



Ranger Rick

EDUCATOR'S GUIDE



EDUCATIONAL EXTENSIONS FOR THE MARCH 2018 ISSUE OF RANGER RICK® MAGAZINE

BIGHORN SHEEP

In “**Bighorn Sheep**,” pages 6–11, students discover how special adaptations help bighorn sheep survive in cold mountain habitats. After the class has read the article, assign the Sheep Talk student page, which has students describe how bighorn sheep use four specific adaptations (horns, hooves, a hard skull, and a thick coat).

PIRANHAS: FACTS AND FICTION

Before assigning “**Piranhas**,” pages 14–18, ask students if they know what a piranha is. Briefly show children the large piranha photo on the opening spread. Then as a group, write down five things that students have heard about piranhas or think they can assume from looking at the photo. After reading the story, go back and see how accurate those initial impressions were. Use one of these as a final discussion/writing prompt:

- Piranhas have a big bite and a bad reputation. But do they really live up to their deadly image?
- What is the real story about piranhas—the facts and the fiction?

HUM-DINGERS

After reading “**Tiny, Mighty Hummingbirds**,” pages 20–25, use the following questions as discussion or writing prompts.

- Why are these birds called hummingbirds?
- How does a hummingbird use its amazing flying abilities?
- Most hummingbirds are very small. What might be some advantages of being small? What might be some disadvantages?
- Most hummingbird species live year around in tropical areas. Why do you think that is?

- A hummingbird’s bill is just the right shape to get the food it needs. Describe the shapes of some other birds’ bills. How might these other shapes help birds get the food they need?

During your next math class, distribute the Hummers by the Numbers student page, in which children use hummingbird stats to solve word problems.

AFRICAN BULLFROGS

Before assigning “**Frogzilla**,” pages 30–35, ask students if they know who Godzilla is. Have a student look up and share pictures of this creature. Pictures should help the group identify Godzilla as an enormous, forceful, prehistoric sea monster.

Now tell children they are about to meet a character named Frogzilla. What do they think this creature will be like? After students have read the article, have them compare and contrast Godzilla with Frogzilla. Ask why Frogzilla is a good name for a male African bullfrog.

FROG WATCH

Spring is a great time to see and hear all kinds of frogs. If there is a pond or stream near your school, check it out as a class. Try to visit the same location several times throughout the spring and track the changes you observe. The first time, you might hear frogs singing to attract a mate. Later, you may spot clumps of eggs in the water. After that, you might see tadpoles hatching and growing into new frogs. Have students record their observations on photocopies of the Finding Frogs Nature Notebook page (March 2018) at nwf.org/Kids/Ranger-Rick/Ranger-Ricks-Nature-Notebook.aspx.





SHEEP TALK

In "Bighorn Sheep," pages 6–11, you discovered how special body parts help bighorn sheep survive in cold, mountain habitats. Describe how a bighorn sheep uses the special parts below, and what you would do if you also had them.

1 HEAVY HORNS

How a bighorn ram uses them: _____

How you would use them: _____

2 THICK, SPECIALLY-SHAPED SKULL

How a bighorn ram uses them: _____

How you would use them: _____

3 HOOVES (Tough on the outside; soft in the middle)

How a bighorn ram uses them: _____

How you would use them: _____

4 LONG, THICK COAT

How a bighorn ram uses them: _____

How you would use them: _____



HUMMERS BY THE NUMBERS



In the box are some average numbers for hummingbirds. Use them to answer the questions below.

WANNA RACE?

- 1 Find a clock or watch with a second hand. Count how many times you can flap your "wings" in 10 seconds. _____
- 2 How many times would a hummingbird flap in 10 seconds?

- 3 How many more flaps did the hummingbird flap than you?

GOTTA HAVE HEART

- 1 Find your pulse (heartbeat) on your wrist or neck. How many times does your heart beat in one minute? _____
- 2 Now run in place for one minute and then count your pulse again. _____
- 3 About how much faster is your heart rate when you have been exercising? _____

PENNY FOR YOUR THOUGHTS

- 1 A penny weighs about 3 grams. If you had \$1 in pennies on one side of a scale, how many ruby-throated hummingbirds would you need to stand on the other side to balance it? _____

FAST FOOD

- 1 A hummingbird hovers over a flower for 20 seconds eating nectar. How many times does it lap with its tongue during this time? _____
- 2 If all its flower visits for a whole day average out to 20 seconds each, how many times does it lap with its tongue in one day? _____

YOUR TURN!

- 1 On the back of this page, write your own question using numbers from the box.

FLOWERS VISITED IN ONE DAY:

1,000

HEART BEATS, AT REST:

250 per minute

HEAT BEATS, FLYING:

1,220 per minute

WING FLAPS:

80 per second

LAPS WITH TONGUE:

13 per second

WEIGHT OF ONE RUBY-THROATED HUMMINGBIRD:

3 grams

AVERAGE SPEED:

35 miles per hour

