

- B.** Work with a partner. Discuss the statements in the chart in Exercise A and compare your responses.

Preview and Predict

- C.** Read the title and subtitle of the article on pages 55–57. Look at the picture and read the caption. Look at the headings. Can you guess what the article will be about? Think of three topics that might be discussed in the article and write them on the lines.

1. _____

2. _____

3. _____

Preview the Vocabulary

- D.** The words and phrases in the box are boldfaced in the article. Complete the Vocabulary Chart with words from the box. If necessary, use your dictionary.

Words to Watch

habitat

satellite dish

mate

maintain

tusks

conservationist

extinction

persuade

Vocabulary Chart

Word	Definition
	a large circular piece of metal that receives the signals for radios and television
	two very long teeth that stick out of an animal's mouth
	to keep something in good condition by taking care of it
	to have sex to produce babies
	a person who is concerned about the protection of natural things such as wild animals or places
	the natural environment in which a plant or animal lives
	the state of no longer existing, such as for types of animals
	to make someone decide to do something by giving good reasons

Set a Purpose

You are going to read an article about how elephants communicate with each other. Write two questions you would like the article to answer.

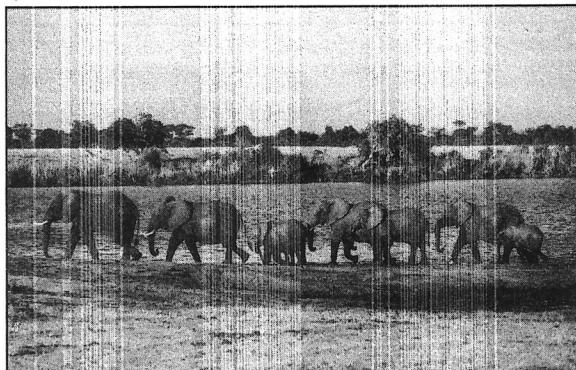
1. _____
2. _____

AS YOU READ

As you read the article, think about the underlined words and phrases. Use context clues to guess the meaning of each word and write it in the space provided. Think about the strategies (definitions, examples, similarity signals, contrast, or general sense of sentence) that helped you figure out the meaning of the word.

Big Talkers

Earth's largest land animals have a lot to say—even when they don't seem to be making a sound.



These elephants are communicating with one another.

1 Thirsty and hot, twelve elephants plop across the hot and dry African landscape. The water hole is less than a mile away now, and everyone in the group is looking forward to a good, long drink. Tired calves—baby elephants—want to stop, but mothers and aunts gently push them along. The older animals make soft, soothing noises. “We’re almost there,” they seem to say. “Just keep walking a little longer.”

plod: _____

looking forward to: _____

calves: _____

2 Suddenly everyone stops. Huge ears stretch out like **satellite dishes**. After a minute or two of what seems like silence, the animals turn and quickly walk away from the water hole. As they go, the adults stay close to the calves. So what happened? Why did the elephants change their course? They seemed to be listening to something. And whatever it was, they got the message to flee! Yet human ears were unable to hear the sounds. Elephants make lots of sounds that humans can hear, such as barks, snorts, roars, and trumpetlike calls. Often a group of elephants use such sounds to talk with other elephants.

(continued)

course: _____

flee: _____

Second Language

- 3 For years, scientists were puzzled by this type of elephant behavior, but now they have solved the mystery. They discovered that elephants have a "secret language" they use for communicating over long distances.
- 4 This special talk is based on infrasound, sounds so low that humans can't hear them. But elephants can hear them. The sounds can travel for several miles, allowing the six-ton animals to communicate across grasslands and forests in Africa or Asia.
- 5 Studying infrasound helps scientists understand elephant behavior. For example, the elephants heading to the water hole may have heard warning calls from another group of elephants. Perhaps those elephants saw a lion slurping water at the water hole. The lion looked hungry. The lion could not kill an adult elephant, but it might kill a calf. No drink would be worth that risk, so the herd turned away.

puzzled: _____

infrasound: _____

slurping: _____

Long-Distance Calls

- 6 Elephants use infrasound to communicate many types of messages over long distances. Some of their talk helps hold families

together. To understand how this works, you need to know a little about elephant families.

- 7 Female elephants spend their lives with mothers, sisters, and children. They live in close social groups called herds. A herd usually has ten to twenty members. The oldest female elephant in the herd—the matriarch—is the leader. She's in charge. Males live with their mother's herd until they are teenagers. Then they leave the herd and live alone.
- 8 The members of a herd often go off in different directions over large areas to look for food for their big appetites. (An adult elephant can eat 300 pounds of grass and plants in a single day!) Long-distance calls let

herds: _____

matriarch: _____

appetite: _____

elephants know where their relatives are. And when the matriarch says, "Come here!" the herd gathers within minutes.

- 9 Like curious kittens, elephant calves sometimes walk off and get into trouble. When that happens, they cry for help. Mothers respond with infrasound calls and other noises. Sisters and aunts answer the cries, too. "It's OK. Be careful. We're coming to help you."
- 10 Adult males and females often live far apart, so they use infrasound to find each other at mating time. Females **mate** only once every four years or so. When a female is

ready, she makes a special series of calls. Males who hear the calls storm toward her. Sometimes two or more males battle fiercely for a chance to mate with the female.

Hearing Aids

- 11 Elephants have several ways of learning what's going on around them. Elephants listen to sounds and communication calls with their large, powerful ears. An African elephant's ear can grow to be six feet long and four feet wide. When trying to hear something, the animal turns toward the sound and opens its ears wide.
- 12 At the same time, the elephant may raise its trunk to sniff at the wind. Elephants have an excellent sense of smell. Odors may help them figure out what they're hearing.
- 13 Elephants may have another way of learning what's going on around them. Although scientists haven't proved it, they have a theory. Some scientists think elephants can actually feel infrasound as certain sound waves travel through the ground.

storm:	_____
sniff:	_____
odors:	_____
theory:	_____

Call for Help

- 14 Communication skills help Earth's largest land animals survive in the wild. But even these skills can't save elephants from **extinction**.

15 In 1997 Africa's elephant population was about 500,000. That may sound like a lot, but there were 1.3 million African elephants in 1979. More than half of the elephant population disappeared in only eighteen years.

16 How did this happen? First of all, people killed many elephants for their ivory **tusks** because ivory can be sold for a lot of money. But that's not the whole story. As the human population grew, people needed more land to live and grow crops on. Large areas of elephant **habitat** were wiped out in order to build farms and towns. Elephants from these areas wandered into human settlements. When they were hungry, the elephants ate valuable crops that farmers had planted. Some farmers became angry enough to kill the elephants.

wandered into: _____

crops: _____

How Will We Answer?

- 17 **Conservationists** are working hard to save elephants. They are trying to **persuade** people around the world to stop buying ivory. They believe all trade in ivory should be illegal. Elephant supporters are also working with African communities to **maintain** parks where elephants can be safe and will not harm crops. Some conservationists hope that tourists will visit these beloved animals there. That would mean jobs for local people, who would then view elephants as valuable animals that need to be protected.

AFTER YOU READ

Check Your Comprehension

- A.** True or false? Write T (True) or F (False) next to each of the following statements. If a statement is false, rewrite it to make it true.

- _____ 1. Humans can hear all the sounds elephants make.
- _____ 2. Scientists study infrasound to learn about elephant behavior.
- _____ 3. Male elephants live in close social groups called herds.
- _____ 4. Elephants have more than one way of learning what's going on around them.
- _____ 5. Elephants have a poor sense of smell.
- _____ 6. The number of elephants in the world is rapidly decreasing.
- _____ 7. There are several reasons why elephants face extinction.

Use Context Clues

- B.** Work with a partner and follow the steps.

1. Write both your definition and your partner's in the chart. Talk about the clues and strategy you used to come up with your definitions.
2. Look up the word or phrase in a dictionary and write the dictionary definition.
3. How close was your guess to the dictionary definition? Do you think your strategy was successful? Circle Yes or No in the last column.

Word/ Phrase	Your Definition	Your Partner's Definition	Dictionary Definition	Yes/No
plod				Yes No
looking forward to				Yes No
calves				Yes No
course				Yes No
flee				Yes No
puzzled				Yes No
infrasound				Yes No

Word/ Phrase	Your Definition	Your Partner's Definition	Dictionary Definition	Yes/No
slurping				Yes No
herds				Yes No
matriarch				Yes No
appetite				Yes No
storm				Yes No
sniff				Yes No
odors				Yes No
theory				Yes No
wandered into				Yes No
crops				Yes No

Test Your Vocabulary

- C. Complete each of the sentences that follow with the best word from the box. Be sure to use the correct form of the word.

habitat	satellite dish	mate
maintain	tusks	conservationist
extinction	persuade	

- Her necklace was carved out of ivory from an elephant's _____.
- When forests are cut down, many animals lose their _____.
- Female elephants _____ only about every four years.
- When the number of animals in a certain species gets very low, it faces _____.
- My mother is a _____ who is trying to save beaches from being destroyed.

(continued)