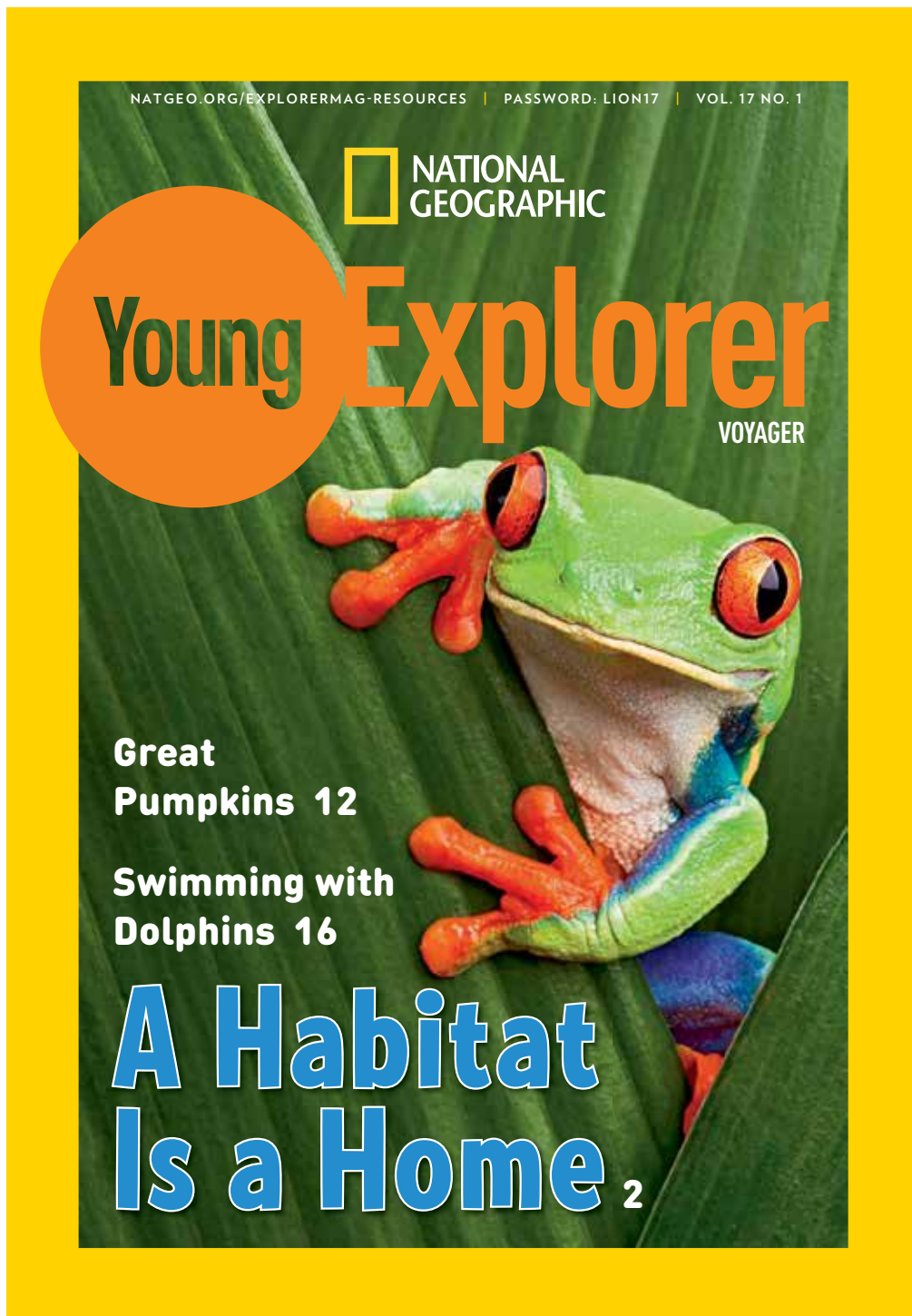


TEACHER'S GUIDE



Voyager (Grade 1)
Vol. 17 No. 1

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 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](https://www.natgeo.org/explorermag-resources), to find additional resources for extending your students' learning.

Your Subscription Includes:

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

INTRODUCTION

BACKGROUND

Since 1888, the National Geographic Society has funded scientists and explorers and shared their findings with the world. To support educators who use our resources, we have created a Learning Framework, which lays out what we believe students should learn from their experiences with the Society.

PURPOSE

The Learning Framework was designed to convey the Society's core beliefs and values. It is built around a set of attitudes, skills, and knowledge that embody the explorer mindset.

To determine the learning outcomes within the Learning Framework, we dug deep into national standards in key subject areas. We also sought advice from subject matter and child development experts, along with the combined expertise of NG instructional designers, researchers, and content developers. To learn more, go to: <https://www.nationalgeographic.org/education/learningframework/>

IMPLEMENTATION

Each article in this magazine has a knowledge-based link to the Learning Framework. Students will use the skills and attitudes as they do the activity on the back cover. The activity relates to the article "A Habitat is a Home."

MINDSET OF AN EXPLORER

KEY FOCUS AREAS



Attitudes

National Geographic kids are:

CURIIOUS about how the world works, seeking out new and challenging experiences throughout their lives.

RESPONSIBLE, with concern for the welfare of other people, cultural resources, and the natural world. NG kids are respectful, considering multiple perspectives, and honoring others regardless of differences.

EMPOWERED to make a difference. NG kids act on curiosity, respect, and responsibility. They are adventurous and persist in the face of challenges.



Skills

National Geographic kids can:

OBSERVE and document the world around them and make sense of those observations.

COMMUNICATE experiences and ideas effectively through language and media. They are storytellers!

COLLABORATE with others to achieve goals.

SOLVE PROBLEMS by generating, evaluating, and implementing solutions after identifying alternatives, weighing trade-offs, and making well-reasoned decisions.



Knowledge

National Geographic kids understand:

THE HUMAN JOURNEY is all about where we have been, where we live now (and why), and where we are going.

OUR CHANGING PLANET encompasses all that coexists on our planet—interconnected through systems that generate and nurture each other.

WILDLIFE AND WILD PLACES inhabit our planet—from the butterflies in our back yards to the lions in Africa.

A Habitat Is a Home

LANGUAGE ARTS



Objectives

- Students will know and use text features to locate information.
- Students will ask and answer questions about key details in a text.

Resources

- Language Arts Master (page 5)

Summary

Animals live and grow in different places, such as mountains, rain forests, deserts, oceans, and prairies. These places are called habitats. Animals get what they need in their habitat.

WORD WORK

Sight Words: *live, let, an, of*

BUILD VOCABULARY AND CONCEPTS

- habitat
- desert
- mountain
- ocean
- rain forest
- prairie

You might want to create a display on your word wall. Place the heading “Habitat = Home.” Under the heading, post pictures of each type of habitat. Label each habitat. Discuss the pictures with students and name each habitat as you talk about it. Let students know that they will be learning about animals that live in these habitats.

As students learn about each habitat and the animals and plants that live there, you can add pictures, labels, and student writing and drawings to the appropriate habitats on the word wall.

READ AND DISCUSS

Before reading, familiarize students with the structure of *Young Explorer* magazine. Point out the table of contents, which appears on the front cover. Let students know there are three articles in the magazine. Explain that the table of contents lets us know on which page each article begins. Ask students to find the first article on page 2.

Read the article “A Habitat Is a Home” 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 text aloud to students. After reading say: **Look at the picture of the mountain and the two small pictures of the animals. Why are these animals pictured here?** (*because they live in the mountains*) Continue by saying: **The mountain is their home. What is another name for an animal’s home?** (*habitat*)

Point to the small pictures again. Tell students the text by the pictures lets us know what animals they are. Ask: **What are the animals?** (*mountain lion and mountain goat*)

Pages 4–5 Read the text. Ask: **What is it like in a rain forest?** (*It rains a lot, and the trees grow tall.*) **What are two animals that live there?** (*tree frog and toucan*) **What does the text say those animals do?** (*A frog sits on a leaf. A toucan looks for fruit.*)

Pages 6–7 Read the text. Ask: **What is it like in a desert?** (*Little rain falls. It is a dry place.*) **What are two animals that live there?** (*gila woodpecker and lizard*) **What does the text say those animals do?** (*A woodpecker lives in a cactus. A lizard warms itself in the sun.*)

Pages 8–9 Read the text. Ask: **What is it like in an ocean?** (*Many animals live in the ocean.*) **What are two animals that live there?** (*sea turtle and seahorse*) **What does the text say those animals do?** (*A sea turtle swims. A seahorse looks for food.*)

Pages 10–11 Read the text. Ask: **What is it like in a prairie?** (*Flowers and tall grasses grow there.*) **What are two animals that live there?** (*grasshopper and prairie dog*) **What does the text say those animals do?** (*A grasshopper rests on a flower. A prairie dog chews on a plant.*)

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 one of the habitats you learned about.**
- **Draw or write something you learned about an animal that lives in one of the habitats.**

A Habitat Is a Home

SCIENCE

Objective

- Students will learn that plants and animals normally live or grow in a natural home called a habitat.

Resources

- Science Master (page 6)

Science Background

There are different habitats in the world, and they are home to many different plants and animals. The plants and animals that live in these habitats are well-suited, or have adapted, to living there. The habitats provide these plants and animals with the things they need to survive—air, water, food, and space or shelter.

ENGAGE

To build background to the concept of a habitat being a home, discuss with students what a home is to people. Say: **Let's talk about what a home is.** Write the word "Home" on a board or chart paper. Discuss with students what a home is. Ask: **What do you do at home?** Write down the answers students give. If students haven't mentioned that they live, eat, and sleep at home, be sure to ask questions that can lead to those answers.

EXPLORE

Explore more about what a home is. Ask students to name different types of homes people live in. Students may mention that some people live in apartments, condos, or townhouses; others may live in houses. Students may also note that homes look different from one another and are different sizes.

To begin to connect home to habitat, say: **Plants and animals have homes, too. They are called habitats. Habitats are places where plants and animals live and grow. What are some of the things animals need to live and grow? Think about wild animals you see, such as rabbits, birds, and squirrels. What do you think they need to live and grow?** (*food to eat, water to drink, air to breathe, a place to sleep and stay safe*)

EXPLAIN

Read the article to students.

After reading, have students look at the pictures on each two-page spread and discuss the habitats and the animals pictured.

- Pages 2–3: Say: **Describe the mountain habitat.** (*The mountain habitat is high. It looks like the highest mountain in the background has snow on it. The part of a mountain we see in the front of the picture has trees and flowers.*)
What are two animals that live in this mountain habitat? (*mountain lion and mountain goat*)
- Pages 4–5: Say: **What do you see in the rain forest habitat?** (*There are many trees, water, and a waterfall*) **Why is the rain forest habitat a good home for a tree frog and a toucan?** (*There are many trees in the rain forest. A tree frog can sit on leaves, and a toucan can find fruit to eat.*)
- Pages 6–7: Say: **What do you see in the desert habitat?** (*Mountains are in the background. There are also many cactuses, rocks, and other plants or grasses.*) **Why is the desert habitat a good home for a gila woodpecker and a lizard?** (*A woodpecker can live in a cactus, and a lizard has plenty of sun to warm itself.*)
- Pages 8–9: Say: **What do you see in the ocean habitat?** (*There are water, fish, and coral in the ocean. Students may not know what coral is; point out the coral in the photo.*) **Why is the ocean habitat a good home for a sea turtle and a seahorse?** (*They have water to swim in and food to eat.*)
- Pages 10–11: Say: **What do you see in the prairie habitat?** (*The prairie has flat land with lots of tall grasses and flowers.*) **Why is the prairie habitat a good home for a grasshopper and a prairie dog?** (*A grasshopper has plenty of flowers to rest on; a prairie dog has plants to eat.*)

ELABORATE

As a whole class, choose one of the habitats to explore further. Research other plants and animals that live and grow in that habitat.

EVALUATE

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

- **What is a habitat? Describe one of the habitats you read about.**
- **What animals live in that habitat?**

LANGUAGE ARTS: Match Habitats to Animals

Match the habitat with an animal that lives there.

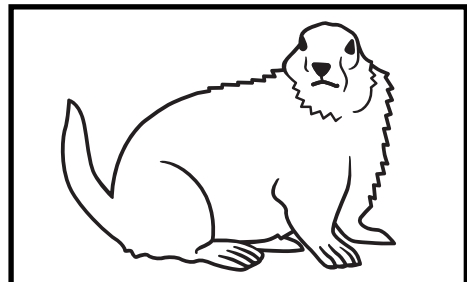
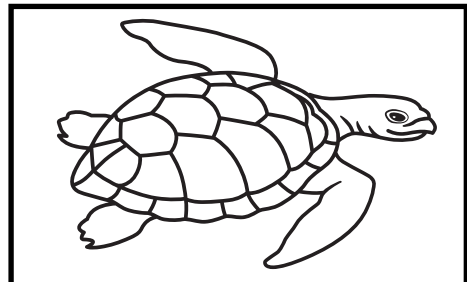
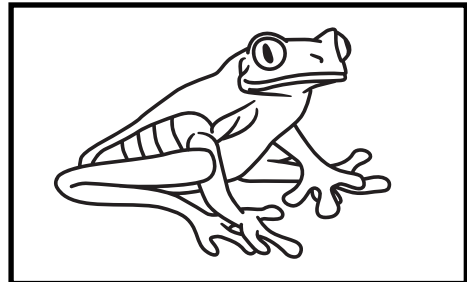
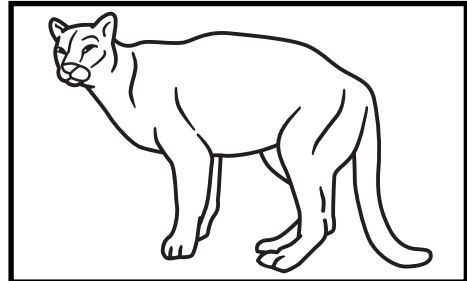
ocean

desert

mountain

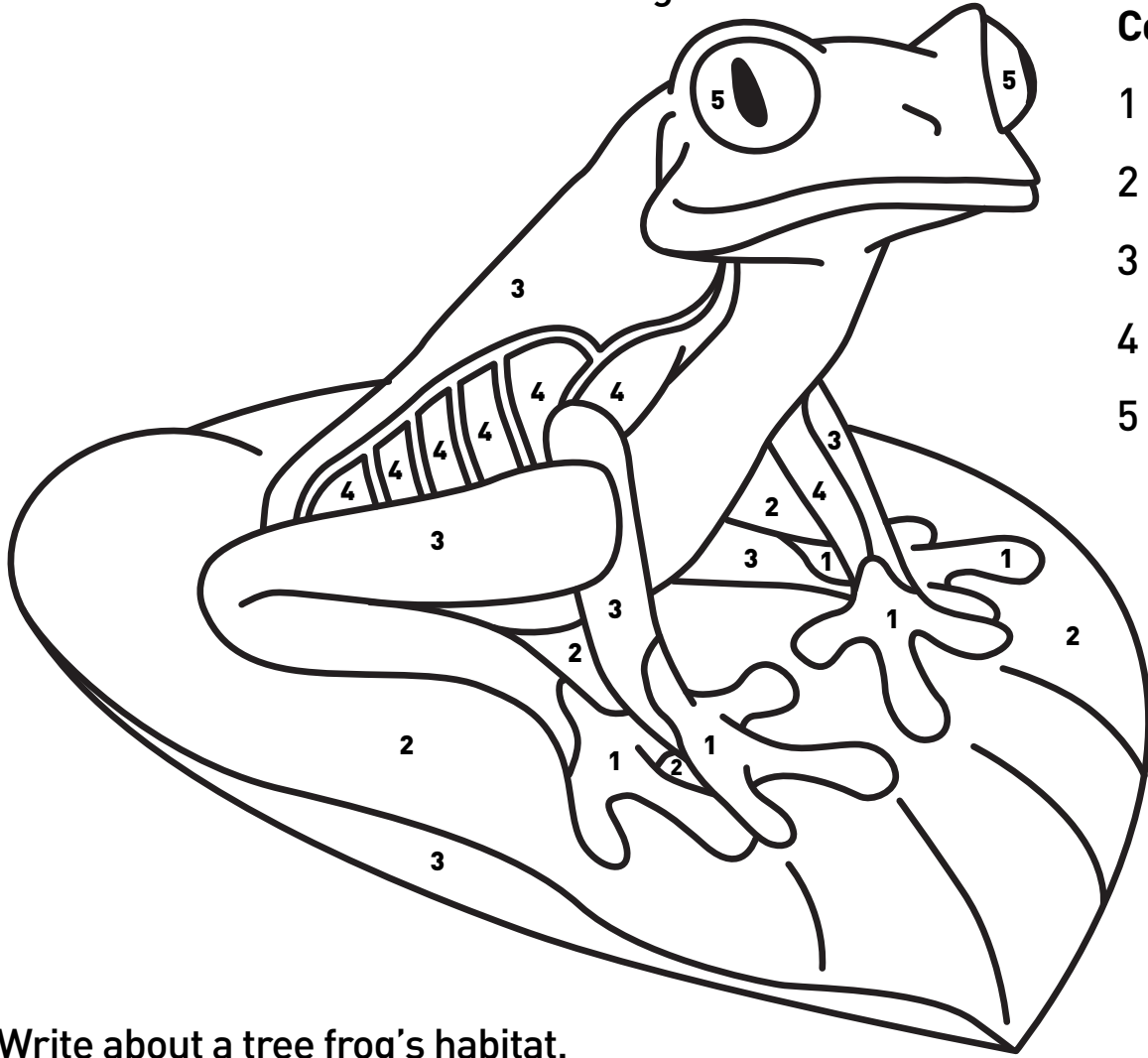
prairie

rain forest



SCIENCE: Color a Tree Frog

Use the numbers to color the tree frog.



Color Key

- 1 — Orange
- 2 — Dark green
- 3 — Light green
- 4 — Blue
- 5 — Red

Write about a tree frog's habitat.

Great Pumpkins

LANGUAGE ARTS



Objective

- Students will distinguish between information in photographs and information in the words in a text.

Resources

- Language Arts Master (page 9)

Summary

Pumpkins grow from seeds planted in the spring. Over time the seeds sprout; then in summer, a vine with flowers grows. The flowers turn into pumpkins that change from green to orange. The pumpkins are ready to pick in the fall.

WORD WORK

Sight Words: *how, some, then*

BUILD VOCABULARY AND CONCEPTS

- pumpkin
- sprout
- grow
- vine
- seed
- flower

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.
- Have students 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.

READ AND DISCUSS

Read the article “Great Pumpkins” 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 12–13 Read the title and text on pages 12 and 13. Ask: **Where is the pumpkin in the picture?** (*The pumpkin is the large, orange, round item that the boy is lying on.*)

What does the text tell us we will learn about in this article? (*We will find out how pumpkins grow.*)

Pages 14–15 Read the text. Ask: **What part of the text tells what the picture at the top of page 14 shows?** (*First, you plant some pumpkin seeds.*) Ask: **What new information does the text tell us about planting seeds?** (*The best time to plant seeds is in the spring.*) **What does the picture at the bottom of the page show?** (*a seed sprouting*)

Ask students to describe how the pictures at the top of page 15 show what the text says. (*The pictures at the top show a vine with flowers and a green pumpkin. The text tells us that a vine with flowers grows in summer, and the flowers turn into green pumpkins.*) Then ask: **What does the picture at the bottom of page 15 show?** (*an orange pumpkin*) **What else does the text tell us?** (*that the pumpkins turn orange in the fall and are ready to pick*)


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 you learned about growing pumpkins.**
- **Draw or write something you learned about how pumpkins grow.**

Great Pumpkins

SCIENCE

 **NEXT GENERATION SCIENCE STANDARDS**
1-LS1-1 Structure and Function All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow.

 NATIONAL GEOGRAPHIC

Young Explorer

Objectives

- Students will learn that pumpkins grow from pumpkin seeds.

Resources

- Four Seasons poster (Teacher's Edition)
- Science Master (page 10)

Science Background

A pumpkin, like many plants, grows from a seed. The seed is planted in the ground, generally in the spring, and will begin to sprout. In the summer, if the plant has plenty of light, water, and space to grow, the sprout will grow into a vine. Then the vine grows yellow flowers. From the flowers, small green pumpkins can develop. The pumpkins will grow larger and eventually turn orange. Inside the mature pumpkins are seeds. These seeds can be planted, and the cycle can begin again.

ENGAGE

Engage students by tapping into their background knowledge. Many will have visited pumpkin patches in the fall or have participated in or watched pumpkins being carved for Halloween. Have students talk about their experiences. You might want to ask one or more of the following questions to get the discussion started.

- **Who has visited a pumpkin patch? What did you see there?**
- **Were the pumpkins still growing on their vines? What did that look like?**
- **Has anyone ever seen a pumpkin being carved for Halloween? What do the insides of a pumpkin look like?**
- **Are there seeds inside a pumpkin? What do they look like?**
- **Do you know what you can do with pumpkin seeds?** (Some students may mention that you can eat pumpkin seeds.)

EXPLORE

You might want to explore more about pumpkins, finding out where in the United States pumpkins are grown, how big pumpkins can get, and what kinds of recipes include pumpkin. Most students will be familiar with pumpkin pie, but there are many other recipes that can include pumpkin as an ingredient.

EXPLAIN

Read the article to students.

With students you can create a life cycle diagram with pictures and labels that show the different stages in the life cycle.

- pumpkin seed
- pumpkin sprout
- pumpkin vine
- pumpkin vine with yellow flower
- pumpkin vine with green pumpkin
- pumpkin vine with mature, orange pumpkin

ELABORATE

There are many different plants that grow from seed. Find and discuss other foods students are familiar with that are grown from seed, such as the following:

- beans
- tomatoes
- watermelon
- cucumbers

You can use the Four Seasons poster to show when many seeds can be planted (*spring*); when most of the plant growth occurs (*summer*); and when many fruits and vegetables are harvested (*fall*).

EXTEND

You may want to experiment with growing some plants from seed to show how they grow and change.

EVALUATE

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

- **How does a pumpkin grow?**
- **What is your favorite thing to do with a pumpkin?**

LANGUAGE ARTS: Pumpkin Patch

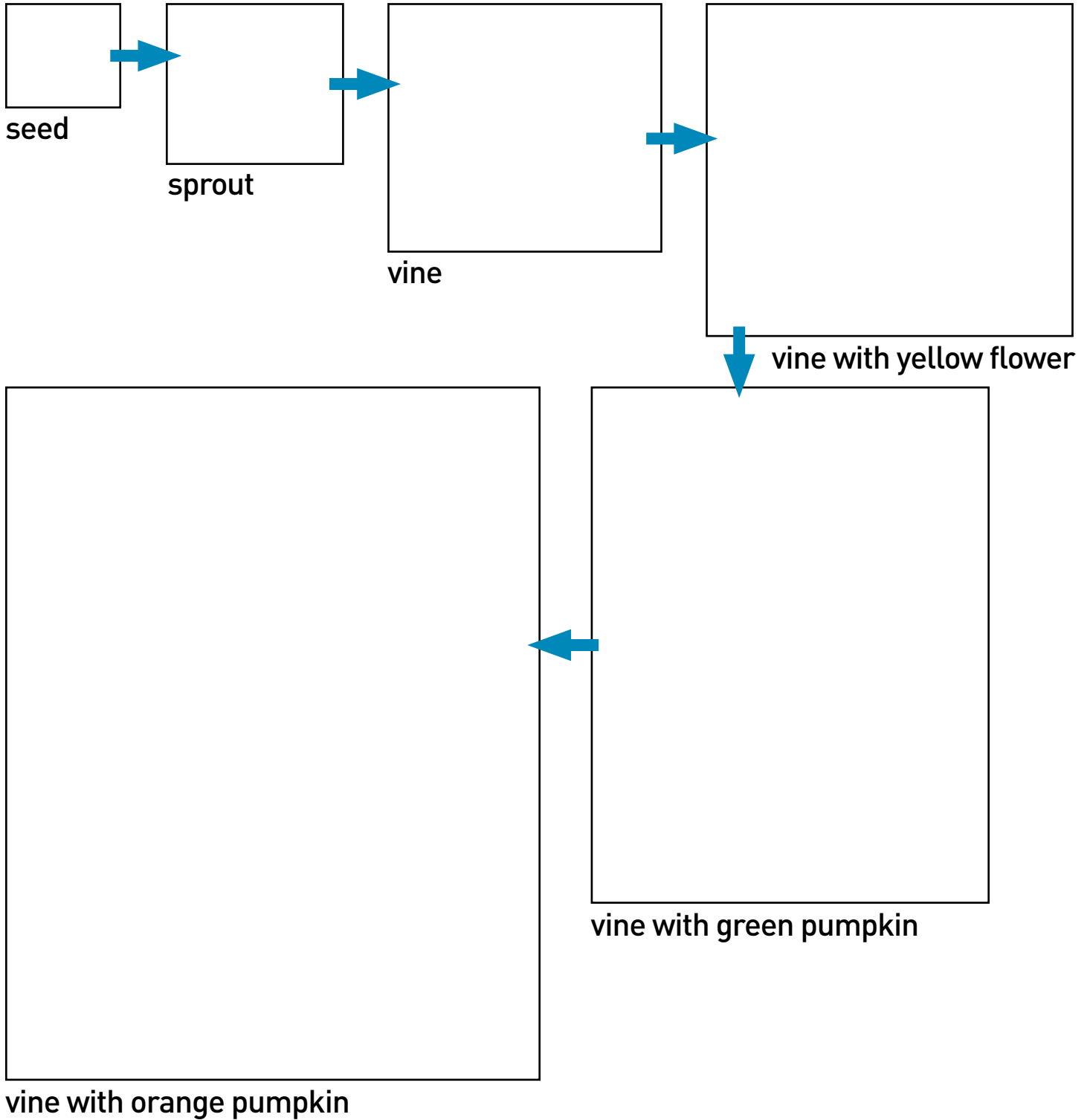
Connect the dots to complete the pumpkins in the pumpkin patch.
Then write about the pumpkins.



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SCIENCE: Pumpkin Life Cycle

Draw pictures to show the life cycle of a pumpkin.



Swimming with Dolphins

LANGUAGE ARTS



Objectives

- Students will identify the main topic and retell key details of a text.

Resources

- Language Arts Master (page 13)

Summary

Dolphins live in the ocean. They get everything they need there. Dolphins need water, food, and air. The ocean is their habitat.

WORD WORK

Sight Words: *let, live, open, of, has, live*

BUILD VOCABULARY AND CONCEPTS

- dolphin
- ocean
- swim
- sleep
- eat
- chase
- catch
- breathe

Introduce the vocabulary words to students by displaying them in the classroom on a word wall or on a board.

Do a picture walk through the article “Swimming with Dolphins” and point out pictures that will help students understand the vocabulary words. Let students know that in each picture the dolphins are in the ocean.

Many of the vocabulary words are verbs: swim, sleep, eat, chase, catch, and breathe. Have partners or small groups act out what each of these words means. Let students know that dolphins do all of these things (except breathing) under the water.

Discuss that the ocean is the dolphins’ habitat, and in the ocean they get everything they need.

READ AND DISCUSS

Read the article “Swimming with Dolphins” 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 16–17 Read the text. Ask: **Where are the dolphins?** (*They are in the water.*) **What are we going to find out about dolphins?** (*We are going to find out where they live.*)

Pages 18–19 Read the text. Ask: **Where does a dolphin live?** (*It lives in the ocean.*) **What does a dolphin get in the ocean?** (*It gets everything it needs.*) Guide students to understand that this is the main topic of the article. It is what the article is mainly about—A dolphin lives in the ocean, and it gets what it needs in the ocean.

Begin a discussion of what a dolphin needs. Ask: **What is one thing a dolphin needs?** (*It needs water.*) **What does a dolphin do in the water?** (*It swims, plays, and sleeps there.*) **What is one fun fact we found out about how a dolphin sleeps?** (*It sleeps with one eye open.*)

Pages 20–21 Read the text. Ask: **What else does a dolphin need?** (*It needs food.*) **What does a dolphin eat?** (*mostly fish*) **Where does it find those fish?** (*in the ocean habitat*) **How does a dolphin get fish to eat?** (*It chases them and catches them with its mouth.*)

Pages 22–23 Read the text. Ask: **What else do dolphins need?** (*They need air.*) **How do dolphins breathe air?** (*They swim to the top of the water and breathe air in through their blowholes.*)

Talk with students about why the ocean is a good habitat for dolphins. Ask students to retell what dolphins need and how they get what they need in the ocean.

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 you learned about dolphins.**
- **Draw or write something a dolphin does in the ocean.**

Swimming with Dolphins

SCIENCE

Objective

- Students will learn that dolphins need water, air, and food to live and grow.

Resources

- Dolphin Time poster (Teacher's Edition)
- Science Master (page 14)

Science Background

The ocean is a dolphin's habitat. While a dolphin spends most of its life underwater, it is not a fish. A dolphin is a marine mammal, which means the female gives birth to live offspring and nurses them. Young offspring of a dolphin are called calves.

Dolphins can stay underwater for extended periods of time, but they cannot breathe underwater. Dolphins must come to the surface of the water and breathe air through the blowhole at the top of their head.

ENGAGE

Talk with students about the ocean and the different animals that live in the ocean. Show pictures of dolphins. It's possible some students have seen dolphins. Ask them to share what they know about them.

EXPLORE

Have students explore the ocean habitat. You might want to show them pictures or video of the ocean and dolphins swimming, jumping, playing, and talking.

EXPLAIN

Read the article to students.

After reading, have students turn and talk with a partner to tell what they learned about dolphins. Then together, as a class, list the things dolphins need and are able to get in their ocean habitat.

- Dolphins need water.
- Dolphins need food.
- Dolphins need air.

Have students talk about each of these needs. Ask students to tell more about why dolphins need water, food, and air and how the ocean habitat helps dolphins get what they need. Remind students to look at the pictures in the article to help them remember.

ELABORATE

Use the Dolphin Time poster to find out more about what dolphins do in their ocean habitat. Read aloud the text on the poster to students. You might also have students act out each piece of information.

- Jump! Students can mimic dolphins jumping out of the water and landing with a splash.
- Swim! Students can pretend they are dolphins swimming in groups.
- Talk! Student can make clicking, whistling, and squeaking sounds, as dolphins do when they talk to each other.
- Play! Students can play like dolphins and imagine they are blowing bubbles and chasing them.

EVALUATE

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

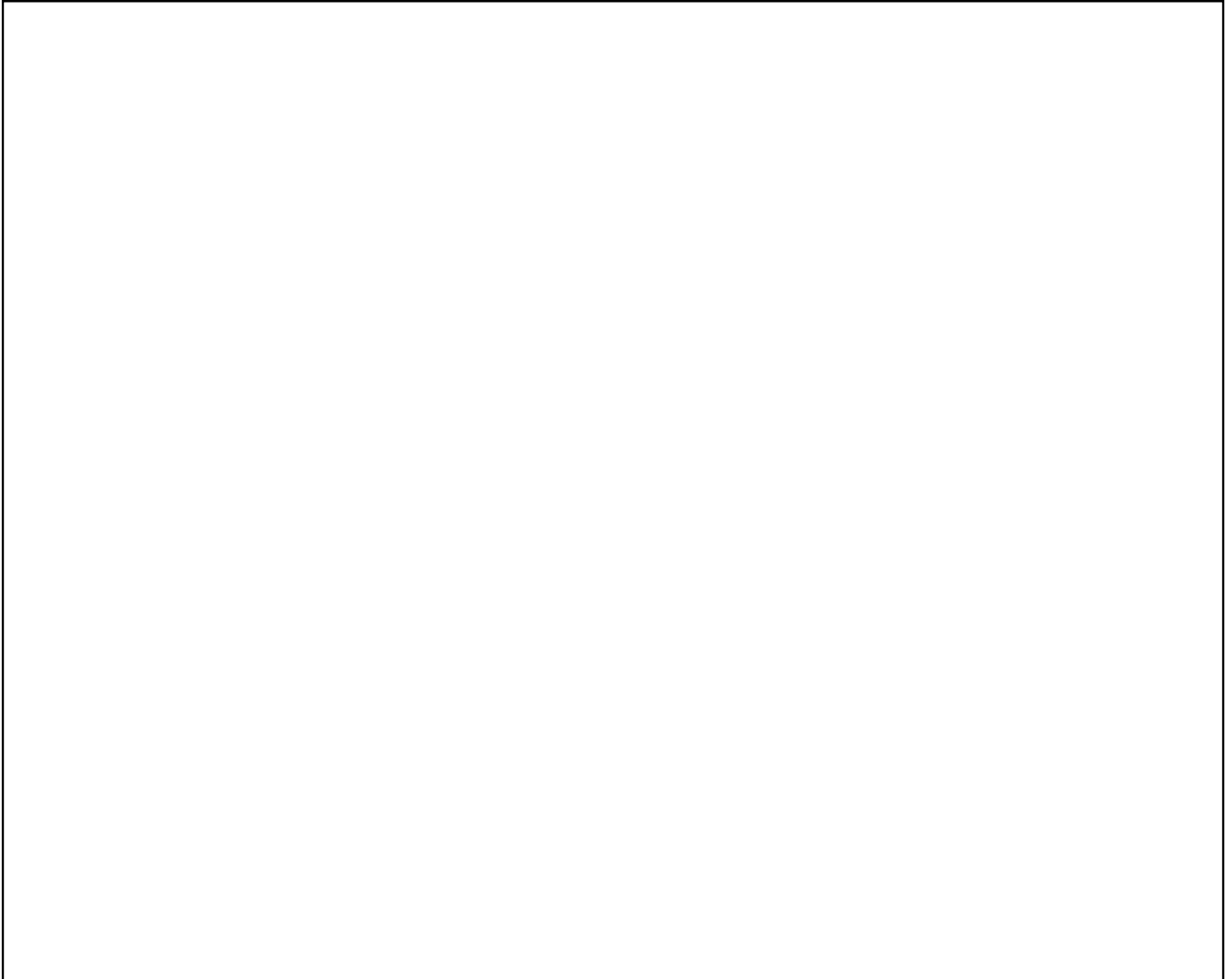
- **What are some things dolphins need?**
- **What are some other things dolphins do in the ocean?**

Name _____

Date _____

LANGUAGE ARTS: Drawing Dolphins

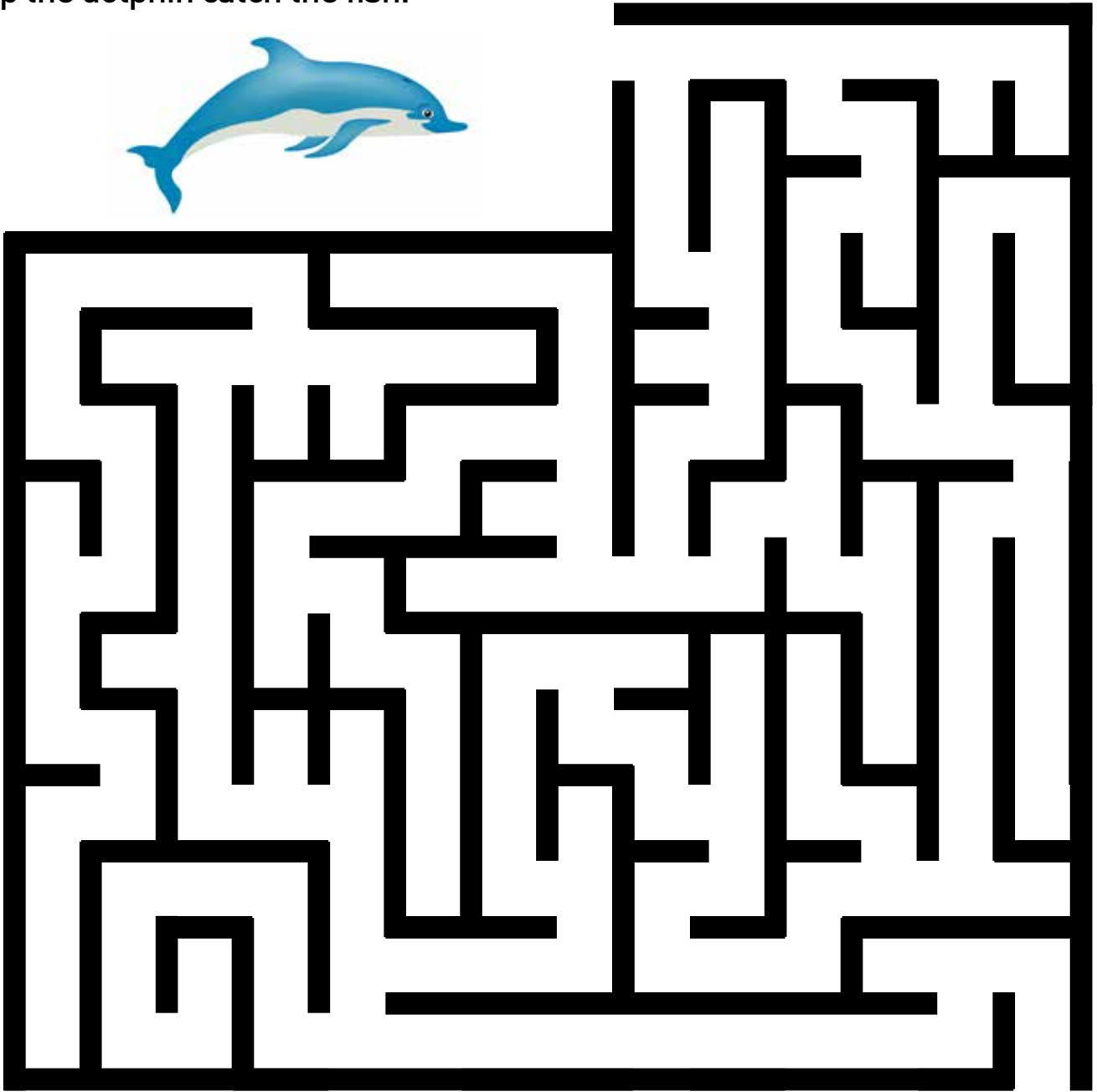
Draw dolphins in their ocean habitat. Write about the dolphins.



Four sets of horizontal lines for writing, each consisting of a solid top line, a dashed middle line, and a solid bottom line.

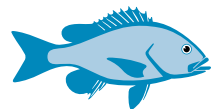
SCIENCE: Catch the Fish

Help the dolphin catch the fish.



Why does the dolphin want to catch the fish?

- (A) for fun
- (B) for food
- (C) to breathe



ANSWER KEY

A Habitat Is a Home

Language Arts: Match Habitats to Animals, page 5

Students should draw lines to match each habitat to an animal.

ocean > sea turtle

desert > lizard

mountain > mountain lion

prairie > prairie dog

rain forest > tree frog

Science: Color a Tree Frog, page 6

Students should use the color key to color the tree frog. Students should write facts about a rain forest.

Great Pumpkins

Language Arts: Pumpkin Patch, page 9

Students should connect the dots to complete the pumpkins. Then students should write about the pumpkins.

Science: Pumpkin Life Cycle, page 10

Students should draw pictures to complete the pumpkin life cycle diagram.

seed > sprout > vine > vine with yellow flower > vine with green pumpkin > vine with orange pumpkin

Swimming with Dolphins

Language Arts: Drawing Dolphins, page 13

Students should draw dolphins in their ocean habitat and then write about the dolphins.

Science: Catch the Fish, page 14

Students should draw a line through the path in the maze that connects the dolphin to the fish. Then students should answer the question.

Why does the dolphin want to catch the fish? (B) for food