

# **Teaching the Book**

Young children often wonder where animals go to stay warm in the winter. *Hibernation* provides the answer through engaging text and close-up photographs. The book provides an opportunity to discuss seasonal changes, to teach cause and effect relationships, and to introduce vocabulary related to hibernation. Activities will get students involved by having them observe animals in their own community, notice seasonal changes on a calendar, and write songs about animals in winter.

Theme Focus: Animals and Seasons
Comprehension Focus: Cause and Effect
Language Focus: Words Related to Hibernation

#### **ABOUT THE AUTHOR**

Tori Kosara is the author of several science books for children including *Big Sharks*, *Wild Weather Around the World*, and *Lonesome George Finds His Friends*. She lives and works in New York.

#### **BOOK STATS**

Grade Level Equivalent: 1–2 Ages: 6+ Lexile Measure: NC970L Pages: 32

Guided Reading Level: L Genre: Science Nonfiction

**Subject/Theme:** Animals and Seasons

Common Core Standards	Reading	Writing	Listening & Speaking	Language
Grade 1	RI.1.1, RI.1.3, RI.1.4, RI.1.7	W.1.2	SL.1,1, SL.1.2, SL.1.5	L.1.4
Grade 2	RI.2.1, RI.2.3, RI.2.4, RI.2.7	W.2.2	SL.2,1, SL.2.2, SL.2.5	L.2.4

# **OVERVIEW**

# **Book Summary**

When winter rolls in, temperatures drop and food becomes scarce. Many animals, such as birds, migrate to warmer climates. Other animals survive by hibernating. These animals find a place to spend the winter that is warm and safe from predators. Animals, such as chipmunks, woodchucks, and bats, sleep so deeply that they appear to be dead. Their body temperature drops as low as 32 degrees Fahrenheit (0 degrees Celsius).

Other animals who hibernate, such as bears and raccoons, go into a shorter, lighter periods of slumber called torpor. All hibernators need to eat extra food to store up fat for energy during the long winter. Even cold-blooded animals such as frogs and snakes hibernate during the winter in mud or under rocks.

When spring arrives, the hibernators slowly begin to wake up. They have just enough fat energy left to leave their burrows, caves, and other safe places to go off in search of food.

# **Get Ready to Read**

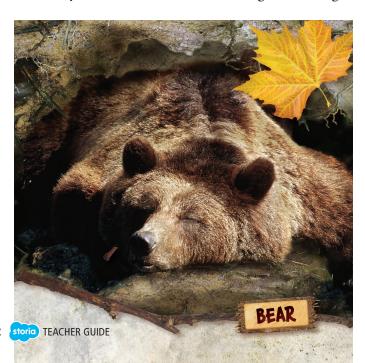
### **Pre-Reading Activities**

**Show What You Know** Play a quiz game with students to engage them in thinking about where animals go in the winter. Ask each of the questions below, giving students a choice of two answers. Tell them to write down the letter of their answer on a sheet of paper.

- What do many birds do during the winter?
   a. hide in birdhouses
   b. fly south
- **2.** Where might you find a bear during the winter months?
  - a. in a cave
- **b.** in Florida
- **3.** Hibernation means
  - **a.** allergic to winter
- **b.** sleeping through the winter
- **4.** Which describes a human and a chipmunk?
  - a. cold-blooded
- **b.** warm-blooded
- **5.** Where might a fish spend the winter?
  - **a.** at the bottom of a river
- **b.** in an aquarium

Go over the answers by taking a poll of how many students chose each answer or by creating a KWL chart. Tell students they'll learn more about the answers as they read *Hibernation*.

**Preview and Predict** Have students study the cover of *Hibernation*. Ask them to describe the details of what they see and what the animal might be doing.



#### STORIA ENRICHMENTS

This Storia e-book has the following enrichments to enhance students' comprehension of the book.

- Picture Starter
- Word Search
- Word Bird
- Scratch and See
- Multiple Choice with Pictures
- Sequencing
- Jigsaw Puzzle



**Critical Thinking** Ask students to think about this question as they read. Write the question on chart paper or have students record it in their reading journals.

How does hibernation help animals survive?

# **Vocabulary**

**Words Related to Hibernation** Introduce these words that describe animals and their behavior related to hibernation:

migrate, p. 3 torpor, p. 9
hibernation, p. 3 warm-blooded, p. 16
burrow, p. 4 hibernaculum, p. 21
predator, p. 5 cold-blooded, p. 22

Ask students to look and listen for the words as they read and to use the text and photographs to help give them clues to the words' meanings.

\*Note that the words are in bold in the text and are defined on the last page of the book in the glossary.

Use **Resource #1: Vocabulary Cards** on page 8 and distribute copies to students.

# **As You Read**

# Reading the Book

**Read-Aloud** Read the book aloud to students, modeling fluency and expression. Encourage students to follow along in their own books, studying the illustrations and connecting the photos with the text being read.

**Shared Reading** Reread the book, asking students to read their copies at the same time. Cue them to read aloud certain words and phrases that you omit from your reading. For example, on page 5, prompt students to fill in the last word of the sentence: "Animals settle into these safe spots, and fall into a deep \_\_\_\_."

### **Comprehension Focus**

Cause and Effect Relationships Explain to students that science books like Hibernation are full of cause and effect relationships. A cause is the reason that something happens. An effect is the result of the cause. Discuss that recognizing cause and effect relationships will help them understand the meaning of what is read.

Use the graphic organizer on Resource #2: Cause and Effect. Project the page on a whiteboard or pass out copies to students. Then model how to identify the cause and effect in the text on page 3 about winter rolling in.

Model: We just read that when winter rolls in, it grows cold and food is hard to find. This is the cause that makes something else happen. What happens? The text says, "Many animals, such as birds, migrate to warmer places. Other animals stay put and sleep through the cold season. This is called hibernation." I'll write in the effect box that "Some animals migrate. Other animals hibernate."

Have students volunteer the effect for each of the remaining causes listed on the organizer. Encourage them to point to evidence in the text for their answers.

# **After You Read**

# **Questions to Discuss**

Lead students in a discussion of these focus story elements.

- **1. Animals and Seasons** What do hibernating animals do when spring arrives? What do you think migrating animals do? (Hibernating animals wake up, go out to find food, build new homes, and perhaps have babies. Migrating animals return to their spring and summer homes.)
- **2. Cause and Effect** Hibernating animals store a special kind of fat called brown fat. What is the result of having brown fat? (It keeps the animal warm when their body temperature drops.)
- **3. Words Related to Hibernation** Use three of the vocabulary words to tell about an animal that hibernates. (Answers will vary.)

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### **Words Related to Hibernation**

Read aloud the following questions about the vocabulary words, one at a time. Have students volunteer the answers or find the answers in the book. To reinforce meaning, ask students to point to an illustration of a word or animal.

- What is a small hole where a chipmunk hibernates?
- What do most birds do in the winter?
- What is an animal that eats other animals?
- What is an example of an animal that goes into a torpor?
- What is an example of a cold-blooded animal?

### **Questions to Share**

Encourage students to share their responses with a partner or small group.

- **1. Text to Self** How do you adapt or do things differently to adjust to the changing seasons?
- **2. Text to World** Describe what you know about other animals that adapt or migrate during the changing seasons (for example, whales, penguins, fish, other birds, etc.).
- **3. Text to Text** What other books, television shows, or movies have you read or seen about animal behavior? Tell about the animals and what you learned.

# **Extension Activities**

# **Reading/Writing Connection**

**Photo Captions** Ask students to look through the book and choose two of their favorite photographs. Then assign them to write a two-to-three sentence

caption for each photograph. They can use information from the text to write their captions. In the caption, they should identify the animal, describe what it is doing in the photograph, and add any other interesting information about hibernation. If possible, project the photos on the whiteboard and have students read their captions.

# Don't forget the



# BIG QUESTION

Critical Thinking Give each student an opportunity to answer the big question. Encourage students to support their answers with details and evidence from the text. Remind them there is no one right answer.

How does hibernation help animals to survive?

# **Content Area Connections**

Math Seasons on a Calendar Provide students with a calendar that shows the dates when the seasons change. Ask students to flip through the calendar to find when the seasons change. Suggest that they count the days between seasons and do research about what causes seasons to occur.

# **Language Arts**

Winter Friends Science Play Students learn more about hibernation and migration in this fun play about animals in winter. There are character roles for six readers who take the parts of animal friends in winter. Print the play by visiting Scholastic.com to: http://printables.scholastic.com/printables/detail/?id=43887&Nty=0&\_N=fff&Ntk=Printables\_Sl&query=hibernation&N=0&No=0&Ntt=hibernation.

**Social Studies Animal Inventory** Encourage students to work as a group to create a list of animals that live in their community. Have them record each animal on chart paper. Then direct students to add columns for "Migrate," "Hibernate," and "Around in Winter." Ask students to put a check in the correct column for each animal.

Arts Bear Songs The songwriter Brent Holmes has a collection of bear songs including "I Can't Wait to Hibernate" available on the Internet. Play the song for students and then encourage them to write their own songs about hibernation. Supply them with several words that rhyme with hibernate to get them started: great, gate, date, hate, late, etc.

#### **BIG ACTIVITY**

Animal Trading Cards Ask students to create a "trading card" about a hibernating or migrating animal that includes: name, appearance, habitat, diet, winter home, and another fun fact. Make copies of the printable, **Big Activity: Animal Trading Cards**, on page 5 and distribute to students. Help students copy or print out photos, if possible. Students can use information from the text, from the illustrations, or from research on the Internet. Encourage them to share their cards with each other or project them on the whiteboard.

	t hibernates or migrates. Draw or print out a picture card. Fill out facts about the animal on the back side		
Front of card	Back of card		
	Name:		
	Appearance:		
	Habitat:		
	Diet:		
	Winter Home:		
	Fun Fact:		
ame:			

### READ MORE AND LEARN MORE

Use these books and other resources to expand your students' study of the book or theme.

### **Author Connections**



#### **Big Dinosaurs!**

Tori Kosara

Ages: 4–6 Grades: PreK–1 Lexile Level: AD780L Pages: 32 Guided Reading Level: K

Don't look now, but something huge is coming! It's a dinosaur, the biggest animal to ever walk the earth. The dinosaurs died out long ago, but scientists know how large they were by studying their bones, claws, and even teeth. Fascinating facts and realistic full-page pictures will inspire the imaginations of dino fans and young scientists. **Available as a Storia e-book** 



#### **All About Hibernation**

Tori Kosara

Ages: 4–7 Grades: PreK–2 Lexile Level: AD880L Pages: 32
What kinds of animals hibernate? What do

they do to prepare for hibernation? This super-smart science reader includes thought-provoking prompts and amazing close-up photos. Science facts and vocabulary give kids what they need to talk like experts about the amazing natural process of hibernation. **Available as a Storia e-book** 

#### **Theme Connections**



#### **Once Upon a Springtime**

Jean Marzollo

Ages: 6–8 Grades: 1–2 Lexile Level: 380L Pages: 32

Guided Reading Level: I

A fawn tells readers about its first year of life, starting with its earliest days spent lying in a patch of leaves. As the seasons pass, the animal eats from the farmer's garden in the summer, enjoys apples in the fall, grows hungry during the long winter, and looks forward to spring again. Kids will love this appealing animal story told through simple text and beautiful watercolor paintings. **Available as a Storia e-book** 



#### **Animal Disguises**

Emma Ryan

Ages: 5–7 Grades: K–2 Lexile Level: NC920L Pages: 32

Guided Reading Level: M

Play hide-and-seek with a group of land, air, and sea animals that hide in plain sight. Readers will find out how one clever snake is responsible for most bites, which sea creature can change to look like many other animals, and why the stick insect is almost impossible to spot. Animal lovers and science enthusiasts will find a lot to learn in these colorful and fact-filled pages. **Available as a Storia e-book** 

Go to **www.Scholastic.com/ storia-corner** to find PDF versions of the Storia teacher guides and links to purchase the related books.



#### **Amazing Animal Journeys**

Laura Marsh

Ages: 5–7 Grades: K–2 Lexile Level: 810L Pages: 48
This National Geographic reader follows the

journeys of three different animals on their amazing migrations. Each year 30,000 zebras make a 360-mile trip across Africa. Christmas Island red crabs travel to new waters to have thousands of babies. And walruses mate under ocean ice. With stunning, colorful photos and surprising animal facts, this book is a great pick for young nature lovers.

Available as a Storia e-book



#### **Scholastic True or False #11: Mammals**

Melvin Berger

Ages: 5–8 Grades: K–2
Lexile Level: 820L Pages: 48
Do all mammals live on land? Do they lay eggs?

Can any mammals fly? Featuring 22 true-or-

false statements and a fun question-and-answer format, the text in this motivating book is complemented with dazzling full-color photographs on every page.

Available as a Storia e-book



#### **Our Seasons**

Ranida McKneally

Ages: 4–8 Grades: PreK–2

Pages: 32

Thoughtful poems reveal nature's simple

wonders, from frozen breath in fall to summer's damp and sticky air. After each gentle and whimsical haiku there is an explanation of the science behind these experiences. Each poem and explanation has a bright and detailed illustration that encourages children to pay attention to the small but important changes that each season brings.

Available as a Storia e-book

migrate	hibernation
burrow	predator
torpor	warm-blooded
hibernaculum	cold-blooded

Name:	Date:
Hibernation	
Reread each page from the book. Then write	the cause and the effect in the boxes.
1. Winter Rolls In (p. 3)	
Cause	Effect
2. Light Sleepers (pp. 8-9)	
Cause	Effect
3. Big Eaters (pp. 10–11)	
Cause	Effect
4. Energy and Totals (no. 22, 23)	<u></u>
4. Frogs and Toads (pp. 22–23)	
Cause	Effect