

The Jeff Corwin Experience

Florida: Unique Ecosystem

Teacher's Guide

Grade Level: K-8

Curriculum Focus: Life Science

Lesson Duration: Three class periods

Program Description

Jeff's journey starts north of Florida, where he swims with manatees and visits a local musician. He comes face-to-face with a gigantic snail, has several exciting snake encounters, and crosses paths with a 15-foot male alligator.

Video Index

Segment 1: North Florida (16 min.)

Description

Explore Homosassa Springs and the Jacksonville area with Jeff. Meet an eastern indigo snake with a purple glow. Watch playful manatees, which early explorers thought were mermaids.

Pre-viewing question

What kinds of animals do you think Jeff will find in northern Florida?

Answer: Answers will vary, but some students may mention alligators, crocodiles, and snakes; few will know that manatees live here.

Post-viewing question

How can you tell that manatees are related to elephants?

Answer: The prehensile lips of the manatee are similar to the tip of an elephant's trunk.

Segment 2: Heading South (10 min.)

Description

Head south through Lake Tohopekaliga into the Everglades. Observe scientists studying apple snails and their major predator, the snail kite. Watch female alligators care for their young.

Pre-viewing question

Why do you think scientists study the apple snail?

Answer: Answers will vary, but some students may figure out that the snails play a major role in the region's ecosystem.

Post-viewing question

Why was Jeff excavating alligator eggs?

Answer: About 30 years ago, such alligators were nearly extinct. Now, scientists are busy doing all they can to understand and protect these animals.

Segment 3: The Everglades (16 min)

Description

Go deeper into the Everglades to observe an American mountain lion up close. Find out how it is related to the Florida panther. Check out the 14-foot-long alligator.

Pre-viewing question

Why do you think American mountain lions were brought to Florida?

Answer: Answers will vary, but some students may figure out that they were needed to bolster the population of a close relative, the Florida panther, which was hunted almost to extinction.

Post-viewing question

What are the similarities and differences of the coral snake and the scarlet king snake?

Answer: Both have the same coloring; having the same coloring as the coral snake helps keep the scarlet king safe from predators. But the coral snake is venomous, and the scarlet king snake is not.

Lesson Plan

Student Objectives

- Explore the similarities and differences between three pairs of animals: manatees and elephants, alligators and crocodiles, and the American mountain lion and the Florida panther.
- Develop a chart illustrating these similarities and differences.
- Put all students' findings on a large class chart.

Materials

- *The Jeff Corwin Experience: Florida: Unique Ecosystem* video and VCR, DVD and DVD player
- Computer(s) with Internet access
- Poster board and markers
- Newsprint and markers



Procedures

1. Begin the lesson by showing segments 1 and 3 of *The Jeff Corwin Experience: Florida: Unique Ecosystem*. Students should focus on information about manatees (segment 1) and the discussions of alligators and crocodiles and of the American mountain lion and the Florida panther (segment 3).
2. After watching the segments, discuss with students the three pairs of animals that Jeff Corwin visited – manatees and the elephants he said they were related to, alligators and crocodiles, and the American mountain lion and the Florida panther. Briefly review these pairs' similarities and differences that Jeff pointed out.
3. Divide the class into groups of two, and tell students they are going to develop a chart that highlights the similarities and differences among these animal pairs. In addition to what they learned in the video, students can find information on the following Web sites:

Manatees and Elephants

- <http://www.savethemanatee.org/manfacts.htm>
- <http://pelotes.jea.com/Manatee.htm>
- <http://www.scubabyte.com/manatees.htm>

Alligators and Crocodiles

- http://www.fpl.com/environment/endangered/contents/american_crocodiles.shtml
- http://www.fpl.com/environment/endangered/contents/american_alligators.shtml#TopOfPage
- <http://www.enchantedlearning.com/subjects/reptiles/alligator/Alligator.shtml>

The American Mountain Lion and the Florida Panther

- <http://www.cotf.edu/ete/modules/everglades/FEpanther.html>
 - http://animaldiversity.ummz.umich.edu/site/accounts/information/Puma_concolor.html
 - http://www.tdscats.com/cougar_links.html
 - <http://bss.sfsu.edu/holzman/courses/Spring99Projects/mtnlion.html>
4. Give students time in class to research the animals and start working on their charts. Tell them to finish their charts for homework.
 5. During the next class period, go over the charts. As students present their findings, record them on a chart. By the end of the discussion, your class will have a comparison list that reflects their research efforts.
 6. Display the class chart in the room for further study or to show visitors.



Assessment

Use the following three-point rubric to evaluate students' work during this lesson.

- **3 points:** Students were highly engaged in class and small group discussions; researched the topic carefully and thoroughly; produced an accurate, comprehensive chart showing the similarities and differences between the three pairs of animals.
- **2 points:** Students participated in class and small group discussions; researched the topic adequately; produced a satisfactory chart showing most of the similarities and differences between the three pairs of animals.
- **1 point:** Students participated minimally in class and small group discussions; did not complete the research on the topic; produced an incomplete chart showing few of the similarities and differences between the three pairs of animals.

Vocabulary

alligator

Definition: A reptile in the Florida Everglades that lives in freshwater; it has pronounced scutes and a very broad snout.

Context: The Florida Everglades is one of the few places in the world where alligators and crocodiles live together.

American mountain lion

Definition: A nocturnal animal in the feline family brought to Florida to boost the population of its nearly extinct cousin, the Florida panther

Context: The differences between the American mountain lion and the Florida panther have blurred as more mountain lions have mated with the much rarer Florida panther.

crocodile

Definition: A reptile in the Florida Everglades that lives in saltwater; it has flat scutes and a long, narrow snout.

Context: It may be difficult to distinguish alligators and crocodiles, but the differences are quite distinct.

Florida Everglades

Definition: A large swamp area in Florida that is home to a wide variety of animal species

Context: The Florida Everglades are almost 4,000 square miles, half the size of Massachusetts.

Florida panther

Definition: A cousin of the American mountain lion that has been overhunted to the point of near extinction

Context: Biologists estimate that only about 60 Florida panthers live in the wild.



manatee

Definition: A marine mammal related to elephants; its prehensile lips are similar to an elephant's trunk

Context: When Christopher Columbus arrived in the New World, he thought manatees were mermaids.

Academic Standards

National Academy of Sciences

The National Academy of Sciences provides guidelines for teaching science in grades K–12 to promote scientific literacy. To view the standards, visit this Web site:

<http://books.nap.edu/html/nses/html/overview.html#content>.

Grades K-4

- Life Science: Organisms and environments

Grades 5-8

- Life Science: Populations and ecosystems, Diversity and adaptations of organisms

Mid-continent Research for Education and Learning (McREL)

McREL's Content Knowledge: A Compendium of Standards and Benchmarks for K-12 Education addresses 14 content areas. To view the standards and benchmarks, visit

<http://www.mcrel.org/compendium/browse.asp>.

- Language Arts – Viewing: Uses viewing skills and strategies to understand and interpret visual media; Writing: Gathers and uses information for research purposes
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Support Materials

Develop custom worksheets, educational puzzles, online quizzes, and more with the free teaching tools offered on the Discoveryschool.com Web site. Create and print support materials, or save them to a Custom Classroom account for future use. To learn more, visit

- <http://school.discovery.com/teachingtools/teachingtools.html>

