

The Jeff Corwin Experience

Asia: Land of the Komodo Dragon

Teacher's Guide

Grade Level: K–8

Curriculum Focus: Life Science

Lesson Duration: Three class periods

Program Description

Jeff Corwin travels to well-known Asian islands—Bali, Komodo, and Rinca. He is in search of the Komodo dragon, the world's largest lizard. These animals are lethal predators that feed on pigs, goats, deer, young buffaloes, and even horses.

Video Index

Segment 1: Introduction to Bali (12 min.)

Description

Explore Bali, one of thousands of islands that make up Indonesia. Meet a giant lizard, watch an expert catch a king cobra, and find out how fiddler crabs fit into the island's ecosystem.

Pre-viewing question

What is unique about the geography of Indonesia?

Answer: Answers will vary, but some students may know that Indonesia is made up of islands.

Post-viewing question

Why was Jeff afraid to catch the king cobra?

Answer: Jeff was afraid the large, venomous snake might bite his unprotected hands.

Segment 2: Bali Culture (8 min.)

Description

Discover various aspects of Bali culture. Watch Jeff participate in a show and help prepare a traditional dish. Learn how local people are protecting sea turtles.

Pre-viewing question

What is unique about the culture of Bali?

Answer: Answers will vary, but students may mention food, dress, and certain forms of recreation.

Post-viewing question

Why do sea turtles need protection?

Answer: Fishermen capture them in their nets, and the dead turtles are sold in markets.

Segment 3: Island of Rinca (11 min.)

Description

Travel to the island of Rinca, home to water buffaloes and giant fruit-eating bats. Watch a flying dragon leap from the ground and glide through the air.

Pre-viewing question

What is unique about animals living on islands, such as those of Indonesia?

Answer: Answers will vary; some students may determine that the animals are isolated, which make islands good places to study evolution.

Post-viewing question

How do giant fruit-eating bats differ from bats in other parts of the world?

Answer: They have big bodies, big eyes, and good vision; they do not use echolocation to get around and catch prey.

Segment 4: Komodo Island (4 min.)

Description

Jeff arrives at his final destination – Komodo Island. Watch giant Komodo dragons flick their tongues as they lumber through their habitat in search of prey.

Pre-viewing question

How is a Komodo dragon similar to other reptiles?

Answer: Answers will vary, but some students may mention that it is cold-blooded, has scales, and is a fierce predator.

Post-viewing question

What is particularly dangerous about the Komodo dragon?

Answer: Its saliva contains between up to 50 kinds of poisonous bacteria.

Lesson Plan

Student Objectives

- Discuss the general characteristics of reptiles.
- Compare the characteristics of the water monitor and the Komodo dragon.
- Create a chart showing the similarities and differences of the water monitor and the Komodo dragon.

Materials

- *The Jeff Corwin Experience: Asia: Land of the Komodo Dragon* video and VCR, DVD and DVD player



- Computer(s) with Internet access
- Poster board
- Colored pencils and markers
- Newsprint

Procedures

1. Begin the lesson by asking students to identify the characteristics of reptiles. Write their ideas on a sheet of newsprint. If necessary, help students remember the following traits:
 - dry, scaly skin
 - breathe with lungs
 - cold-blooded
 - vertebrates
2. Show students the segment "Introduction to Bali" and the fourth segment "Komodo Island." Tell them to observe the water monitor and the Komodo dragon carefully.
3. Point out to students that the water monitor is the second largest lizard in the world and the Komodo dragon is the largest. The video also mentions that both lizards belong to the Varanid family, which means that while they are similar in some ways, they have important differences.
4. Tell students to choose partner, and give each pair a sheet of poster board. Ask students to create a chart showing the similarities and differences between the two reptiles. Students should make sure to cover the following categories:
 - size (length and weight)
 - habitat
 - eating habits
 - mating habits
 - social structure
 - status (endangered or not)
 - disposition
5. In addition to the video, the following Web sites discuss these two animals:

Komodo Dragons

- http://www.honolulu zoo.org/komodo_dragon.htm
- <http://www.amnh.org/nationalcenter/Endangered/ora/ora.html>
- http://www.thebigzoo.com/Animals/Komodo_Dragon.asp
- http://www.whozoo.org/students/amabau/komodo_dragon.htm



Water Monitors

- http://animaldiversity.ummz.umich.edu/site/accounts/information/Varanus_salvator.html
 - <http://www.whozoo.org/Intro2000/orlabena/ob3monitors.htm>
 - http://www.reptilia.org/care_sheets/lizards/asianwatermonitor.htm
6. Give students time in class to work on their charts. Encourage them to use photographs and illustrations to show information.
 7. During the next class period, ask students to share their charts. What do the charts show about these two animals? Do they have more similarities or differences? What traits set them apart?

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 thoroughly; developed an accurate, informative, and attractive chart that included all of the requested information.
- **2 points:** Students participated in class and small group discussions; researched the topic adequately; developed a satisfactory chart that included most of the requested information.
- **1 point:** Students participated minimally in class and small group discussions; did not complete the research; developed an incomplete chart that included little or none of the requested information.

Vocabulary

Komodo dragon

Definition: The largest lizard in the world; grows to about 3 meters (9 feet) long and reaches 70 kilograms (155 pounds)

Context: Komodo dragons live on the Komodo and Rinca islands in Indonesia.

lizard

Definition: A kind of reptile with four legs, a long tail, movable eyelids, and recognizable ears

Context: Scientists have identified more than 4,000 species of lizards.

reptile

Definition: A cold-blooded animal that has a backbone and dry, scaly skin and breathes with lungs

Context: Reptiles live on almost every continent in the world and come in a great variety of shapes, sizes, and colors.



water monitor

Definition: The second largest lizard in the world; grows to about 2 meters (6 feet) long

Context: The residents of Bali have named a resident water monitor Mr. Big Belly.

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>

