



Okefenokee Swamp

2018 - Driftwood Education Center



The carnivorous Hooded Pitcher Plant
(*Sarracenia minor*)

Class Description:

In this class students will explore the Okefenokee Swamp ecosystem and its history. In an all-day outing, students will examine the swamp by boat, by bus, and by hiking through historical areas in one of the largest wildlife refuges and wilderness areas in the continental United States.

Appropriate for Grades 4-12

Driftwood modifies all classes according to grade level

Driftwood Education Center
Po Box 20712 St. Simons Island, GA 31522
Phone: 912.638.3849 Fax: 912.634.0642
www.driftwoodee.org

OKEFENOKEE Day Trip

I. Pre-class set-up

1. Be sure to pick up bag lunches for students
2. Take bug spray, sunscreen, and water
3. Tell students to dress for the conditions

II. Introduction, overview, and assessment

1. Assess student knowledge of swamp
2. Ask questions and encourage exploration
3. Let students know what is going to happen

III. Boat or Canoe Tours

1. Informative boat captain or instructor gives tour of swamp

IV. Visitors Center

1. Video, Exploration, Trail, and/or Animal Olympics

V. Wildlife Drive

1. Tour Guide Talk

VI. Homestead

1. Trail and Midden
2. Homestead: History, Stories, Discussion

VII. Boardwalk and Fire Tower

VIII. Picture Guides, Animal Information, and Timeline

Georgia Performance Standards met:

SS3H1 Describe early American Indian cultures and their development in North America.

a. Locate the regions where American Indians settled in North America-Southeast.

b. Compare and contrast how American Indians in each region used their environment to obtain food, clothing, and shelter.

S4P2. Obtain, evaluate, and communicate information about how sound is produced and changed and how sound and/or light can be used to communicate.

S4L1. Obtain, evaluate, and communicate information about the roles of organisms and the flow of energy within an ecosystem.

S5CS8. a Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.

S5E1. Obtain, evaluate, and communicate information to identify surface features on the Earth caused by constructive and/or destructive processes.

S5L2. Obtain, evaluate, and communicate information showing that some characteristics of organisms are inherited, and other characteristics are acquired.

S6E3. Obtain, evaluate, and communicate information to recognize the significant role of water in Earth processes.

S6E6. Obtain, evaluate, and communicate information about the uses and conservation of various natural resources and how they impact the Earth.

S7CS5. a. Observe and explain how parts can be related to other parts in a system such as predator/prey relationships in community/ecosystem.

S7L4. Obtain, evaluate, and communicate information to examine the interdependence of organisms with one another and their environments.

Concepts:

Focal points of this class are:

1. The Okefenokee is one of the largest wildlife refuges and wilderness areas in the United States.
2. Fire plays a key role in the development of the ecosystem
3. A unique culture was created by the early homesteaders because of the environment the swamp provided.
4. Wildlife species are closely tied together by the food web, and everything here depends on balance.

Outcomes:

Upon completion of this class, students will be able to:

1. Develop reasoning as to why the swamp was so important to early homesteaders and businessmen.
2. Understand the importance that fire can have on an ecosystem
3. Explore and identify different species of plants and animals in the Okefenokee swamp
4. Understand succession and the concept of food webs.

Next Generation science standards met:

3-PS2-2 Motion and Stability: Forces and Interactions – Make observations and/or measurements of an object’s motion to provide evidence that a pattern can be used to predict future motion.

3-LS1-1 From Molecules to Organisms: Structures and Processes – Use observations to describe patterns of what animals need to survive.

3-LS2-1 Ecosystems: Interactions, Energy, and Dynamics – Construct an argument that some animals form groups that help members survive.

3-LS4-2 Biological Evolution: Unity and Diversity – Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.

3-LS4-3 Biological Evolution: Unity and Diversity – Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

3-ESS3-1 Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard.

4-LS1-1 From Molecules to Organisms: Structures and Processes – Construct an argument that animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

4-ESS2-1 Earth's Systems: Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.

4-ESS3-2 Earth and Human Activity – Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.*

5-LS1-1 From Molecules to Organisms: Structures and Processes – Support an argument that plants get the materials they need for growth chiefly from air and water.

5-ESS3-1 Earth and Human Activity – Obtain and combine information about ways individual communities use science ideas to protect the Earth’s resources and environment.

MS-LS2-1 Ecosystems: Interactions, Energy, and Dynamics – Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.

MS-LS2-4 Ecosystems: Interactions, Energy, and Dynamics – Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

South Carolina Performance Standards met:

4th and 5th Grade: United States Studies to 1865

The student will demonstrate an understanding of the settlement of North America by Native Americans and the interactions among these peoples.

4.S.1, 5.S.1, 6.S.1, 7.S.1: The student will use the science and engineering practices, including the processes and skills of scientific inquiry, to develop understandings of science content.

4.L.5: The student will demonstrate an understanding of how the structural characteristics and traits of plants and animals allow them to survive, grow, and reproduce.

4.P.4B.3 Define problems related to the communication of information over a distance and design devices or solutions that use sound to solve the problem.

5.E.3: The student will demonstrate an understanding of how natural processes and human activities affect the features of Earth's landforms and oceans.

5.L.4: The student will demonstrate an understanding of relationships among biotic and abiotic factors within terrestrial and aquatic ecosystems.

5.P.5: The student will demonstrate an understanding of the factors that affect the motion of an object.

6.L.4: The student will demonstrate an understanding of how the structures, processes, behaviors, and adaptations of animals allow them to survive.

6.L.5: The student will demonstrate an understanding of the structures, processes, and responses that allow fungi, and plants to survive and reproduce.

7.EC.5: The student will demonstrate an understanding of how organisms interact with and respond to the biotic and abiotic components of their environments.

Florida Performance Standards met:

SS.4.A.2. Native American tribes in Florida.

SS.4.A.3.2. Describe causes and effects of European colonization on the Native American tribes of Florida.

SS.4.A.3.8. Explain how the Seminole tribe formed and the purpose for their migration.

SS.4.A.4.2. Describe pioneer life in Florida.

SS.5.A.6.Su.c: Recognize a change in transportation in America during the 1800s, such as railroads.

SC.4.N.1, SC.5.N.1, SC.6.N.1, SC.7.N.1. The Practice of Science

SC.4.N.2, SC.5.N.2, SC.6.N.2. The Characteristics of Scientific Knowledge

SC.4.L.16.3 Recognize that animal behaviors may be shaped by heredity and learning.

SC.4.L.17.3. Students will explain that animals obtain energy from the plants and/or animals they eat.

SC.4.L.17.4. Recognize ways plants and animals, including humans, can impact the environment.

SC.4.P.9.1 Identify some familiar changes in materials that result in other materials with different characteristics, such as decaying animal or plant matter, burning, rusting, and cooking.

SC.4.P.10.3 Investigate and explain that sound is produced by vibrating objects and that pitch depends on how fast or slow the object vibrates.

SC.4.P.10.4 Describe how moving water and air are sources of energy and can be used to move things.

SC.5.L.15.1. Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.

SC.5.L.17.1. Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.

SC.6.E.7.8. Describe ways human beings protect themselves from hazardous weather and sun exposure.

SC.7.L.17.1. Explain and illustrate the roles of and relationships among producers, consumers, and decomposers in the process of energy transfer in a food web.

SC.7.L.17.3. Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.