

LIFE

Learning In Florida's Environment



Office of Environmental Education

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LIFE Coordinator

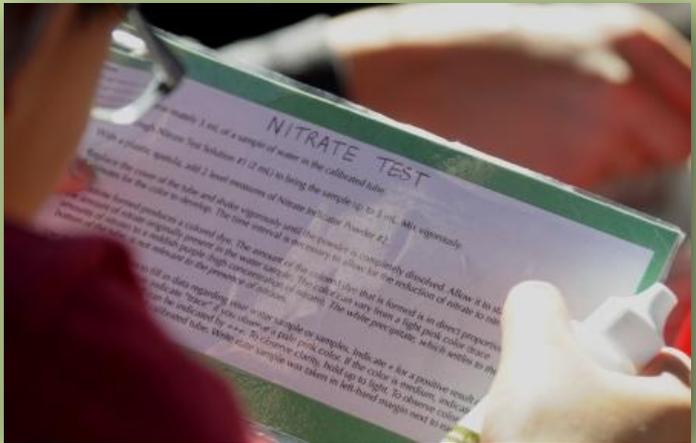


LIFE



Learning In Florida's Environment

“LIFE is an **science-based** environmental education program designed to build **knowledge, skills, and stewardship** among middle school students in Florida through **meaningful field experiences.**”



Program Goals

1. Increase student achievement in science
2. Strengthen teacher's capacity for inquiry-based instruction
3. Prepare underrepresented groups for careers in STEM fields
4. Build stewardship for conservation areas



Where is the LIFE Program?

The LIFE program began in Apalachicola with its first partnership in 2004 with Franklin County Schools.

Today there are 22 LIFE sites throughout the state.



LIFE Guiding Principles

1. Prioritize underserved groups, low performing M.S.
2. Collaborative content development
3. Focus on inquiry-based learning
4. Multiple field experiences
5. Integrate continuous TPD
6. Long-term partnerships
7. Subject integration
8. Technology in the field
9. Promote service learning
10. Comprehensive assessment



LIFE Projects



- **Big Cypress Watershed Project (Collier County)**
 - 4 years
 - 4 Middle Schools (7th G)

- **Gulf - to - Bay Project (Pinellas County)**
 - 2nd year
 - 1 Middle School (8th G), 1 High School, 1 Elementary School

Connections to MWEEs

Watershed Overview Presentation

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Our Watershed(s)

Bay Point Middle School is in the **Lower Tampa Bay Watershed**, but we will also visit the **Middle Tampa Bay Watershed** and **Boca Ciega Bay Watershed**.

Google Maps
Pinellas County [Watersheds](#)

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My Watershed Address

Just like your home address has different levels (such as street number, city, and state) so does your watershed address:

<u>School Mailing Address:</u>	<i>local</i>	<u>School Watershed Address:</u>
Bay Point Middle School, 2151 62nd Avenue S, St. Petersburg, Florida, 33712, USA	↓ <i>regional</i>	Bay Point Middle School, Lynn Lake, Lake Maggiore, Salt Creek, Bayboro Harbor, Tampa Bay, Gulf of Mexico

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Fresh to Salt

Fresh water flows toward the bay and gulf where it interacts it mixes with saltwater creating brackish water. This creates three areas with different characteristics:

1. Fresh water like Lake Maggiore
2. Brackish water like Weedon Island
3. Salt water like Tampa Bay Watch

Assessment: Pre/Post Watershed Test

LIFE - Pinellas: Gulf-to-Bay

Circle one: Pretest or Posttest

Student Name:	Date:
School:	Teacher:

- All the watersheds of Pinellas County eventually drain to:
 - Atlantic Ocean
 - Pacific Ocean
 - Gulf of Mexico
 - Gulf of Aden
- A watershed is . . .
 - An area of land where all surface water ultimately drains to a common point
 - A geographic area defined by the contours of the land and affected by human activity
 - Part of a system of sub watersheds and larger watersheds
 - All of the above
- Bay Point Middle School is located in which Pinellas County Watershed?
 - Old Tampa Bay Watershed
 - Long Bayou Watershed
 - Riviera Bay Watershed
 - Lower Tampa Bay Watershed
- A watershed address . . .
 - Identifies a location within a watershed
 - Is like a mailing address starting specific and getting broader
 - Indicates the flow of water from the address toward the ocean
 - All of the above
- Which of the following is not a way that water flows through our watershed?
 - Streams and Creeks
 - Large Rivers
 - Canals
 - Lakes

Connections to MWEEs

Traveling through the Watershed while having meaningful field experiences...

1. Inland
2. Fresh water System
3. Estuarine System



What is the name of our watershed?

We live in & depend on the **Big Cypress, or Western Everglades Watershed**



1. Florida Panther National Wildlife Refuge
2. Freedom Park
3. Rookery Bay National Estuarine Research Reserve



G2B Project



Assessments: End of Year Survey

Students

- **64%** agree/strongly agree: “The **outdoor field activities** I participated in during the Field Experiences **have made me more interested in science.**”
- **65%** agree/strongly agree: “ I am **more comfortable in natural areas now** that I have participated in these outdoor field activities.”
- **66%** agree/strongly agree: “After participating in the outdoor field experiences, I **have changed my behavior(s) to help protect natural areas.**”
- **76%** agree/strongly agree: “After participating in the outdoor field activities, I **value the importance of activities related to conservation or environmental protection.**”

“ I used to hate science before this year”



LIFE by the Numbers

Big Cypress W.

Gulf-to-Bay

Years Active

4

1

Field Experiences

109

15

Students served

4,400

1,057

Teachers served

100

64

Park Partnerships

6

3

Collaborative Content Development

Boyd Hill Nature Preserve, Pinellas Co.

Connecting host site
resources and teachers' needs
by creating site-specific and
curriculum related labs.



Resources

The screenshot shows the Florida Department of Environmental Protection website. The header includes the Florida logo and navigation links: DEP Home, About DEP, Programs, Contact, Site Map. The main content area is titled 'Learning in Florida's Environment' and features a 'LIFE Program' section. A red arrow points to the text 'Learning in Florida's Environment or LIFE program' in the first paragraph. The page also includes a 'Quick Links' sidebar with links to 'Environmental Education Home', 'Learning in Florida's Environment (LIFE) Program', 'LIFE Template, Tools and Forms', 'Florida Green School Network', 'Teacher Resources', 'Publications', 'Outreach Events', and 'Contacts'. A 'LIFE Program' sub-section in the sidebar lists 'LIFE News', 'LIFE Brochure [PDF - 317 KB]', and 'LIFE Awards'. The left sidebar contains 'Resources for:' (Citizens, Educators, Businesses, Government), 'Information' (Contacts, News, Newsletters, Organizational Chart, Publications & Reports, Public Notices, Contact Us), and a 'Subscribe to DEP News & Info' form with an email address field and a 'Submit' button. A 'DEP Accessibility' logo is also present.

<http://www.dep.state.fl.us/secretary/ed/lifeprogram.htm>

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Questions?

Assessment: Pre/Post FEs Test

LIFE- Collier, Field Experience III (RBNERR): Immokalee, Golden Gate & Manatee Middle Schools

Pre-Posttest

Name:	Date:
School:	Teacher:
Pretest or Posttest (circle one)	Circle the most appropriate answer for each question

1. Rookery Bay is a National Estuarine Research Reserve. What is an estuary?

- a. Area where saltwater and freshwater mix
- b. Area of saltwater
- c. Area of freshwater
- d. Swamp

2. What marine animal begins its life as plankton?

- a. Bottlenose Dolphin
- b. Blue Crab
- c. Southern Stingray
- d. Seahorse

3. When using a hydrometer to measure salinity, you are taking a measurement of:

- a. Temperature
- b. Turbidity
- c. Dissolved oxygen
- d. Dissolved salts

4. You are viewing plankton through a microscope. You see an organism that is not moving and then has a quick burst of speed. What type of plankton could this be based on its movement?

- a. Copepod
- b. Diatom
- c. Worm
- d. Crab Zoea

5. The fiddler crab lives in the intertidal zone and eats decaying leaves. Which plant found in the intertidal zone might be a source of these leaves?

- a. Oak Tree
- b. Pine Tree
- c. Mangrove
- d. Saw Palmetto