Ranger Rick® Educator's Guide

Educational extensions for the February 2008 issue of *Ranger Rick*® magazine

WINTER WORDS

Check out the penguin's wintry scene pictured on pages 2 and 3 of the February *Ranger Rick*. Ask students to imagine that they are dropped down into this scene. As a group, brainstorm a list of words to describe what they might see, hear, touch, and feel here. Then have them use these words to write a paragraph or a poem rich with sensory details.

AUDIO POSTCARD

In "Africa's Rare Wolves" (pages 6-11), you learn that the howl of a wolf defines Ethiopia's highlands. Discuss with students how sounds can make a place distinctive. Then ask students to list some sounds that define a place that is special to them. Use these sounds to create audio postcards similar to the ones featured on National Public Radio. (See **npr.org/about/pitch/postcards.html** for examples.) If you don't have recording equipment, students could write their postcards using lots of descriptive sound imagery.

ANIMAL VALENTINES

"Wild Romance" (pages 16-19) reveals some animals' secrets for attracting a mate. Have students choose one of the animal pairs in the story and use what they learned in the story to write two Valentine's Day cards—one from each animal to the other.

WINTER TRACKS

Winter is the perfect time to look for tracks. Whether you have snow, sand, or mud, you can find out more about your animal neighbors by looking for footprints. Use the drawings in "Who Goes There?" on page 35 and tracking field guides from your library to help students identify what they see on a wintertime walk.

VET VIEWS

In "King of Hearts" (pages 36-39), students get a behind-the-scenes look at an unusual veterinary clinic. But any vet's job would fascinate many animal-loving kids. Arrange for a visit from a veterinarian or veterinary technician in your community. Have students prepare questions ahead, conduct an interview during the visit, and write a summary or newspaper story using the information they gather about this person's job.

PUZZLING PATTERNS

Check out the "Peacock Puzzler" on page 42. In each row, column, and diagonal of the grid, the three peacocks have something in common. Have students put their logic skills to work to create their own puzzle featuring an animal from this month's *Ranger Rick*. They should start by drawing a three-by-three grid, and then draw their chosen animal in each box with slight variations so there is a pattern in each direction. Have them list the patterns, then trade with a partner to see if they can find them.

OCTO-POWERS

In "Powers of 8" on pages 20-26, you learn that the octopus is an animal with some amazing abilities. What if you could take on one of the powers of an octopus? After you read the story, choose your favorite of the eight powers.

1. Which power would you choose? _____

2. Why? _____

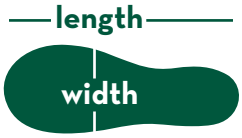
3. What would you do with this power? Describe a day in your life. _____

SNOWSHOE CLUES

With snowshoes, you can "float" on top of snow. Check out "Big Foot Fun" on pages 30-34 to see snowshoes in action—and what a difference they make. How is this possible? With a little math, you can find out why it works.

Snowshoes work because of something called *foot load*. A person's foot load depends on two things: body weight and size of feet. Follow these steps to find your own foot load.

1. Measure your foot in inches as the diagram shows.



Length of foot: _____ in

Width of foot: _____ in

2. Calculate the **area of your foot** by multiplying length times width.

Length _____ *multiplied by* width _____ = _____ in^2

3. Calculate your **weight on one** foot by dividing your weight by 2.

Your weight _____ *divided by 2* = _____ lbs

4. Divide your weight on one foot by the area of your foot to get your **foot load**.

Weight on one foot _____ *divided by* area of foot _____ = _____ lbs/in^2

5. Now, make yourself a snowshoe. Draw a snowshoe shape around your foot on a big piece of paper. (See the picture on page 31 for ideas.)

Find the **area of the snowshoe**:

Length _____ *multiplied by* width _____ = _____ in^2

Use this area (your weight hasn't changed) to calculate a new **foot load with snowshoe**.

Weight on one foot _____ *divided by* area of snowshoe _____ = _____ lbs/in^2

6. Is your foot load less with the snowshoe? _____

That's how snowshoes work! They spread your body's weight over a larger area, so your foot load decreases. That way you can walk on top of snow without sinking in.

TRACKS IN WINTER

When it snows, all the invisible comings and goings of your neighbors—both animals and humans—suddenly appear. With a little detective work, you can figure out a lot from these clues. Check out the footprints in your neighborhood to see what stories they tell. What if there's no snow? You can still follow tracks in mud or sand.

Date _____ ***Time*** _____

Location _____

Weather _____

Helpful Things to Take Along:
✓ Ruler
✓ Field guides such as:
"Mammal Tracks and Scat" by Lynn Levine
"Wild Tracks!" by Jim Arnosky

1. When you find some tracks, draw them here. Some things to look for:
- Shape of the track
- Size (use a ruler to measure it)
- Number of toes
- Claw marks or none
- Kind of animal (use a field guide to see if you can identify it)

2. Follow one of the sets of tracks. Where does it go? Can you guess what the animal was doing? On the back of this page, draw a map of where the tracks go and add notes about what you notice.