

REMARKABLE REPTILES

Teacher's Pre & Post Trip Information

Grades: K-5

Theme: Reptiles have many adaptations that set them apart from other animals

Objectives:

- Students will be able to describe differences and similarities between reptiles and other animal groups
- Students will be able to name at least two reptiles that live in this region of Illinois
- Students will observe at least one live reptile, discuss its adaptations, and discuss that it is a wild animal (not a pet)

Learning Plan:

Topics: physiology, habitat, feeding preferences, and fascinating facts

Student activities: comparing body structure, listing traits, hands-on viewing of reptile bones, skin and eggs, viewing live reptiles, and hiking (if appropriate)

Learning Area	Goal #	Standard	Level and Benchmark
Science	12	A	1a-b, 2a
	12	B	1a-b, 2b
Language Arts	4	A	1a-c, 2b-c
	4	B	1b, 2b
Social Sciences	16	E	1(US)
Physical Education	21	A	1a-c, 2a-b

(during hike only)

Vocabulary:

- **Respect** – to honor, to show concern for
- **Preserve** – to keep safe, to save or protect
- **Habitat** – the arrangement of food, water, shelter and space suitable to an animal's needs
- **Adaptation** – a behavior, physical feature, or other characteristic that helps an animal survive
- **Camouflage** – coloration that enables an animal to blend in with its surroundings
- **Cold blooded (ectothermic)** – body temperature is the same as the animal's surroundings; it cannot produce its own body heat
- **Warm blooded (endothermic)** – body temperature does not change because the animal produces its own heat using the food it eats

- **Carapace** – a turtle’s upper shell
- **Plastron** – a turtle’s lower shell
- **Scales** – plates on the skin of a reptile
- **Scutes** – enlarged scales on the skin that covers the bony shell of most turtles
- **Herbivore** – an animal that eats only plants
- **Carnivore** – an animal that eats only other animals
- **Omnivore** – an animal that eats both plants and animals

Supplemental Activities:

The following activities are suggestions for use in the classroom before and/or after the school program. Not all are appropriate for all age groups. Feel free to adapt them for your students’ abilities.

Writing activities:

- The first reptiles appeared over 300 million years ago. One of the most spectacular reptiles—the dinosaur—died out about 65 million years ago. Invite students to research an extinct reptile and describe its adaptations. Encourage them to speculate about why this creature died out. (www.school.discovery.com)
- Have each student select a species of reptile native to Illinois. Have them do research and write a report on his or her species. The length of the report depends on the grade of the student. The report can include species characteristics, habitat, distribution, diet, and basic ecology. Have each student give a short presentation to the class on his or her species of reptile.
- Have students write a fictional story about a reptile or amphibian. They may choose to compose a new story or write about an experience they have had.

Science Activities:

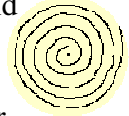
- Ask your students to name some ways reptiles are different than humans. Make two columns on the board (one for reptiles and one for humans) and list the students’ ideas. Have the students make "adaptation posters" with lines pointing to special reptile features that humans don't have, along with brief explanations of the feature's survival value. (www.pbs.org)
- Write two headings on the board, turtle/snake. Go through the special characteristics of each group. Make a Venn diagram showing the characteristics that are shared and those that are unique to each set of animals.

Physical Development: (Movement)

- Watch a video about amphibians or reptiles. Have the children observe the movements of reptiles and amphibians on the video. Then, ask the children to contribute to creating a dance exercise. Movements should include both arms and legs. The purpose of this activity is to provide children with an enjoyable, healthful exercise related to the unit theme. (www.learningpages.com)
- Have several students make a line with their hands on the child’s shoulder in front of them. The child in the front will be the head of the snake and the child in the back will be the tail of the snake. Can they move like a snake?
- Play a game like red light, green light. The children can move when you say they are hot but when you say they are cold they must move slowly. Have the leader shout out temperatures and the student reptiles should respond accordingly.

Fine Arts:

- Divide students into groups of two or three, and invite them to construct a model of a reptile of their choice. The model, which can be made of clay, play dough, paper-mache, or any other material, should clearly illustrate one or more of the animal's physical adaptations. (www.school.discovery.com)
- **Spiral Snake:**
Materials: Paper Plate (1 per student), markers/crayons, scissors, yarn, hole punch
Before class, draw a spiral on each of the paper plates, as seen below. Hand out one paper plate per child. Have them color the paper plate as they would want their snake to look. Have them cut along the spiral lines. Punch a hole in the snake's head and attach yarn. (www.dltk-kids.com)
- **Paper Plate turtle**
Materials: 2 paper plates per student, markers/crayons, 1 sock per student, stapler
Give 2 paper plates per student. Tell them that this will be the top and bottom shell of their turtle. Have them decorate them with markers and/or crayons. Give them a sock and have them draw the face of the turtle on the toe part of the sock. Staple the two paper plates together on the edges. Have the children put the sock on their hand and then slide their hand through the turtle's shell. They can pull their hand back into the shell just like a turtle hiding.



Suggested Readings:

- **Box Turtle At Long Pond**
William T. George.
On a busy day at Long Pond, Box Turtle searches for food, basks in the sun, and escapes a raccoon.
- **How the Turtle Got Its Shell** (Little Golden Book)
Justine Fontes & Ron Fontes
How did the turtle get its shell? This unique book features stories from around the world that offer different answers to that question. Plus, there are cool facts about turtles.
- **Field Guide to Amphibians and Reptiles of Illinois***
Philips, Brandon, and Moll
This guide is to help the reader learn about all 102 species of amphibians and reptiles that live within the boundaries of Illinois. Basic information is presented on their biology and life history, as well as a brief discussion of the species that are listed as threatened or endangered under the state's Endangered Species Protection Act.
- **National Audubon Society First Field Guide: Reptiles**
John L. Behler. Scholastic, 1999.
This field guide includes a substantial introduction to reptile anatomy, behavior, adaptation, and habitat. Included is an identification guide to over 150 species of reptiles with photographs, descriptions, and range maps for each.
- **Outside and Inside Snakes**
Sandra Markle. Athenaeum Books for Young Readers, 1995.
Outstanding photographs show snakes in their environment - hatching, hunting, eating, and fighting - and their inside structures - bones, teeth, and internal organs. The engaging, informative text describes how behavior and physical characteristics make a snake ... a snake.
- **Take-Along Guide to Snakes, Salamanders and Lizards**
Burns and Garrow

Helps children identify different species. Features detailed true-to-life illustrations. Has fun activities and projects.

- **Verdi**
Jannell Cannon
Young Verdi doesn't want to grow up big and green. He likes his bright yellow skin and sporty stripes. Besides, all the green snakes he meets are lazy, boring, and rude. When Verdi finds a pale green stripe stretching along his whole body, he tries every trick he can think of to get rid of it--and ends up in a heap of trouble. Despite his efforts, Verdi turns green, but to his delight, he discovers that being green doesn't mean he has to stop being himself.
- **Why Do Snakes Hiss?: And Other Questions About Snakes, Lizards, and Turtles**
by Joan Holub
Many people like snakes, lizards, and turtles, and there's so much to find out about all of these scaly-skinned animals. Are all snakes poisonous? Why do snakes shed their skin? What unusual things can lizards do? Do lizards ever lose their tails? Why do turtles have shells? Kids will find the answers—and much more—in this fun, fact-filled introduction to reptiles. Filled with colorful photographs and illustrations, this is just right for any reptile lover.

Additional Resources:

- **DNR Education Website:** <http://dnr.state.il.us/lands/education/index.htm>
 - Educational supplements (CD-ROMs for students and teachers, educational trunks, posters, books, etc.)
 - ENTICE workshop schedule
 - Project WET, Project WILD, and Project Learning Tree
 - Contests and grants
- **Audubon Illinois Wildlife Series Display Boards***
 - Butterflies and Moths
 - Amazing Bats
 - Illinois Owls

See www.champaigncountyaudubon.org for a list of resources for loan housed at the Education Center at the Homer Lake Forest Preserve.

**Available for loan from the Education Center at Homer Lake Forest Preserve. We have many more items in addition to those listed – please call 896-2455 for more information.*