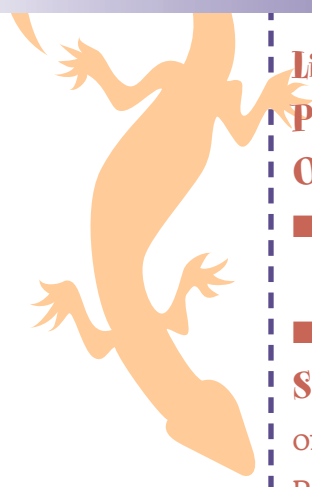


Leaping Lizards



Life Skill: Communication

Project Skill: Researching and describing lizards

Objectives:

■ Investigate cold-bloodedness in reptiles, and communicate the findings

■ Educate peers about lizards found locally

Success Indicator: Participants describe characteristics of lizards that distinguish them from other animals.

Participants demonstrate how cold-blooded animals regulate their body temperature.

Provisions Needed

- Watch or timer
- Outside thermometer
- Drinking glasses
- Water
- Pencil
- Paper
- Craft/display materials
- Books or other resources about lizards and/or cold-blooded animals
- Library access (or Internet access)



Trailhead

Lizards are sometimes confused with salamanders. But salamanders are amphibians and have smooth, moist skin like their cousins, the frogs. Lizards, though, are reptiles and have dry, scaly skin. Unlike most amphibians, lizards also have claws on the tips of their toes, outer ear openings, and movable eyelids. More than 3,700 species of lizards range from the Arctic Circle to Australia and the southern tips of Africa and South America. With so many different types of lizards, you might discover several in your own neighborhood.

compare two species of lizards



Trailblazing

Do at least one of the following two activities. When you are finished, give a presentation before a group or make a display to educate others.



Eastern fence lizard

Activity 1: Explore what it is like to be cold-blooded like lizards by conducting an experiment about temperature change. For example, place two identical glasses of ice water outside, one in the shade under a tree and one in full sunshine. Measure how long it takes for the temperature in each glass of water to change 10 degrees. Try placing two glasses of ice water on rocks and see how the experiment changes. Put one glass on a dark rock and one on a light-colored rock next to each other in the same location. Which one changes temperature more



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quickly? Think of other physical locations where the water might more quickly warm up (in sand, for instance). Test your theories. Record your data. Use the materials from your experiments as a visual aid for a presentation about how lizards regulate their body temperature.

Internet Resources

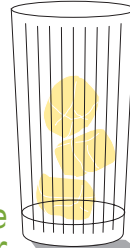
- <http://endangered.fws.gov/wildlife.html>
- <http://ecos.fws.gov/webpage>
- <http://www.parcplace.org/default.htm>
- <http://www.uga.edu/~srelherp/index.htm>

Suggested Reading

- Conant, Roger, and Joseph T. Collins. *Reptiles and Amphibians: Eastern and Central North America* (Peterson Field Guide Series). 3rd edition. New York: Houghton Mifflin. 1998.



Place one glass of ice water in the shade...



...and place one glass of ice water in full sunshine.



Activity 2: Compare two species of lizards found near your home. Use information gained from field observation, studies of captive lizards, an interview with a local **herpetologist** (a person who studies reptiles), or library research. Consider the following information when making your comparison:

- a. Scientific and common name
- b. Description and identifying characteristics
- c. Habitat requirements
- d. Food and feeding habits
- e. Method of reproduction
- f. Range (where in the state or nation the lizard may be found)
- g. Natural enemies
- h. Importance to humans and other animals

Present your comparisons as a story, drawing, or diorama to a school group or 4-H club.



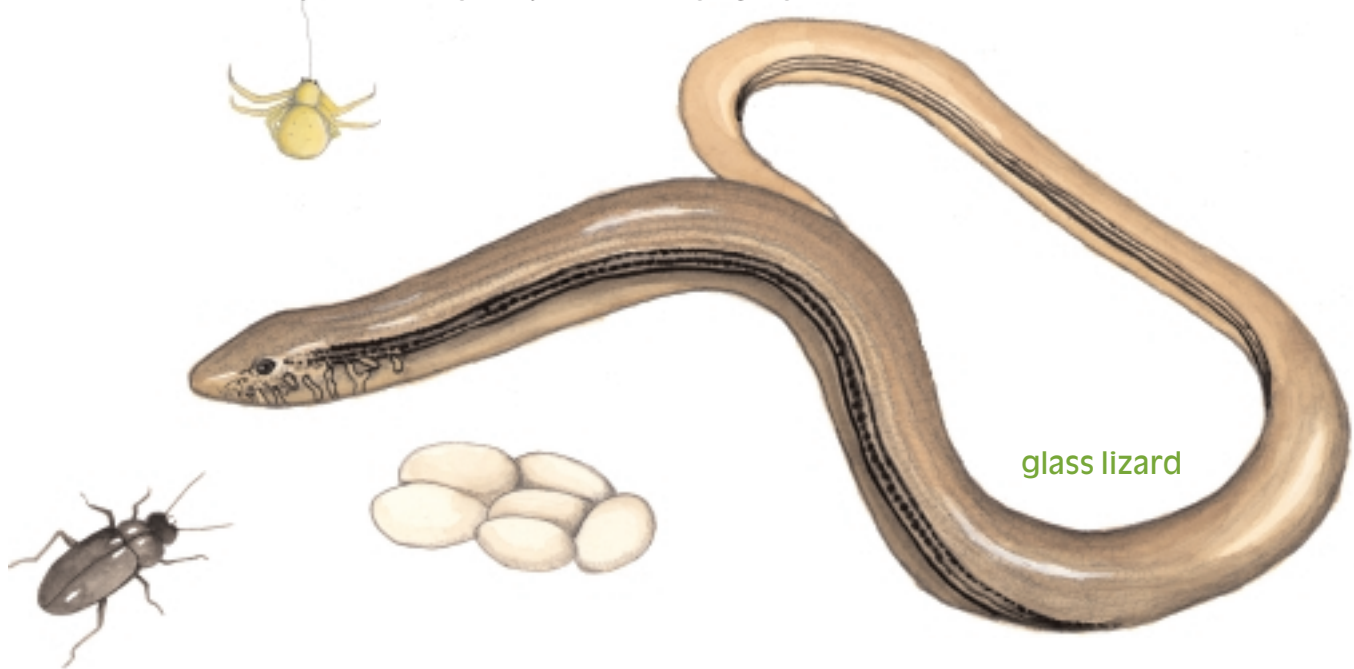
Leaping Lizards



Field Guide

Lizards and other **reptiles**, such as snakes, turtles, and alligators, are cold-blooded. Cold-blooded animals do not have a constant body temperature; instead their body temperature changes as the temperature of the surrounding environment changes. As body temperature decreases, both breathing and the pumping of blood by the heart slow down.

Glass lizards slither like snakes when they move because they have small, useless legs or no legs at all. Geckos have sticky pads on their feet that allow them to cling to smooth surfaces, even upside down. Other lizard species can quickly run in an upright position like humans.



Most lizards eat **insects, spiders, worms, and caterpillars**, but some of the larger species will eat **vertebrates** (animals with backbones) smaller than themselves. The Gila monster and the beaded lizard are the only **venomous** (or poisonous) lizards in the world, but only the Gila monster is found in the United States.



Some lizards give birth to live young, but **most lay eggs**. The eggshells are tough and leathery, not brittle like bird eggs.

There are four **endangered** and six threatened species of lizards in the United States. Many coastal areas, especially Florida and Texas, have isolated, permanent populations of non-native species that have come to North America on cargo ships and via illegal pet markets.

Leaping Lizards



The Extra Mile

Interview a local pet store owner or exotic animal veterinarian about raising lizards as pets. Use what you learn to create a pamphlet that can be used in classrooms that have lizards. Include information about cage size, temperature and light requirements, food sources, and how to ensure your lizard was not obtained illegally.



Field Notes

SHARE

- What did you learn about lizards that surprised you?
- What are the laws in your state regarding the collection of reptiles or parts of reptiles?
- What did you do to make sure people would be interested in your subject?
- Which sources turned out to be most helpful in preparing a presentation?
- Many reptile species have been brought to the United States for illegal pet trade. What are some other animals that have found their way to this country through illegal trading? Can these animals now be found commonly in the wild?
- What are other reptiles in your state, and how do they differ from lizards?

PROCESS

- How did you decide how to narrow down what information you would use in your speech or presentation?
- Lizards regulate their internal body temperature by basking in the sun when it is cold or finding shady spots to rest during the hottest times of the day. How do humans regulate their internal body temperature?
- How can communication help draw attention to an important subject?

GENERALIZE

- What did you learn about yourself by studying other creatures?
- Why is it important to be able to communicate your findings about lizards to others?

APPLY

- How can you apply what you learned about effective communication to other types of schoolwork, activities, or hobbies?