

Everglades: An American Treasure

Teacher Training



RE: FREE *Everglades: An American Treasure* Teacher Training at your school

Dear Teacher:

I am very pleased to offer the *Everglades: An American Treasure* (EAT) Teacher Training workshops at your school. Sponsored by the South Florida Water Management District (SFWMD), the *EAT* Teacher Training workshops are facilitated throughout central and southern Florida by Florida Atlantic University's Center for Environmental Studies (CES).

Your teachers will receive lesson plans for the *Everglades: An American Treasure*, part of the Newspapers in Education series, including an electronic version of the Middle School Educator's Guide, a class set of Newspapers for students and a CD with PowerPoints that go along with each lesson. Teachers will also receive lessons and information about the *Loxahatchee Impoundment Landscape Assessment (LILA)*. LILA is a living laboratory where real scientists are doing research to determine how to best manage water levels in the Everglades. The CD for this curriculum includes the teacher and student guides, PowerPoints and field guides. ***These lessons bring real Everglades science into the classroom!*** The SFWMD also provides numerous other resources including several DVD's and CD's that provide a wealth of information for your students about the Greater Everglades Watershed!

I have enclosed for your review:

A sample workshop agenda – We can arrange custom workshops of 2 or 3 hours, half-day or a full day at your school. We will work with you to schedule the type of workshop that best meets your needs. Teachers will receive personal instruction and all of the free materials for their classrooms.

What Are Teachers Saying?? – We have facilitated *EAT* teacher training workshops for teachers in Palm Beach, Broward, Lee, Dade, Highlands and Osceola Counties. We have shared this valuable resource with hundreds of teachers. They are unanimous in their enthusiasm for the program...and it's FREE!

Science SSS's and Lesson Objectives for the *Everglades: An American Treasure*

Language Arts and Social Studies SSS's for the *Everglades: An American Treasure*

Science SSS's and Lesson Objectives for the *LILA*

I appreciate your consideration of offering this exciting workshop for your teachers! I will call soon to discuss details for a setting up a free workshop at your school, and answer any questions that you may have.

Sincerely Yours,

A handwritten signature in cursive script that reads "Alana Edwards".

Alana Edwards, Education & Training Coordinator
Florida Atlantic University's Center for Environmental Studies
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*Sponsored by the
South Florida Water Management District and
Coordinated by FAU's Center for Environmental Studies*





*Everglades:
An American Treasure*
with LILA



Teacher Workshop at your school! (3 Hours)

SAMPLE AGENDA

-  **8:30-8:45am** **Sign-In, Paperwork & Welcome**
Workshop Objective – Summary of Materials
-  **8:45-10:00am** **Exploring the Kissimmee-Okeechobee-Everglades (KOE)**
 - **Watershed Overview**
 - **Comprehensive Everglades Restoration Plan (CERP)**
 - **Loxahatchee Impoundment Landscape Assessment (LILA)**
- **10:00-10:10am** **Break**
- **10:10-11:00am** **Everglades: An American Treasure– Activities & Overview**
- **11:00-11:20am** **LILA – Activities Overview**
- **11:20-11:30am** **Workshop Wrap-up: Evaluations, Post-test & Questions**



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Florida Atlantic University's Center for Environmental Studies**



The Everglades: An American Treasure
Teacher Workshops
What Are Teachers Saying??

The workshop facilitators were absolutely superb with the information, guidance & classroom inclusion strategies. I was so pumped up after the workshop that I totally modified my lesson plans so my AP Environmental kids can enjoy the Everglades Thematic Unit. I view valuable workshops like this as gems!! Awesome workshop!!!

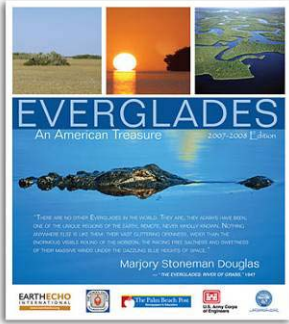
Norman Alford
AP Environmental Science/ Honors Biology
West Broward High School
Pembroke Pines, FL

This workshop provided me with so many materials that I was able to bring back to my classroom. I would definitely recommend this workshop to my colleagues.

Dianne Stahl
AP Environment and Marine Sciences
Coral Springs Charter
Coral Springs, FL

Before the workshop, I'd never heard of the Loxahatchee Impoundment Landscape Assessment (LILA). It was great to be able to see LILA and learn about all of the resources that the South Florida Water Management has made available for teachers and their students.

Angela Lewis
10th Grade honors Biology
Marine Oceanographic Academy
Ft. Pierce, Florida



EVERGLADES: AN AMERICAN TREASURE

6-8 Grade Science Benchmarks

A Drop in a Bucket

Objective: Understand that although water may appear plentiful, the availability of that water is a limiting factor for life on Earth.

SCG 2.3.2
SCG 2.3.3

SCG 2.4.5
SCG 2.4.6

SCH 3.4.2

We're Sponging Off the Everglades

Objective: Understand that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium of that ecosystem.

SCD 2.3.2
SCD 2.4.1
SCG 2.3.2

SCG 2.3.3
SCG 2.3.4
SCG 2.4.5

SCG 2.4.6

Understanding the KOE System

Objective: 1) Define system. 2) Understand the flow of water through the Kissimmee-Okeechobee-Everglades (KOE) System

SCD 1.3.3

SCD 2.4.1

SCG 2.3.4

The Florida Water Story

Objective: 1) Understand Florida's climatic seasons. 2) Understand the importance of aquifers to Florida's water supply

SCD 2.3.2
SCG 1.3.4

SCG 2.4.5
SCG 2.4.6

SCH 3.4.2
SCH 3.4.6

Groundwater: Site of Contamination Lab

Objective: Students will practice the scientific inquiry process working in teams to solve a practical problem involving groundwater pollution.

SCD 1.3.3
SCD 2.3.2
SCG 1.3.4

SCG 2.4.6
SCH 1.3.1
SCH 1.3.2

SCH 2.3.1
SCH 3.4.4
SCH 3.4.6

South Florida's Unique Ecosystem

Objective: Students will read a variety of articles to better understand South Florida's unique ecosystem and then share that information with classmates.

SCD 1.3.3
SCD 2.3.2
SCD 2.4.1
SCG 1.4.1

SCG 2.3.2
SCG 2.3.3
SCG 2.3.4
SCG 2.4.4

SCG 2.4.5
SCG 2.4.6
SCH 1.3.1

Data Over Time

Objective: Students will analyze data, answer questions about the trends in this data and draw conclusions about the success of wading bird populations.

SCD 1.3.3
SCG 1.4.1
SCG 1.3.4

SCG 2.3.3
SCG 2.4.2
SCG 2.4.5

SCH 1.3.2
SCH 3.4.4

Metamorphosis of the Everglades Ecosystem

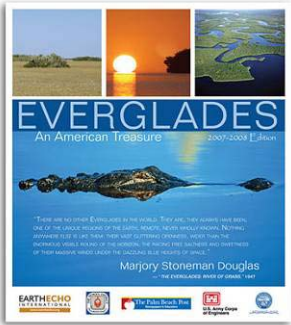
Objectives: 1) Explain the changes that have occurred in the Everglades over the last 100 years. 2) Understanding the Comprehensive Everglades Restoration Plan.

SCD 2.3.2
SCG 2.3.3
SCG 2.3.4
SCG 2.4.2

SCG 2.4.5
SCG 2.4.6
SCH 1.3.1
SCH 1.3.2

SCH 3.4.2
SCH 3.4.4
SCH 3.4.6





EVERGLADES: AN AMERICAN TREASURE

6-8 Grade

Language Arts and Social Studies

Benchmarks

Language Arts

LA.A.1.3.1

LA.A.1.3.2

LA.A.1.3.3

LA.A.1.3.4

LA.A.2.3.1

LA.A.2.3.2

LA.A.2.3.5

LA.B.2.3.1

LA.B.2.3.2

LA.C.1.3.1

LA.C.2.3.1

Social Studies

SS.A.5.3.1

SS.A.6.3.1

SS.A.6.3.2

SS.A.6.3.3

SS.A.6.3.4

SS.A.6.3.5





Loxahatchee Impoundment Landscape Assessment (LILA): An Everglades Living Laboratory Lessons

Florida Sunshine State Standards for Science

Lesson 1 - LILA Food Web Frolic

Lesson Objective:

- *To analyze the feeding relationships among organisms in the Everglades and more specifically at LILA*
- *To discuss these interactions in terms of trophic levels and energy cycling*

Grades 6-8 Benchmarks

- SC.D.2.3.2 The student knows the positive and negative consequences of human action on the Earth's systems.
- SC.G.1.3.4 The student knows that the interactions of organisms with each other and with nonliving parts of their environments result in the flow of energy and the cycling of matter throughout the system.
- SC.G.2.3.2 The student knows that all biotic and abiotic factors are interrelated and that if one factor is changed or removed, it impacts the availability of other resources within the system.

Grades 9-12 Benchmarks

- SC.D.2.4.1 The student understands the interconnectedness of the systems on Earth and the quality of life.
- SC.G.1.4.1 The student knows of the great diversity and interdependence of living things.
- SC.G.1.4.2 The student understands how the flow of energy through an ecosystem made up of producers, consumers and decomposers carries out the processes of life and that some energy dissipates as heat and is not recycled.

Lesson 2 - The Land-Water Connection

Lesson Objective:

- *Part I: To review the results of a tree island experiment at LILA and hypothesize about the potential effects of water flow on tree island plants*
- *Part II: To conduct an experiment and produce results that will promote a greater understanding of how soil composition affects the growth and survival of plants*

Grades 6-8 Benchmarks

- SC.D.2.3.2 The student knows the positive and negative consequences of human action on the Earth's systems.
- SC.G.2.3.2 The student knows that all biotic and abiotic factors are interrelated and that if one factor is changed or removed, it impacts the availability of other resources within the system.

Grades 9-12 Benchmarks

- SC.D.2.4.1 The student understands the interconnectedness of the systems on Earth and the quality of life.
- SC.G.1.4.1 The student knows of the great diversity and interdependence of living things.
- SC.G.2.4.6 The student knows the ways in which humans today are placing their environmental support systems at risk
- SC.H.1.4.1 The student knows that investigations are conducted to explore new phenomena, to check on previous results, to test how well a theory predicts and to compare different theories.