LAFS.5.RI.3.7 Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.

Lesson 18
Finding Information from Multiple Sources

Learning Target

Knowing how to get information from many sources can help you answer questions, solve problems, and gather information quickly.

Read When looking for information or the answer to a question, you must often read several **sources.** Sometimes you can find that information in a **print source** such as a book or magazine. Other times you can find the information in a **digital source** such as a website.

Use text features such as tables of contents, website menus, headings, picture captions, and keywords to help you locate information quickly and efficiently.

In the cartoon below, a family wants to get to a theme park. Circle the sources of information they are using to get there.

Think Consider what you know about print and digital sources. You can use a chart to keep track of the information you find in multiple sources.

Complete the chart below to describe the information they probably got from each of the four sources.

Sign	Map	Computer	Smartphone
Shows that either road leads to the theme park			

Talk Share your chart with a partner.

- Which sources in the cartoon are print sources?
- Which sources are digital sources?
- How will using multiple sources help the family decide which road to take to the theme park?

Academic Talk

Use these words and phrases to talk about the text.

- **digital source**
- **print source**
- **source**

Read

Genre: Science Texts

Watch Your Body Language

by Mario Ehlers

People don't always tell you what they're thinking, but body language often tells us quite a lot. For example, if a person were to drum her fingers, she is probably impatient. If a person shreds a paper cup while he is talking, he might be nervous. Even a person's eyes can give you information about what's going on in his or her mind. Be observant and you might find out a lot about your classmates!

bored

nervous

angry

It's in the Eyes

Body language isn't just how we stand, sit, or move our bodies. You can find out so much information from facial expressions—especially the eyes. If someone blinks a lot, he might be very nervous. If someone's eyes dart to their right, it's possible that they're lying. Such eye-catching movements can tell you a lot about what someone might be thinking or feeling at a given moment.

guessing

remembering truth

lying

Close Reader Habits

When you reread these sources, **underline** the main idea of each one. Then **circle** an idea that appears in *both* sources.

Explore **How does reading two sources give you a deeper understanding of body language than if you had read just one source?**

Look for similar information in both sources. This is a clue the information is important.

Think

1 Complete the chart below with information from each source.

"Watch Your Body Language"	"It's in the Eyes"
Drumming fingers could show impatience.	

Talk

2 What important ideas are found in "Watch Your Body Language" and "It's in the Eyes"? If necessary, revise your charts to add more information.

HINT Always study pictures and captions. They can provide as much useful information as the text itself.

Write

3 **Short Response** The topic of each source is body language. But what specific idea appears in **both** sources? Use details from both sources to support your response. Use the space provided on page 328 to write your answer.

Incredible Animal Ears

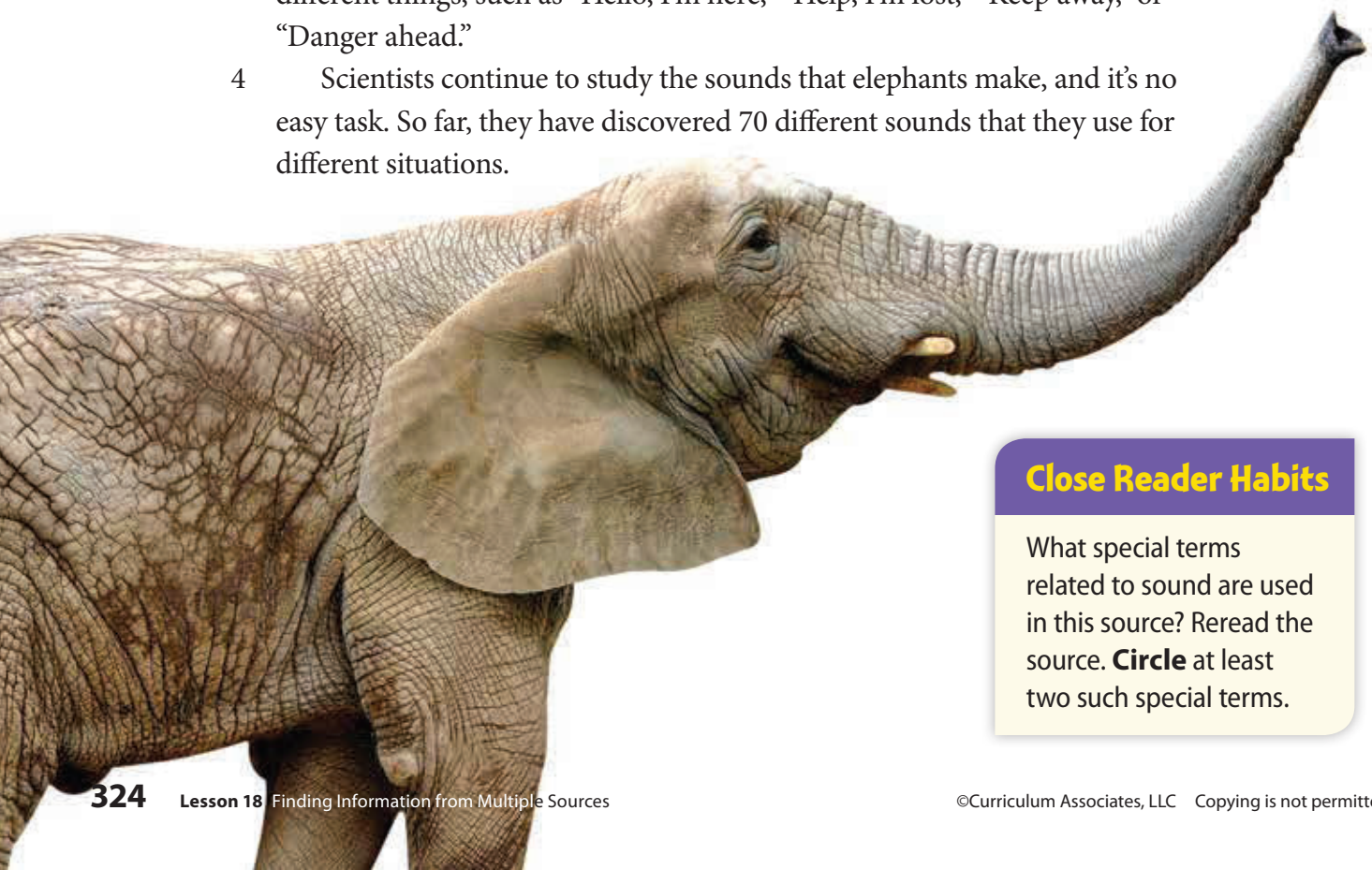
by Ari Griffen

1 Elephants storm across a hot, African desert toward a source of water. Suddenly, they stop. Their ears open up wide and appear to hear distinct sounds, and yet humans observing the scene nearby hear nothing. What is happening? Actually, the elephants are hearing a sound, but it has a pitch so low that humans can't detect it. We call this low pitch infrasound.

2 Scientists first discovered this sound by using a machine called a spectrograph. This machine recorded the sounds and charted them so scientists could study them along with the elephants' behaviors. These scientists concluded that the low sounds were actually warning sounds from another herd.

3 The deepest rumbling sounds measure between 1 and 20 hertz, way below the sounds that human ears can detect. These infrasonic calls can mean different things, such as "Hello, I'm here," "Help, I'm lost," "Keep away," or "Danger ahead."

4 Scientists continue to study the sounds that elephants make, and it's no easy task. So far, they have discovered 70 different sounds that they use for different situations.



Close Reader Habits

What special terms related to sound are used in this source? Reread the source. **Circle** at least two such special terms.

Genre: Science Article

Animal Sounds

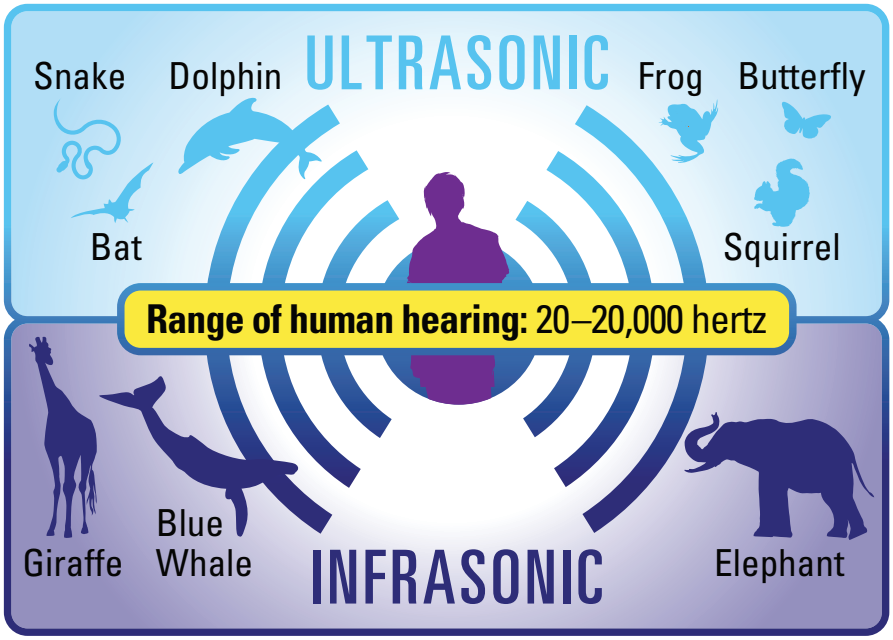
by Philipe Gelinas

1 Bees dance or emit smells to communicate with one another. Electric eels use electricity to communicate with one another. Horses rub noses, and giraffes press their necks together. Yet, one of the most important ways animals communicate is by sound.

2 Sound travels in waves, and its pitch, or frequency, is measured in a unit that scientists call *hertz*. The lowest frequency a person can hear is 20 hertz (20 cycles per second). The highest frequency we can hear is 20,000 hertz.

3 Some animals have incredible hearing. Elephants can communicate with other elephants up to ten miles away using a very low infrasound that the human ear cannot hear. Giraffes can pick up sounds less than 20 hertz. Some whales can hear sounds as low as 10 hertz.

4 Other types of whales, such as dolphins, mainly use high-pitched sounds. Most of these sounds are also out of the range of the human ear. We call these sounds *ultrasound*. Rats giggle at the ultrasound levels, and squirrels warn one another of danger by making high-pitched noises. And imagine this: bats can hear sounds that can measure as high as 100,000 hertz!



Close Reader Habits

The first source introduces the idea of "hertz." How does the second source help you understand that idea? Reread both sources. **Underline** sentences in both sources and **circle** details in the diagram that explain "hertz" to the reader.

Think Use what you learned from reading the sources to answer the following questions.

When you read different sources on the same topic, look for information in one source that clarifies what you read in the others.

1 This question has two parts. Answer Part A. Then answer Part B.

Part A

What conclusion can you base on evidence found in **both** sources?

- **A** All animals can use ultrasound and infrasound to communicate.
- **B** Some animals use sounds to tell each other about possible threats.
- **C** Scientists continue to discover new ways that animals communicate.
- **D** Body language is as important to elephant communication as sound is.

Part B

Choose **one** detail from **each** source to support the answer in Part A.

- **A** "Their ears open up wide and appear to hear distinct sounds, and yet the humans observing the scene nearby hear nothing." ("Incredible Animal Ears")
- **B** "These scientists concluded that the low sounds were actually warning sounds from another herd." ("Incredible Animal Ears")
- **C** "So far, they have discovered 70 different sounds that they use for different situations." ("Incredible Animal Ears")
- **D** "Sound travels in waves, and its pitch, or frequency, is measured in a unit that scientists call hertz." ("Animal Sounds")
- **E** "Elephants can communicate with other elephants up to ten miles away using a very low infrasound that the human ear cannot hear." ("Animal Sounds")
- **F** "Rats giggle at the ultrasound levels, and squirrels warn one another of danger by making high-pitched noises." ("Animal Sounds")

2 This question has two parts. Answer Part A. Then answer Part B.

Part A

What main idea do **both** sources share?

- **A** Humans can hear sounds that are between 20 and 20,000 hertz.
- **B** Animals communicate with each other using sounds, many of which people cannot hear.
- **C** Some animals communicate with high-pitched sounds called ultrasound; other animals use low-pitched sounds.
- **D** Elephants use different sounds for different situations, such as signaling their location or a need for help.

Part B

Choose **one** detail from **each** source to support the answer in Part A.

- **A** "Actually, the elephants are hearing a sound, but it has a pitch so low that humans can't detect it." ("Incredible Animal Ears")
- **B** "Scientists continue to study the sounds that elephants make, and it's no easy task." ("Incredible Animal Ears")
- **C** "So far, they have discovered 70 different sounds that they use for different situations." ("Incredible Animal Ears")
- **D** "Bees dance or emit smells to communicate with one another." ("Animal Sounds")
- **E** "Yet, one of the most important ways animals communicate is by sound." ("Animal Sounds")
- **F** "The lowest frequency a person can hear is 20 hertz (20 cycles per second)." ("Animal Sounds")

Talk

3 Look for details in both sources that describe what "hertz" is. Use the chart on page 329 to collect evidence from the sources.

HINT Some sources only briefly describe an idea. Other sources can describe the idea in much more depth.

Write

4 **Short Response** Explain how the description of "hertz" in "Animal Sounds" develops an idea introduced in "Incredible Animal Ears." Include details from each source to support your response. Use the space provided on page 329 to write your answer.

Write Use the space below to write your answer to the question on page 323.

Watch Your Body Language

It's in the Eyes

3 **Short Response** The topic of each source is body language. But what specific idea appears in **both** sources? Use details from both sources to support your response.

Don't forget to check your writing.

Check Your Writing

- ☐ Did you read the prompt carefully?
- ☐ Did you put the prompt in your own words?
- ☐ Did you use the best evidence from the text to support your ideas?
- ☐ Are your ideas clearly organized?
- ☐ Did you write in clear and complete sentences?
- ☐ Did you check your spelling and punctuation?

Incredible Animal Ears
Animal Sounds

3 **Use the chart below to organize your ideas.**

Information About the Concept of "Hertz"

"Incredible Animal Ears"	"Animal Sounds"

Write **Use the space below to write your answer to the question on page 327.**

4 **Short Response** Explain how the description of "hertz" in "Animal Sounds" develops an idea introduced in "Incredible Animal Ears." Include details from each source to support your response.

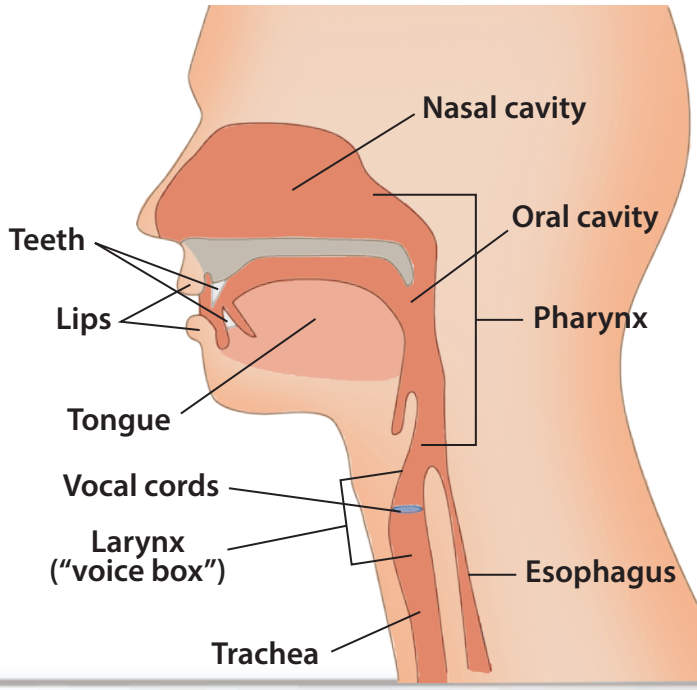
Read

Genre: Science Article

WORDS TO KNOW
As you read, look inside, around, and beyond these words to figure out what they mean.
- **release**
- **vibrate**

HOW WE SPEAK

1 Speaking is possible because we have special parts in our bodies: lungs, throat, voice box, tongue, and lips. When we speak, we release air from our lungs. If we are going to speak a long sentence, our brains tell our bodies to push out a long puff of air. If we are speaking only a word or two, the puff will be smaller. This puff of air goes from the lungs through the larynx, which is made up of cartilage and muscle. The larynx, often called the voice box, contains vocal cords that stretch across the opening. When the air passes through the vocal cords, they vibrate, or move back and forth quickly, and make a sound.



Genre: Science Article

What Are Vocal Cords?

by Hong Cao

WORDS TO KNOW
As you read, look inside, around, and beyond these words to figure out what they mean.
- **concert**
- **automatically**

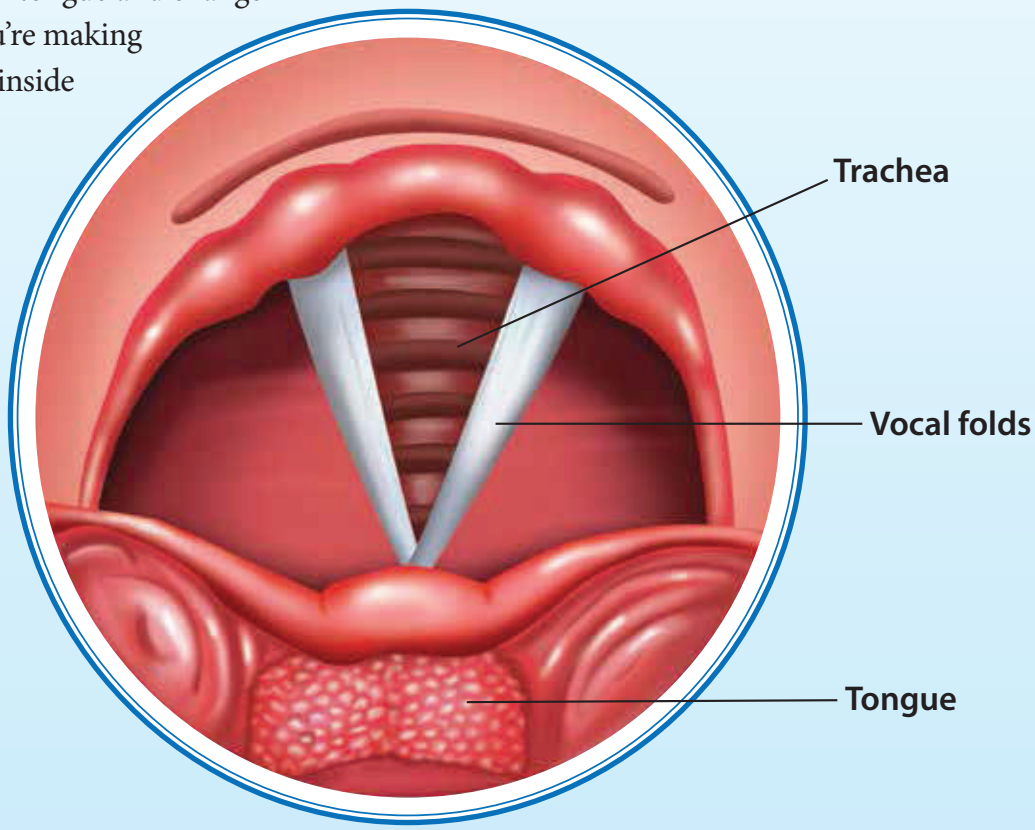
1 If you think that vocal cords are like strings on a guitar, you'd be wrong. Actually, vocal cords are vocal folds, or many layers of tissue that vibrate in your larynx. You can still use the term *vocal cords*, however, as both terms mean the same thing. The vocal cords have a V-shape.

2 How do we use the vocal cords? To make a high sound, we tighten the vocal cords. To make a low sound, we relax the cords. And most people do all this without even thinking!

3 So now the sound is coming through the vocal cords, but the sound isn't a word yet. What happens next is that we use our throat, tongue, mouth, and lips to shape the sound into vowels and consonants.

4 For example, say a word like *football* or *window*. Notice how you open your mouth and move it around when you change vowels and consonants. Notice how you move your tongue and change its shape as you speak. You're making a fancy concert of sounds inside your mouth!

5 Speaking seems like the most natural thing in the world, and when we do speak, we rarely, if ever, think about how we create words and sentences. Even so, we aren't born knowing how to make words automatically.



Genre: Science Article

Dogs and Birds: MAKING NOISE

by Anatoly Kuznets

WORDS TO KNOW

As you read, look inside, around, and beyond these words to figure out what they mean.

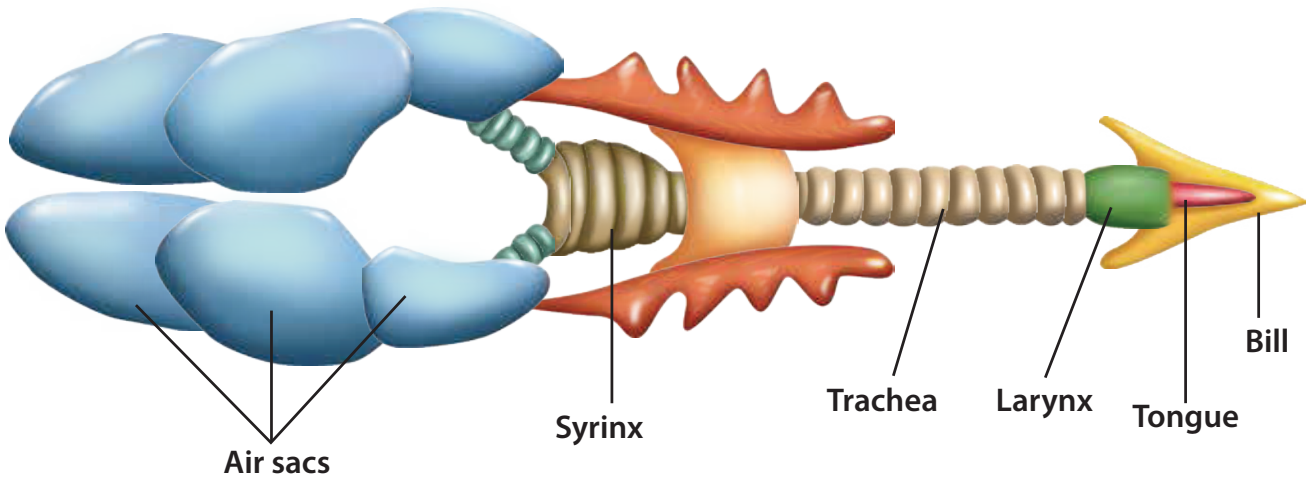
- **variety**
- **anatomy**
- **imitate**

1 Animals can make a variety of sounds—from the loud barking of a dog to the sweet song of a bird. How do animals make these sounds?

2 A dog can make quite a few sounds, from whines to loud barking sounds. Scientists say that the dog has vocal cords much like a human's inside its thorax, or chest. So why can't a dog speak? The big difference is in the dog's anatomy, or the structure of its body. A dog's mouth is not as flexible as a human's. A dog can't move its mouth to make it smaller or roll its tongue in different positions. So after the air passes through the vocal cords, the dog can't change the sound very much.

3 Birds, on the other hand, can make a wide variety of sounds. Some birds, like parrots, can even imitate human speech. Singing birds have a larynx, but they don't have vocal cords. Instead, a singing bird uses its syrinx to make sounds. The syrinx is in the throat and is made up of membranes (like thin pieces of skin) that form the sounds when air passes through them. Birds can vary the sounds by squeezing or loosening the tension of the muscles in the syrinx. They move their esophagus, windpipe, pharynx, and mouth to vary the sounds. Like humans, birds have to learn how to make these sounds. Some birds, like vultures and some storks, don't have a syrinx. So you'll never hear these birds singing a note!

SOME OF A BIRD'S SOUND-MAKING STRUCTURES



Think Use what you learned from reading the sources to answer the following questions.

1 This question has two parts. First, answer Part A. Then answer Part B.

Part A

What idea do "How We Speak" and "What Are Vocal Cords?" share?

A Several parts of our bodies work together to let us speak.

B We can make sounds because we have vocal folds.

C Your mouth and tongue help you form vowels.

D Air travels from the lungs to the voice box.

Part B

Choose **one** detail from **each** source to support the answer in Part A.

A "Speaking is possible because we have special parts in our bodies: lungs, throat, voice box, tongue, and lips." ("How We Speak")

B "When we speak, we release air from our lungs." ("How We Speak")

C "The larynx, often called the voice box, contains vocal cords that stretch across the opening." ("How We Speak")

D "Actually, vocal cords are vocal folds, or many layers of tissue that vibrate in your larynx." ("What Are Vocal Cords?")

E "To make a high sound, we tighten the vocal cords." ("What Are Vocal Cords?")

F "What happens next is that we use our throat, tongue, mouth, and lips to shape the sound into vowels and consonants." ("What Are Vocal Cords?")

2 Circle the word in the paragraph below that means "capable of bending easily without breaking."

So why can't a dog speak? The big difference is in the dog's anatomy, or the structure of its body. A dog's mouth is not as flexible as a human's. A dog can't move its mouth to make it smaller or roll its tongue in different positions. So after the air passes through the vocal cords, the dog can't change the sound very much.

3 What information in "What Are Vocal Cords?" helps the reader understand why dogs can't speak, as stated in "Dogs and Birds: Making Noise"?

A People can make higher sounds by tightening the vocal cords and lower sounds by relaxing the cords.

B Even though we don't often think about how we say words and sentences, we don't learn to speak automatically.

C People move their mouths to form words from the sounds made by the vocal cords.

D The vocal cords of humans are not like the strings on a guitar because they have a V-shape.

Write

Using information from all three sources, explain how humans and animals make sounds. What similarities and differences are pointed out in the three sources? Reread each source and underline details that will help you explain how humans and animals make sounds. Then complete numbers 4 and 5.

4 **Plan Your Response** Use a three-column chart to make notes about the specific information in each source. You will use these notes to provide examples for the points in your essay.

5 **Write an Extended Response** Using evidence from the sources and information from your chart, explain how people and animals make sounds.

Learning Target

In this lesson, you used several sources to find information and answer questions. Explain how using multiple print and digital sources will help you find complete and accurate information.