

VIRTUAL EXPLORATION OF GEORGIA'S COASTAL WETLANDS

GUIDE TO EDUCATIONAL STANDARDS

Science Georgia Standards of Excellence

Sixth Grade Earth Science:

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

d. Analyze and interpret data to create graphic representations of the causes and effects of waves, currents, and tides in Earth's systems.

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

e. Analyze and interpret weather data to explain the effects of moisture evaporating from the ocean on weather patterns and weather events such as hurricanes.

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

c. Construct an argument evaluating contributions to the rise in global temperatures over the past century.

Core Ideas:

• Ocean and Atmosphere Patterns • Water Cycle • Natural Hazards • Global Climate Change

Seventh Grade Life Science:

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

a. Construct an explanation for the patterns of interactions observed in different ecosystems in terms of the relationships among and between organisms and abiotic components of the ecosystem.

c. Analyze and interpret data to provide evidence for how resource availability, disease, climate, and human activity affect individual organisms, populations, communities, and ecosystems.

Core Ideas:

• Structure and Function • Interdependent Relationships in Ecosystems • Cycles of Matter and Energy Transfer in Ecosystems • Ecosystem Dynamics, Functioning, and Resilience

Next Generation Science Standards (MS, Grades 6-8)

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.

LS2.C: Ecosystem Dynamics, Functioning, and Resilience:

Ecosystems are dynamic in nature; their characteristics can vary over time. Disruptions to any physical or biological component of an ecosystem can lead to shifts in all its populations.

MS-LS2-5 Ecosystems: Interactions, Energy, and Dynamics:

Evaluate competing design solutions for maintaining biodiversity and ecosystem services.

MS-ESS3-3 Earth and Human Activity:

Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.

References

1. Georgia Department of Education. Science Georgia Standards of Excellence. <https://www.georgiastandards.org/Georgia-Standards/Documents/Science-Sixth-Grade-Georgia-Standards.pdf>
2. Georgia Department of Education. Science Georgia Standards of Excellence. <https://www.georgiastandards.org/Georgia-Standards/Documents/Science-Seventh-Grade-Georgia-Standards.pdf>
3. Next Generation Science Standards. <https://www.nextgenscience.org/>
4. National Research Council 2012. A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas. Washington, DC: The National Academies Press. <https://doi.org/10.17226/13165>.