

LEAPIN' LIZARDS

**BIO
KEY**

**Bio-technique
Lizard Interactions
Territory**



OVERVIEW

The youngsters use a special "lizard rig" to investigate lizard feeding behavior and interactions between lizards.

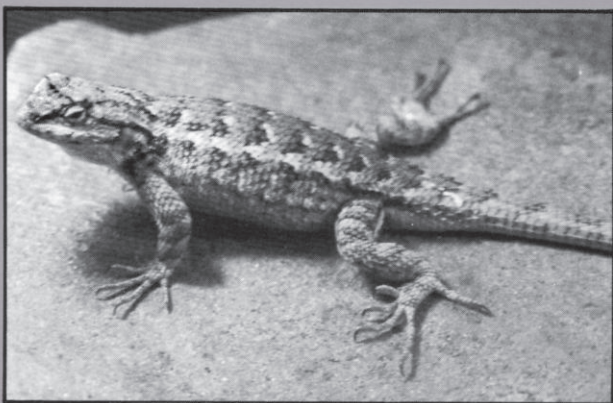
BACKGROUND



For this activity, you can work with any of the more than twenty-five species of blue belly or fence lizards found in the continental United States, or with the American chameleon, which lives in the Southeast. Blue bellies and chameleons are relatively small lizards that grow to about 10 cm in length, not counting tail length. They feed on a variety of insects and spiders, but their favorite prey are flies and ants. These lizards are active predators and will attempt to eat almost any smaller, moving animal.

Male blue bellies and chameleons establish territories and defend them against other males. A **territory** is any area that an animal defends against other animals of the same kind. Male lizards warn other males to keep away by displaying their bright markings or throat fans, making threatening postures, and bobbing up and down with a movement resembling push ups. If these displays don't drive off the rival, the lizards may fight. Similar displays are used by males during the breeding season to attract females.

Because both kinds of lizards quickly hide when startled, the youngsters will have more success if they approach the lizards slowly and quietly. A good way to help your kids develop the skills they need to approach lizards is to conduct the OBIS activity *Silent Stalking* with them.



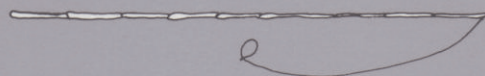
CHALLENGE: INVESTIGATE LIZARD FEEDING BEHAVIOR AND INTERACTIONS BETWEEN LIZARDS.

MATERIALS



For each team of two:

1 Lizard Rig (See the "Lizard Rig" Equipment Card.)



- 1 Leapin' Lizards Junk Box* containing:
 - pieces of yarn, cloth, colored paper, foil, and other lure materials
- 2 pairs of scissors*
- 1 magnifying lens* (optional)
- 1 copy of the "Leapin' Lizards" Equipment Card*

For "Mark and Release": (optional: See the "Branching Out" section.)

- 1 set of tempera paints* (3 or 4 different colors) in baby food jars or other small containers
- several small watercolor paint brushes*
- 1 cup of water for washing brushes

* Available from Delta Education.

PREPARATION



Group Size. This activity works best with older kids (twelve years and older) in small groups of two to six.

Time. Plan on forty to sixty minutes for this activity. Lizards are most abundant during late spring, summer, and early fall. Choose the middle of a warm sunny day to both look for good lizard sites and conduct the activity.



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Site. Select a site that contains at least one to two lizards for each team. Blue bellies prefer sunny areas in grasslands, chaparral, and open woodland areas. Favorite haunts include wood piles, rock piles, dry creek beds, fallen trees, fences, old buildings, and brush heaps. American chameleons are climbers that prefer shady areas and are commonly found on trees, fences, and the sides of buildings.

Safety. Because many kids are wary of handling lizards, you may have to do most of the initial handling. Both blue bellies and chameleons may try to bite if they are handled roughly. Their bites are harmless, however, and not strong enough to break the skin. Even so, being bitten frightens many people. Practice the handling procedure outlined on the "Lizard Rig" Equipment Card so you can confidently show the kids how to handle a lizard. Stress gentle handling, because rough handling can injure the lizards.

4. Hand out the lizard-rig materials. After each team has constructed a rig, challenge the group to make lures that the lizards will try to catch or bite. The lures can be made from the junk-box materials or from non-living materials around the site.

5. Invite the kids to experiment with a variety of lures. Emphasize that the kids must approach the lizards slowly or the lizards will scamper and hide. When a team comes up with a "hot" lure, encourage the teams using less successful lures to compare their lures with the hot lure.

6. After fifteen to twenty minutes of experimentation with the lures, call the teams together and ask them to display the lures that the lizards tried to catch or bite. Ask what type of movement, sizes, shapes, and colors work best. Ask the kids: "From the way the lizards react to the lures, how do you think lizards get their food? What do you think they might eat?"



ACTION



Lizard Feeding Habits

- 1.** Set up a preparation area at least ten meters away from the lizard area. Divide the group into teams of two or three.
- 2.** Introduce the activity by telling the kids that they are going to use lures to discover how lizards get their food and what the lizards might eat.
- 3.** Make a Lizard Rig and attach a small piece of cloth or other lure to the end of the line. With the group, slowly approach a lizard, and demonstrate how to dangle the lure near the lizard. (See the Equipment Card.)



Lizard - to - Lizard Interactions

- 1.** Introduce the second challenge by asking the group if anyone observed two lizards together (within a few centimeters of one another). Challenge the youngsters to find out how lizards react when one lizard is placed next to another one.
- 2.** Show the group how to tie a sliding noose on the Lizard Rig, and then explain the procedure for catching the lizards. (See the Equipment Card.) Emphasize gentle handling to avoid injuring the lizards.
- 3.** Try to catch a lizard to demonstrate the noosing procedure. If you are not immediately successful, stop trying and challenge the teams to try their luck.

4. When the first lizard is noosed, call the youngsters together and demonstrate the handling and tethering procedure. (See the Equipment Card.) Encourage the kids to touch and handle the lizard. This is a good time to explain that the more brightly colored blue bellies or the chameleons with red throat fans are probably males.



5. Lizard Experiment. After two or three lizards have been captured and tethered, suggest the following experiment: Place a tethered lizard within sight of a free (untethered) lizard (about two meters). Move the tethered lizard slowly toward the free lizard. At what distance does the free lizard react to the tethered lizard? What happens?

6. Encourage the teams to place their tethered lizards next to both a larger lizard and a smaller one. How do the lizards respond?

7. Be sure to return the lizards to the places where they were found. If you can bring the group back to the site within a couple of weeks, you may want to mark several lizards before releasing them. (See "Mark and Release" in the "Branching Out" section.)

LIZARD TALK



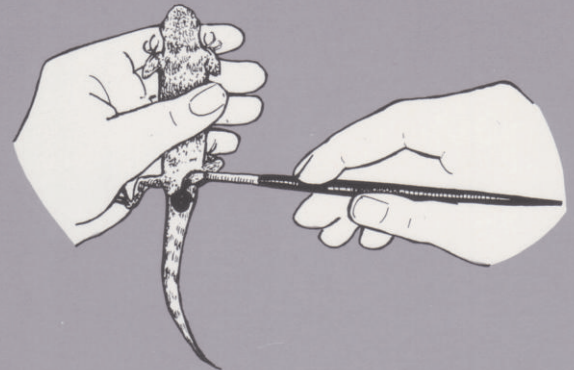
1. How did the free lizards act when a tethered lizard was slowly brought closer to them?

2. Did the free lizards respond differently to large and small lizards? In what way?
3. Did any fighting between lizards occur? What happened?
4. Why do you suppose some lizards bob up and down, arch their backs, and move so stiffly when approached by another lizard?
5. Were the encounters between males and females different from the encounters between lizards of the same sex?
6. **Territories.** Explain that many animals, including dogs, cats, and many birds, set up certain areas and defend them against other animals of the same kind. These areas are called **territories**. Suggest that one explanation for the way lizards act when approached by another lizard might be that lizards also set up territories and defend them. Ask the kids for examples of situations in which people stake out and protect territories.

BRANCHING OUT



1. Mark and Release. Dab a small circle of paint on the base of each lizard's tail. Use a different color for each lizard, and mark the spot where that lizard was captured with a dab of the same color paint. Release the lizards a few meters away from their capture point. Visit the site over the next few days to see if any of the lizards have returned to their former locations.



2. Smile! You're on Candid Camera! Try to get a close-up picture of a lizard.



Leapin' Lizards

LIZARD RIG

Equipment Card



MATERIALS FOR ONE LIZARD RIG:

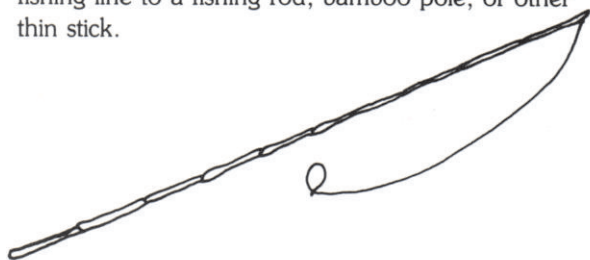
1 thin pole* (stick, bamboo pole, or fishing rod one to two meters long)

1 half-meter length of fine wire* (#36 to #50) or light fishing line* (2 to 4 lb. test monofilament)

*Available from Delta Education.

ASSEMBLING THE RIG

Securely attach a half-meter length of light wire or fishing line to a fishing rod, bamboo pole, or other thin stick.



Wire can be obtained from household electric cord. Cut off about a half-meter length and pull the wire bundles out of the rubber insulation. Carefully pull the strands apart to obtain individual wires. Wire is easy for kids to use because they can twist lures on and off easily. Lures have to be *tied* to fishing line.

USING THE RIG

Feeding Behavior. To explore feeding behavior, twist likely lures onto the wire (or tie to fishing line), and carefully present the lure to the lizard.



Encourage the group to try a variety of lures. After a few times the kids should learn that a quiet approach, tiny-lure size, and lure movement are the keys to attracting lizards.

Lizard-to-Lizard Interactions. To investigate interactions, cut the wire or line so that about 30 cm remain. Tie a sliding noose on the free end of the wire or line. (See the illustration.)

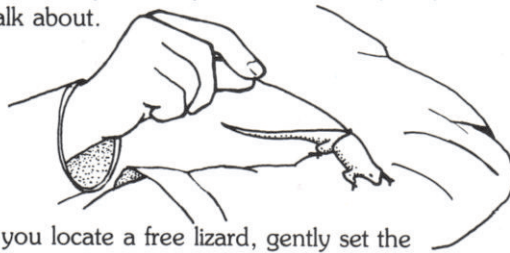


To noose a lizard, open the sliding noose until it is slightly larger than the lizard's head. Approach slowly until you can reach the lizard with the noose. Move the noose over the lizard's head, then give a gentle upward jerk to capture the lizard. Quickly swing the captured lizard onto your forearm or thigh to support the lizard. To tether your captured lizard, gently hold the lizard against your arm or leg with a flat open hand, then grasp the lizard behind the head with your thumb and first two fingers.



In this position a lizard can't bite. Loosen the noose and move it down until it is just in front of the rear legs and gently pull it snug to tether your lizard.

Carry tethered lizards by letting them cling to a clothed part of your body (forearm, chest, etc.) as you walk about.



When you locate a free lizard, gently set the tethered lizard down about two meters away from it. Slowly move the tethered lizard closer to the free lizard. Wait fifteen to thirty seconds between moves.