

MARSHLAND MARVELS

SUMMARY

Salt marsh ecosystems are valuable habitats because of the many ecosystem services they provide. This lesson will highlight the key services of salt marsh ecosystems, explore how various impacts can affect these habitats and introduce restoration efforts that help to preserve them for future generations.

In this lesson, students examine different approcaches to coastal protection, with a specific focus on living shorelines. Students first analyze historic imagery to assess how a specified salt marsh shoreline has changed over time. The students then use a hands-on model to explore how different materials can be used to protect shorelines. As they progress, students will learn how and why estuaries are fantastic habitats that protect Florida's coastlines.

STATE STANDARDS

- **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.
- **SC.6.E.6.2** — Recognize that there are a variety of different landforms on Earth's surface such as coastlines, dunes, rivers, mountains, glaciers, deltas and lakes, and relate these landforms as they apply to Florida.
- **SC.6.E.7.8** — Investigate how natural disasters have affected human life in Florida.
- **SC.6.E.7.8** — Describe ways human beings protect themselves from hazardous weather and sun exposure.
- **SC.6.N.1.4** — Discuss, compare and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.
- **SC.8.N.4.1** — Explain that science is one of the processes that can be used to inform decision making at the community, state, national and international levels.
- **ELA.K12.EE.1.1** — Cite evidence to explain and justify reasoning.
- **MA.K12.MTR.7.1** — Apply mathematics to real-world contexts. Mathematicians who apply mathematics to real-world contexts:
    - Connect mathematical concepts to everyday experiences.
    - Use models and methods to understand, represent and solve problems.
    - Perform investigations to gather data or determine if a method is appropriate.
    - Redesign models and methods to improve accuracy or efficiency.



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