

# Module 4 ~ Viva La Difference (UE/MS/HS)

## What Makes a Quality Lake? DVD Presentation



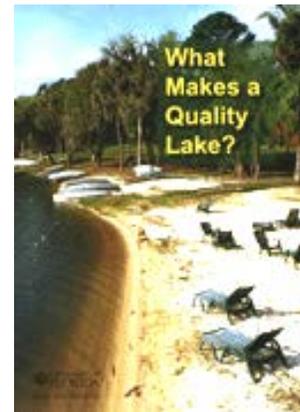
### Next Generation Sunshine State Standards

#### 4<sup>th</sup> Grade

- SC.4.E.6.6: Identify resources available in Florida (water, phosphate, oil, limestone, silicon, wind, and solar energy).
- SC.4.N.1.4: Recognize ways plants and animals, including humans, can impact the environment.
- SS.4.C.2.1: Discuss public issues in Florida that impact the daily lives of its citizens.
- SS.4.G.1.1: Identify physical features of Florida.

#### 6<sup>th</sup> Grade

- 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.7.4: Differentiate and show interactions among geosphere, hydrosphere, cryosphere, atmosphere, biosphere.



#### 7<sup>th</sup> Grade

- SC.7.E.6.6: Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.
- SC.7.L.15.3: Explore the scientific theory of evolution by relating how the inability of a species to adapt within a changing environment may contribute to the extinction of that species.
- SC.7.L.17.1: Explain and illustrate the roles of and relationships among producers, consumers, and decomposers in the process of energy transfer in a food web.
- SS.7.C.2.13: Examine multiple perspectives on public and current issues.

#### 8<sup>th</sup> Grade

- SC.8.N.1.5: Analyze the methods used to develop a scientific explanation as seen in different fields of science.
- 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.
- SC.8.N.4.2: Explain how political, social, and economic concerns can affect science, and vice versa.
- SS.8.A.1.2: Analyze charts, graphs, maps, photographs and timelines; analyze political cartoons; determine cause and effect.
- SS.8.G.3.2: Use geographic terms and tools to explain differing perspectives on the use of renewable and non-renewable resources in the United States and Florida over time.
- SS.8.G.5.1: Describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.
- SS.8.G.5.2: Describe the impact of human modifications on the physical environment and ecosystems of the United States throughout history.

#### 9<sup>th</sup> - 12<sup>th</sup> Grades

- SC.912.L.17.2: Explain the general distribution of life in aquatic systems as a function of chemistry, geography, light, depth, salinity, and temperature.
- SC.912.L.17.3: Discuss how various oceanic and freshwater processes, such as currents, tides, and waves, affect the abundance of aquatic organisms.
- SC.912.L.17.5: Analyze how population size is determined by births, deaths, immigration, emigration, and limiting factors (biotic and abiotic) that determine carrying capacity.
- SC.912.L.17.7: Characterize the biotic and abiotic components that define freshwater systems, marine systems and terrestrial systems.
- SC.912.L.17.8: Recognize the consequences of the losses of biodiversity due to catastrophic events, climate changes, human activity, and the introduction of invasive, non-native species.
- SC.912.L.17.9: Use a food web to identify and distinguish producers, consumers, and decomposers. Explain the pathway of energy transfer through trophic levels and the reduction of available energy at successive trophic levels.



Florida Invasive Plant Education Initiative • <http://plants.ifas.ufl.edu/education>

A Collaboration of the UF/IFAS Center for Aquatic and Invasive Plants

and the Florida Fish and Wildlife Conservation Commission / Invasive Plant Management Section

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SC.912.L.17.13: Discuss the need for adequate monitoring of environmental parameters when making policy decisions.

SC.912.L.17.15: Discuss the effects of technology on environmental quality.

SC.912.L.17.16: Discuss the large-scale environmental impacts resulting from human activity, including waste spills, oil spills, runoff, greenhouse gases, ozone depletion, and surface and groundwater pollution.

SC.912.L.17.17: Assess the effectiveness of innovative methods of protecting the environment.

SC.912.L.17.20: Predict the impact of individuals on environmental systems and examine how human lifestyles affect sustainability.

SC.912.L.18.7: Identify the reactants, products, and basic functions of photosynthesis.

SC.912.N.4.1: Explain how scientific knowledge and reasoning provide an empirically-based perspective to inform society's decision making.

SS.912.A.1.3: Utilize timelines to identify the time sequence of historical data.

SS.912.C.2.10: Monitor current public issues in Florida.

SS.912.G.3.3: Use geographic terms and tools to explain differing perspectives on the use of renewable and non-renewable resources in Florida, the United States, and the world.



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