

TEACHER'S GUIDE



Voyager (Grade 1)
Vol. 16 No. 3

In This Guide

In this guide, you will find language arts, science, and social studies lessons for the articles in this issue of YOUNG EXPLORER VOYAGER.

Young Explorer Magazine

YOUNG EXPLORER classroom magazines for kindergarten and grade 1 develop young readers' literacy skills through engaging informational text. Great storytelling and stunning photographs teach students about our planet and the people, plants, and animals that live on it. Encourage your students to read and to explore our world with YOUNG EXPLORER magazines.

Voyager

The Voyager edition is written for first grade readers. All articles in the Voyager edition have been measured using the Lexile® Framework for Reading. Some articles will be easier to read than others, though all articles will be within the 190-400L range.

Visit YOUNG EXPLORER's website, NatGeo.org/explorermag-resources, to find additional resources for extending your students' learning.

Your Subscription Includes:

- Magazines
- Classroom Posters
- Projectable Magazine
- Interactive Whiteboard Lesson
- Teacher's Guide
- Interactive Edition
(additional subscription required)

Objectives

- Students will ask and answer questions about key details in the text.
- Students will retell and write about the text using words that signal the order of events.

Resources

- Language Arts Master (page 4)

Summary

Explorer Steve Boyes invites readers to join him and his team to see what they do when they explore wetlands.

WORD WORK

Sight Words: *my, is, I, am, on, to, with, we, go, have, get, make, a, the, are, big, look, at, so, where, and, our, in, see, down, now, will*

BUILD VOCABULARY AND CONCEPTS

- explore
- team
- plan
- map
- supplies
- wetlands

The words above are used in the article and may be new to students. Use the following routine to introduce the words to students. Go through the routine, one word at a time. Pronounce the word. Ask students if they know the word. They can respond with a thumbs up or a thumbs down. Define each word, using student-friendly language. Post the word on a word wall. Tell students they will be adding more information about each word, such as drawings, photos, descriptions, and definitions, as they learn more. After reading, as a class, you may want to add information about each word to the word wall.

Encourage students to tell what they know about the words and to use the words as they talk about their own experiences and the article.

READ AND DISCUSS

Read the article “Explore with Me” aloud to students as they follow along. You may want to read the entire article first, and then reread the article, taking time to stop and discuss each two-page spread.

Pages 2–3 Read the title and the byline aloud to students. Ask: **Who wrote the article “Explore with Me”?** (*Steve Boyes*) **What word lets us know he wrote the article?** (*by*) Show students the picture of Steve Boyes on page 3. Then read the text on page 2. Ask: **What did we find out about Steve Boyes?** (*Steve and his team explore.*) **What do you think we will learn as we read on in the article?** (*what Steve and his team do when they explore*)

Let students know that to explore, there are many things Steve and his team need to do. Say: **Let’s pay close attention to the order of things. Listen for the words first, next, then, and last.**

Pages 4–5 Read pages 4 and 5. Ask: **What do Steve and his team need to do first?** (*They have to make a plan.*) **Why do they have to look at maps as part of that plan?** (*so they know where to go*) **What do they do next to get ready for exploring?** (*They get the supplies they need and pack them in their boats.*) Ask students to tell what Steve and his team do first and next, using the pictures to help them retell what they learned.

Pages 6–7 Ask: **Then what do Steve and his team do?** (*They travel in boats in the water using poles to push them. They explore the wetlands.*) **What animals do they see?** (*birds, lions, and hippos*) Ask students to point out the birds, lions, and hippos in the pictures.

Pages 8–9 Ask: **What else do Steve and his team see and do while exploring?** (*They see plants and more animals. They take pictures and write down what they see.*) **What is the last thing they do?** (*share what they learned*)

TALK AND WRITE

Students can respond to the article by talking and writing. Use the following prompts to guide them. You might also want to use the Language Arts Master for this article.

- **Talk about something new you learned about exploring.**
- **Draw or write about one thing Steve and his team do.**

Objective

- Students will learn that when scientists explore, they make observations about the world.

Resources

- Science Master (page 5)

Science Background

Biologist and conservationist Steve Boyes has been exploring the Okavango Delta for many years. The delta is one of few inland deltas that do not flow into a sea or ocean. It is home to some of the world's most endangered species. Each year Boyes leads a team across a different section of the delta to gather data with scientists, photographers, and guides. The research Boyes does has helped protect the Okavango Delta. Still, the Okavango Delta remains at risk from various threats, such as proposed dams and slash-and-burn agriculture. Steve continues to explore the Okavango Delta in an effort to protect and save this glorious wetland wilderness—one of the last remaining in Africa.

Find out more about the Okavango Wilderness Project by visiting <http://nationalgeographic.org/projects/okavango/>.

ENGAGE

Engage students in a discussion about what it means to explore. Ask: **If I said “come explore outside with me,” what do you think we would do?** (*Students might say that you would probably go looking for something outside.*) Ask: **If we explore and look for something, do we always find what we are looking for? Do we ever find things we might not expect to find?** Guide students to understand that exploring can provide unexpected as well as expected findings. For example, if, as a class, you went outside to see what insects and plants you might find in a small area of land, there are things you are pretty sure you will find. However, you might also be surprised to find insects and plants you didn't expect to see.

EXPLORE

Show students on a world map where the United States is and where they live in the United States. Then point out

where Africa is. Next find where the Okavango Delta is in Botswana. Let students know that explorer Steve Boyes explores this area of the world. Explain that he wants to help save and protect it.

EXPLAIN

Read the article to students.

After reading, have students explain and describe what Steve and his team do before, during, and after exploring. Have them also explain why and how the team does these things. Help guide students to make inferences about the hows and whys.

- They make a plan because the wetlands are very big .
- They look at maps so they know where to go.
- They get supplies because they will need many things, such as food to eat, gear to help them explore, and tents to sleep in.
- They put their supplies in boats because that's how they will travel in the wetlands.
- They travel in boats and move along by using poles to push the boats through the water in the wetlands. The water must be shallow.
- They see many animals and plants. They record what they learn by taking pictures and writing things down.
- They share what they see and learn so others can learn, too.

Have students explain what a wetland is, using the pictures in the article to help them.

ELABORATE

Have students become explorers. Find a place to explore in the classroom, school, or even outside. With students, make a plan and gather the things you'll need. Together, write down, take pictures, or draw what you see. After exploring, discuss what you learned and why it's fun to explore. Share what you saw and learned on your classroom web page or with parents or other classrooms.

EVALUATE

Assess students' understanding with the Science Master for this article. You might also use the following prompts.

- **What does an explorer do?**
- **Draw or write about the place where Steve and his team explore.**

LANGUAGE ARTS: What's the Order?

Write about what Steve and his team do when they explore.

Tell what happened. Use the words *first*, *next*, *then*, and *last*.

First,

Next,

Then,

Last,

Objective

- Students will recognize and use prepositions such as *in, on, between, near,* and *far* to describe where places on a map are located.

Resources

- Language Arts Master (page 8)

Summary

Meg needs food for Fido. She needs a map to find the pet store. Students can use the map to help Meg find the pet store.

WORD WORK

Sight Words: *to, find, a, do, she, will, is, this, it, the, are, too, for, where, on, with*

BUILD VOCABULARY AND CONCEPTS

- **drawing**
- **street**
- **symbol**
- **map key**

The words above are used in the article and may be new to students. Use the following routine to introduce the words to students. Go through the routine, one word at a time. Pronounce the word. Ask students if they know the word. They can respond with a thumbs up or a thumbs down. Define each word, using student-friendly language. Post the word on a word wall. Tell students they will be adding more information about each word, such as drawings, photos, descriptions, and definitions, as they learn more. After reading, as a class, you may want to add information about each word to the word wall.

Encourage students to tell what they know about the words and to use the words as they talk about their own experiences and the article.

READ AND DISCUSS

Read the article “Food for Fido” aloud to students as they follow along. You may want to read the entire article first, and then reread the article, taking time to stop and discuss each two-page spread.

Pages 10–11 Read the poem aloud to students. After reading the poem say: **Let’s talk about what the poem tells us about maps. Let’s answer these questions.**

- **What do maps show?** (*places we may go*)
- **What do maps help us find?** (*streets and roads*)
- **What else do maps show?** (*north, south, east, and west*)

Point to the compass rose on page 10. Explain to students that the letters on a compass rose stand for north, south, east, and west. Tell them these are called directions.

Read the title of the article and the text on page 11. Ask: **What is a map?** (*a drawing of a place*) **Why does Meg need a map?** (*She wants to find a pet store to get food for Fido.*)

Pages 12–13 After reading the text on pages 12 and 13, have students look at the map. Say: **Look at the map key. What do the symbols on the map key show?** (*drawings of real things on the map*) Then ask students to find the fire station, the gas station, and the pet store on the map. Ask: **Where does Meg need to go?** (*the pet store*)

Pages 14–15 Read the first paragraph of text on page 14. Then work through the numbered steps with students to use the map to help Meg find her way from her house to the pet store.

Then have students talk about the map using prepositions such as *in, between, on, near,* and *far* to describe where things are located. For example: Meg and Fido live *in* a blue house. It is *between* a yellow house and a red house. The house is *on* Pine Street. It is *near* the school. The house is *far* from the pet store.

TALK AND WRITE

Students can respond to the article by talking and writing. Use the following prompts to guide them. You might also want to use the Language Arts Master for this article.

- **Talk about something new you learned about maps.**
- **What can you find on a map?**

Objective

- Students will use a map and map key to locate and describe places on a map.

Resources

- Read a Map poster (Teacher's Edition)
- Social Studies Master (page 9)

Social Studies Background

Maps are representations of places on Earth from a bird's eye view. A bird's eye view allows a map to show what things look like from above. Maps show a lot of information using symbols to represent things. The map key, or legend, explains what the different symbols mean. Some maps also include a compass rose to indicate where north, south, east and west are on the map.

National Geography Awareness Week is the week of November 13–19, 2016.

ENGAGE

Ask students if they know how to get from their house or apartment to school. Ask: **Do you know some of the streets you go on? Do you know some of the places you pass by, such as stores or parks?** Discuss with students what they have noticed on their way to and from school. Ask them to notice these things when they go to and from school over the next few days. Say: **When we need to get to places we are unfamiliar with, a map can help us find our way.**

EXPLORE

Explore what maps are. Show students different kinds of maps and explain what they show. Show flat maps of the world and compare them to a globe. Show maps of the United States, and point out the state you live in. See if some students have lived in other states or were perhaps born in a different state. See if they know states where relatives live. Then say: Maps can also show smaller areas, such as a neighborhood. Those kinds of maps can help us find things that are closer to us that we could walk or drive to.

For more on map skills, visit: <http://nationalgeographic.org/education/map-skills-elementary-students/>.

EXPLAIN

Read the article to students.

After reading, ask: **What is a map?** (*a drawing of a place*) **What kind of map did Meg need?** (*a map that could help her get from home to the pet store*) Work with students to help them understand the different features on a map. Use the following prompts with students.

- **Look at the map on pages 12 and 13. With a partner, point out the streets on the map. How do you know they are streets?** (*Students should point out Lake Street and Main Street on the map. They may say they know they are streets because they look like streets or roads.*)
- **With a partner, talk about the other things you see on the map.** (*Students should mention that they see the fire station, the pet store, and the gas station. They may also mention that they see trees and a car.*)
- **With a partner, point out the map key. How does the map key help us understand what is on the map?** (*The map key tells us what the symbols on the map mean.*)
- **Look at the map on pages 14 and 15. With a partner, talk about this map. How is it different from the map on pages 12 and 13?** (*It shows more streets.*) **Find the places that were also on pages 12 and 13.** (*fire station, pet store, gas station*) **Point out the new streets and places that are on this map.** (*Students should point out Pine Street, Hill Street, and the new places that are shown on the map key and where they are on the map.*)

You might also want to talk a bit about bird's eye view, explaining that maps show what an area looks like from above. You could also talk a bit about scale by discussing the differences between the map on pages 12–13 and the map on pages 14–15.

ELABORATE

Display the Read a Map poster. As a class, work through the numbered steps and questions at the bottom of the poster to find places on the map

EVALUATE

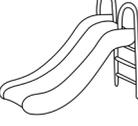
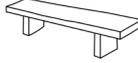
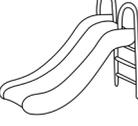
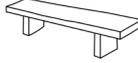
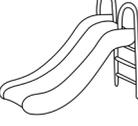
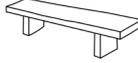
Assess students' understanding with the Social Studies Master for this article. You might also use the following prompts.

- **What is a map?**
- **What part of the map tells you what the symbols mean?**

LANGUAGE ARTS: My Park Map

Draw a map of a park. Use the map key.

Write or tell about the park. Use words such as *on*, *near*, and *between*.

	<p style="text-align: center;">Map Key</p> <table><tr><td></td><td>Tree</td></tr><tr><td></td><td>Slide</td></tr><tr><td></td><td>Sand box</td></tr><tr><td></td><td>Swings</td></tr><tr><td></td><td>Seesaw</td></tr><tr><td></td><td>Path</td></tr><tr><td></td><td>Bench</td></tr></table>		Tree		Slide		Sand box		Swings		Seesaw		Path		Bench
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	Slide														
	Sand box														
	Swings														
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SOCIAL STUDIES: Maps

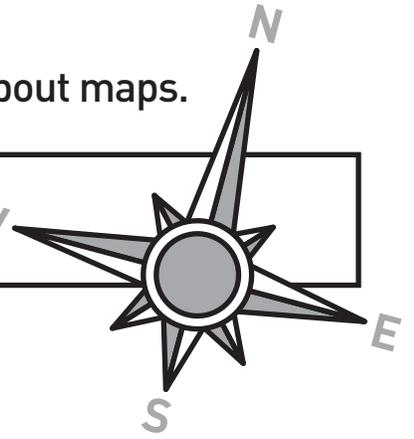
Use the words in the word bank to complete the sentences about maps.

symbol

map

map key

W



A _____ is a drawing of a place.

A _____ is a drawing of a real thing.

A _____ tells what symbols stand for.

Write about how to use a map.

Objectives

- Students will describe and compare how the land and reindeer change with the seasons.

Resources

- Language Arts Master (page 12)

Summary

Reindeer live in the far north. When the seasons change, the land and the reindeer change, too.

WORD WORK

Sight Words: *the, and, too, eat, they, like, are, to, find, do, not, for, must, help, on, good, under, brown, with, this, white*

BUILD VOCABULARY AND CONCEPTS

- reindeer
- north
- seasons
- summer
- winter
- herd
- footpads
- hoof/hooves

The words above are used in the article and may be new to students. Use the following routine to introduce the words to students. Go through the routine, one word at a time. Pronounce the word. Ask students if they know the word. They can respond with a thumbs up or a thumbs down. Define each word, using student-friendly language. Post the word on a word wall. Tell students they will be adding more information about each word, such as drawings, photos, descriptions, and definitions, as they learn more. After reading, as a class, you may want to add information about each word to a word wall.

Encourage students to tell what they know about the words and to use the words as they talk about their own experiences and the article.

READ AND DISCUSS

Read the article “Reindeer” aloud to students as they follow along. You may want to read the entire article first, and then reread the article, taking time to stop and discuss each two-page spread.

When you read and discuss the article, focus on these questions for each two-page spread.

Pages 16–17 Ask: **Where do reindeer live?** (*in the far north*) **Look at the picture on pages 16 and 17. How would you describe the reindeer?** (*Students may say the reindeer has white fur and antlers.*) **What does the text tell us about reindeer?** (*reindeer change with the seasons*) Ask: **What questions do you have about how reindeer change with the seasons?** Accept all questions and let students know that you will read on to find out if the text will answer their questions.

Pages 18–19 Ask: **What do we find out on these pages about reindeer in summer and in winter?** (*Plants grow in summer; reindeer eat the plants. In winter, the reindeer must travel far to find food.*)

Pages 20–21 Ask: **Reindeer have body parts that help them survive in the far north. How do their footpads and hooves help them survive?** (*In summer, the reindeer footpads are soft and help them walk on the wet ground. In the winter, their hooves are hard and sharp so they can walk on ice and dig for food under the snow and ice.*)

Pages 22–23 Ask: **How does a reindeer’s fur color help it in summer and in winter?** (*In summer, the reindeer fur is brown; this helps it blend in with the land and helps it hide. In winter, the reindeer grows white fur. This helps it blend in with the snow and ice.*)

Review with students the questions they had at the beginning of the article about how reindeer change with the seasons. If all of their questions have not been answered, you may want to research them together to find the answers. Have students look back at the picture of the reindeer on pages 16 and 17. Ask: **Does this picture show the reindeer in summer or in winter?** (*winter*)

TALK AND WRITE

Students can respond to the article by talking and writing. Use the following prompts to guide them. You might also want to use the Language Arts Master for this article.

- **Talk about something new you learned about reindeer.**
- **Tell how a reindeer changes with the seasons.**

Objective

- Students will learn how reindeer have body parts that help them survive where they live.

Resources

- Hello, Deer! poster (Teacher's Edition)
- Science Master (page 13)

Science Background

Reindeer are a type of deer. They are found in the far northern parts of Asia, Europe, and North America. In North America, wild reindeer are called caribou. Reindeer adapt to the seasons. This allows them to survive the extremes of the northern climate. Unlike other deer, both male and female reindeer grow antlers. Each year the antlers fall off and grow back. Reindeer live in herds that range from small groups to larger groups of 1,000 or more. Reindeer migrate as the weather changes to search for food. Reindeer are excellent swimmers. Their life expectancy is up to 15 years in the wild.

ENGAGE

Engage students in a discussion about deer. Ask them if they have ever seen a deer. Ask: **What does a deer look like?** (*Students should describe the type of deer they are familiar with.*) Ask if students have ever heard of reindeer. If so, find out what they know about them.

EXPLORE

Before reading the article, explore with students on a world map where reindeer live. Reindeer are found in the far northern parts of North America, Greenland, and in northern Europe to east Asia.

EXPLAIN

Read the article to students.

After reading, have students explain and describe some things they learned from the article about reindeer and the land the reindeer live in. Also have them explain how body parts help reindeer survive. Students should note some of the following:

- Reindeer live in the far north.

- The reindeer change with the seasons.
- In summer, the land has plants that the reindeer can eat. In winter, the land is covered in snow, and the reindeer have to travel far to find food.
- When the ground is wet in the summer, the reindeer's footpads are soft. This makes it easy for them to walk on the wet ground. In the winter, when the ground is covered in snow and ice, the reindeer's hooves are hard and sharp. This helps the reindeer walk on the ice, and the hard, sharp hooves help reindeer dig in the snow and ice for food.
- In summer, reindeer fur is brown, just like the ground. This helps reindeer blend into the ground so they can hide from predators. In winter, the land is white with snow and ice. In winter, reindeer grow white fur. This makes the reindeer harder to see.

Ask students to explain how reindeer get what they need in the place where they live. Guide them to understand that reindeer are able to change with the seasons. This helps them get what they need to grow and survive in their habitat.

ELABORATE

Have students look at More to Explore on the back page of the magazine. Read aloud "Did You Know?" You may want to go back into the article to look at the different pictures again and have students discuss the differences in the antlers on the reindeer in the pictures. You might also ask them to tell or show how the reindeer could use their antlers to dig for food.

Share the Hello, Deer! poster with students. Explain to students that there are many different animals that belong to the deer family. With students, look at all of the different deer on the poster and read each label to students as you look at the pictures. Ask: **How are the deer alike and different?** (*Students should mention things such as many of the animals have antlers, all of them have 4 legs, and so on. Differences could include color, thickness and length of fur, and the shape and size of tails and ears.*)

EVALUATE

Assess students' understanding with the Science Master for this article. You might also use the following prompts.

- **Where do reindeer live?**
- **How do a reindeer's body parts help it survive where it lives?**

Name _____

Date _____

LANGUAGE ARTS: Summer and Winter

Draw a reindeer in summer.

Summer

Draw a reindeer in winter.

Winter

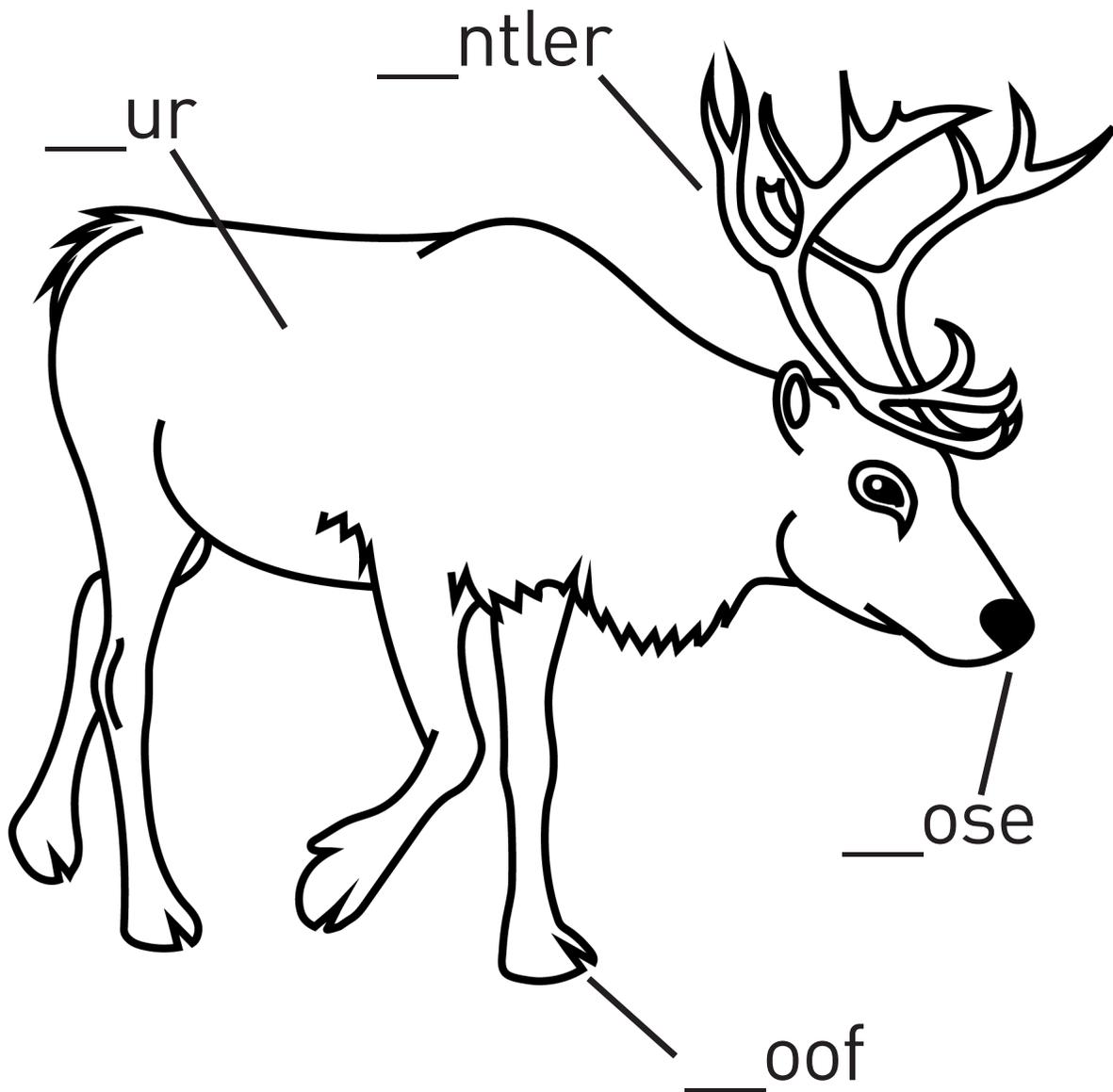
Write how a reindeer is different in summer and winter.

SCIENCE: Reindeer

A reindeer's parts help it survive.

Fill in the missing letters to complete the words.

Draw in the land to show that it is summer.



Young Explorer - Voyager

ANSWER KEY

Explore with Me

Language Arts: What's the Order, page 4

Students should cut out the pictures and put them in order. Students should tell what happened using the words *first*, *next*, *then*, and *last*.

Science: Explore the Wetland, page 5

Students should draw a wetland and then write about the wetland.

Food for Fido

Language Arts: My Park Map, page 8

Students should draw a map of a park using the provided map key. Students should write or tell about the park using words such as *on*, *near*, and *between*.

Social Studies: Maps, page 9

Students should complete the sentences using words from the word bank and then write about how to use a map.

A map is a drawing of a place.

A symbol is a drawing of a real thing.

A map key tells what the symbols stand for.

Reindeer

Language Arts: Summer and Winter, page 12

Students should draw a reindeer in summer and in winter and then write how a reindeer is different in summer and winter.

Science: Reindeer, page 13

Students should fill in the missing letters to complete the words.

antler

fur

nose

hoof