



# Ranger Rick

## EDUCATOR'S GUIDE

EDUCATIONAL EXTENSIONS FOR THE AUGUST 2015 ISSUE OF RANGER RICK® MAGAZINE

### STRUCTURED NOTE-TAKING

Within minutes, students forget more than half of the curriculum material they read. Good note-taking can help students retain more of this information. But this skill requires instruction and practice. Providing students with a visual framework to fill in as they read (or listen) can help. Ask your students to complete the Take Note! student page as they read **“Rocky Times for Pikas,”** pages 6–11. Then have them refer to their pages as you and the class write up a “model version” for display. Once students gain some experience with this note-taking framework (as well as with others that you supply) they can begin to develop their own frameworks.

### FIREFLY WATCH

After students read **“Let It Glow,”** pages 14–19, gather them in the evening to observe bioluminescent fireflies firsthand. Good places to find fireflies are in tall grass, at the edge of woods, or near water. There’s also a better chance of seeing fireflies in the eastern part of the United States than the West. Here are some fun things to do if some flashy friends appear:

- **Watch the light show.** Look for males flashing as they fly and females twinkling in one place. Try to figure out their flash patterns.
- **Talk back.** Using a small flashlight, imitate the patterns you see. If you flash the male’s pattern, a female might flash back. Try the female’s response; you may lure a male right to your fingertips!
- **Catch and release.** For a close-up look, catch a few fireflies in a clear container. Check them out—then let them go, of course.

Hand out copies of the Firefly Friends Nature Notebook page on clipboards to guide the investigation and encourage students to record their observations.

### DESERT-ANIMAL MYSTERIES

Have your students read **“Meep, Meep,”** pages 22–26, and then complete the Who Am I? student page. This page asks students to identify four desert animals (including the roadrunner) by matching clues about their features and behaviors with their pictures. During this process, students will learn a lot about adaptations that help animals survive in the desert. After the class completes the student page, discuss some of these adaptations (e.g., big ears that release lots of heat, scales that protect eyes from sand, a shovel-shaped nose for digging in the sand, the ability to get enough water from food alone).

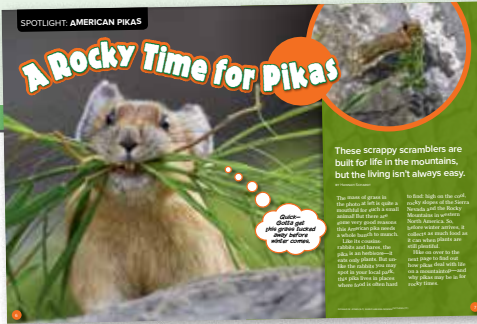
Extend the lesson by inviting each student to select another desert animal, draw its picture, and write at least three clues about its desert adaptations. Students should write the names of their mystery animals on the backs of their papers. Display the front side of each on a bulletin board and invite the class to play another round of Who Am I?

### SEE-THROUGH ANIMALS

After reading **“Glass Frogs,”** pages 32–35, ask students how these frogs got their name. (You can look through the underside of one and see its organs.) Other animals you can see through include the glasswing butterfly, glass catfish, barreleye fish, crocodile icefish, tortoise shell beetle, sea scallops, glass squid, transparent sea cucumber, big skate, clear slug, transparent jumping spider, anemone shrimp, and many species of jellyfish. Assign each student a transparent animal to investigate and report on to the class. Reports should include interesting facts and photos about the animals. As a class, organize the facts and photos into a book with an amusing title such as *You Can See Right Through Us*. Conclude your study of transparent animals by discussing ways that being almost invisible could be helpful to the animals in your book. How might it be helpful to your students?



# TAKE NOTE!



As you read "Rocky Times for Pikas," pages 6–11, write down key information from the story in the chart below. Be prepared to explain why the information you chose is important.

TOPIC: AMERICAN PIKAS		
<p>What problems do pikas face?</p> <ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> <li>•</li> </ul>	<p>What causes these problems?</p> <ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> <li>•</li> </ul>	<p>What can be done to solve the problems?</p> <ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> <li>•</li> </ul>



# WHO AM I?

Match each set of clues below with one of the desert animals pictured on this page.

**DESERT ANIMAL:** \_\_\_\_\_

- My hind legs help me jump straight up into the air, out of danger's way.
- I eat a lot of seeds and never need to take a drink of water.
- I use my long tail for balance when I jump.

**DESERT ANIMAL:** \_\_\_\_\_

- Special feet keep me from sinking into sand.
- My shovel-shaped nose helps me dig in sand.
- Special scales keep sand out of my eyes.

**DESERT ANIMAL:** \_\_\_\_\_

- I walk around rapidly, running down prey.
- I'd rather run than fly.
- I catch snakes and other creatures to eat by stabbing at them with my long, sharp bill.

**DESERT ANIMAL:** \_\_\_\_\_

- I can get all the water I need from the plants I eat.
- I can "gallop" at speeds up to 40 miles per hour.
- My big ears give off a lot of body heat, which helps keep me cool.



jackrabbit



fringe-toed lizard



kangaroo rat



roadrunner