



PEACHTREE

# TEACHER'S GUIDE

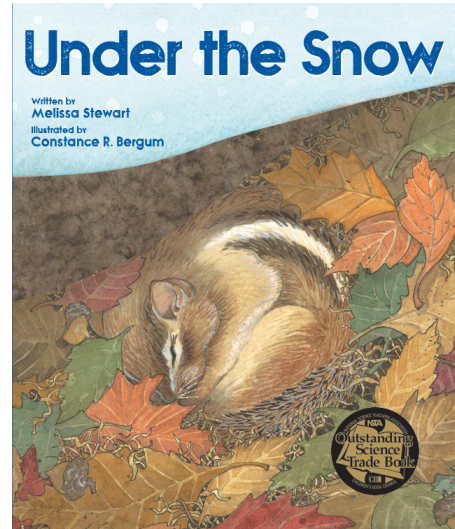
Includes Common Core Standards Correlations

## Under the Snow

Written by Melissa Stewart  
Illustrated by Constance R. Bergum

HC: 978-1-56145-493-8  
PB: 978-1-68263-125-6

Ages 4–8 | Nonfiction  
AR • Lexile • F&P • GRL M; Gr 2



### ABOUT THE BOOK

Using clear, simple language, *Under the Snow* offers young readers a lyrical look at the surprising ways animals living in fields, forests, ponds, and wetlands spend the chilly winter months. Some fish and insects rest, but others stay active. Voles spend their days burrowing through the snow. Red-spotted newts dodge and dart, whiz and whirl just below the ice.

### THEMES

- Habitats
- Weather
- Water cycle
- Animal groups (mammals, reptiles, amphibians, fish, insects)

### SKILLS REINFORCED

- Observation
- Description
- Compare and contrast
- Sorting and sequencing
- Size and scale

### BEFORE YOU READ

#### Grades K–1

- After looking at the cover of the book and reading the title, ask students what they think *Under the Snow* will be about. Write their responses on chart paper. **CCSS ELA RIT #1 & 2**
- Provide a list of vocabulary words and discuss their meanings. **CCSS ELA RIT #4**
- Encourage students to list reasons why snow is important, even for people and creatures that live in areas where it rarely snows. **NGSS PE K-LS1-1**
- Ask students what they think wild animals do to stay warm on cold winter days. How do they think animals find food in winter? Have them consider a woodchuck, a fish, and a water strider. **NGSS PE 1-LS1-1**
- Assign each student one of the animals mentioned in the book.

#### Grades 2–3

- Ask students to predict the main idea of *Under the Snow*. Write their responses on chart paper. **CCSS ELA RIT #2**
- Have students discuss the following questions in small groups. Before reading the book, compile the groups' answers on chart paper. **NGSS PE 2-LS4-1 & 3-LS4-3**

1. What is a habitat?
  2. What kinds of plants live in a field, a forest, a pond, and a wetland?
  3. What kinds of animals live in each environment?
  4. How does the snow help plants and animals? How can it harm them?
- Provide a list of vocabulary words. Encourage students to buddy up and work together as they look the words up in a dictionary and write definitions. **CCSS ELA RIT #4**

## AS YOU READ

### Grades K–1

- Ask students to raise a hand when you mention the animal you assigned them. They should be ready to tell the class how that animal survives under the snow. **CCSS ELA SL #2**
- Ask students to think about the main idea of the book. **CCSS ELA RIT #2**

### Grades 2–3

- Ask students to think about the main idea of the book. Do they hear details that can support that main idea? They may want to make notes on a piece of paper. **CCSS ELA RIT #2**
- Students should also think about the ideas you recorded on chart paper. Are there things they would like to change or add? They may want to make notes on a piece of paper. **NGSS PE 2-LS4-1 & 3-LS4-3**

## AFTER YOU READ

### Grades K–1

- Ask students to identify the main idea of *Under the Snow*. Work with them to find details that support that idea. List them on chart paper. **CCSS ELA RIT #1 & 2**
- Have students draw a picture showing what their assigned animal does under the snow. Ask them to explain their pictures to the rest of the class. **NGSS PE 1-LS1-1**
- Create four habitat cards and place one in each corner of the room. Ask students to fly, crawl, hop, or swim to the appropriate habitat card. Ask students how their animal's way of moving helps it survive in its habitat. **NGSS PE 1-LS1-1, NES NA-T.K-4.2**

### Grades 2–3

- As a class or in groups, have students add new information to or erase incorrect information from the ideas you compiled on chart paper before reading the book. **NGSS PE 2-LS4-1 & 3-LS4-3**

- Working in groups of three or four, students should compare the habitats described in the book. Ask them to consider the plants, animals, and water availability in each habitat. Then have students create Venn diagrams to highlight the similarities and differences among the four habitats. **NGSS PE 2-LS4-1**

## SCIENCE

### Grades K–1

- If you live in a place where it snows, take the class out the next time you spot flakes falling. Have students catch snowflakes on black construction paper and look at them with a magnifying glass. Ask the students to make detailed drawings of the snowflakes in a notebook.

When the class goes back inside, have students share their drawings with one another. How are the snowflakes similar? How are they different? Make a list on chart paper.

- If you live in a place where it snows, ask students to use a ruler to measure how much snow falls each time you have a storm. Which week and month is the snowiest?

Get snowfall data from a local TV or radio station and ask students to compare the meteorologist's data to class data. Can the children explain any differences in the data? **NGSS PE K-ESS2-1**

### Grades 2–3

- If you live in a place where it snows, ask students to look for animal footprints after a new snow. Suggest that they draw or photograph the prints and bring them to school. Using the book *Big Tracks, Little Tracks: Following Animal Prints* by Millicent Selsam (HarperCollins, 1998) or a field guide to animal tracks, try to identify the creatures that made the footprints. **NGSS PE 2-LS4-1**
- If you live in a place where it snows, ask students to measure how much snow falls each time you have a storm and create a classroom graph of the data. Which week and month is the snowiest?

Get snowfall data from a local TV or radio station and ask students to create a data table and graph that compares the meteorologist's data to class data. Can the children explain any differences in the data? **NGSS PE 3-ESS2-1**

- Divide the class in half and have each team create a Book Fact Scavenger Hunt for the other team. Students should look through *Under the Snow* and other books about how animals survive in winter.

(See Related Reading at the end of this guide for suggestions.) Each team should choose a few interesting facts and turn them into questions. Here are some examples:

—According to *Under the Snow*, how does a wood frog survive the winter?

—According to *Animals in Winter* by Henrietta Bancroft (HarperCollins, 1996), how do foxes get food during the winter months?

Type each team's questions, print them out, and cut them so each question is on a separate strip of paper. Place the questions in two bags or boxes, so the students on the opposite team can pick one question at a time and compete to see which team can answer the most questions. **CCSS ELA RIT #9, Writing #7 & 8, NGSS PE 2-LS4-1 & 3-LS4-3**

## MATH

### Grades K–1

- Using the information below, students should create a bar graph that compares animal sizes. **CCSS Math MD A.1, A.2, B.3**

|                    |                     |
|--------------------|---------------------|
| Beaver: 46 in.     | Frog: 3 in.         |
| Bluegill: 10 in.   | Ladybug: 0.25 in.   |
| Butterfly: 3 in.   | Snake: 24 in.       |
| Carp: 15 in.       | Turtle: 6 in.       |
| Caterpillar: 1 in. | Waterboatman: 1 in. |
| Chipmunk: 10 in.   | Woodchuck: 24 in.   |
- Help students identify each animal as a mammal, reptile, amphibian, fish, or insect. Which group of animals tends to be the largest? Which tends to be the smallest? Does size affect their winter behavior?
- Invite students to choose three animals from the list above and draw them to scale. They can also color the animals using the art in *Under the Snow* as a guide. **CCSS Math MD A.2**

### Grades 2–3

- Take the class to visit a local weather station or invite a meteorologist to visit your school, so students can learn about predicting and measuring snowfall.
- Give each student a copy of the Math Activity Sheet at the end of this guide. Ask students to illustrate and then solve each problem. **CCSS Math OA A.1 & A.2**  
Answers: 1) 9 inches; 2) 15 inches; 3) 6 centipedes; 4) 8 inches

## LANGUAGE ARTS

### Grades K–1

- Have students create as many words as possible with the letters in the title: *Under the Snow*. Ask the

children to sort the words by number of letters in each word or word families, such as one and ore (suggestions below). They can also alphabetize the words. **CCSS ELA FS #2**

First round: one, none, done, undone

Second round: ore, sore, tore, store, wore

- Ask students to create a picture story of what they do before, during, and after a snowstorm. **CCSS ELA Writing #1**
- Have students choose one of the animals in *Under the Snow*, fill in the blanks in the following sentences, and then take turns reading their statements to the class.  
I live in a \_\_\_\_\_ (habitat).  
I am (color) \_\_\_\_\_ and (color) \_\_\_\_\_.  
When it is cold and snowy, I \_\_\_\_\_ (activity).  
Who am I? \_\_\_\_\_  
Can the class guess which animal the student has selected? **CCSS ELA FS #3**

### Grades 2–3

- Have students research one of the four habitats mentioned in *Under the Snow*, including information about the diversity of plant and animal life and whether the habitat is increasing or decreasing in North America. Students should also find out if their assigned habitat exists in your state. Encourage them to include any fun facts they discover.  
Use a digital camera with a video setting to film the students as they present reports orally. Then work with the class to create short videos using a video editing software program. Videos can be posted on the school website or a classroom blog. **CCSS ELA RIT #9, Writing #6 and 7, SL #2, 3 & 5**
- Ask students to write a fictional story about what a snowflake does during and after a snowstorm. **CCSS ELA Writing #1**
- Ask students to read *When Rain Falls* or *Beneath the Sun* by Melissa Stewart. Then have them make text-to-text connections between *Under the Snow* and one of the other books. After discussing ways the texts are similar, ask them to write a paragraph about their connections. Each paragraph should include two specific examples from the text. **CCSS ELA RIT #9, Writing #2**

### All Grades

- Download the Readers Theater script written to accompany *Under the Snow* from the author's website at [www.melissa-stewart.com](http://www.melissa-stewart.com) and lead the class in performing it. **CCSS ELA RIT #4, NES NA-T.K-4.2**

- Have students write letters to or draw pictures for author Melissa Stewart, telling or showing her what they liked best about *Under the Snow*. Send the letters to Author Fan Mail, Peachtree Publishers, 1700 Chattahoochee Ave., Atlanta, GA, 30318-2112. If you include an e-mail address, Melissa will send an e-mail to your class. **CCSS ELA Writing #1**
- Read the book *Seed Sower, Hat Thrower: Poems About Weather* by Laura Purdie Salas (Capstone, 2008). Discuss the poems with your class. Then invite students to write their own poems about snow and winter. **CCSS ELA RL #4, Writing #8**
- Have students take turns reading pages from *Snow Dog, Go Dog* by Deborah Heiligman (Two Lions, 2013). Discuss the book's language and why the text seems to roll right off the reader's tongue. Then ask the students to write their own poems about how the sun's heat and light affect us. **CCSS ELA RL #4, Writing #8**
- Divide the class into teams of three or four for a game of Snow Boggle. Choose one of the animals discussed in *Under the Snow* and give students three minutes to write down as many words as possible using the letters in the animal name. One member of each team should record the answers. As each group reads its words, other teams cross off any repeats. The team with the most original words wins. Repeat the game with other animal names, so that each student has a chance to be the recorder. **CCSS ELA FS #3**

## ART

### All Grades

- Have students make hats representing one of the animals in *Under the Snow*. They can wear their hats while performing the Readers Theater script created to accompany the book.
- Ask students to draw an imaginary animal that could weather any snowstorm. They should think about its size, color, type of body covering, number of legs, and where it lives. **NGSS PE 1-LS1-1 & 3-LS4-3**
- Have students look carefully at the background art on each two-page spread of *Under the Snow*. As a class, list the questions the book's illustrator, Constance Bergum, had to ask herself about each spread before beginning her paintings.

Possible questions: What plants grow in the habitat? What time of day is it? What are the animals in each illustration doing?

Next, list various ways the illustrator might have done research to make the habitats as realistic as possible. Using this list of questions, have students

research and create a mural that depicts a sunny, rainy, or snowy natural habitat in your community. **CCSS ELA RIT #7**

## GEOGRAPHY

### Grades 2–3

As a class, look at a map of your town or city. See how many of the habitats mentioned in *Under the Snow* exist in your community. Make a list of other habitats on Earth (desert, tundra, etc.). Discuss why some natural habitats do not occur in your community or your state.

## RELATED READING

Bancroft, Henrietta. *Animals in Winter*. New York, NY: HarperCollins, 1996.

Burton, Virginia Lee. *Katy and the Big Snow*. Boston, MA: Houghton Mifflin, 1974.

Carle, Eric. *Dream Snow*. New York, NY: Philomel, 2000.

Heiligman, Deborah. *Snow Dog, Go Dog*. New York, NY: Two Lions, 2013.

Messner, Kate. *Under and Over the Snow*. San Francisco, CA: Chronicle, 2011.

Salas, Laura Purdie. *Seed Sower, Hat Thrower: Poems About Weather*. Mankato, MN: Capstone, 2008.

Selsam, Millicent. *Big Tracks, Little Tracks: Following Animal Prints*. New York, NY: HarperCollins, 1998.

Shulevitz, Uri. *Snow*. New York, NY: Farrar, Straus and Giroux, 2004.

Sturges, Philemon. *Rainsong, Snowsong*. San Francisco, CA: North South Books, 1995.

Yolen, Jane. *Owl Moon*. New York, NY: Philomel, 1987.



## THE ACTIVITIES IN THIS GUIDE DIRECTLY ADDRESS THE FOLLOWING STANDARDS:

### COMMON CORE FOR ENGLISH LANGUAGE ARTS STANDARDS

- Reading Informational Text #1 and 2: Identifying Key Ideas and Details
- Reading Informational Text #4: Craft and Structure
- Reading Informational Text #7 and 9: Integration of Knowledge and Ideas
- Reading Literature #4: Craft and Structure
- Writing #1 and 2: Text Types and Purposes
- Writing #6: Production and Distribution of Writing
- Writing #7 and 8: Research to Build and Present Knowledge
- Foundation Skills: Phonological Awareness #2
- Foundation Skills: Phonics and Word Recognition #3
- Speaking and Listening: Comprehension and Collaboration #2 and 3
- Speaking and Listening: Presentation of Knowledge and Ideas #5

### COMMON CORE FOR MATH STANDARDS

- Operations & Algebraic Thinking A.1, A.2
- Measurements & Data A.1, A.2, B.3

### NEXT GENERATION SCIENCE STANDARDS PERFORMANCE EXPECTATIONS

- K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.
- K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time.
- 1-LS1-1. Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.
- 2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.
- 3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.
- 3-ESS2-1. Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.

### NATIONAL EDUCATION STANDARD FOR FINE ARTS: THEATER (K–4):

- NA-T.K-4.2. Acting by Assuming Roles & Interacting in Improvisation

## REVIEWS

“...this beautiful picture book will complement the science curriculum and also makes for a great read aloud.” —*Booklist*

“This pleasing addition is a great read-aloud for units on winter and animal habitats.”  
—*School Library Journal*

“Readers will come away with an appreciation for the adaptability and endurance of the animal world.”  
—*Kirkus Reviews*

## AWARDS

- NSTA/CBC Outstanding Science Trade Books for Students K–12
- Charlotte Zolotow Award (Highly Commended) Cooperative Children's Book Center
- Bank Street College of Education Best Children's Books of the Year (starred)

## ABOUT THE AUTHOR

Melissa Stewart is the award-winning author of more than 180 books for children. She has a BS in biology from Union College in Schenectady, NY, and a MA in science journalism from New York University. Melissa speaks frequently at conferences for educators and serves on the Society of Children's Book Writers and Illustrators' board of advisors. She is available for school visits.

[www.melissa-stewart.com](http://www.melissa-stewart.com)

## ABOUT THE ILLUSTRATOR

Constance R. Bergum has illustrated a number of children's books, including *When Rain Falls*, *Under the Snow*, *Beneath the Sun*, and *Daniel and His Walking Stick*. She holds an MFA in illustration from Marywood University and lives in Montana.

[www.higginsbond.com](http://www.higginsbond.com)

**Available from Melissa Stewart:**

*Beneath the Sun*  
*Under the Snow*  
*When Rain Falls*

*Pipsqueaks, Slowpokes, and Stinkers:*  
*Celebrating Animal Underdogs*

**A Place for... series:**

*A Place for Bats*  
*A Place for Birds*  
*A Place for Butterflies*  
*A Place for Fish*  
*A Place for Frogs*  
*A Place for Turtles*

Teacher's Guide  
prepared by Melissa Stewart

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7/1/19

*Under the Snow*  
**Math Activity Sheet**  
**Snow Math**

**Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

1. Tim lives in Minnesota. Three inches of snow fell in his yard on Monday. Six more inches fell in his yard on Tuesday. On these two days, how many inches of snow fell all together?
  
  
  
  
  
  
  
  
  
  
2. Last Sunday there were already six inches of snow on the ground in Tim's town. How deep was the snow on the ground after Tuesday's storm?
  
  
  
  
  
  
  
  
  
  
3. There were three logs in a snowy forest in Connecticut. Two centipedes were resting inside each log. How many centipedes were there all together?
  
  
  
  
  
  
  
  
  
  
4. A woodchuck slept through the winter in a burrow that was 20 inches underground. A chipmunk was nestled inside a burrow 12 inches above the woodchuck. How deep underground was the chipmunk's burrow?