

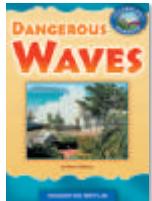
# Lesson 24



## TARGET VOCABULARY

**bond**  
**suffered**  
**intruder**  
**companion**  
**enclosure**  
**inseparable**  
**charged**  
**chief**  
**exhausted**  
**affection**

Vocabulary Reader      Context Cards



COMMON CORE

L.4.6 acquire and use general academic and domain-specific words and phrases

# Vocabulary in Context

1

## bond

Many people feel a very strong **bond**, or connection, with animals.



2

## suffered

A veterinarian treats animals who have **suffered** injury or illness.



3

## intruder

Animals are cautious when an **intruder** invades their territory.



4

## companion

A pet is usually a **companion** of its owner. They spend a lot of time together.



- ▶ Study each **Context Card**.
- ▶ Use a dictionary to help you understand the meanings of these words.

### 5 **enclosure**

This ranch worker checks to be sure that an animal's **enclosure** is secure and safe.



### 6 **inseparable**

People and their service animals often become **inseparable**. They are never apart.



### 7 **charged**

This dog has **charged**, or rushed at, the ball that its owner has tossed.



### 8 **chief**

One of the **chief** jobs of an aquarium biologist is to educate visitors about sea life.



### 9 **exhausted**

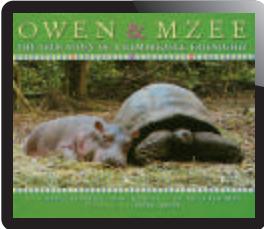
This dog walker loves his job, but he will be **exhausted**, or worn out, by the day's end.



### 10 **affection**

This girl feels **affection**, or fondness, for the sheep on her family's farm.



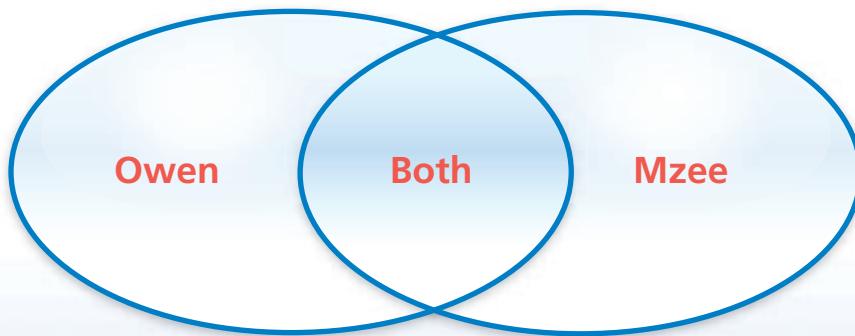


# Read and Comprehend



## TARGET SKILL

**Compare and Contrast** The next selection is about two very different animals who find a common bond. As you read “Owen and Mzee,” look for ways in which the authors organize information to show how the two animals are **alike** and **different**. Think about each animal’s size, age, and situation. Use a graphic organizer like the one below to help you note their similarities and differences.



## TARGET STRATEGY

**Analyze/Evaluate** When you **analyze** and **evaluate** a text, you think carefully about what you have read. You use text evidence to form your own opinion about the topic.

**RI.4.1** refer to details and examples when explaining what the text says explicitly and when drawing inferences; **RI.4.5** describe the overall structure of a text or part of a text

## PREVIEW THE TOPIC

### Animal Behavior

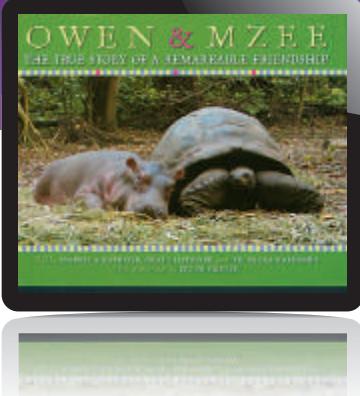
By studying animal behavior, what do you think scientists are trying to find out? One thing they are trying to learn more about is how animals form social bonds, or close ties with each other. Most of the time, the bonds that form between animals are easy to predict. Sometimes, though, animals form bonds that shock even the experts.

"Owen and Mzee" is a true story about a baby hippo and an old tortoise that meet at an animal-rescue center. As you read, you'll find out why these two animals made headlines all over the world.



## Lesson 24

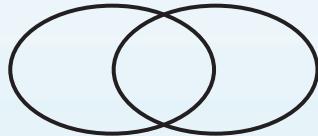
# ANCHOR TEXT



### TARGET SKILL

#### Compare and Contrast

Examine the similarities and differences between the animals.



### GENRE

#### Narrative nonfiction

tells about people, things, events, or places that are real.  
As you read, look for:

- ▶ factual information that tells a story
- ▶ text features such as photographs and captions



**RI.4.5** describe the overall structure of a text or part of a text; **RI.4.8** explain how an author uses reasons and evidence to support points; **RI.4.10** read and comprehend informational texts; **L.4.3a** choose words and phrases to convey ideas precisely

### MEET THE AUTHORS



**Isabella  
Hatkoff**



**Craig  
Hatkoff**



**Dr. Paula  
Kahumbu**

Isabella Hatkoff was six years old when she saw a photo of Owen and Mzee in the newspaper. She decided to write about them with the help of her father, Craig. Dr. Paula Kahumbu is an ecologist in Kenya. She's responsible for the health and safety of Owen and Mzee.

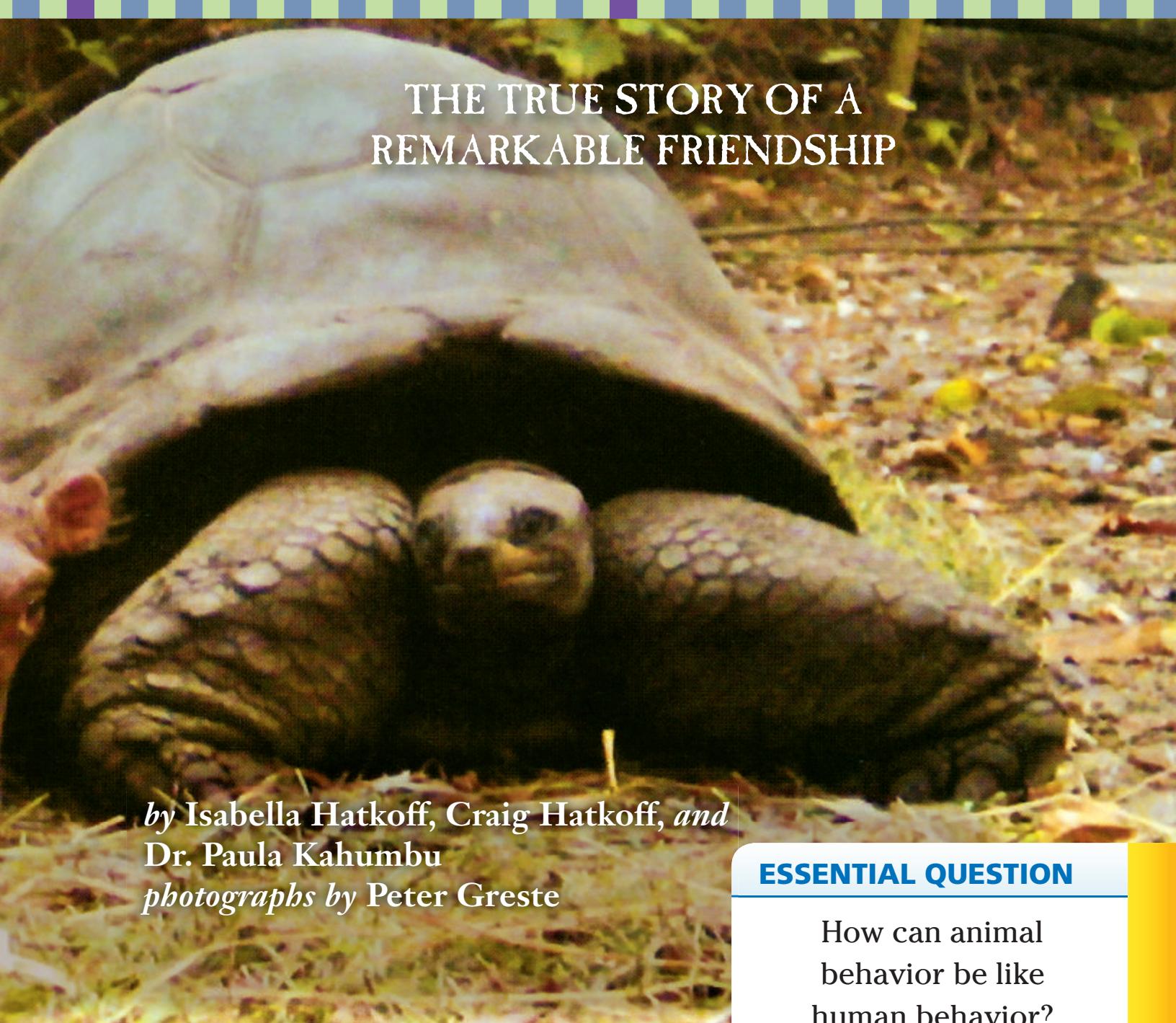
### MEET THE PHOTOGRAPHER

**Peter Greste**

Peter Greste took the newspaper photo that led the Hatkoffs and Dr. Kahumbu to write "Owen and Mzee." Greste works not only as a photographer but also as a radio news reporter. He travels the world covering important events.



# OWEN & MZEE



THE TRUE STORY OF A  
REMARKABLE FRIENDSHIP

by Isabella Hatkoff, Craig Hatkoff, and  
Dr. Paula Kahumbu  
*photographs by Peter Greste*

## ESSENTIAL QUESTION

How can animal  
behavior be like  
human behavior?



*This story began in Malindi, Kenya, on the east coast of Africa, in December 2004. A pod of hippopotamuses was grazing along the shore of the Indian Ocean. Suddenly, giant, surging waves from a tsunami (tsu NAH mee) rushed high onto the beach. The powerful waves caused destruction for miles around. After the water went down, only one hippo remained, and it was stranded on a reef. Hundreds of villagers worked for hours to rescue the six-hundred-pound baby. Finally, a man named Owen caught the animal, which was later named after him. The rescuers wrapped the hippo in a net and placed him in a pickup truck.*

**P**eople weren't sure where Owen should be taken next. They called Haller Park, an animal sanctuary about fifty miles away, near the city of Mombasa. Dr. Paula Kahumbu, the manager, immediately offered Owen a place to live there. She explained that he could never be returned to the wild. Since he was still a baby, he wouldn't have learned yet how to fend for himself. And he would never be welcomed into another hippo pod—he would be seen as an **intruder** and attacked. But they would take good care of him in Haller Park. Dr. Paula offered to drive to Malindi herself to bring Owen to his new home.





**Dr. Paula, Stephen, and Sabine were eager to help the orphaned hippo.**

Dr. Paula knew she would need help. She asked the **chief** animal caretaker, Stephen Tuei, to come along with her. She knew that Stephen had a special way with animals. Some people said he could even talk to them. Dr. Paula and Stephen quickly set off in her small truck to Malindi.

Meanwhile, ecologist Sabine Baer got to work with others at Haller Park to prepare for Owen's arrival.

When Dr. Paula and Stephen arrived in Malindi, they helped to remove the nets and lead Owen out of the pickup. But Owen became angrier than ever and **charged** at the people gathered around. They tried to help him calm down by wrapping a blanket around his head. That way, he wouldn't see the things that were upsetting him. But Owen was angry about that, too. After many hours, about a dozen rescuers managed to move Owen from the pickup into Dr. Paula's truck, tying him so that he would be safe during the long drive to Haller Park.



Stephen tickles Mzee.

Meanwhile, Sabine and other workers prepared a large **enclosure** for Owen. They chose a part of the park that had a pond and a mud wallow, as well as tall trees and brush—everything a hippo could want. The area was already home to a number of bushbucks, vervet monkeys, and a giant Aldabra tortoise called Mzee (mzay).

Mzee, whose name means “wise old man” in the Swahili (swah HEE lee) language, was the oldest creature in the park. At about 130 years of age, he had been alive since before Stephen’s great-grandmother was born. He wasn’t very friendly, except to Stephen, who seemed to know just what he liked, such as getting tickled under the chin. Otherwise, Mzee kept to himself.

No one could have guessed how Mzee’s life was about to change.

Finally, Dr. Paula and Stephen arrived with Owen, who was now weak and exhausted. As soon as the ropes that held him were untied, Owen scrambled from the truck directly to Mzee, resting in a corner of the enclosure. Owen crouched behind Mzee, the way baby hippos often hide behind their mothers for protection. At first, Mzee wasn't happy about this attention. He hissed at Owen and crawled away. But Owen, who could easily keep up with the old tortoise, did not give up. Slowly, as the night went on, Mzee began to accept his new companion. When the park workers checked on them in the morning, Owen was snuggled up against Mzee. And Mzee didn't seem to mind at all.

At first, Mzee crawled away, but Owen wouldn't give up.

#### ANALYZE THE TEXT

**Fact and Opinion** Find one fact and one opinion on this page. How did you tell which was a fact and which was an opinion?



Over the next few days, Mzee continued to crawl away, and Owen continued to follow him. But sometimes it was Owen who would walk away from Mzee, and Mzee who would follow. Bit by bit, Mzee grew friendlier.

At first, Owen wouldn't eat any of the leaves left out for him. Stephen and the other caretakers were worried that he would weaken even more. Then they noticed Owen feeding right beside Mzee, as if Mzee were showing him how to eat. Or perhaps it was Mzee's protective presence that helped Owen feel calm enough to eat. No one will ever know. But it was clear that the **bond** between Owen and Mzee was helping the baby hippo to recover from being separated from his mother and stranded in the sea.

**With Mzee by his side,  
Owen began to eat.**





Both hippos and tortoises love the water.

As the weeks went on, Owen and Mzee spent more and more time together. Soon, they were **inseparable**. Their bond remains very strong to this day. They swim together, eat together, drink together, and sleep next to each other. They rub noses. Owen leads the way to different parts of the enclosure, then Mzee leads the way. Owen playfully nuzzles Mzee's neck, and Mzee stretches his neck forward asking for more, just as he does when Stephen tickles him under the chin. Though both animals could easily injure each other, they are gentle with one another. A sense of trust has grown between them.

#### ANALYZE THE TEXT

**Author's Word Choice** The authors use careful word choice to shape your opinion about Owen and Mzee's friendship. How do words such as *snuggled* and *inseparable* shape your opinion of the pair?



Owen nuzzles Mzee's ticklish neck.

Wildlife experts are still puzzled about how this unlikely friendship came to be. Most have never heard of a mammal, such as Owen, and a reptile, such as Mzee, forming such a strong bond.

Perhaps for Owen, it happened this way: Young hippos like Owen need their mothers in order to survive. An old, slow tortoise like Mzee can never protect Owen the way a fierce mother hippo could. But since Mzee's coloring and rounded shape are similar to a hippo's, it's possible that to Owen, Mzee looks like the hippo mother he needs.

Harder to explain is the **affection** that Mzee seems to show for Owen. Like most Aldabra tortoises, Mzee had always preferred to be alone. But sometimes these tortoises live in groups, and perhaps Mzee sees Owen as a fellow tortoise, the first tortoise he is willing to spend time with. Or perhaps Mzee knows that Owen isn't a tortoise, but likes him anyway.

The reasons are unclear. But science can't always explain what the heart already knows: Our most important friends are sometimes those we least expected.

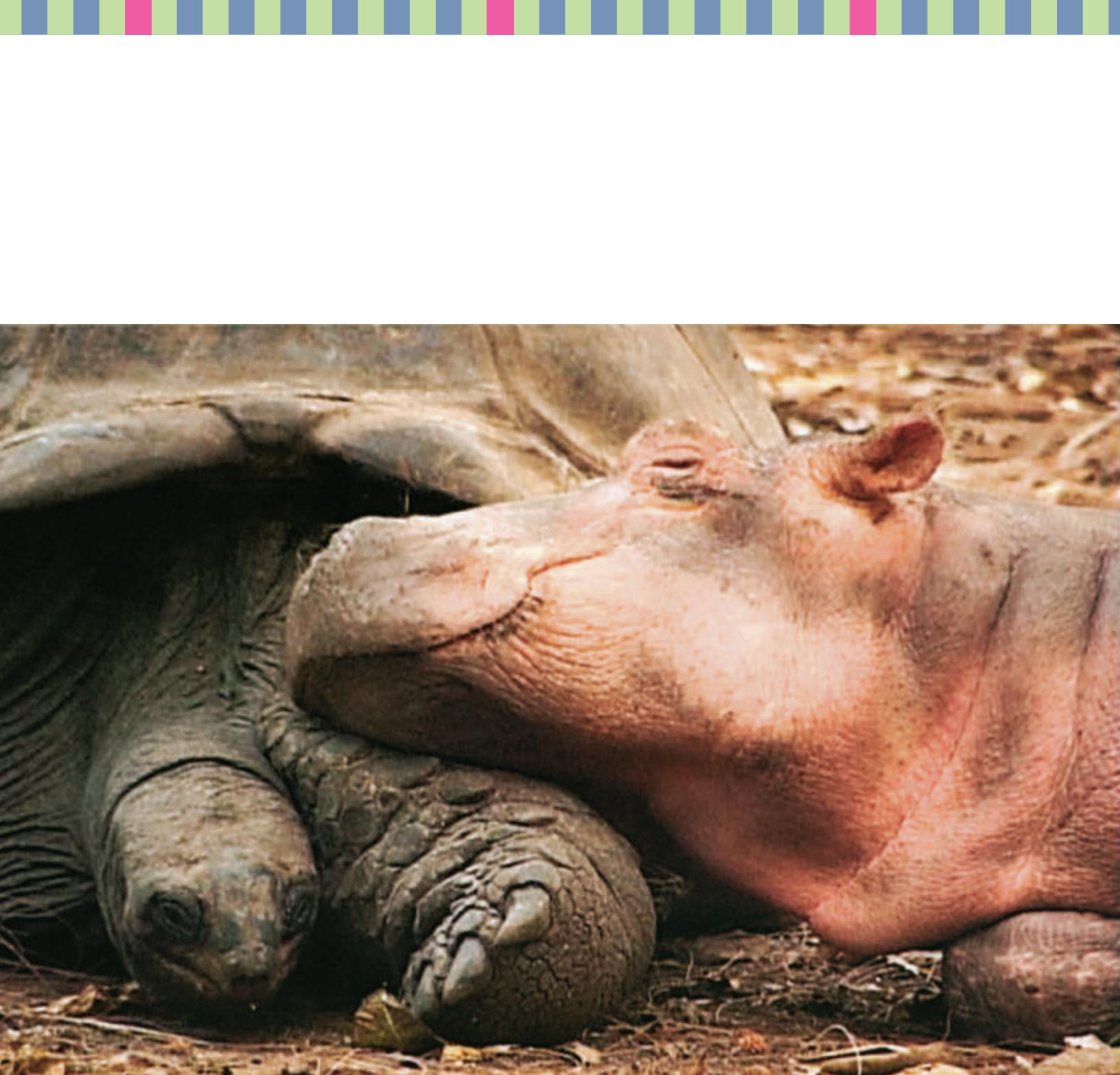
News of Owen and Mzee's friendship quickly spread around the world. People all over have come to love Owen, who endured so much, yet never gave up, and Mzee, who became Owen's friend when he needed one most. Their photographs have appeared in countless newspaper and magazine articles. Television programs and even a film documentary have been made about them. Visitors come to Haller Park every day to meet the famous friends.

#### ANALYZE THE TEXT

**Compare and Contrast** How are Owen and Mzee alike? How are they different? Use details from the text to explain these similarities and differences.

Owen and Mzee look out for each other.

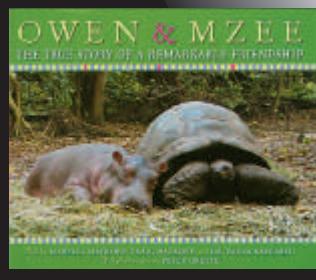




Owen's future is bright.

Owen suffered a great loss. But with the help of many caring people, and through his own extraordinary (ihk STROHR dn ehr ee) resilience, Owen has begun a new, happy life. Most remarkable is the role that Mzee has played. We'll never know for sure whether Owen sees Mzee as a mother, a father, or a very good friend. But it really doesn't matter. What matters is that Owen isn't alone—and neither is Mzee.

And that is the true story of Owen and Mzee, two great friends.



## COMPREHENSION

# Dig Deeper

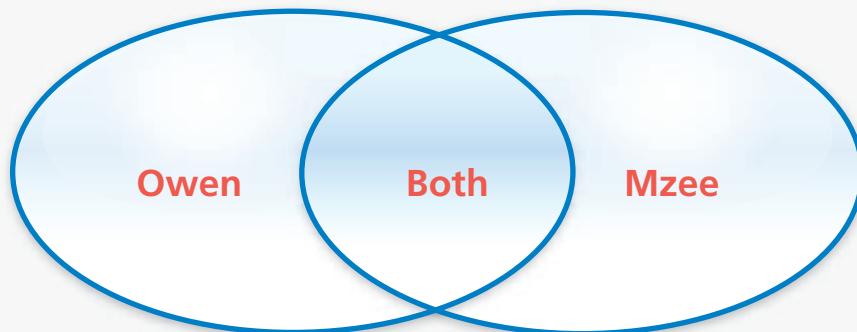
## How to Analyze the Text

Use these pages to learn about Comparing and Contrasting, Fact and Opinion, and Author's Word Choice. Then read "Owen and Mzee" again to apply what you learned.

### Compare and Contrast

The authors of "Owen and Mzee" thought carefully about how to organize information about two very different animals. Throughout the selection, the authors **compare** and **contrast** the hippo and the tortoise, telling how the two animals are alike and how they are different. The photographs in the selection also show similarities and differences between the two animals.

Look back at page 721. How did Owen and Mzee react differently in their first meeting?



**RI.4.5** describe the overall structure of a text or part of a text; **RI.4.8** explain how an author uses reasons and evidence to support points; **L.4.3a** choose words and phrases for effect

## Fact and Opinion

Authors of nonfiction include **facts** in their writing. Facts are true statements that can be proved. Authors of nonfiction may also include **opinions**, or statements that express thoughts, feelings, or beliefs. Phrases such as *I think* and words such as *good, bad, beautiful, and scary* often signal an opinion. Authors include evidence and details to support both facts and opinions.

Fact: Haller Park  
is in Kenya.

Opinion: Haller Park  
is beautiful.

## Author's Word Choice

The authors chose their words and phrases carefully to shape your opinion about Owen and Mzee's friendship. They used specific adjectives and verbs to convey feelings. Read this sentence: *The zoo visitors watched the mother nurture her young.* The word *nurture* conveys that the mother took care of her young lovingly. This **word choice** communicates a feeling of love and caring.



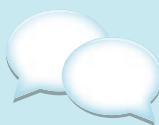
# Your Turn



## RETURN TO THE ESSENTIAL QUESTION



Review the selection with a partner to prepare to discuss this question: *How can animal behavior be like human behavior?* As you discuss, take turns reviewing and explaining the key ideas in your discussion.



### Classroom Conversation

Continue your discussion of "Owen and Mzee" by explaining your answers to these questions:

- 1 Why do you think Owen and Mzee are drawn to each other?
- 2 How do Owen and Mzee build "a sense of trust"?
- 3 Do you agree that our "most important friends are sometimes those we least expected"? Tell why or why not.

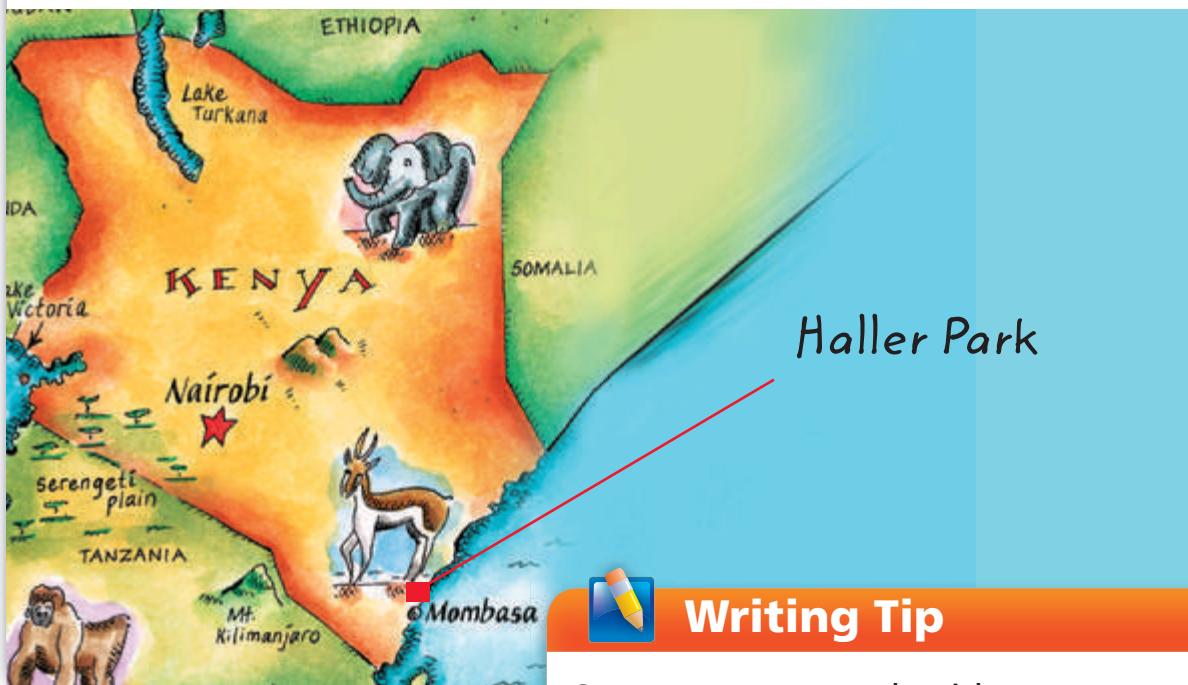
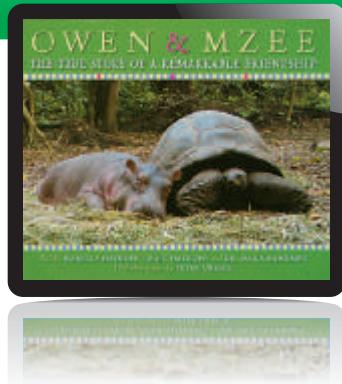
## IF ANIMALS COULD TALK

**Describe Your Life** Imagine that Owen and Mzee can talk. Work with a partner. One person should pretend to be Owen. The other person should pretend to be Mzee. Take turns describing your first meeting with the other creature. Tell how your life has changed since that first meeting. Use text evidence in your description.



## WRITE ABOUT READING

**Response** Owen and Mzee live in a wildlife park in Kenya. Using facts and details from the selection, write a paragraph explaining whether you would like to visit the two animals. Include some questions that you might ask Stephen about the animals. Be sure to write a concluding sentence that summarizes your thoughts.



### Writing Tip

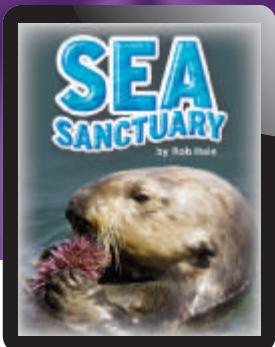
Start your paragraph with an introductory sentence that clearly introduces your topic. Make sure that you use correct punctuation.



**RI.4.1** refer to details and examples when explaining what the text says explicitly and when drawing inferences; **W.4.1a** introduce a topic, state an opinion, and create an organizational structure; **W.4.1b** provide reasons supported by facts and details; **W.4.1d** provide a concluding statement or section; **W.4.9d** apply grade 4 Reading standards to informational texts; **SL.4.1d** review key ideas expressed and explain own ideas and understanding

## Lesson 24

# INFORMATIONAL TEXT



### GENRE

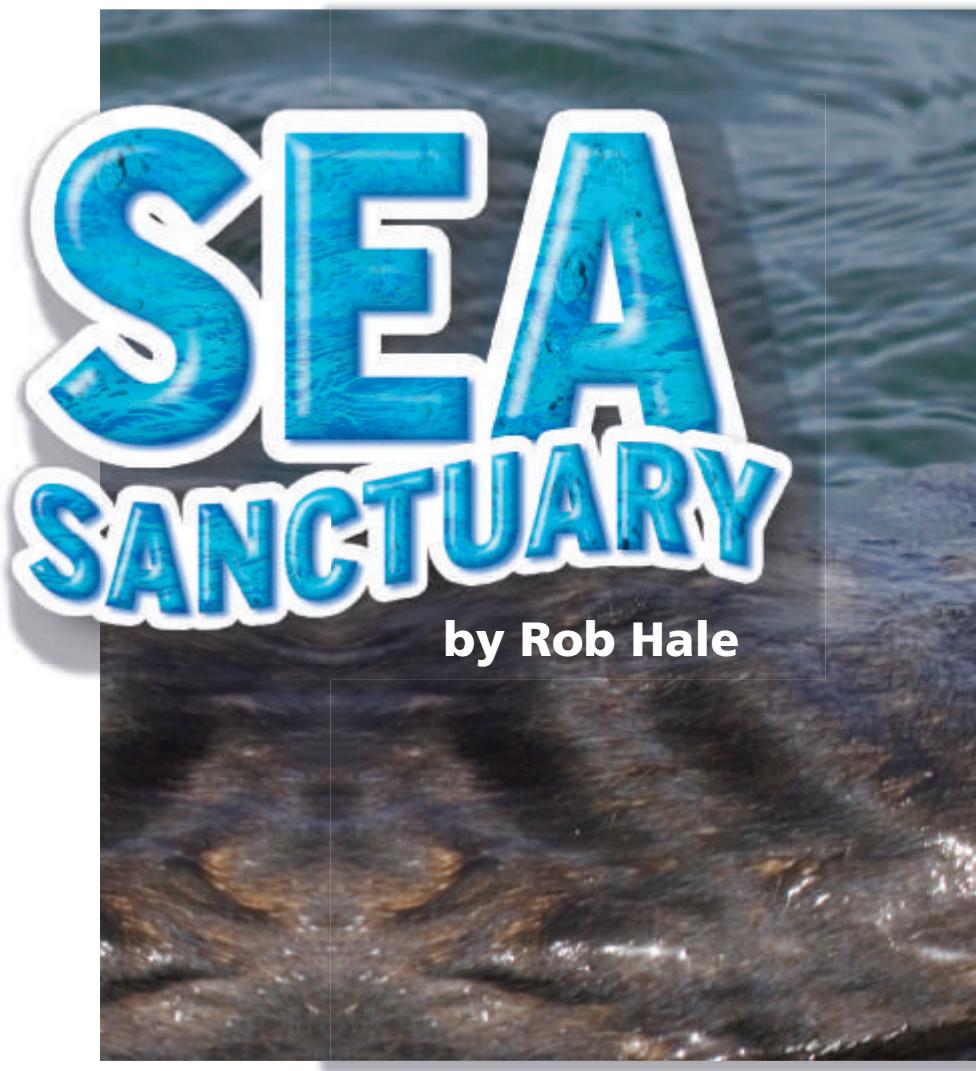
**Informational text**, such as this science article, gives factual information about a topic, organized around main ideas and supporting details.

### TEXT FOCUS

**Maps and diagrams** help readers understand facts in informational text. What information does the diagram on page 734 add to the text of this selection?



**RI.4.7** interpret information presented visually, orally, or quantitatively; **RI.4.10** read and comprehend informational texts



### Monterey Bay National Marine Sanctuary





A sea otter finds plenty of shellfish to eat in Monterey Bay. These animals suffered a drop in numbers because of being hunted for their fur in the early 1900s. Now, they are slowly starting to return to the area.

We often think of a wildlife sanctuary as a jewel of land that has been set aside to keep safe. But there are ocean sanctuaries, too.

The United States government has preserved thirteen important areas as marine, or sea, sanctuaries. The largest of them is California's Monterey Bay National Marine Sanctuary.

This sanctuary is an ecosystem. It is an environment whose nonliving

parts, such as water and earth, work with its living parts. Each part is like a companion to another part. "Upwelling" is one example of this. Wind causes cold water to rise to the surface of the ocean. This cold water causes new plants to grow. Then, animals come to eat these plants. This food source is the chief reason why so many species are drawn to Monterey Bay. No enclosure, or closed space, keeps them there. The food does!

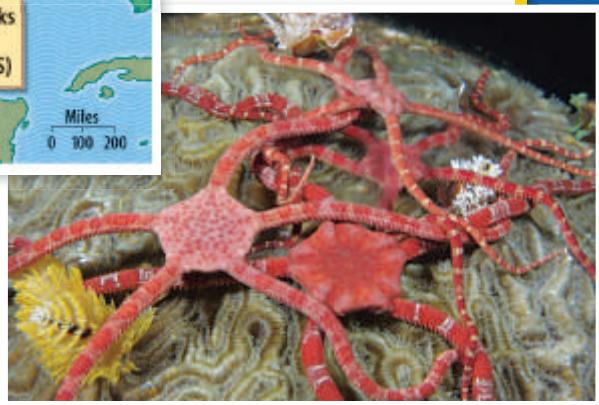
## Seafood Chain

Each plant and animal in a sanctuary is part of a food chain. A necessary bond connects each hunter to its prey. The need for food is why a hungry orca might charge at a sea lion. It is the same reason a sea lion might leave a rockfish exhausted after a chase. One animal depends on another for life.

## Flower Garden Banks

Coral reefs and ocean waters are inseparable. Coral reefs can be found 110 miles off the Texas and Louisiana coasts. They are protected by the Flower Garden Banks, a 36,000-acre marine sanctuary.

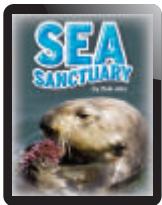
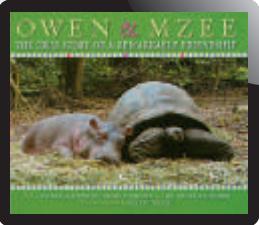
The coral reefs lie on top of two salt domes, old underwater mountains. Today Flower Garden Banks Sanctuary is home to twenty-three types of coral. Anyone with affection for marine creatures will find many animals there. One might see turtles, manta rays, or the odd intruder, such as the huge whale shark.



## Predators and Prey

A healthy environment keeps each member of the food chain well fed. Orcas eat sea lions. Sea lions eat rockfish. Rockfish eat krill. Krill eat tiny plankton.





# Compare Texts

## TEXT TO TEXT

**Compare Nonfiction** Both “Owen and Mzee” and “Sea Sanctuary” are nonfiction. With a partner, make a Venn diagram to compare and contrast the two selections. Include information about how the texts are organized, the types of graphics and photographs used, and the authors' purposes.



## TEXT TO SELF

**Write About an Animal** Think about a time when you saw an animal in the wild, in a zoo, or in an aquarium. Write a description of the animal and its habitat. Tell how it interacted with nearby animals. Share your writing with a small group.



## TEXT TO WORLD

**Connect to Science** Think about another part of the world where a wildlife sanctuary might help protect a threatened species or habitat. With a partner, use the Internet or other media to find out more information about that animal or habitat. Present your findings to the class.



**COMMON CORE** RI.4.5 describe the overall structure of a text or part of a text; RI.4.7 interpret information presented visually, orally, or quantitatively; W.4.7 conduct short research projects that build knowledge through investigation; SL.4.4 report on a topic or text, tell a story, or recount an experience/speak clearly at an understandable pace

# Grammar



**How Are Commas Used?** A **comma** is needed after an introductory word in a sentence. One or two commas are needed to set off the name of a person being addressed. A comma separates the day and the year in a date as well as the city and the state in a place name. Commas are used to separate items in a series, a list of nouns or actions.

to set off an  
introductory word      to set off a name

No, Wardell,<sup>1</sup> that is not a warthog.

in a place name

It is the baby hippo that was rescued near Malindi<sup>2</sup>, Kenya<sup>3</sup>, on  
December 27.<sup>4</sup>

in a date

to separate items in a series

Villagers<sup>5</sup>, fishermen<sup>6</sup>, and visitors performed the rescue.

A comma is used with a conjunction to form a compound sentence. A comma is also used to introduce quotations.

to join parts of a compound sentence

The tortoise was not very friendly<sup>7</sup>, but he loved being tickled.

in a direct quotation

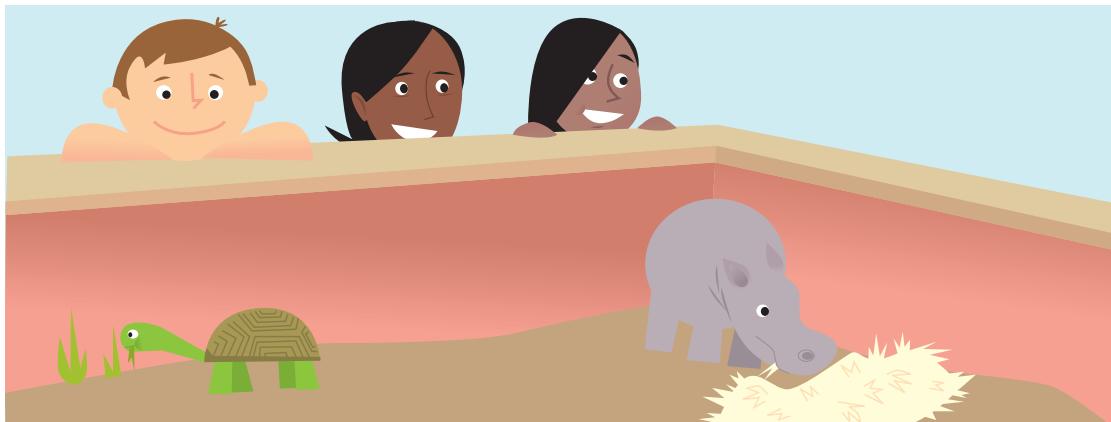
"I would love to see a baby hippo," remarked Ann.

## Try This!

**Work with a partner. Read each sentence and tell how each comma is used.**

- 1 Leah said, "Our zoo has adult hippos, but none of them have babies."
- 2 "Hey, let's look on the Internet," suggested Ivan.
- 3 Leah, Ann, and Juan ran to the computer.
- 4 They found a baby hippo in a zoo in Seattle, Washington.

Sentences with missing commas can be difficult for readers to understand. Check your writing carefully to make sure you have used commas where they are needed.



#### Sentences with Missing Commas

Sheila Billy and Ava flew into Mombasa Kenya on May 22 2014.

"Look here Billy" said Sheila.

Billy exclaimed "The tortoise is eating, so the little hippo is eating, too!"

#### Sentences with Correct Comma Usage

Sheila, Billy, and Ava flew into Mombasa, Kenya, on May 22, 2014.

"Look here, Billy," said Sheila.

Billy exclaimed, "The tortoise is eating, so the little hippo is eating, too!"



#### Connect Grammar to Writing

As you edit your research report next week, make sure that you have used commas correctly. They should be used with introductory words, names, dates, places, direct quotations, compound sentences, and items in a series.



**W.4.2a** introduce a topic and group related information/include formatting, illustrations, and multimedia; **W.4.2b** develop the topic with facts, definitions, details, quotations, or other information and examples; **W.4.5** ddevelop and strengthen writing by planning, revising, and editing; **W.4.7** conduct short research projects that build knowledge through investigation

# Informative Writing

## Reading-Writing Workshop: Prewrite



**Ideas** When you plan a **research report**, do research to answer your questions about the topic. Take notes on index cards. Then make an outline from your notes. Each topic in your outline will become a paragraph in your report. Use the Writing Process Checklist below to help plan your writing.

Maya took notes to answer her questions about hippos. Then she organized all of her notes into an outline.



### Writing Process Checklist

#### ► Prewrite

- Did I choose a topic that will interest my audience and me?
- Did I ask interesting questions about my topic?
- Did I use dependable sources to find facts?
- Did I take notes on enough facts?
- Did I organize my outline with main topics and subtopics?

Draft

Revise

Edit

Publish and Share

### Exploring a Topic

#### What is a hippo's habitat?

-in Africa by rivers and lakes "spend much of the day in the water because the intense heat can rapidly dehydrate them" Langston, Kate. "Hippo Facts." Nature for Kids May 2003: paragraph 1. [www.onfourfeet.org/mammals/hippo](http://www.onfourfeet.org/mammals/hippo) Nov. 7, 2010.

#### What do hippos eat?

- mainly plants  
- eat at night on grasslands  
- about eighty pounds of food a day

Deets, Wayne. The Hippopotamus. New York: Kite Tail Books, 2009. p. 14.

## Outline

### I. What are hippos?

- A. Huge animals related to pigs
- B. Their name means “river horse”

### II. Hippos' water habitat

- A. Live by rivers and lakes in Africa
- B. Spend day in water because “intense heat can rapidly dehydrate them”
- C. In water can watch for danger—eyes near top of head
- D. Walk on river or lake bottom—can hold breath about five minutes

### III. What hippos eat

- A. Eat on land at night
- B. Mostly plants
- C. Grab food with lips—sharp teeth only for fighting
- D. Eat about eighty pounds a day—small amount for size

### Reading as a Writer

In what way do Maya's facts support her topics? In your outline, where can you add interesting and specific facts, information, and examples?

In my outline, I grouped my facts by topic. I listed them in an order that makes sense. I will use the topic labels as headings in my report.

