

Salt Marsh Field Study

Grade Level: Kindergarten-Fifth

Content Area: Kindergarten-Fourth: Life Science, Fifth: Earth Science

Core Area: Exploring Organisms and Their Environments

Lesson Overview: The Reserve's K-5 estuary programming aligns to the current SC Academic Standards and Performance Indicators for Science, Next Generation Science Standards (NGSS), and National Oceanic Atmospheric Administration's Ocean and Estuarine Literacy Principles and Concepts. Customized programs can be requested to incorporate activities on our marsh boardwalk or trail, Hobcaw Discovery Center exhibits and classroom, a screened outdoor classroom, freshwater pond and dock. Class size is limited to 60 students per trip, with one field study scheduled per day at our salt marsh sites to protect the sensitive nature of the habitats. Programs vary in length from 2-4 hours each, and may be combined with other activities as staff and schedules allow. Cost for programs is \$5 per student (teachers, chaperones are free), and must be booked in advance.

Kindergarten: LIFE SCIENCE: EXPLORING ORGANISMS AND THE ENVIRONMENT

Standard K.L.2: The student will demonstrate an understanding of organisms found in the environment and how these organisms depend on the environment to meet those needs.

Grade One: LIFE SCIENCE: PLANTS AND THEIR ENVIRONMENTS

Standard 1.L.5: The student will demonstrate an understanding of how the structures of plants help them survive and grow in their environments.

Grade Two: LIFE SCIENCE: ANIMALS AND THEIR ENVIRONMENTS

Standard 2.L.5: The student will demonstrate an understanding of how the structures of animals help them survive and grow in their environments.

Grade Three: LIFE SCIENCE: ENVIRONMENTS AND HABITATS

Standard 3.L.5: The student will demonstrate an understanding of how the characteristics and changes in environments and habitats affect the diversity of organisms.

Grade Four: LIFE SCIENCE: CHARACTERISTICS AND GROWTH OF ORGANISMS

Grade Five: EARTH SCIENCE: CHANGES IN LANDFORMS AND OCEANS, LIFE SCIENCE: INTERDEPENDENT RELATIONSHIPS IN ECOSYSTEMS

Many of the Reserve's curriculum activities are based on or adapted from the NOAA's 'Estuaries 101' Curriculum. This suite of estuary education resources help educators bring estuarine science into the classroom through hands-on learning, experiments, fieldwork, and data explorations. These specially designed lessons, activities, animations and videos can be used independently or as a supplement to existing curricula and can be adapted to meet any grade level.

Examples of Reserve field studies incorporating these science standards include:

A Day in the Salt Marsh <http://www.kevkurtz.com/books/>

Exploring the Estuary

Salt Marsh Players

Marsh Metaphors https://wetlandslive.pwnet.org/pdf/1.3_WetlandMetaphors.pdf

Resources:

SC Academic Standards and Performance Indicators for Science
<https://ed.sc.gov/instruction/standards-learning/science/standards/>

Next Generation Science Standards (NGSS) <https://www.nextgenscience.org/>

NOAA's Ocean Literacy Principles and Concepts
https://aamboceanservice.blob.core.windows.net/oceanservice-prod/education/literacy/ocean_literacy.pdf

Estuaries 101 Curriculum <https://coast.noaa.gov/estuaries/>

Estuarine Literacy Principles and Concepts <https://coast.noaa.gov/data/estuaries/pdf/estuary-principles-and-concepts.pdf>