

# The Four That Roar

## LANGUAGE ARTS

LEXILE 730L

### Objectives

- Students will assess their familiarity with and knowledge of vocabulary words.
- Students will identify the overall structure of ideas presented in the text.
- Students will explain concepts based on information in the text.

### Resources

- Vocabulary Assessment Master (page 6)
- Language Arts Assessment Master (page 7)

### Summary

- The article “The Four That Roar” introduces students to four big cats—lion, leopard, jaguar, and tiger that share one unique trait: They roar.

## BUILD VOCABULARY AND CONCEPTS

- **adaptation**
- **apex predator**
- **conservationist**
- **poach**
- **reserve**

As a class, discuss the difference between familiarity and knowledge. Guide students to recognize that the more familiar you are with something, the more knowledge you have. Challenge students to explain how this concept applies to words when they read.

Display the vocabulary words on a word wall or on the whiteboard. Give each student a copy of the **Vocabulary Assessment Master**. Instruct students to write each word on their papers. Review the categories under the header “Familiarity with the Word.” Tell students to make a checkmark to indicate how well they know each word.

Instruct students to write what they think each word means on their worksheets. Then display the Wordwise feature on page 9 of the projectable magazine. Have students write those definitions on their worksheets and compare them with the definitions they wrote.

### READ

Give students a few minutes to scan the article's images in their student magazines. Then have them read the subheads. As a class, discuss how the images and subheads are related.

Guide students to recognize that the images show what the big cats look like. The subheads tell what they look like, how they act, and why that can lead to problems with humans. In essence, the subheads are a road map that will guide them as they read about the big cats they saw in the photos.

Explain to students that there are four basic types of text structure: chronology, comparison, cause/effect, and problem/solution. Review the basics of each. **Then say:** *When you're reading an article that gives multiple examples of the same thing, such as four different kinds of big cats, chances are good that the author will use more than one type of text structure in the text. For example, how do the big cats hunt for prey? Do they do it in the same way or are there big differences? If so, in the section that describes hunting behaviors, the writer likely used comparison to outline those differences. As you read the entire article and identify its central focus, you will find that the writer relied on one type of text structure to make the main point. That is the overall structure of the text.*

Give each student a copy of the **Language Arts Assessment Master**. Instruct students to circle what they think is the overall text structure used in this article. Then have students read the article on their own. As they read, instruct students to identify specific sections where the writer used each type of text structure. Challenge them to explain why they think the writer chose a specific type of text structure for each section.

# The Four That Roar

## LANGUAGE ARTS

### TURN AND TALK

Have students turn and talk to discuss what they learned about the four big cats that roar. **Ask:** *What are the four cats that can roar?* (lion, leopard, jaguar, and tiger) *What is one way these four big cats are alike?* (Possible response: They are all carnivores.) *What is one way they are different?* (Possible response: They have different patterns on their fur.) Invite students to share what else they learned about the four big cats that roar.

- **Identify Text Structure** Review with students the different types of text structure. Encourage students to identify what they think is the overall text structure of this article. Challenge them to explain why. Then have students turn and talk to share their **Language Arts Assessment Masters** with a partner. Did they identify the same sections for each type of text structure? If so, did they explain the writer's choice in the same way? If students identified different sections, do both of their selections make sense? If not, encourage partners to read the section again.

- **Explain Concepts** After reading the article, **say:** *One way to see if you understand information is to try to tell someone else about the topic. If you can't explain the concept, you might need to read the article again.* Have students turn and talk to explain to a partner how why these four big cats can roar. Prompt discussion with questions such as: *Why do these four cats roar?* (They all have a missing bone in their voice boxes.) *What do they have instead?* (They have a band of stretchy tissue.) *Why do their roars sound different?* (The more the band stretches, the lower the sound that is made when the air passes across the vocal cords.) *What sound would the cats make if they didn't have the missing bone?* (They would purr.)

### WRITE AND ASSESS

You may want students to write about what they learned to assess understanding. Encourage students to reflect upon what they read and how it affected their ideas about the topic.

- *Why are "King of the Jungle" and "Ghosts of the Savanna" good nicknames for big cats that roar?*
- *What is a conservationist? How do conservationists help big cats?*
- *What surprised you about what you read?*

# The Four That Roar

## SCIENCE

### Objectives

- Students will compare and contrast the four big cats that roar.
- Students will identify traits that help cats become successful hunters so they can survive.
- Students will recognize issues that lead to conflicts between big cats and humans.

### Resources

- Content Assessment Master (page 8)
- "The Four That Roar" poster (Teacher's Edition)
- "Know Your Cats" poster (Teacher's Edition)
- Comprehension Check (page 9)
- "The Four That Roar" Interactive Whiteboard (optional)

### Science Background

Big cats are the indisputable leaders in their domains. As apex predators, they reign at the top of the food chain. By limiting the number of plant eaters and preying on the sick, they keep their habitats healthy and their ecosystems in check.

Lions, tigers, jaguars, and leopards are four of the most fearsome predators. In addition to being outstanding hunters, they are the only four big cats that can roar. This is possible because they all have a missing a bone in their voice boxes.

Despite their status, these four big cats—like all other big cats around the world—are in danger of becoming extinct. One major problem they all face is the loss of habitat. As people clear land for new homes and businesses, big cats' habitats shrink. Their closer proximity to humans leads to inevitable conflicts between the two species.

Some people kill big cats. Farmers do this when the cats prey on their livestock. And poachers kill so they can sell the cats' body parts. But other people are trying to save big cats. They teach people how to live beside the predators. They set aside land for big cats to live on. They work to ensure that all big cats can survive.

### ENGAGE

#### Tap Prior Knowledge

Poll the class to see how many students have a pet cat. Invite a few volunteers to describe their cats. What do the cats look like? How do they behave? Challenge the class to explain how domestic cats are similar to or different from big cats that live in the wild.

### EXPLORE

#### Preview the Lesson

Display the photos in the article. Invite volunteers to describe the big cat they see. Then have them describe the place where this big cat lives. **Ask:** *In what kind of environment does it look like this big cat lives? (a jungle)* Point out the cat's teeth and claws. **Ask:** *Based on these traits, how do you think this big cat gets its food? (It hunts other animals.)* Tell students that as they read the article they will learn why this behavior, which helps all big cats survive, can also cause conflicts between big cats and humans who live in the same environment.

#### Set a Purpose and Read

Have students read the article in order to compare and contrast the four big cats that roar, identify traits that help cats become successful hunters so they can survive, and recognize issues that lead to conflicts between big cats and humans.

# The Four That Roar

## SCIENCE

### EXPLAIN

#### Compare and Contrast Big Cats

Review the photos. Encourage students to identify similarities between the big cats. (Possible responses: fur, sharp teeth, claws, etc.) Challenge students to identify differences. (Possible responses: color and pattern of fur, size, and hunting habits) Then display the map on pages 6-7. **Say:** *This map shows the big cats' approximate ranges, or the areas where they live. As you can see, their ranges are in different places.* **Ask:** *But what does the article tell you all of these ranges have in common?* (They're shrinking.) Give each student a copy of the **Content Assessment Master**. Divide the class into small groups. Instruct groups to review the article. Challenge them to compare and contrast the four big cats that roar.

#### Identify Traits that Help Cats Survive

Display pages 4-5. As a class, review the sections "Built to Hunt" and "Hunting Prey." Have students identify adaptations that help big cats catch prey. (Possible responses: long tails, claws, strong legs, etc.) Discuss how the cats use each adaptation. (Example: Strong legs and claws help leopards climb trees.) Then display the **"Know Your Cats" poster**. Review the poster with the class. Challenge students to identify adaptations that help these cats survive.

**Recognizing Conflicts: Big Cats and People** Display the map on pages 6-7. Remind the class that this map shows where big cats live. **Ask:** *Who else lives in these same places?* (people) Divide the class into small groups. Instruct groups to review pages 6-9 of the article in their student magazines. Then have students take out their **Content Assessment Masters**. Tell them to record problems that arise when big cats lose their habitats and solutions people have tried to solve these problems. Have students explain whether or not they think these solutions will be enough to save the big cats from extinction.

### ELABORATE

#### Find Out More

Point out to the class that the map on pages 6-7 shows the current ranges of the four big cats that roar. It does not show what their ranges were in the past. Divide the class into groups. Instruct groups to conduct research to learn more about these shrinking habitats. How large did they used to be? What specifically caused them to shrink?

#### Extend Your Thinking About Big Cats

Remind students that in 2009 the National Geographic Society launched the Big Cats Initiative. Through conservation, education, and spreading the word about big cats, this program helps to ensure the survival of all big cats. As a class, brainstorm a list of ideas that would help the Big Cats Initiative succeed in its mission.

### EVALUATE

Have students record their answers to the assessment questions in their science notebooks or on a separate sheet of paper.

- *What is a conservationist?* (a person who works to protect and manage Earth's natural resources and the wildlife that depends on those resources)
- *How can a reserve help protect big cats from poachers?* (The animals on a reserve are protected and they can roam freely. The people who protect them are on the lookout for poachers.)
- *How do photo safaris help save big cats?* (Tourists pay to go on photo safaris. The money they pay is used to help the cats. Locals work for the tour companies. They earn their living from keeping the animals safe.)

If you wish, have students complete the **Comprehension Check** to assess their knowledge of concepts mentioned in the article.

Name \_\_\_\_\_

Date \_\_\_\_\_

**VOCABULARY ASSESSMENT: The Four That Roar**

Record information from the article about each vocabulary word.

Word	Familiarity with the Word			Knowledge of the Word	
	I know the word very well.	I've seen or heard the word before.	I don't know the word.	What I think the word means:	How the article defines the word:

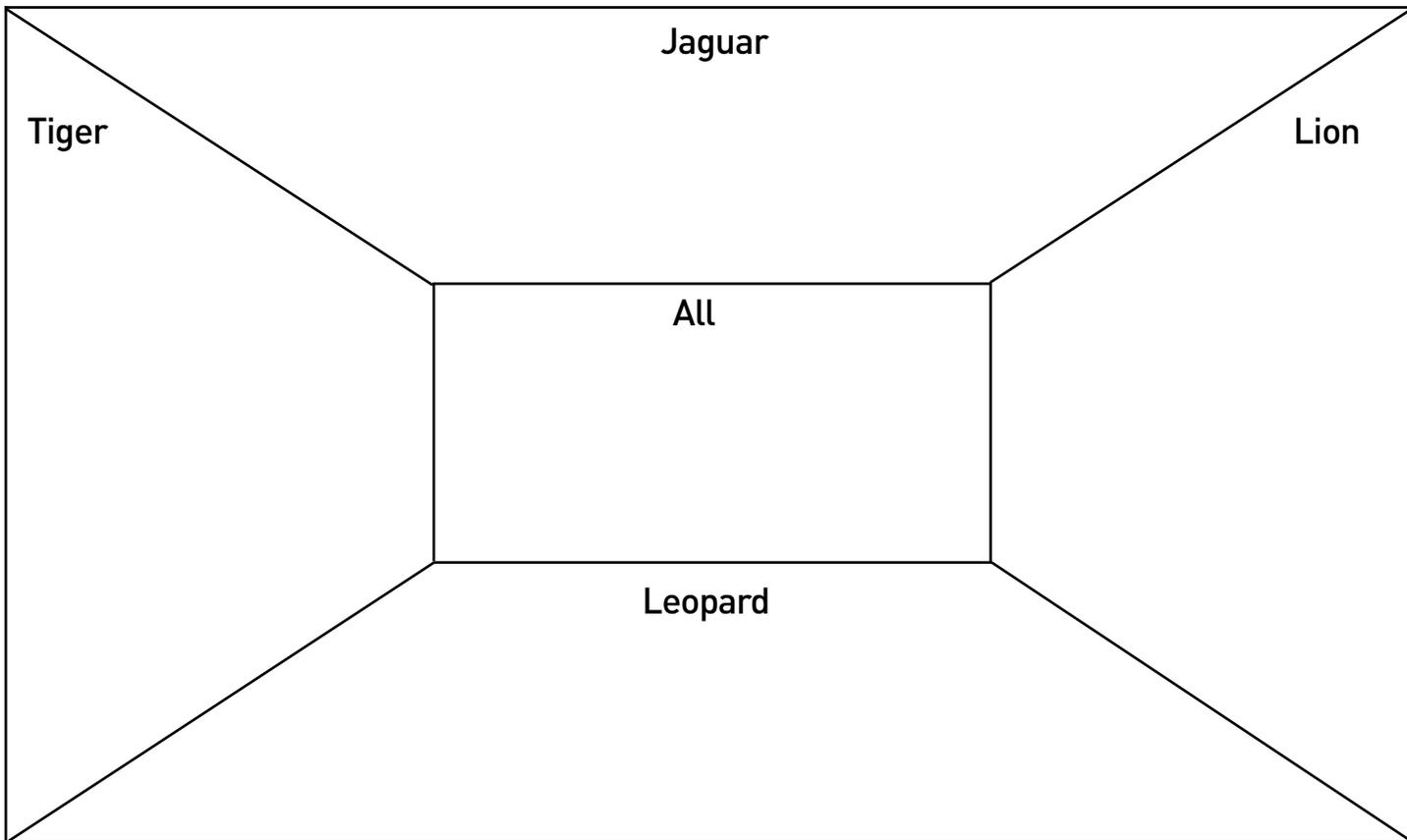
## LANGUAGE ARTS ASSESSMENT: The Four That Roar

Circle what you think is the article's overall text structure. Identify sections that use each type of structure. Explain why the writer used certain types of structure in each section.

Text Structure	Section	Explanation
Chronology		
Comparison		
Cause/Effect		
Problem/Solution		

## CONTENT ASSESSMENT: The Four That Roar

Compare and contrast the four big cats that roar.



List problems that arise when big cats lose their habitats.

List solutions people have tried to help big cats survive.

Do you think these solutions will save big cats? Tell why or why not.

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**COMPREHENSION CHECK: The Four That Roar**

Read each question. Fill in the circle next to the correct answer or write your response on the lines.

1. Which adaptation helps big cats twist and turn during chases?  
Ⓐ a long tail  
Ⓑ a flexible spine  
Ⓒ strong legs
  
2. How are the four big cats that roar the same?  
Ⓐ They hunt zebras.  
Ⓑ They climb trees.  
Ⓒ They are apex predators.
  
3. How are conservationists and farmers working together to save big cats?  
Ⓐ They are building pens for livestock.  
Ⓑ They are creating reserves.  
Ⓒ They are poaching big cats.
  
4. How are people helping jaguars survive in Central and South America?  
Ⓐ They are building bomas for jaguars to live in.  
Ⓑ They are connecting pieces of the jaguar habitat.  
Ⓒ They are setting aside land for a jaguar reserve.

5. Describe two ways that photo safaris help save big cats.

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## ANSWER KEY

### The Four That Roar

#### Assess Vocabulary, page 6

Students should record the vocabulary words from the Wordwise feature on page 9, make checkmarks to show how familiar they are with each word, and write definitions in their own words. Then they should record the definitions from the article.

**adaptation:** a behavior or body art that helps an animal survive

**apex predator:** the most powerful predator in an ecosystem

**conservationist:** a person who works to protect and manage Earth's natural resources and the wildlife that depends on those resources

**poach:** to illegally hunt an animal, usually to sell its meat, skin, or other body parts

**reserve:** a tract of public land set apart for the protection of plants and animals

#### Assess Language Arts, page 7

Students should circle the option they think is the overall text structure of the article. Sections identified for each type of text structure may vary. All choices should be supported with valid reasons.

#### Assess Content, page 8

Students may identify differences in fur, hunting behaviors, or habitats. Similarities include: all four roar, are carnivores, and apex predators. All four also have shrinking habitats, problems with humans, and potentially face extinction.

Potential problems: fewer wild animals to eat; prey on livestock; farmers kill them; and poachers

Potential solutions: paying farmers not to kill the big cats; building pens for livestock; setting aside land for reserves; connecting habitats; and photo safaris

Student responses to the final question will vary.

#### Comprehension Check, page 9

1. B; 2. C; 3. A; 4. B; 5. Possible response: The money tourists pay to see big cats goes toward conservation efforts. Locals hired to work at tour companies realize the big cats are valuable and worth protecting.