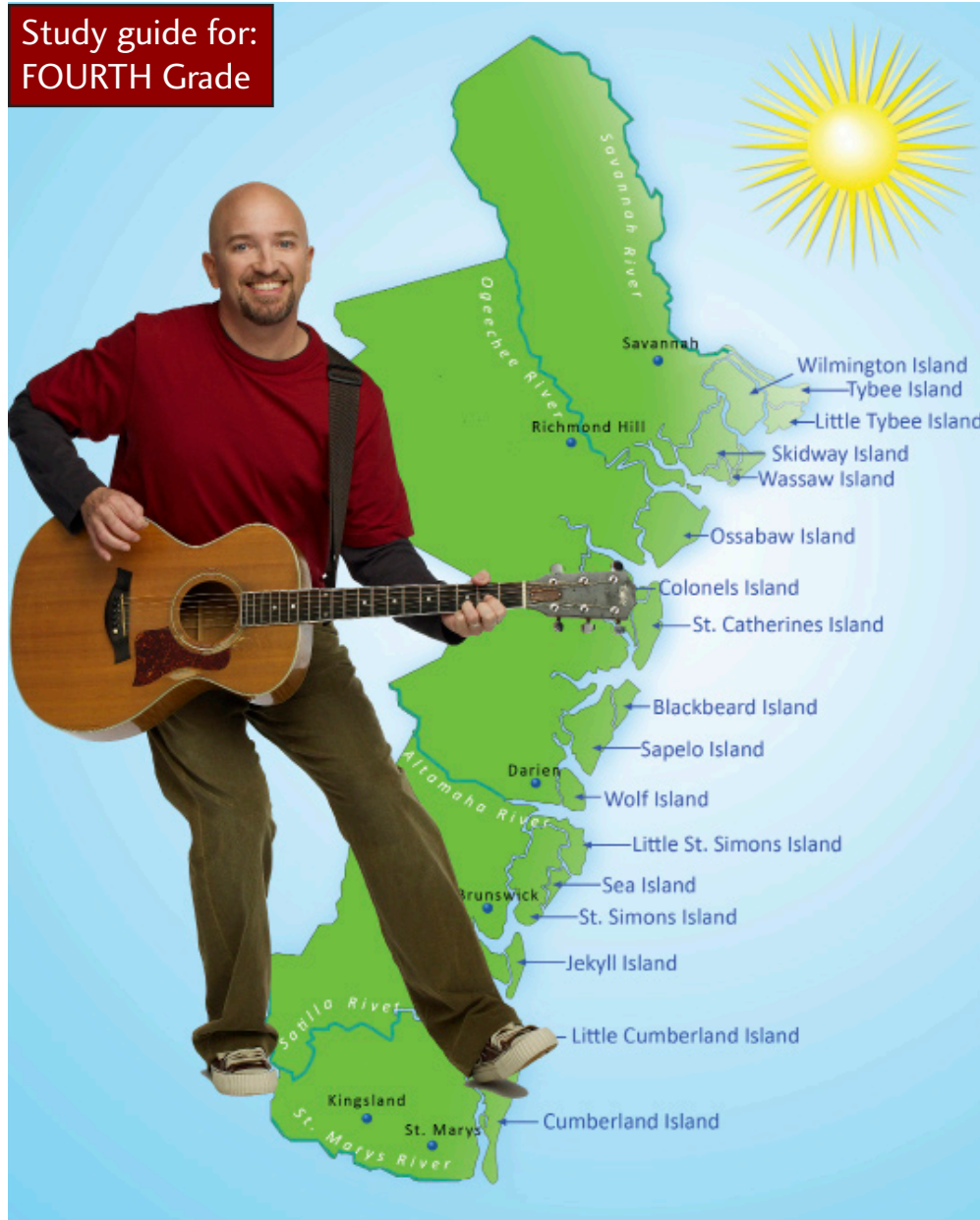


MARSH MADNESS

Roger Day

Nashville-based musician Roger Day (Parent's choice award winner) will perform his latest show, Marsh Madness, co-commissioned by the Georgia Sea Grant and the Savannah Music Festival. Songs such as Fiddler Groove, Jesse the Turtle Girl, Alligator in My Refrigerator and Mosquito Burrito will be featured in this 50-minute educational performance.

Study guide for:
FOURTH Grade



Welcome from the SMF Education Director:

We are thrilled you can join us for the performance of Roger Day's Marsh Madness presented by the Savannah Music Festival. Our education music series features grade-appropriate performances by renowned musicians and educators. A variety of musical genres complement school curriculum and demonstrate the dynamic relationship between the performing arts and history, literature, and world cultures.

In this document, you will find educational activities designed to enhance learning before and after the performance. This study guide meets Georgia's Performance Standards (GPS) and has been carefully crafted by Georgia Sea Grant and UGA Marine Extension Service, and Jennifer Cole, instructional coach at Winterville Elementary School.

Below you will find the links to activities and content. If you wish to access a complete list of GA Performance Standards for all grades and subjects, visit:
<http://www.georgiastandards.org>

Thank you for attending the 2012 Savannah Music Festival. We hope this experience will improve your student's creativity, teamwork and self-expression!

Sincerely,

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Overview

Nashville-based musician Roger Day will perform his latest show, *Marsh Madness*, co-commissioned by the Georgia Sea Grant Foundation and the Savannah Music Festival. Songs such as “Fiddler Groove”, “Jesse the Turtle Girl” and “Mosquito Burrito” will feature plants and animals that live in and around the barrier islands of Georgia. The song cycle deals with the importance of habitat and watershed health, the abundance of creatures that depend on the state’s water resources and how individuals can help protect the coastal eco-system. The material in the songs addresses state science teaching standards for grades three through five.

History of *Marsh Madness*

In 2009, Georgia Sea Grant and the Savannah Music Festival commissioned award-winning children's musician Roger Day to create a series of songs about the Georgia Coast. Roger went with UGA Marine Extension (MAREX) educator John "Crawfish" Crawford out to Sapelo Island, staying at UGA's Marine Institute in order to experience first-hand the marshes, mosquitos, critters and beaches of Georgia's coast. Georgia Sea Grant also commissioned a group of elementary science teachers to help Roger incorporate concepts into his songs that meet state science standards and to develop 3rd-5th grade curricula that would accompany the performance.

The resulting *Marsh Madness* song catalog was then performed during the 2010 Savannah Music Festival at 10 elementary schools and the Trustees Theatre for a total of 5,000 children. Afterwards, Roger took the *Marsh Madness* show on the road, performing at schools from North Carolina to Ohio.

Georgia Coast

The coast of Georgia is rich in history, beauty, mystery and natural wonders. Although Georgia is the largest state east of the Mississippi, it is only the 18th state in shoreline length (out of 21 states). Georgia’s coast is abundant in fresh and saline wetlands, rivers and tidal bays.

Georgia’s coast contains a series of eight barrier island complexes containing 13 barrier islands. Like all barrier islands, these protect our coastline from storm surges and tidal action. Unlike other barrier island complexes in the U.S., however, Georgia’s are largely undeveloped. At the end of the 19th Century, a number of wealthy northern industrial families, among them the Carnegies, Vanderbilts and Rockefellers, purchased Georgia’s “Golden Isles” as private hunting retreats. Jekyll, Cumberland, Ossabaw, Sea, Sapelo, St. Catherines and Wassaw Islands were all privately owned until the middle of the 20th Century. Having so much land in private hands for such a long period of time kept it from being developed, which in turn left much of Georgia’s coastal salt marshes relatively undisturbed.

Georgia's coastal zone experiences the second highest tidal range on the U.S eastern seaboard. Twice a day, the tides rise and fall from six to eight feet, submerging and then exposing Georgia's 378,000 acres of salt marsh. Aside from Louisiana, Georgia's salt marsh estuaries are the largest in continental U.S. With the marshes ranging from 4 to 8 miles wide, the 100 miles of Georgia's coast contain approximately one-half million acres of marshland. This is about one-third of all the salt marshes on the eastern coast of the United States. These precious lands nourish one of the most biologically productive ecosystems on earth.

The forest community on the southern barrier islands is maritime live oak predominant. Live oaks, southern magnolias, and cabbage palms shade understory species such as the red bay, yaupon and American holly, sparkleberry, wax myrtle, saw palmetto, vines, Spanish moss, and many kinds of ferns and woods flowers. Other hardwoods that form the canopy of island forests are water oak, laurel oak, tulip, sweetgum, red maple, pignut hickory, tupelo, and the introduced sycamore, but these are not as abundant as in the mainland coastal plains forests.

Today state and federal governments own and manage most of Georgia's barrier islands as parks, sanctuaries or wildlife preserves. Because they have experienced relatively little degradation, Georgia's salt marshes are an ideal laboratory for ecosystem study. Two internationally recognized marine research centers, The University of Georgia's Marine Institute on Sapelo Island and the Skidaway Institute of Oceanography on Skidaway Island, are located on Georgia's coast.

Georgia's coastal zone is rapidly growing in population, development and industry. Between 2000 and 2030, state projections anticipate a coastal population rise of 50 percent. However, even with this potential coastal growth, less than one third of Georgians live within 50 miles of the coast, an unusual characteristic for a coastal state. The bulk of the state's population lives in the Piedmont region and is far removed from coastal issues.

GEORGIA'S COAST AND BARRIER ISLANDS



About the Artist



Since graduating in 1985 from Washington & Lee University in Virginia, **Roger Day** has made a career as a singer/songwriter, originally on the college coffeehouse circuit. Born and raised in Birmingham, Alabama, he wrote his first children's song one Christmas for his family. The enthusiasm from his nieces and nephews encouraged him to continue writing and soon he had enough songs for an entire show. Before his coffeehouse performances, he began to meet with student volunteer groups to put on community service shows at a local Head Start program. For these shows, Roger was recognized by the National Association of Campus Activities with its highest public service award, The Harry Chapin Award for Contributions to Humanity.

In 1998, Roger released his first children's CD, *Rock 'N' Roll Rodeo*, followed by *Ready to Fly* in 2001. In 2007, *Dream Big!* was released. Radio Disney played the title song and another song, "I like Yaks," went to number 1 on Sirius/XM's *Kids Place to Live*. Roger's fourth release *Why Does Gray Matter?* features "the brain" as a theme for every song. Roger has won two Parents' Choice® Recommended Awards and two Parents' Choice® Gold Awards. Roger also has a family concert DVD, *Roger Day Live!* for which he won The Film Advisory Board Award for Outstanding Family Video.

Roger currently lives in Franklin, Tennessee, with his wife Jodie and their three children. An Eagle Scout, Roger spends his free time as a volunteer leader for Boy Scout Troop 137.

Internet Resources

Roger Day

<http://www.rogerday.com/about.php>

National Oceanic & Atmospheric Administration, Sea Grant

<http://www.seagrants.noaa.gov/>

Georgia Department of Natural Resources, Coastal Resources Division

<http://coastalgadnr.org/>

The University of Georgia's Marine Education Center and Aquarium

<http://www.marex.uga.edu/aquarium/>

The University of Georgia, The Marine Extension Service

<http://www.marex.uga.edu/>

Coastal Georgia Adopt-A-Wetland Program

<http://www.marex.uga.edu/shellfish/wetland.html>

Know the Connection, Coastal Georgia

<http://knowtheconnection.com/>

SAVANNAH MUSIC FESTIVAL CONCERT ETIQUETTE

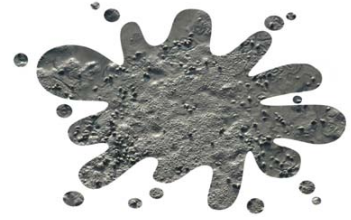
A live music performance can be very exciting. All of the people involved in the production, both cast and crew, work very hard to be sure they give a great performance. It is the job of the audience members to help the performers give their best performance possible. The audience can do this by practicing the rules of concert etiquette.

- Follow the directions of your teachers and the M.C. prior to the performance.
- If you are visiting the Trustees theater, arrive at the theater early. Doors open at 10:00 AM. Performance begins sharply at 11:00 AM.
- Visit the restroom before the performance begins.
- If you have a cell phone please turn it off. If it must be on, put it on vibrate.
- Pay attention to announcements that are made prior to, and after, the show.
- Don't speak during the performance...whispering is still speaking, so only in an emergency or if the performer ask you to participate.
- Do not take pictures during the performance. It can be very distracting to the performers and can cause a mishap.
- Remain in your seat for the entire performance. It is rude to get up in the middle of a quiet moment...rude to the performers and your fellow audience members.
- Do not eat or drink in the theater. If you must have a cough drop, or something of that nature, do not make noise with the wrapper.
- Do not put your feet up on the seats or balcony and do not kick the seat in front of you.
- Don't put or throw anything on the stage.
- Do laugh when the performance is funny.
- Do applaud when it is appropriate during the performance.
- Do applaud when the performance is over...this tells the performers and crew that you appreciate their work.
- Stand and applaud if you really thought the show was great.
- Stay seated until your school is called after the performance.

I Love to Study Mud!

from *Marsh Madness*

by Roger Day



When I graduate from college, and my brain is really big
I'm gonna be a scientist—that's my perfect gig
First, I'll catch the ferryboat, and I'll sail to Sapelo
There's something there I really love, don't you know

And I'll learn so much about it, I'm gonna get a Ph.D!

I LOVE TO STUDY MUD - MARSH MUD

I LOVE TO STUDY MUD - MARSH MUD

When I step onto the island, I'm gonna take a great big whiff
Woo... wait a minute... man... that smells so bad, somebody get me a
handkerchief
See the marsh mud's like a chocolate soup that you can smell for miles around
It's the perfect place to wear these boots and stomp around

I can't wait to learn the things the marsh mud teaches me

I LOVE TO STUDY MUD - MARSH MUD

I LOVE TO STUDY MUD - MARSH MUD

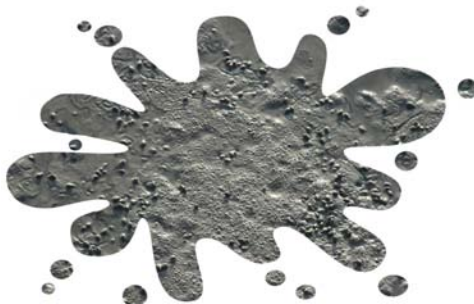
Not only are we gonna smell mud. We're gonna spell mud too!

M-U-D!

M-U-D!

M-U-D!

M-U-D!



Vocabulary

Adaptation- an alteration or adjustment, often hereditary, by which a species or individual improves its condition as it relates to its environment

Barrier island- long, narrow island lying parallel to the mainland and separated from it by bay, lagoon, or marsh, usually occurring in chains

Canopy- the uppermost branchy layer of a forest

Coast- the area where the land meets a large body of water

Community- populations of all species that occupy a particular habitat and interact within that habitat

Consumer- an organism, usually an animal, that feeds on plants or other animals

Decomposer- an organism, usually a bacterium or fungus, that breaks down the cells of dead plants and animals into simpler substances.

Ecosystem- all of the organisms of a community and their environment that form an interacting system

Estuary- partially enclosed coastal body of water with one or more rivers or streams flowing into it and with a free connection to the open sea

Habitat- the area or environment in which an organism lives

Hammock- areas of higher elevation in the salt marsh that support shrubs and trees

Island- land surrounded by water on all sides

Maritime Forest - the forests by the sea that are characterized by live oaks, palms, and palmettos

Ocean- the body of salt water that covers more the 70% of the earth's surface

Producer- organisms that make their own food through a process called photosynthesis

Salt Marsh- an area of coastal wetland periodically flooded with salt water and dominated by grasses and grass-like plants

Sandbar- submerged or exposed line of sand accumulated by wave action

Sand Dunes- a hill of sand piled up by the wind

Understory- the plants of a forest that grow low to the ground



Turkey Vulture

Featured Marsh Animals

Alligator- a large reptile with sharp teeth and powerful jaws that live in swampy areas

Ghost crab- also called *sand crabs*, they dominate sandy shores and dig deep burrows

Fiddler crabs- burrowing crabs in coastal regions; the males have one of their pincer-like claws very much enlarged; during high tide, they plug their burrows and stay in them until low tide

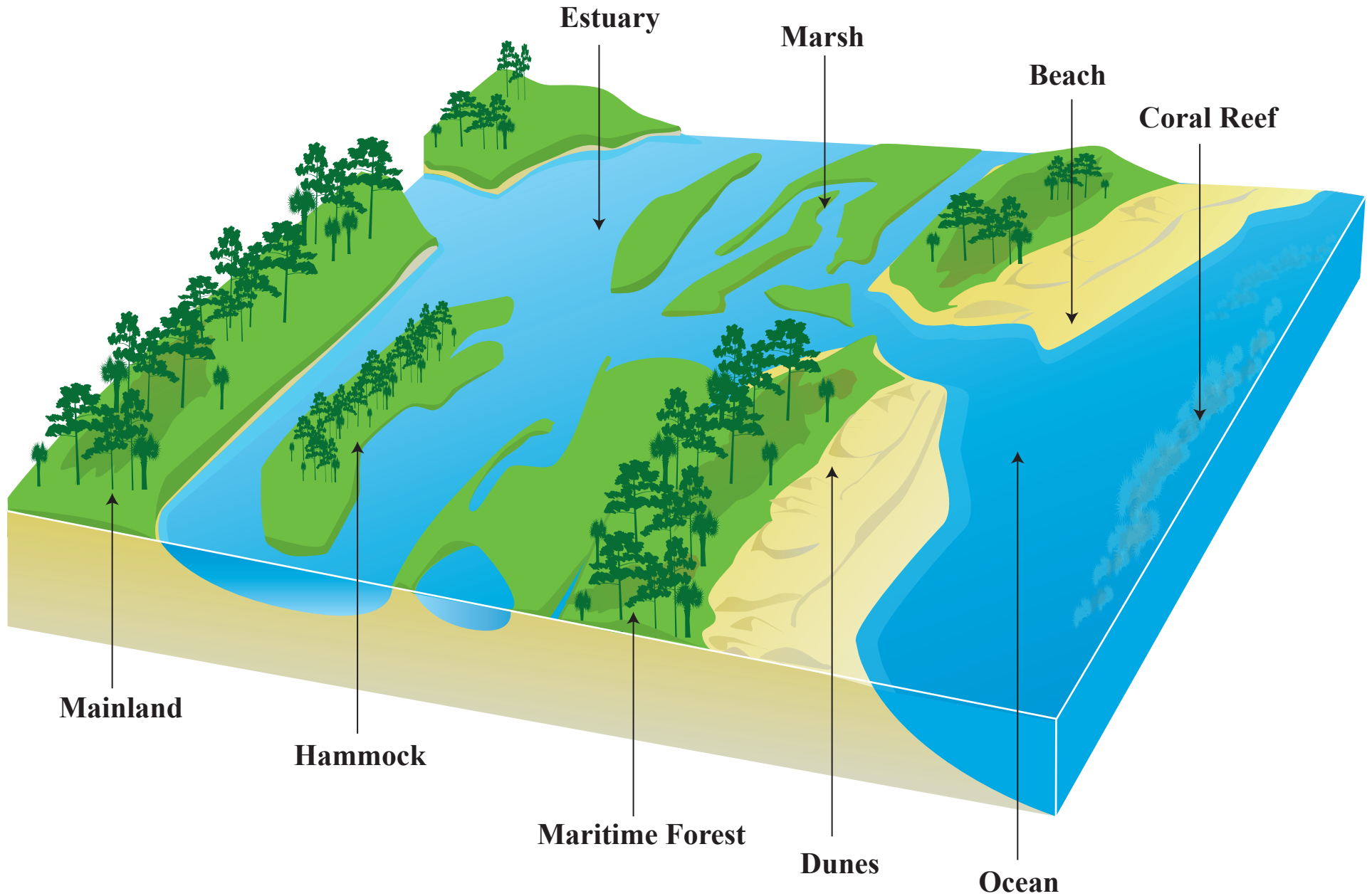
Mosquitoes- two-winged insects in which the female of most species is distinguished by a long proboscis for sucking blood

Periwinkle snail- known as a shore snail, they are tiny and found among rocks, on wood pilings between high and low tides, underneath docks, and in mud pools

Sea turtle- large turtles with limbs modified into flippers for swimming in the ocean

Turkey vulture- a carrion feeder, eating almost any type of dead animal but when frightened it responds by swiftly regurgitating its last meal in the direction of whomever or whatever frightened it

Georgia's Coastal Features



ACTIVITY #1
Grade 4
Marsh Madness
Worksheet: Food Web

Georgia Performance Standards:

- S4L1. Students will describe the roles of organisms and the flow of energy within an ecosystem.
- a. Identify the roles of producers, consumers, and decomposers in a community.
 - d. Predict effects on a population if some of the plants or animals in the community are scarce or if there are too many.
- S4L2. Students will identify factors that affect the survival or extinction of organisms such as adaptation, variation of behaviors (hibernation), and external features (camouflage and protection).
- a. Identify external features of organisms that allow them to survive or reproduce better than organisms that do not have these features (for example: camouflage, use of hibernation, protection, etc.).
 - b. Identify factors that may have led to the extinction of some organisms.

Objective: The students will investigate the habitats of Georgia's coast and things that are dependent on that habitat or valuable to that habitat

Materials: Writing utensils; Food Web handout, attached in this study guide (one per student)

Teacher's Instructions:

1. Discuss the roles of producers, consumers, and decomposers in a community. Explain to students that each plant or animal has a specific role in the marsh ecosystem.
2. Distribute the Food Web worksheets to each student.
3. Explain to the students how to fill in the handout:
 - a. Below each box, write whether the object is a producer, consumer or decomposer, based on their role in the food web.
4. When the worksheets are completed, ask the follow-up questions:
 - a. What would happen to a population if some of the plants or animals in the community became scarce, or if there were too many?
 - b. How do organisms become extinct?
 - c. How do external features of organisms help them to survive and reproduce? (e.g. camouflage, use of hibernation, protection, etc.).

Assessment:

The student can explain the roles of producers, consumers and decomposers in the salt marsh and how changes in a habitat might affect organisms within that habitat.

ACTIVITY #2

Grade 4

Marsh Madness

Worksheet: Georgia's Unique Coast

Georgia Performance Standards:

SS4G1 The student will be able to locate important physical and man-made features in the United States.

- a. Locate major physical features of the United States; include the Atlantic Coastal Plain, the Great Plains, the Continental Divide, the Great Basin, Death Valley, the Gulf of Mexico, the St. Lawrence River, and the Great Lakes.

Objective: Students will learn about geographic features of the Georgia Coast, identifying the progression of land formations from the sea to the mainland.

Materials: Writing utensils; Georgia's Coastal Features poster, vocabulary list, and Georgia's Unique Coast handout, attached in this study guide (one per student)

Teacher's Instructions:

1. Print out or project onto the wall the Georgia's Coastal Features poster
2. Discuss each of the labeled graphics starting from the sea and moving inland, referring to the vocabulary list
2. Distribute Georgia's Unique Coast worksheets to each student.
3. Explain to the students how to fill in the handout:
 - a. Using the vocabulary words found in the box, fill in the blanks to describe geographic features found on Georgia's coast.

Assessment:

Grade the papers to assess whether the students can locate major physical features of Georgia's coastal zone.

Food Web Worksheet

Write Producer, Consumer or Decomposer on the line under each box, depending on the object's role in the food web.



Saw Palmetto

Producer



American Alligator

Consumer



Green Tree Frog

Consumer



Black Vulture

Decomposer



Yaupon Holly

Producer



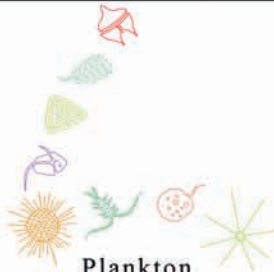
Bottlenose Dolphin

Consumer



Bacteria

Decomposer



Plankton

Decomposer



Live Oak Tree

Producer



Marsh Rabbit

Consumer



Spartina

Producer



Free-Tailed Bat

Consumer

Food Web Worksheet

Write Producer, Consumer or Decomposer on the line under each box, depending on the object's role in the food web.



Saw Palmetto



American Alligator



Green Tree Frog



Black Vulture



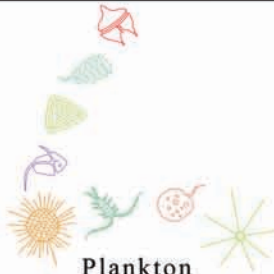
Yaupon Holly



Bottlenose Dolphin



Bacteria



Plankton



Live Oak Tree



Marsh Rabbit



Spartina



Free-Tailed Bat

Georgia's Unique Coast

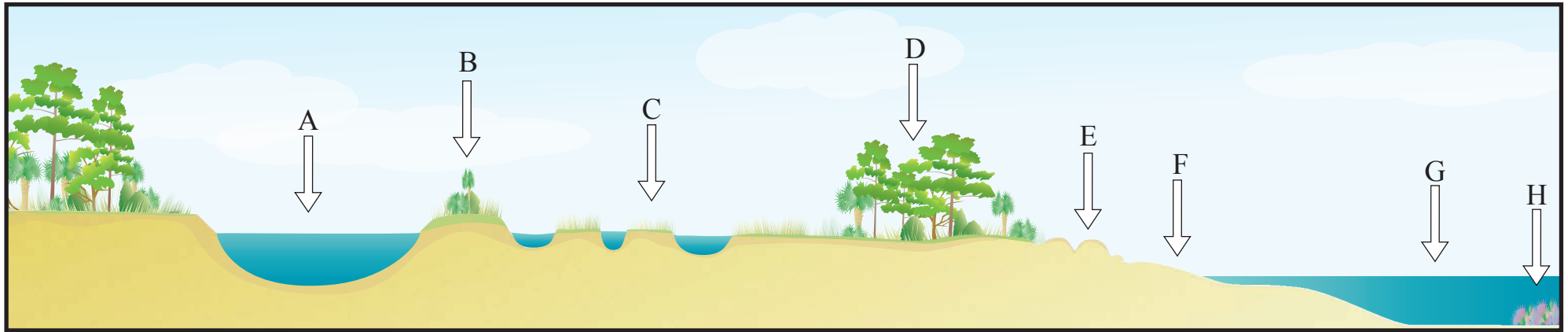
Using the words in the box below, label each of the geographic features found on the Georgia Coast.

Beach
Dune

Estuary
Hammock

Maritime Forest
Marsh

Ocean
Reef



A. _____

B. _____

C. _____

D. _____

E. _____

F. _____

G. _____

H. _____

Study Guide Feedback Form

The following questions are intended for teachers and group leaders who make use of the Savannah Music Festival and Georgia Sea Grant study guide.

1. In what grade are your students?
2. Which show did you see? When?
3. Was this your first time at an SMF educational performance?
4. Was this the first time you used an SMF Study Guide?
5. Did you download/use the guide before or after your field trip?
6. Did you reproduce the grade-appropriate activity sheet for your class?
7. Do you think the study guide and activity helped your students better understand the material?
8. Do you think the study guide and activity helped you meet state science teaching standards?
9. Additional information and/or comments:



Fax this form to us at (912) 236-1989.
Your feedback will be greatly appreciated.
Thank you for visiting the Savannah Music Festival.
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Savannah, GA 31401

