



# Florida Everglades Wildlife

Grade Levels 7-8



# Unit Overview

## Materials

- Computer with internet access
- *Welcome to the River of Grass* by Jane Yole
- *Wild and Swampy* by Francine Galko
- *Wetland Animals* by Jim Arnosky
- *The Everglades and the Gulf Coast* by Daniel Blaustein
- *Wetlands* by Richard Beatty
- Rich Ken's Nature Series *The Everglades*
- Pencils
- Lined paper
- Copy paper
- Sketch paper
- Drawing pencils
- Erasers
- Color pencils
- Color markers
- Scissors
- Poster boards
- Cardstock (to be used to create animal cards as an alternative activity)

## Standards

Unit Content Standards	Unit Youth Development Standards
<ul style="list-style-type: none"> <li>• SC.6.L.15.1: Analyze and describe how and why organisms are classified according to shared characteristics with emphasis on the Linnaean system combined with the concept of Domains.</li> <li>• SC.7.L.15.1: Recognize that fossil evidence is consistent with the scientific theory of evolution that living things evolved from earlier species.</li> <li>• SC.7.L.15.2: Explore the scientific theory of evolution by recognizing and explaining ways in which genetic variation and environmental factors contribute to evolution by natural selection and diversity of organisms.</li> <li>• 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.</li> <li>• 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.</li> <li>• SC.7.L.17.2: Compare and contrast the relationships among organisms such as mutualism, predation, parasitism, competition, and commensalism.</li> <li>• SC.7.L.17.3: Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.</li> <li>• SC.7.N.1.1: Define a problem from the seventh grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.</li> </ul>	<ul style="list-style-type: none"> <li>• support</li> <li>• empowerment</li> <li>• boundaries and expectations</li> <li>• constructive use of time</li> <li>• commitment to learning</li> <li>• positive values</li> <li>• social competencies</li> </ul>

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| <ul style="list-style-type: none"> <li>• SC.7.N.1.5: Describe the methods used in the pursuit of a scientific explanation as seen in different fields of science such as biology, geology, and physics.</li> <li>• SC.7.N.1.6: Explain that empirical evidence is the cumulative body of observations of a natural phenomenon on which scientific explanations are based.</li> <li>• SC.7.N.1.7: Explain that scientific knowledge is the result of a great deal of debate and confirmation within the science community.</li> <li>• SC.7.N.3.2: Identify the benefits and limitations of the use of scientific models.</li> <li>• SC.8.N.3.1: Select models useful in relating the results of their own investigations.</li> <li>• 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.</li> <li>• SC.8.N.4.2: Explain how political, social, and economic concerns can affect science, and vice versa.</li> </ul> |  |
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## Extension Ideas

In addition to the activities listed in the procedure section of each lesson plan, below are some alternative activities.

- Touch Tank
- Prey or Predator? Lesson
- Animal Olympics
- Animal Cards
- Scavenger Hunts
- Displaying campaign projects at schools, parks, and public libraries

## ELL Modifications

- Videos
- Websites
- Drawings
- Flash Cards (Animal Cards)
- Touch Tank
- Graphic Organizers
- Scavenger Hunts

## **Pre/Post Assessment**

Pre: feel free to insert the assessment here, attach a file, or describe it. Remember, we want to discourage the use of multiple choice assessments and assessments that look like tests we administer during the normal school day. KWL Chart

Post: feel free to insert the assessment here, attach a file, or describe it. Remember, we want to discourage the use of multiple choice assessments and assessments that look like tests we administer during the normal school day. Each student will research one animal found in the Everglades and create a public service campaign designed to increase public awareness about the animal. The campaign may be a pamphlet, a poster, or an editorial.

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# Lesson 1: Introduction to the Florida Everglades

## Essential Question:

“There are no other Everglades in the world.” What do you know about the Everglades?

## Content Standards:

- SC.7.N.1.7: Explain that scientific knowledge is the result of a great deal of debate and confirmation within the science community.
- 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.

## Youth Development Standards:

- support
- empowerment
- boundaries and expectations
- commitment to learning
- positive values
- social competencies

### Vocabulary

- National Park
- Everglades
- Wetlands
- Habitat
- Climate

## Teacher Background Knowledge:

National Park Service

## Materials:

KWL chart, computer with internet access, Discovery Education,  
<http://www.discoveryeducation.com/my/home.cfm>, *Welcome to the River of Grass* by Jane Yolen

## Procedure:

1. Provide students with a KWL Chart.
2. Ask students to share what they already know and want to know about the Florida Everglades.
3. Introduce the Florida Everglades as a topic and show [Welcome to the Florida Everglades \(5:11\)](#) and [The Everglades \(4:17\)](#) Discovery Education Streaming Videos.  
<http://www.discoveryeducation.com/my/home.cfm>
4. Hold a class discussion about what they learned about the Florida Everglades.

**Formative Assessment:**

- Pre-Unit Assessment (KWL Chart)

## Lesson 2: Exploring Animals in the Everglades

### Essential Question:

What species of animals are found in the Everglades?

### Content Standards:

- SC.6.L.15.1: Analyze and describe how and why organisms are classified according to shared characteristics with emphasis on the Linnaean system combined with the concept of Domains.
- SC.7.L.15.2: Explore the scientific theory of evolution by recognizing and explaining ways in which genetic variation and environmental factors contribute to evolution by natural selection and diversity of organisms.
- 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.

### Youth Development Standards:

- support
- empowerment
- boundaries and expectations
- commitment to learning
- constructive use of time
- positive values
- social competencies

#### Vocabulary

- Mammals
- Birds
- Fish
- Reptiles
- Amphibians

### Teacher Background Knowledge:

National Wildlife Federation  
Animals of the Everglades

### Materials:

Animal sort, computer with internet access, *Wild and Swampy* by Francine Galko, *Wetland Animals* by Jim Arnosky

### Procedure:

1. Show virtual tour <http://www.nwf.org/everglades/tour/cfm>
2. Hold a class discussion about the five different groups of animals.
3. Students will complete Animal Sort according to animal group classification. Students can use the *National Wildlife Federation* website, *Wetland Animals* and *Wild and Swampy* as resources.
4. Discuss the animal project. Each student will research one animal found in the Everglades and create a public service campaign designed to increase public awareness about the animal. The campaign can be a pamphlet, a poster, or an editorial. The project is due at the end of the unit.

Supplemental Activity: Animal Olympics

**Formative Assessment:**

- Animal Sort

## Lesson 3: Threatened or Endangered?

### Essential Question:

What does it mean when an animal has been designated as endangered or threatened?

### Content Standards:

- SC.6.L.15.1: Analyze and describe how and why organisms are classified according to shared characteristics with emphasis on the Linnaean system combined with the concept of Domains.
- SC.7.L.15.1: Recognize that fossil evidence is consistent with the scientific theory of evolution that living things evolved from earlier species.
- 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.

### Youth Development Standards:

- support
- empowerment
- boundaries and expectations
- commitment to learning
- constructive use of time
- positive values
- social competencies

#### Vocabulary

- Conservation
- Endangered
- Threatened
- Extinct

### Teacher Background Knowledge:

Florida Museum of Natural History – Threatened and Endangered

### Materials:

Venn Diagram, computer with internet access, Florida Museum of Natural History – Threatened and Endangered, Animal Profile worksheet

### Procedure:

1. Hold open class discussion to find out what students already know about threatened or endangered animals.
2. Complete the Venn Diagram comparing the terms threatened and endangered.
3. Students will visit the Natural Museum of National History website (Threatened or Endangered link).
4. After research ask students the following questions:
  - What animal species are threatened or endangered?
  - What are the major threats to this species?
  - Why are the numbers of this species declining?
  - Why is it important to save this species?

5. Students will research and determine if the animal they have chosen is safe, endangered, threatened, or extinct and record their findings on their Animal Profile worksheet.

**Formative Assessment:**

- Venn Diagram/Class Discussion

## Lesson 4: Exotic or Native?

### Essential Question:

How do exotic species impact native species?

### Content Standards:

- SC.6.L.15.1: Analyze and describe how and why organisms are classified according to shared characteristics with emphasis on the Linnaean system combined with the concept of Domains.
- SC.7.L.15.1: Recognize that fossil evidence is consistent with the scientific theory of evolution that living things evolved from earlier species.
- 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.

### Youth Development Standards:

- support
- empowerment
- boundaries and expectations
- commitment to learning
- constructive use of time
- positive values
- social competencies

#### Vocabulary

- Exotic species
- Native species
- Invasive species

### Teacher Background Knowledge:

Florida Invaders

### Materials:

Exotic or Native Activity, computer with internet access, eFiled Trips, Animal Profile worksheet

### Procedure:

1. Students will view “Don’t Let It Loose” Invasive Species of the Everglades National Park eFieldTrip <http://efieldtrips.org/EvergladesInvasives/index.htm>.
2. Hold an open discussion about how exotic species impact native species.
3. Students will complete Exotic or Native? Activity on website.
4. Students will research and determine if the animal they have chosen is exotic or native and record their findings on their Animal Profile worksheet.

### Formative Assessment:

- Exotic or Native? Activity

## Lesson 5: Habitats of the Everglades

### Essential Question:

What are the six habitats found in the Everglades?

### Content Standards:

- SC.6.L.15.1: Analyze and describe how and why organisms are classified according to shared characteristics with emphasis on the Linnaean system combined with the concept of Domains.
- SC.7.L.15.1: Recognize that fossil evidence is consistent with the scientific theory of evolution that living things evolved from earlier species.
- SC.7.N.1.5: Describe the methods used in the pursuit of a scientific explanation as seen in different fields of science such as biology, geology, and physics.

### Youth Development Standards:

- support
- empowerment
- boundaries and expectations
- commitment to learning
- constructive use of time
- positive values
- social competencies

### Teacher Background Knowledge:

[Everglades Habitats](#)

### Materials:

Rich Ken's Nature Series *The Everglades*, computer with internet access, [Everglades Habitats](#), *The Everglades and the Gulf Coast* by Daniel Blaustein, *Wetlands* by Richard Beatty, Animal Research Notes worksheet

### Procedure:

1. Show the film Rich Ken's Nature Series *The Everglades*.
2. Hold an open discussion about the six habitats of the Everglades.
3. Students will research and determine which habitat their animal lives in and record their findings in their Animal Profile worksheet. Students may use *The Everglades and the Gulf Coast* and *Wetlands* books as resources.

### Formative Assessment:

- Habitat Illustration to be completed in the second part of the lesson.

#### Vocabulary

- Habitat
- Hardwood Hammock
- Mangrove Swamps
- Pinelands
- Sawgrass Marshes
- Sloughs
- Cypress Swamps

## Lesson 6: Illustrating a Habitat

### Essential Question:

What are the six habitats found in the Everglades?

### Content Standards:

- SC.6.L.15.1: Analyze and describe how and why organisms are classified according to shared characteristics with emphasis on the Linnaean system combined with the concept of Domains.
- SC.7.L.15.1: Recognize that fossil evidence is consistent with the scientific theory of evolution that living things evolved from earlier species.
- SC.7.N.1.5: Describe the methods used in the pursuit of a scientific explanation as seen in different fields of science such as biology, geology, and physics.

### Youth Development Standards:

- support
- empowerment
- boundaries and expectations
- commitment to learning
- constructive use of time
- positive values
- social competencies

### Teacher Background Knowledge:

Everglades Habitats

### Materials:

Sketch paper, drawing pencils, erasers, color pencils, color markers, scissors, computer with internet access, Everglades Habitats, *The Everglades and the Gulf Coast* by Daniel Blaustein, *Wetlands* by Richard Beatty

### Procedure:

1. Students will view a presentation of the wildlife and habitats of the Everglades <http://www.miamisci.org/ecolinks/everglades/index.html>.
2. Students will illustrate scenery representing the habitat of the animal the student has chosen.
3. Students may use the *The Everglades and the Gulf Coast* and *Wetlands* books as resources.

### Formative Assessment:

- Habitat Illustration

#### Vocabulary

- Habitat
- Hardwood Hammock
- Mangrove Swamps
- Pinelands
- Sawgrass Marshes
- Sloughs
- Cypress Swamps

## Lesson 7: Corkscrew Swamp Sanctuary Exploration

### Essential Question:

What methods do scientists use to study a specific animal population?

### Content Standards:

- SC.6.L.15.1: Analyze and describe how and why organisms are classified according to shared characteristics with emphasis on the Linnaean system combined with the concept of Domains.
- SC.7.L.15.2: Explore the scientific theory of evolution by recognizing and explaining ways in which genetic variation and environmental factors contribute to evolution by natural selection and diversity of organisms.
- 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.N.1.1: Define a problem from the seventh grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.
- SC.7.N.1.5: Describe the methods used in the pursuit of a scientific explanation as seen in different fields of science such as biology, geology, and physics.
- SC.7.N.1.6: Explain that empirical evidence is the cumulative body of observations of a natural phenomenon on which scientific explanations are based.
- SC.7.N.1.7: Explain that scientific knowledge is the result of a great deal of debate and confirmation within the science community.
- SC.7.N.3.2: Identify the benefits and limitations of the use of scientific models.
- SC.8.N.3.1: Select models useful in relating the results of their own investigations.

### Vocabulary

- Watershed
- Habitats
- Native Flora and Fauna

### Youth Development Standards:

- support
- empowerment
- boundaries and expectations
- commitment to learning
- constructive use of time
- positive values
- social competencies

### Teacher Background Knowledge:

Corkscrew Swamp Sanctuary

**Materials:**

Field Exploration Journal Activity

**Procedure:**

1. Contact Rebecca Beck to schedule field trip at least two weeks in advance. [Field Trip Contacts](#)
2. Introduce the Corkscrew Swamp Sanctuary.
3. View tour of the Boardwalk <http://www.corkscrew.audubon.org/Visit/BoardwalkTour.html>.
4. Print Field Exploration Journal Activity for field trip. Click on <http://www.collier.k12.fl.us/science/CorkscrewSwamp.htm> and print the "Wild Florida Adventures" Student Guide.
5. Provide each student with a Field Trip Exploration Journal.

**Formative Assessment:**

- Field Exploration Journal

## Lesson 8: Corkscrew Swamp Sanctuary Exploration Day/Stem Lab

### Essential Question:

What methods do scientists use to study a specific animal population?

### Content Standards:

- SC.6.L.15.1: Analyze and describe how and why organisms are classified according to shared characteristics with emphasis on the Linnaean system combined with the concept of Domains.
- SC.7.L.15.2: Explore the scientific theory of evolution by recognizing and explaining ways in which genetic variation and environmental factors contribute to evolution by natural selection and diversity of organisms.
- 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.N.1.1: Define a problem from the seventh grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.
- SC.7.N.1.5: Describe the methods used in the pursuit of a scientific explanation as seen in different fields of science such as biology, geology, and physics.
- SC.7.N.1.6: Explain that empirical evidence is the cumulative body of observations of a natural phenomenon on which scientific explanations are based.
- SC.7.N.1.7: Explain that scientific knowledge is the result of a great deal of debate and confirmation within the science community.
- SC.7.N.3.2: Identify the benefits and limitations of the use of scientific models.
- SC.8.N.3.1: Select models useful in relating the results of their own investigations.

### Vocabulary

- Watershed
- Habitats
- Native Flora and Fauna

### Youth Development Standards:

- support
- empowerment
- boundaries and expectations
- commitment to learning
- constructive use of time
- positive values
- social competencies

### Teacher Background Knowledge:

Corkscrew Swamp Sanctuary

<http://www.corkscrew.audubon.org/Information/education.html>

**Materials:**

Field Exploration Journal Activity

**Procedure:**

1. Provide each student with the Field Exploration Journal Activity for field trip.  
<http://www.collier.k12.fl.us/science/CorkscrewSwamp.htm>
2. Attend Field Trip.
3. Students will become swamp scientists for one day. They will perform field tests on water quality, study animal populations, and observe weather conditions. All their research and studies will be recorded in their journals.

**Formative Assessment:**

Field Exploration Journal

## Lesson 9: Everglades Animals Campaign

### Essential Question:

How do you increase public awareness of threatened and/or endangered species?

### Content Standards:

- 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.
- SC.7.L.17.2: Compare and contrast the relationships among organisms such as mutualism, predation, parasitism, competition, and commensalism.
- SC.7.L.17.3: Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.
- 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.

### Vocabulary

- Public Service Campaign

### Youth Development Standards:

- boundaries and expectations
- commitment to learning
- constructive use of time

### Teacher Background Knowledge:

<http://nps.gov/everglades>

<http://www.flmnh.ufl.edu>

<http://www.evergladesplan.org>

<http://www.nwf.org/everglades>

### Materials:

Poster boards, drawing pencils, erasers, color pencils/markers, glue, scissors, computer with internet access, Animal Research Notes worksheet, class library of books about the Florida Everglades

### Procedure:

1. Students will complete and present their projects.
2. Projects can be displayed in parks, schools, public library.

### Formative Assessment:

- Campaign Project

# Lesson 10: Everglades Animals Campaign Presentation

## Essential Question:

How do you increase public awareness of threatened and/or endangered species?

## Content Standards:

- SC.7.L.15.2: Explore the scientific theory of evolution by recognizing and explaining ways in which genetic variation and environmental factors contribute to evolution by natural selection and diversity of organisms.
- 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.
- SC.7.L.17.2: Compare and contrast the relationships among organisms such as mutualism, predation, parasitism, competition, and commensalism.
- SC.7.L.17.3: Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.
- 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.

### Vocabulary

- Public Service Campaign

## Youth Development Standards:

- support
- empowerment
- boundaries and expectations
- commitment to learning
- constructive use of time
- positive values
- social competencies

## Teacher Background Knowledge:

<http://nps.gov/everglades>

<http://www.flmnh.ufl.edu>

<http://www.evergladesplan.org>

<http://www.nwf.org/everglades>

**Materials:**

Poster boards, drawing pencils, erasers, color pencils/markers, glue, scissors, computer with internet access, Animal Research Notes worksheet, class library of books about the Florida Everglades

**Procedure:**

1. Students will complete and present their projects.
2. Projects may be displayed in parks, schools, and/or public libraries to create public awareness about threatened and/or endangered species.

**Formative Assessment**

- Post-assessment – Campaign Project/Presentation

## Appendix

### List of Teacher Resources (included in lesson plans)

- Websites Retrieved 06/05/09-6/29/09
- <http://nps.gov/everglades>
- <http://www.flmnh.ufl.edu>
- <http://www.evergladesplan.org>
- <http://www.nwf.org/everglades>
- <http://www.discoveryeducation.com/my/home.cfm>
- <http://www.collier.k12.fl.us/science/CorkscrewSwamp.htm>
- <http://www.corkscrew.audubon.org/Information/education.html>
- <http://www.corkscrew.audubon.org/Visit/BoardwalkTour.html>
- <http://efieldtrips.org/EvergladesInvasives/index.htm>
- <http://www.miamisci.org/ecolinks/everglades/index.html>
- Worksheets Created on 6/25/09 (Hyperlinked)
- Animal Sort
- Animal Olympics
- Animal Profile
- Venn Diagram
- KWL Chart
- Graphic Organizers Retrieved on 06/24/09
- <http://www.region15.org/curriculum/graphicorg.html> (hyperlinked on lesson)
- [http://www.teachervision.fen.com/tv/printables/KWL\\_Chart.pdf](http://www.teachervision.fen.com/tv/printables/KWL_Chart.pdf) (hyperlinked on lesson)
- Field Trip Contacts (Hyperlinked)
- Field Trip Contacts