

The Jeff Corwin Experience

Reptiles of the U.S. and South America

Teacher's Guide

Grade Level: K-8

Curriculum Focus: Life Science

Lesson Duration: Two class periods

Program Description

Travel across the United States and to South America to view some of Jeff Corwin's favorite cold-blooded air-breathing vertebrates. The reptiles you'll see include rattlesnakes, cottonmouth snakes, white alligators, crocodiles, water moccasins, matamatas, green anacondas, bushmasters, and ridleys.

Video Index

Segment 1: Florida (3 min.)

Description

Discover the differences between the alligators and crocodiles in Florida. Learn where each lives and how their features differ.

Pre-viewing question

What do you know about alligators and crocodiles?

Answer: Students may know that both are reptiles that live in similar environments.

Post-viewing question

What is most obvious difference between alligators and crocodiles?

Answer: The alligator has a broader U-shaped snout than the crocodile.

Segment 2: Louisiana (4 min.)

Description

Observe a white alligator in captivity, and pay attention to its blue eyes and light skin. Learn why this animal could not survive in the wild. Meet a venomous water moccasin

Pre-viewing question

Why do you think an alligator might be white?

Answer: Answers include that a genetic mutation resulted in the color change.

Post-viewing question

How does the water moccasin deliver its bite?

Answer: The water moccasin bites with its two fangs.

Segment 3: Arizona (4 min.)

Description

Travel to Arizona to observe the western diamondback rattlesnake and a Gila monster, one of two venomous lizards.

Pre-viewing question

What does a herpetologist study?

Answer: Students may know that a herpetologist studies reptiles and amphibians.

Post-viewing question

What is unique about the Gila monster?

Answer: The Gila monster is one of only two known venomous lizards.

Segment 4: Ecuador (4 min.)

Description

Visit Ecuador and find out why the giant river turtle is being protected. Discover some interesting facts about the black caiman.

Pre-viewing question

What do you know about caimans?

Answer: Answers may include that the caiman is a reptile in the same family as alligators.

Post-viewing question

What is being done to protect the giant river turtles?

Answer: The indigenous peoples, who used to hunt the turtles, are now taking steps to conserve them.

Segment 5: Brazil (4 min.)

Description

Find out about two vipers found in Brazil. Watch the golden lancehead viper flick its tongue, and observe the Central American bushmaster curled up in the S position.

Pre-viewing question

What do you know about the golden lancehead viper?

Answer: Students may know that vipers are venomous snakes.

Post-viewing question

What is unique about the female golden lancehead viper?

Answer: This snake has a structure called a hemipenis, which may allow it to reproduce, possibly resulting in a new snake species.



Segment 6: Costa Rica (2 min.)

Description

Observe a large olive ridley turtle up close. Learn about their *arribada*, a mass nesting practice.

Pre-viewing question

Have you ever heard of the olive ridley turtle?

Answer: Answers will vary.

Post-viewing question

What is the *arribada*?

Answer: An *arribada* is a mass nesting practice, during which many turtles come ashore to lay their eggs.

Segment 7: Panama (2 min.)

Description

Check out an eyelash viper and find out about its unusual name. See its scales up close, and find out how this snake protects itself from enemies.

Pre-viewing question

Why do you think the eyelash viper got its name?

Answer: Students may mention that the snake has a facial feature that resembles eyelashes.

Post-viewing question

What makes up the eyelash viper's "eyelashes"?

Answer: The so-called eyelashes are scales.

Segment 8: Venezuela (6 min.)

Description

Learn about two fascinating creatures – the matamata turtle and the anaconda. Examine the unique features of the matamata, and observe researchers pull a huge anaconda out of the mud.

Pre-viewing question

What do you know about the anaconda?

Answer: Answers will vary.

Post-viewing question

How does the matamata turtle protect itself?

Answer: The turtle's coloring blends in with its surroundings, making it difficult to see by its predators.



Lesson Plan

Student Objectives

- Research one of the following reptiles: alligators, crocodiles, Gila monster, black caiman.
- Work in a small group to create a mural highlighting a reptile.
- Share the murals with the class.

Materials

- *The Jeff Corwin Experience: Reptiles of the U.S and South America*
- Computer(s) with Internet access
- Paper and pencils
- Poster board, markers, and colored pencils

Procedures

1. Begin the lesson by asking students to view the following segments in *The Jeff Corwin Experience: Reptiles of the U.S. and South America*: "Florida," "Arizona," and "Ecuador." Tell students to pay close attention to the information about alligators, crocodiles, the Gila monster, and the black caiman.
2. After students have finished watching the segments, tell them that they will work in small groups to create a mural display highlighting one of the four reptiles featured in the program. Allow students to select a preferred animal, but make sure a mural represents each of the animals.
3. Explain that mural displays should provide a clear visual representation of the following for each animal:
 - appearance
 - habitat
 - food
 - adaptations for survival

For example, a mural of alligators should show them living in a swampy habitat, eating fish, snakes, frogs, turtles, and small mammals. One alligator adaptation is that their eyes are high on the skull so that they can see while partly submerged.



4. Give students time in class to work on their murals. Students can learn about these reptiles by visiting the Web sites listed below:

Gila Monster

<http://www.gila-monster.org/>
<http://www.nashvillezoo.org/gila.htm>
<http://www.whozoo.org/anlife2000/jamiebritt/gilaindexrev.html>

Black Caiman

<http://www.junglephotos.com/animals/reptiles/blkcaiman.html#anchor938463>
<http://www.enchantedlearning.com/subjects/reptiles/caiman/Blackcaiman.shtml>
http://www.flmnh.ufl.edu/natsci/herpetology/brittoncrocs/csp_mnig.htm

Alligators and Crocodiles

<http://www.enchantedlearning.com/subjects/reptiles/alligator/coloring.shtml>
<http://www.enchantedlearning.com/subjects/reptiles/crocodile/Amcroprintout.shtml>

5. If necessary during the next class period, give students time to finish their murals. Then ask volunteers to present their murals to the class. Discuss how the reptiles have adapted to their environments.
6. Conclude by putting the murals in a visible location so classroom visitors can learn about these reptiles. Encourage students to pay attention to the reptiles in their community.

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; created an attractive and accurate mural about a reptile.
- 2 points: Students participated in class and small-group discussions; created a satisfactory mural about a reptile.
- 1 point: Students participated minimally in class and small-group discussions; did not complete a mural about a reptile.

Vocabulary

adaptation

Definition: A body structure or behavior that helps an animal species survive

Context: The yellow-brown coloring of the Gila monster, which allows it to blend into its surroundings, is an adaptation that helps this species survive.



alligator

Definition: A reptile with a large, thick body and eyes set high on its skull

Context: An alligator's stout legs allow it to walk on land, and its long, sweeping tail helps it swim.

black caiman

Definition: A reptile closely related to the alligator

Context: The black caiman, which lives in Ecuador, is a fierce and dangerous predator.

crocodile

Definition: A large reptile related to the alligator; an endangered species

Context: Swamps in Florida are the only place in the United States where alligators and crocodiles are found together.

Gila monster

Definition: One of two kinds of poisonous lizards in the world; lives in arid regions of southwestern United States and western Mexico

Context: The Gila monster's venom is painful, but it is not deadly to people.

reptile

Definition: A group of cold-blooded vertebrates with scaly skin that lay eggs with leathery shells

Context: Although some people are afraid of them, most reptiles are usually harmless.

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>.

This lesson plan addresses the following science standards:

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>.

This discussion guide addresses the following national standards:

- Life Science: Understands relationships among organisms and their physical environment
- Language Arts – Viewing: Uses viewing skills and strategies to understand and interpret visual media; Writing: Gathers and uses information for research purposes

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>

