

- Set up a habitat for a garden snake in an old aquarium, and have the students research food requirements, temperature needs and make daily observations of the snake's behavior (You can obtain advice on the special needs of reptiles at the following herpetology web site: [www.sonic.net/~melissk/classpet.html](http://www.sonic.net/~melissk/classpet.html)).
- Have students visit the library to find examples from literature that feature reptiles. Read, then discuss the reptile as a character in those fictional stories, relating it to scientific facts about reptiles.
- Students can work in groups to study protected reptiles such as the American Alligator and find out why these animals are now protected.

### Internet Resources

Periodically, Internet Resources are updated on our web site at [www.LibraryVideo.com](http://www.LibraryVideo.com)

- [educate.si.edu/resources/lessons/siyc/herps/start.html](http://educate.si.edu/resources/lessons/siyc/herps/start.html)  
The "Reveled and Revered" web site from the Smithsonian Institution explains similarities and differences between reptiles and amphibians and has lessons designed to engage students and meet science standards for grades 3–8.
- [www.zoomschool.com/subjects/reptiles/alligator/Alligator.shtml](http://www.zoomschool.com/subjects/reptiles/alligator/Alligator.shtml)  
"All About Alligators" has information on alligator evolution as well as present habitat, behavior and conservation efforts. It also contains a coloring page for younger students.
- [www.nwf.org/nwf/rrick/1999/aug99/tuatara.html](http://www.nwf.org/nwf/rrick/1999/aug99/tuatara.html)  
This page from *Ranger Rick* magazine describes the tuatara, a lizard-like reptile.

### Suggested Print Resources

- Berger, Melvin. *Look Out for Turtles!* Harper Trophy, New York, NY; 1996.
- Kalman, Bobbie. *What Is a Reptile?* Crabtree Publishing, New York, NY; 1998.
- Robinson, Fay. *Great Snakes!* Scholastic, New York, NY; 1996.
- Sill, Cathryn. *About Reptiles: A Guide for Children.* Peachtree Publishing, Atlanta, GA; 1999.
- Wallace, Karen. *Imagine You Are a Crocodile.* Holt Publishing, New York, NY; 1997.

### TEACHER'S GUIDE CONSULTANT

Conrad M. Follmer

25 years as a K–5 Science & Math Coordinator for a Pennsylvania public school system, currently an independent consultant to elementary schools.

### TITLES

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## All About Reptiles

Grades K–4

This guide is a supplement, designed for educators to use when presenting this program in an instructional setting.

**Before Viewing:** Research in learning suggests that it is important for the teacher to discover what the students know — or think they know — about a topic, at the start of a new unit, so that their accurate conceptions can be validated and reinforced, and their misconceptions identified and corrected. Therefore, after reviewing the pre-viewing discussion questions provided for your class, create a "Everything We Know About..." list. Preview key vocabulary words and have students raise additional questions they hope will be answered by this program. Most importantly, students should be told that as "science detectives" they must listen closely, so that after viewing the program, they will be able to tell whether or not the facts/beliefs they put on their list were scientifically accurate.

**After Viewing:** After a brief discussion about the program, challenge your "science detectives" to prove or disprove the accuracy of the facts they put on their "Everything We Know About..." list. Discuss what else they learned and use the follow-up questions and activities to inspire further discussion. Encourage students to research the topic further with the Internet and reading resources provided.

**SCHLESSINGER**  
**SCIENCE LIBRARY**

## Program Summary

As distant relatives of dinosaurs, reptiles have roamed the Earth for a very long time. But today, there are only a few kinds of reptiles that remain — alligators, crocodiles, lizards, turtles and snakes. While it may be easy to tell the difference between an alligator and an albatross at first glance, there are five characteristics that make a reptile a reptile.

First, all reptiles have backbones that are often very flexible, allowing the animals to bend and stretch their spines with ease. They are also cold-blooded, which means that they cannot control their body temperature. The temperature of a reptile's environment will always dictate the temperature of the animal itself — when it is cold outside, the reptile's body is just as cold inside.

All reptiles are covered with scales, which are dry and firm, and breathe air through the use of lungs. Some reptiles, such as snakes and lizards, shed their skin periodically to allow for growth, while others, such as turtles and tortoises, are surrounded by a hard shell that is used for protection. Lastly, all reptiles lay eggs with a leathery protective shell, designed to protect the baby reptiles until they are ready to emerge into the world.

Reptiles also make use of camouflage to hide from predators and conceal themselves while they hunt for food. Different reptiles also have unique feeding strategies and preferences. For example, some snakes kill their prey by squeezing (or constriction), while others kill their prey by injecting venom with a poisonous bite. But no matter what preconceived notions one has about lizards and snakes, these ancient creatures play many important roles in maintaining nature's balance.

## Vocabulary

The following words are included for teacher reference or for use with students. They are listed in the order in which they appear in the video.

**dinosaurs** — Reptiles that lived long before humans existed and became extinct approximately 70 million years ago.

**characteristic** — A distinguishing trait like color, size or shape.

**backbone** — The spine, or the part of the skeleton inside an animal's body that provides support and protects the animal.

**cold-blooded** — A term that describes animals that cannot control their own body temperature so they assume the temperature of their environment (like fish, reptiles and amphibians).

**scales** — A skin covering of thin, hard plates that protect a reptile's body.

*(Continued)*

**camouflage** — Protective coloration that allows animals to disguise themselves by blending in with their surroundings.

**shedding** — Replacing old skin with new skin by occasionally casting off the old skin.

**lungs** — The organs used by land animals like reptiles and mammals to breathe oxygen from the air.

**egg tooth** — A temporary tooth that baby reptiles have at the tip of their snouts to help break through their leathery egg shell.

**carnivores** — Animals that eat other animals.

**herbivores** — Animals that eat only plants.

**prey** — Animals that are hunted and eaten by other animals.

**predators** — Animals that hunt and kill other animals for food.

**scavengers** — Animals that eat dead animals.

**fangs** — Long, sharp, hollow teeth belonging to snakes that can inject venom deep into their prey.

**venom** — A poison that some snakes and lizards use to kill their prey. These reptiles are called venomous.

**constriction** — Squeezing tighter and tighter; snakes classified as constrictors squeeze their prey until they crush or suffocate them.

## Pre-viewing Discussion

Before students generate their list of "Everything We Know About..." this topic, stimulate and focus their thinking by raising these questions so that their list will better reflect the key ideas in this show:

1. Name some animals that are reptiles.
2. How are reptiles different from other animals?
3. Were dinosaurs reptiles?

After the class has completed their "Everything We Know About..." list, and before watching the show, ask them what other questions they have that they hope will be answered during this program. Have students listen closely to learn if everything on their class list is accurate and to hear if any of their own questions are answered.

## Focus Questions

You may wish to ask your class the following questions to assess their comprehension of key points presented in the program:

1. How many different kinds of reptiles are there?
2. What are the characteristics of reptiles?
3. How is a backbone like a bicycle frame?
4. What is meant by 'cold-blooded'?

*(Continued)*

5. Why do you think most reptiles live in warm places?
6. Why did the warm lizard move faster in the "Lizard Race Track Experiment?"
7. What are scales?
8. Why do some reptiles shed their skin?
9. Why can't a reptile breathe underwater?
10. How are chicken eggs and reptile eggs different?
11. What is special about the location in which turtles lay their eggs?
12. Are all reptiles predators?
13. How do snakes use their tongues?
14. How does a constrictor snake capture its food?
15. How does a venomous snake capture its food?
16. What are some of the ways that snakes benefit people?

## Follow-up Discussion

The most important part of this segment is to examine both the facts and beliefs generated by the class in their "Everything We Know About..." list. Research indicates that students will retain their previous misconceptions — in preference to the new information — until they actively recognize and correct their own errors. Because of this, it is important to lead students to the correct ideas while identifying and correcting any misconceptions from the class list. After reviewing the list, encourage students to share the answers they got to the questions raised before viewing the program.

Raising a thought-provoking question is a good way to assess the overall depth of understanding. A couple of suggestions are listed below:

1. Discuss how reptiles help maintain a balance in the world.
2. Many people have misconceptions about reptiles (i.e. snakes are slimy, all are poisonous...). Share some of these misconceptions, explain how they are wrong and discuss why people might have these beliefs.

## Follow-up Activities

- Create a bulletin board titled "Living Dinosaurs." Have students find illustrations and information about modern reptiles and various dinosaurs. Compare and contrast the similarities and differences between them.

*(Continued)*