



Cumberland Island

2018 - Driftwood Education Center



Class Description:

Exploring Cumberland Island National Seashore will help you discover the Carnegie's Dungeness Estate, see grave sites that reach back over 200 years, walk among free roaming horses and immerse yourself into the natural wonders that are Cumberland Island. This class will also cover Beach, Marsh, and Forest Ecology. Seining is seasonal.

**Appropriate for all grade and skill levels. We do have access to handicap beach wheel chairs. Please plan this in advance if you need one.
THIS IS AN ALL DAY FIELD TRIP: EXTRA COST FOR FERRY**

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

Table of contents and outline:**I. Pre-class set-up**

1. Be sure to grab seine nets, buckets, rescue tubes, and lunches.
2. Take backpack with: water, sunscreen, bug repellent, first aid kit and anything else you want.
3. Tell students to pack everything for the day.

II. Introduction, overview, and assessment

1. Assess what students know about Cumberland.
2. Ask questions and encourage exploration.
3. Let students know what is going to happen.

Saint Mary's

1. Pack lunches and put away all extra lunch items.
2. Pre-boarding meeting in each field group
3. Board Ferry

III. Sea Camp Dock

1. Count students and bathroom break
2. Greeting and reminder of safety on Cumberland
3. Walk River trail to Ice House Museum

IV. Dungeness Dock/Ice House Museum

1. Explore Ice House Museum
2. Discuss Dungeness Dock

V. Walk to Dungeness Ruins

1. History – Timucuan until Carnegie Time Period
2. Lightning struck trees
3. Carnegie Cemetery
4. Flora and Fauna

VI. Dungeness Ruins

1. Gates to Dungeness/History
2. Ruins exploration
3. Pergola exploration
4. Root Cellar, Water Wheel, Green house
5. Fountain and podium picture
6. Shark Tooth Pit (If time allows)

VII. Other buildings and the Laundry House

1. Recreation Building
2. The Grange
3. Laundry house
4. Lunch
5. Grandfather tree
6. Barn and Stables

VIII. Cemetery

1. History of Cemetery
2. General Henry "Light Horse Harry" Lee (Father to Robert E. Lee)
3. Louisa Shaw
4. James Shaw
5. Caty Green
6. Phineas Miller
7. Catherine Rickart-Worker for the Carnegies

IX. Marsh Board Walk

1. Exploration of Marsh from board walk
2. Activities and marsh discussion

X. The Beach and Dune Ecology

1. Accretion and buried forest
2. Interdune meadow and plant succession
3. Activities on beach
4. Role of the Dunes

XI. Seine

1. Explanation of how to seine
2. Go seining
3. Discuss organisms caught
4. Clean net

XII. Climbing Tree and Clean up

1. Climbing tree (If time allows)
2. Bathroom and changing quickly (10 min)
3. Sea Camp Restrooms
4. Sea Camp Dock wrap up and assessment

XIII. Conclusion and Wrap Up**XIV. Additional Guidelines and Safety****XV. Cumberland History****XVI. Maritime Forest Information****XVII. Cumberland Timing****Concepts:**

Focal points of this class are:

1. Cumberland Island is important both historically and as an ecosystem, which is why it is protected today.
2. Barrier Islands play a key role in protecting the mainland from fierce storms and provide habitat for an abundance of flora and fauna.
3. By visiting and learning about historical places, we can make better educated decisions for ourselves in the future.
4. There are three unique habitats on a barrier island, including the beach, maritime forest, and marsh. Each of these is important for the specific flora and fauna that live there, and the habitats all positively affect one another.

Outcomes:

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

1. Explain Cumberland Island history from the time of the Timucuan to the present.
2. Be able to identify the flora and fauna specific to Cumberland and what their role in the ecosystem is.
3. List the three habitats of a barrier island and discuss why they're all important.
4. Identify why barrier islands are so important to the protection of the continental U.S. and explain how barrier islands form.

Georgia Performance Standards met:**History**

5th:

SS5H1 Describe how life changed in America at the turn of the century.

Science

5th:

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

6th:

S6E2. Obtain, evaluate, and communicate information about the effects of the relative positions of the sun, Earth, and moon.

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

S6E4. Obtain, evaluate, and communicate information about how the sun, land, and water affect climate and weather.

7th:

S7L1. Obtain, evaluate, and communicate information to investigate the diversity of living organisms and how they can be compared scientifically.

Florida Standards met**History**

5th:

SS.5.A.4.1 Identify the economic, political and socio-cultural motivation for colonial settlement.

SS.5.A.3.3 Describe interactions among Native Americans, Africans, English, French, Dutch, and Spanish for control of North America.

6th:

SS.6.G.3.1 Explain how the physical landscape has affected the development of agriculture and industry in the ancient world.

Science

5th:

SC.5.E.7.2 Recognize that the ocean is an integral part of the water cycle and is connected to all of Earth's water reservoirs via evaporation and precipitation processes.

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.

6th:

SC.6.E.7.2 Investigate and apply how the cycling of water between the atmosphere and hydrosphere has an effect on weather patterns and climate.

SC.6.E.6.1 Describe and give examples of ways in which Earth's surface is built up and torn down by physical and chemical weathering, erosion, and deposition.

7th:

SC.7.E.6.5 Explore the scientific theory of plate tectonics by describing how the movement of Earth's crustal plates causes both slow and rapid changes in Earth's surface, including volcanic eruptions, earthquakes, and mountain building.

6.L.4B.2 Obtain and communicate information to explain how the structural adaptations and processes of animals allow for defense, movement, or resource obtainment.

South Carolina Standards met

History

6th

6-1.1 Explain the characteristics of hunter-gatherer groups and their relationship to the natural environment.

6-6.6 Explain the effects of the exchange of plants, animals, diseases, and technology throughout Europe, Asia, Africa, and the Americas (known as the Columbian Exchange).

Science

5th

5.E.3A.1 Construct explanations of how different landforms and surface features result from the location and movement of water on Earth's surface through watersheds (drainage basins) and rivers.

5.E.3A.2 Develop and use models to describe and compare the characteristics and locations of the landforms on continents with those on the ocean floor (including the continental shelf and slope, the mid-ocean ridge, the rift zone, the trench, and the abyssal plain).

6th

6.E.2B.4 Construct explanations for how climate is determined in an area (including latitude, elevation, shape of the land, distance from water, global winds, and ocean currents).

6.L.4B.2 Obtain and communicate information to explain how the structural adaptations and processes of animals allow for defense, movement, or resource obtainment.

Next Generation Science Standards met:

4th: Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

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

5th:

5-PS2-1. Support an argument that the gravitational force exerted by Earth on objects is directed down.

MS-PS2-4. Construct and present arguments using evidence to support the claim that gravitational interactions are attractive and depend on the masses of interacting objects.

MS-LS1-4. Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively.

MS-ESS1-1. Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.

MS-ESS2-3. Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions.