



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Saltmarsh Explorers: Unveiling Estuarine Wonders

SUBJECT AREA:

Environmental Science,
Biology.

GRADE LEVEL: Fourth
through fifth.

DURATION: 30 minutes.

AUDIENCE SIZE: 30
students.

OVERVIEW: This program will take students on an exciting journey as our experienced instructors dive into the remarkable world of salt marsh estuaries and unravel the intricate food chains within them. Designed to

engage students in understanding the importance of salt marshes and the impacts that threaten these ecosystems, students will first learn about the various ecosystem services salt marsh estuaries provide and the department's role in maintaining these valuable ecosystems. Second, students will create a live-action food web allowing them to visualize a complex ecological interaction in a way that static diagrams may not fully capture.



OBJECTIVES:

The student will:

- Collaboratively construct a live action food web, requiring communication, problem solving and sharing responsibilities effectively.
- Analyze complexities of ecological interactions, including predator-prey relationships, competition and the consequences of environmental changes on the stability of the food web.
- Identify the value associated with salt marsh estuary ecosystems.
- Explain the interdependent relationships among producers, consumers and decomposers within an ecosystem.
- Describe specific threats to a salt marsh estuary food web, specifically in Florida.



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SUNSHINE STATE STANDARDS:

SC.3.L.14.1 - Describe structures in plants and their roles in food production, support, water and nutrient transport, and reproduction.

SC.3.L.17.2 - Recognize that plants use energy from the sun, air and water to make their own food.

SC.3.N.1.1 - Raise questions about the natural world, investigate them individually and in teams through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.

SC.3.N.1.4 - Recognize the importance of communication among scientists.

SC.3.N.3.2 - Recognize that scientists use models to help understand and explain how things work.

SC.4.L.17.2 - Explain that animals, including humans, cannot make their own food and that when animals eat plants or other animals, the energy stored in the food source is passed to them.

SC.4.L.17.3 - Trace the flow of energy from the sun as it is transferred along the food chain through the producers to the consumers.

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

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.