

Under the Snow

Written by Melissa Stewart
Illustrated by Constance R. Bergum

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Ages 4-8 | Nature | Nonfiction

ABOUT THE BOOK

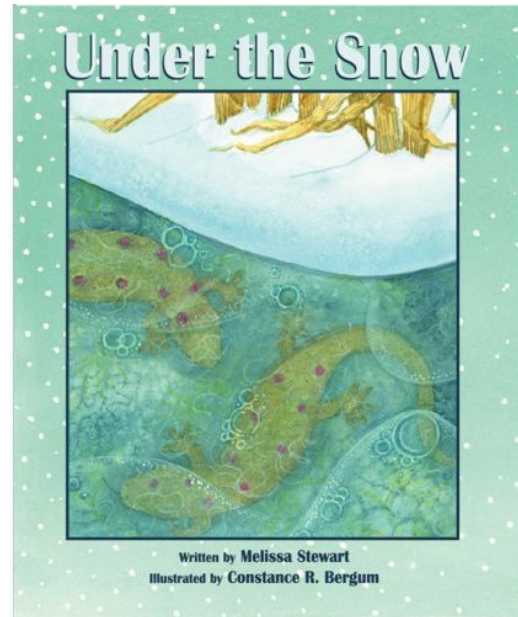
Using clear, simple language, *Under the Snow* offers young readers a lyrical look at the surprising ways animals living in fields, forests, ponds, and wetlands spend the chilly winter months. Some fish and insects rest, but others stay active. Voles spend their days burrowing through the snow. Red-spotted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

THEMES

- Habitats
- Weather
- Water cycle
- Animal groups (mammals, reptiles, amphibians, fish, insects)
- Plant and animal diversity

SKILLS REINFORCED

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



NATIONAL EDUCATION STANDARDS

LANGUAGE ARTS (K - 12)

English Language Arts Standards provided by the NCTE.

NL-ENG.K-12.1 READING FOR PERSPECTIVE

Students read a wide range of print and nonprint texts to build an understanding of texts, of themselves, and of the cultures of the US and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment. Among these texts are fiction and nonfiction, classic and contemporary works.

NL-ENG.K-12.6 APPLYING KNOWLEDGE

Apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language, and genre to create, critique, and discuss print and nonprint texts.

NL-ENG.K-12.8 DEVELOPING RESEARCH SKILLS

Use a variety of technological and information resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge.

FINE ARTS: THEATRE (K - 4)

Fine Arts Standards provided by the Consortium of National Arts Education Associations (Under the guidance of the National Committee for Standards in the Arts).

NA-T.K-4.2 ACTING BY ASSUMING ROLES AND INTERACTING IN IMPROVISATIONS

Imagine and clearly describe characters, their relationships, and their environments.

Use variations of locomotor and nonlocomotor movement and vocal pitch, tempo, and tone for different characters.

Assume roles that exhibit concentration and contribute to the action of classroom dramatizations based on personal experience and heritage, imagination, literature, and history.

SCIENCE (K - 4)

National Science Education Standards provided by the National Academies of Science.

NS.K-4.3 LIFE SCIENCE

Develop an understanding of organisms, their characteristics, environments, and life cycles.

MATH (K - 4)

National Mathematics Standards provided by the NCTM.

NM-PROB.PK-12.3 Apply and adapt a variety of appropriate strategies to solve problems.

TECHNOLOGY (K - 12)

National Technology Standards provided by the International Society for Technology in Education.

NT.K-12.5 TECHNOLOGY RESEARCH TOOLS

Use technology to locate, evaluate and collect information from a variety of sources.

Use technology tools to process data and report results.

Evaluate and select new information resources and technological innovations based on the appropriateness for specific tasks.

BEFORE YOU READ

GRADES K-1

- Have students list reasons why snow is important, even for people and other creatures that live in areas where it rarely snows.
- Define *habitat*. Discuss the four habitats (field, forest, pond, wetland) mentioned in the book.
- Ask students what they think wild animals living in these different habitats do when it snows. Have them consider a chipmunk, a fish, and a water strider.
- Divide the class into four groups and assign each group a habitat. Then assign each student one of the animals mentioned in the book.

GRADES 2-3

- Have students discuss the following questions in small groups. Before reading the book, compile the group's answers on the chalkboard.
 1. What is a habitat?
 2. Brainstorm plants found in a field, a forest, a pond, and a wetland.
 3. Brainstorm animals found in each habitat.

4. How do they think snow helps these animals? How do they think snow may harm them?

AS YOU READ

GRADES K-1

- Ask students to raise a hand when you mention the habitat you assigned them.
- Students should also raise a hand when you read about their assigned animal. They should be ready to tell the class how that animal spends the winter.

GRADES 2-3

- Ask students to think about the answers compiled on the chalkboard while listening to the book. Are there things they want to change or add? Encourage students to take notes.

AFTER YOU READ

Grades K-1

- Have students draw a picture showing what their assigned animal does during the winter. Ask them to explain their pictures to the rest of the class.
- 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.

Grades 2-3

- As a class or in groups, have students add new information or erase incorrect information on the chalkboard.
- 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.

INTERDISCIPLINARY CONNECTIONS (CLASSROOM ACTIVITIES)

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 the chalkboard.

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.

MATH

GRADES K-1

Using the information below, students should create a bar graph that compares animal sizes. 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?

Frog: 3 in.	Turtle: 6 in.
Caterpillar: 1 in.	Woodchuck: 24 in.
Bluegill: 10 in.	Chipmunk: 10 in.
Carp: 15 in.	Beaver: 46 in.
Snake: 24 in.	Ladybug: 0.25 in.
Butterfly: 3 in.	Waterboatman: 1 in.

Grades 2-3

- 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 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?
- 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.
- Write the following snow math questions on the board. Have students write each question on paper, then illustrate and solve each problem.
 1. Tim lives in Minnesota. Three inches of snow fell in his yard on Monday. Six more inches fell in his yard on Tuesday. How many inches of snow fell all together?
 2. 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?

LANGUAGE ARTS

Grades K-1

- Have students create as many words as possible with the letters in "Under the Snow." Then ask the children to sort the words by: number of letters in each word, word families, and vowel sounds. Ask the students to alphabetize the words.

- Ask students to create a picture story of what they do before, during, and after a snowstorm.

Grades 2-3

- Have students research one of the four habitats mentioned in the book. Each report should include information about the diversity of plant and animal life and should show whether the habitat is increasing or decreasing in North America. Students should also find out if their habitat exists in your state. Encourage them to include any fun facts they discover.
- Ask students to write a fictional story about what a snowflake does during and after a snowstorm.

All Grades

- Download a copy of the Readers Theater script written to accompany *Under the Snow* from the author's website (www.melissa-stewart.com) and lead the class in performing it.
- 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, Ms. Stewart will send an e-mail to your class.
- Read the book *Seed Sower, Hat Thrower: Poems About Weather* by Laura Purdie Salas (Capstone, 2008) and discuss the poems with your class. Then ask the students to write their own poems about snow and winter.

ART

All Grades

- Have students make hats representing their assigned animal. They can wear their hats while performing the Readers Theater

script created to accompany *Under the Snow*. You can download a copy of the script from the author's website (www.melissa-stewart.com).

- Ask students to draw pictures showing how the five groups of animals (mammals, reptiles, amphibians, fish, insects) described in *Under the Snow* are different.
- Ask students to create 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.

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: HarperCollins, 1996.

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

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

Dunphy, Madeleine. *Here is the Wetland*. New York: Hyperion, 2007.

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: HarperCollins, 1998.

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

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

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

ABOUT THE AUTHOR



Melissa Stewart is the award-winning author of more than one hundred books for children. She has a B.S. in biology from Union College in Schenectady, NY, and

a M.A. in science journalism from New York University. Melissa is on the Society of Children's Book Writers and Illustrators' national Board of Advisors and is a judge for the American Institute of Physics Children's Science Writing Award. Melissa has taught fiction and nonfiction writing classes for children and adults, and is available for school visits. www.melissa-stewart.com.

(Intended Audience for school presentations: Grades K-4.)

ABOUT THE ILLUSTRATOR



Constance Bergum is the illustrator for children's books *DANCING WITH KATYA*, *DANIEL AND HIS WALKING STICK*, and *THE SUNSETS OF MISS OLIVIA WIGGINS* among many others. She received a BA in

painting from the University of Montana and an MFA in illustration and design from Marywood University. Her publishing credits include more than a dozen educational books and many projects for various children's magazines. She has received numerous awards for her work including The Washington State Book Award; The Bock Book Award; and the Patterson Prize to name a few.

Bergum is a frequent presenter at schools for children and adults. Her presentation features a slide show about her work including the process of illustrating a book through research, working with models and painting in watercolor. Hands-on activities are also included.

(Intended Audience: Grades 2-6, Adults)

5 **Under the Snow**

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Peachtree's Teachers Guide for UNDER THE SNOW was written by Melissa Stewart.

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