

Overview



Lakeville is a multi-disciplinary unit about ecosystems, natural resource management (i.e., invasive species), and civic responsibility. The activities can be presented in sequence for flow and reinforcement of subject matter or as stand-alone sessions. Each session is designed to encourage critical thinking while enhancing students' environmental knowledge. Sessions 1 and 2 provide students with background information (if needed) and Session 3 brings it all together in a fun game-show style activity that gives students a chance to use their persuasive debate skills and make management decisions about a local freshwater habitat. The goal is to prepare students for their role as future citizens and environmental stewards.

OVERALL TIME ESTIMATE

UE: Three sessions - 45 minutes each
MS: Two sessions - 60 minutes each
HS: One and one-half sessions - 90 min

All Activities include a list of suggested Next Generation Sunshine State Standards and Common Core State Standards for Language Arts (See teacher guides and answer keys for detailed listings).

SESSION 1 Silent Invaders of Florida's Freshwater Ecosystems

This session begins with a humorous 25-minute video (*Silent Invaders*) about basic classification concepts related to Florida plant life (aquatic vs. terrestrial plants; emerged, submersed, floating, and floating-leaved; native, non-native and invasive). Students become familiar with these terms along with impacts that some non-native invasive plant species are having on our freshwater habitats, natural areas, and neighborhoods. Seven Science Big Ideas are covered (see textbox). Guiding Questions, keyword vocabulary and definitions, and reading activities are provided along with positive actions we can take to help prevent the spread of invasive plant species.

KEY OBJECTIVES:

1. Identify differences between aquatic and terrestrial plants
2. Define the difference between **native**, **non-native**, and **invasive** plants
3. Identify the ecological and economic impacts of invasive species
4. Identify positive actions that can be taken to minimize impacts

SESSION 2 Components of an Ecosystem

Students are introduced to various components of a Florida freshwater ecosystem/food web (e.g., plants, animals AND humans). Through role-playing activities, everyone is given an opportunity to personally identify with at least six inhabitants of the ecosystem (3 critters and 3 citizens) and contemplate their complex relationships. Classification concepts are further reinforced when students are asked to classify themselves within the habitat (e.g., aquatic, terrestrial, native, non-native, invasive) and identify positive and negative attributes.

KEY OBJECTIVES:

1. Identify different components of a Florida ecosystem
2. Identify and express different points-of-view of various stake-holders living in an ecosystem
3. Identify at least three native, non-native or invasive plants that live in Florida ecosystems
4. Describe one conflict that may be found among inhabitants of a Florida ecosystems

SESSION 3 Lakeville ~ The Game

This game show-style activity provides students an opportunity to analyze and apply their knowledge about Florida's freshwater ecosystems. Empowered with their own knowledge (or from information learned in Session 1 & 2), individual students (or teams) debate and/or advocate their right to exist as a "critter" in a fictitious freshwater habitat while six of their peers are given the responsibility to make decisions and vote for their preferred management plan, as members of a local advisory panel.

KEY OBJECTIVES:

1. Describe the importance of native plants and animals inhabiting a Florida ecosystem
2. Identify a social and/or economic concern related to a Florida ecosystem
3. Explain how political, economic or social concerns may affect environmental community decisions
4. Identify what we can do to be responsible environmental citizens