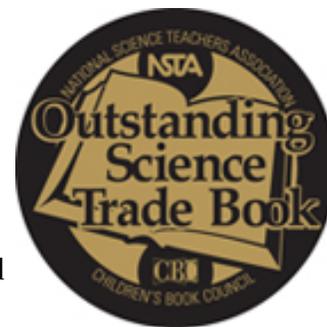




## Outstanding Science Trade Books for Students K–12: 1999 (Books published in 1998)

[OSTB home](#)

A cooperative project between the National Science Teachers Association and the [Children's Book Council](#). This list is published annually in the March issue of *Science and Children*, the journal devoted to preschool through middle level science teaching. The books on the list are targeted at grades K–8.



### Categories:

- [Biography](#)
- [Earth and Space Science](#)
- [Environment and Ecology](#)
- [Life Science](#)
- [Science-Related Careers](#)

### Notes:

- [About the Books and the Selection Process](#)
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## Biography

**SNOWFLAKE BENTLEY.** Jacqueline Briggs Martin. Illustrated by Mary Azarian. Houghton Mifflin. 32pp. Trade ISBN 0-395-86162-4, \$16. (P) This is the story of Wilson "Snowflake" Bentley, a self-taught scientist and photographer who developed the technique to photograph snowflakes. Sidebar facts and hand-colored woodcut illustrations enrich this introduction to the science and beauty of snowflakes as seen through the eyes of one man. Winner of the 1999 Caldecott Medal. DMD (VII,V,II,VI)

## Earth and Space Science

### \* **CLOSE ENCOUNTERS: EXPLORING THE UNIVERSE WITH THE HUBBLE SPACE**

**TELESCOPE.** Elaine Scott. Illustrated with photographs. Hyperion. 64pp. Trade ISBN 0-7868-0147-6, \$16.95; Library ISBN 0-7868-2120-5, \$17.49. (I, A) An easy-to-understand text tells the story of the Hubble Space Telescope and the information received since its deployment in space. Actual photographs of Hubble discoveries accompany the narration. Index. CAR (V,II)

\* **THE KINGFISHER YOUNG PEOPLE'S BOOK OF SPACE.** Martin Fedfern. Illustrated with photographs and prints. Kingfisher. 96pp. Trade ISBN 0-7534-5136-0, \$19.95. (I) This overview of the subject starts with an up-to-date report of observations and explorations of our solar system and ends with a description of our place in space and time in the universe. The book's layout, with outstanding pictures and text, complements this engaging journey through our space. Glossary. Index. RJK (V,III,IV)

**THE NEW BOOK OF MARS.** Nigel Hawkes. Illustrated by Richard Rockwood. Copper Beech/Millbrook. 32pp. Library ISBN 0-7613-0811-3, \$23.90; Paperback ISBN 0-7613-0731-1, \$9.95. (I) Good information and format, coupled with outstanding artwork, make this an excellent overview of Mars and of our investigations and speculations about this planet. The Mariner, Mars Pathfinder, and Surveyor '98 missions, as well as planned future explorations, are well described. Glossary. Index. RJK (V,VIII,II)

## Environment and Ecology

**BALD EAGLE.** Written and illustrated by Gordon Morrison. Walter Lorraine/Houghton Mifflin. 32pp. Trade ISBN 0-395-87328-2, \$16. (P,I) The bald eagle is described through all the stages of its life, from its birth through the mating process. Through pen-and-ink and watercolor illustrations and diagrams, the reader is given a clear picture of the behavior and physical characteristics of this majestic and powerful bird. CAR (IV)

\* **THE DROP IN MY DRINK: THE STORY OF WATER ON OUR PLANET.** Meredith Hooper. Illustrated by Chris Coady. Viking. 32pp. Trade ISBN 0-670-87618-6, \$16.99. (I) Here is the amazing and ever-changing story of water-where it comes from, how it behaves, why it matters-and the crucial role it has played throughout life on Earth. The eye-catching illustrations are realistic and thought-provoking. Author's Notes. KBH (II,III,IV)

\* **GENTLE GIANT OCTOPUS.** Karen Wallace. Illustrated by Mike Bostock. Candlewick. 32pp. Trade ISBN 0-7636-0318-X, \$15.99. (P) Beautifully illustrated with watercolor paintings, this book explains the life cycle of the octopus. Through the use of sidebars and a second, more animated typeface, more detailed explanations are provided of other, more complex characteristics of this gentle creature and its life beneath the sea. Index. NPS (IV)

**HERE IS THE CORAL REEF.** (*Here Is the...* series). Madeleine Dunphy. Illustrated by Tom Leonard. Hyperion. 32pp. Trade ISBN 0-7868-0163-8, \$14.95; Library ISBN 0-7868-2135-3, \$15.49. (P) This vividly illustrated book presents the interdependence of the various inhabitants of the ecosystem that is Australia's Great Barrier Reef. The repeating verse style will engage young readers as

they gain an appreciation of the plants, fish, and other sea creatures that live in and around the reef.  
NPS (IV)

**A HOME BY THE SEA: PROTECTING COASTAL WILDLIFE.** Written and illustrated with photographs by Kenneth Mallory. Gulliver Green/Harcourt Brace. 64pp. Trade ISBN 0-15-200043-7, \$18; Paperback ISBN 0-15-201802-6, \$9. (I,A) In a very detailed, informative manner, the author-photographer describes three endangered wildlife situations along the coasts of New Zealand. Readers learn how scientists, conservationists, and supporters of ecotourism are working to ensure the survival of these animals, their habitats, and their lifestyles. Author's Note. Glossary. GMM (IV,III,V,VI,VII)

\* **AN ISLAND SCRAPBOOK: DAWN TO DUSK ON A BARRIER ISLAND.** Written and illustrated by Virginia Wright-Frierson. Simon & Schuster. 40pp. Trade ISBN 0-689-81563-8, \$16. (P,I) Accompany an artist and her young daughter as they explore the ecosystem of a barrier island. Through detailed sketches, observational field notes, and beautiful watercolor paintings, the reader learns about the fascinating animals and plants found within this fragile and ever-changing environment. DMD (IV,V,II)

**I TOOK A WALK.** Written and illustrated by Henry Cole. Greenwillow. 28pp. Trade ISBN 0-688-15115-9, \$15. (P) Eye-catching illustrations and a simple text show the importance of developing a child's observational skills. A walk through the woods, across a meadow, and along a stream provide opportunities for readers to see all kinds of events occurring around them in this lovely nature setting. KBH (IV,II)

**MARSHES & SWAMPS.** Written and illustrated by Gail Gibbons. Holiday House. 32pp. Trade ISBN 0-8234-1347-0, \$15.95. (P,I) Various forms of marshes and swamps are presented through clearly written text and detailed illustrations. Information is also provided about the types of organisms and animals that live in these wetlands. Afterwords: Wetlands to Visit; More About Wetlands. CAR (IV)

**THE SHAMAN'S APPRENTICE: A TALE OF THE AMAZON RAIN FOREST.** Lynne Cherry and Mark J. Plotkin. Illustrated by Lynne Cherry. Gulliver Green/Harcourt Brace. 40pp. Trade ISBN 0-15-201281-8, \$16. (P) A heart-warming tale illustrates what happens when the members of an Amazonian Indian tribe have their first interaction with non-Indian outsiders. The experience, told through an easy prose style and colorful paintings, illustrates how the Indians gain an appreciation of their own beliefs and a respect for others from the outside world. Author's Note. Educational Endpapers. GMM (VII,VIII,II)

**WELCOME TO THE ICE HOUSE.** Jane Yolen. Illustrated by Laura Regan. Putnam. 32pp. Trade ISBN 0-399-23011-4, \$15.99. (P) The mysterious world of the Arctic comes to life as the story progresses through all the seasons of the year. A rich, poetic text and incredibly detailed illustrations depict the lives of animals and the varied scenes of nature as the seasons change. Author's Note. KBH (V,II)

## **Life Science**

**ALL ABOUT TURKEYS.** Written and illustrated by Jim Arnosky. Scholastic Press. 32pp. Trade ISBN 0-590-48147-9, \$15.95. (I) Where do wild turkeys live? What do they eat? Where do they sleep? How

fast can they fly? Why are turkeys called "gobblers"? Why do they display their tail feathers? How do turkeys survive cold, harsh winters? These and other intriguing questions are answered in this well-illustrated book. LLM (IV,I)

\* **AUTUMN LEAVES.** Written and illustrated with photographs by Ken Robbins. Scholastic Press. 32pp. Trade ISBN 0-590-29879-8, \$15.95. (P,I) The author takes the reader on a walking tour of some of the most well-known autumn leaves and the trees from which they fall. Through striking color photographs and a simple and effective text, very young children will learn about the changing leaf colors of 13 different trees from all across the country. GMM (IV)

**BONES: OUR SKELETAL SYSTEM.** Seymour Simon. Illustrated with drawings and photographs. Morrow Junior. 32pp. Trade ISBN 0-688-14644-9, \$16; Library ISBN 0-688-14645-7, \$15.93. (P,I) The author takes young readers on a tour of the skeletal system of the human body. Using detailed drawings and X-ray photographs, the reader gets a general and closeup view of the 300 bones in the body, their structure, and their function. GMM (IV)

**BURIED TREASURE: ROOTS AND TUBERS.** Meredith Sayles Hughes and Tom Hughes. Illustrated with prints and photographs. Lerner. 80pp. Library ISBN 0-8225-2830-4, \$25.26. (I) The present uses of potatoes, cassava, carrots, turnips, beets, and radishes combined with historical facts and pictures make this a delightful book. Young readers will look at a potato with a new appreciation for how food influences all aspects of our lives and will come to understand how science starts with observations and simple experiments. Introduction. Glossary. Bibliography. Index. RJK (VII,IV)

**CHIRPING CRICKETS** (*Stage 2 Let's-Read-and-Find-Out Science* series). Melvin Berger. Illustrated by Megan Lloyd. HarperCollins. 32pp. Trade ISBN 0-06-024961-7, \$15.95; Library ISBN 0-06-024962-5, \$15.89; Paperback ISBN 0-06-445180-1, \$4.95 (Harper Trophy). (P,I) This book describes the anatomy and life cycle of crickets and uses enlarged illustrations to clearly point out body parts and processes. The book includes activities to help young readers make observations about the daily, and nightly, activities of crickets. NPS (IV)

**GARDEN.** Written and illustrated with photographs by Robert Maass. Henry Holt. 32pp. Trade ISBN 0-8050-5477-4, \$15.95. (P) Readers learn about the beauty and diversity of gardens through stunning photographs and simple, yet informative, text. The basic care a garden requires is explained through a year of seasonal changes. Glossary. DMD (IV,V,II)

\* **HOME AT LAST — A SONG OF MIGRATION.** April Pulley Sayre. Illustrated by Alix Berenzy. Henry Holt. 40pp. Trade ISBN 0-8050-5154-6, \$15.95. (P) With a charming narrative style and intriguing artwork, this book introduces young readers to a number of interesting animals and their migration patterns. Readers follow the fall trek of the spiny lobster and the 20,000 km journey of the gray whale, along with seven other species that fly, crawl, walk, and swim until they are ".home at last." MBC (IV)

**LEMURS: ON LOCATION** (*On Location* series). Kathy Darling. Illustrated with photographs by Tara Darling. Lothrop. 32pp. Trade ISBN 0-688-12539-5, \$16; Library ISBN 0-688-12540-9, \$15.93. (P,I) Vivid photographs by the author's daughter support the text to introduce readers to three species of lemurs found in Berenty Forest, a private preserve in Madagascar. Lemurs are "habituated" (no longer

afraid of people) and allow the author and photographer to come into close contact with the diurnal ring-tailed, the sifaka, and the brown lemurs. Glossary. Index. Afterword: Lemur Facts. JKH (IV)

**MUSCLES: OUR MUSCULAR SYSTEM** (*The Human Body* series). Seymour Simon. Illustrated with drawings and photographs. Morrow Junior. 32pp. Trade ISBN 0-688-14642-2, \$16; Library ISBN 0-688-14643-0, \$15.93. (I) Through the use of X-ray images and detailed drawings, this book takes the reader on a tour through the human muscular system. A clearly written text provides information about the different types of muscles, their function and purpose, and the effects that exercise has on muscles. Photography Note. CAR (IV)

\* **NATIONAL AUDUBON SOCIETY FIRST FIELD GUIDE: BIRDS** (*National Audubon Society First Field Guide* series). Scott Weidensaul. Illustrated with photographs. Scholastic Inc. 160pp. Trade ISBN 0-590-05446-5, \$17.95; Soft Vinyl Cover ISBN 0-590-05482-1, \$10.95. (I,A) High-quality photography and text make this book useful as a visual guide to the natural history of birds as well as a field guide to more than 150 of the most common species of birds found in North America. Bibliography. Glossary. Index. Removable field guide card in soft vinyl cover edition. JKH (IV)

**NATIONAL AUDUBON SOCIETY FIRST FIELD GUIDE: WILDFLOWERS** (*National Audubon Society First Field Guide* series). Susan Hood. Illustrated with photographs. Scholastic Inc. 160pp. Trade ISBN 0-590-05464-3, \$17.95; Soft Vinyl Cover ISBN 0-590-05486-4, \$10.95. (I,A) Informative text and detailed color photographs invite young naturalists to explore the world of North American wildflowers. This user-friendly field guide includes habitats and related species, a reference section, and basic information on observing and understanding the science of wildflowers. Bibliography. Glossary. Index. Removable field guide card in soft vinyl cover edition. DMD (IV,V,II)

**ONE BEAN.** Anne Rockwell. Illustrated by Megan Halsey. Walker. 32pp. Trade ISBN 0-8027-8648-0, \$14.95; Library ISBN 0-8027-8649-9, \$15.85. Paper ed., (F). (P) An easy-to-read text combines with lively illustrations to create the story of what happens to one small bean when it interacts with some soil, just a little water, a lot of sunlight, and a young child's tender care. Helpful hints are included for additional activities with beans and similar seeds. Author's Note. Suggested Activities. LLM (IV,II)

**OUR WET WORLD.** Sneed B. Collard, III. Illustrated by James M. Needham. Charlesbridge. 32pp. Trade ISBN 0-88106-267-7, \$15.95; Paperback ISBN 0-88106-268-5, \$6.95. (I) Readers will discover 13 different aquatic ecosystems as they read about the diversity of life found in the wet places of the Earth. Closeup illustrations provide details about the fascinating flora and fauna that inhabit the waterways and oceans of our planet. Glossary. MBC (IV)

**PENGUINS!** Written and illustrated by Gail Gibbons. Holiday House. 32pp. Trade ISBN 0-8234-1388-8, \$16.95. (P) Watercolor illustrations complement the text to introduce the 17 types of penguins from the smallest (the little blue penguin) to the largest (the emperor penguin). Information is included about penguins' life cycles, physical features, habitats, and the efforts to protect the birds' once-declining populations. JKH (IV)

**SAFARI.** Robert Bateman and Rick Archbold. Illustrated by Robert Bateman. Little, Brown. 32pp. Trade ISBN 0-316-08265-1, \$17.98. (I) Here is an unforgettable opportunity for young readers to visit one of the most amazing places in the world. Through real-life stories and stunning artwork, readers are

brought face to face with a bull elephant and running giraffes, as well as many other fascinating animals of Africa. Glossary. MBC (IV)

**SOARING WITH THE WIND: THE BALD EAGLE.** Written and illustrated by Gail Gibbons. Morrow Junior. 32pp. Trade ISBN 0-688-13730-X, \$16; Library ISBN 0-688-13731-8, \$15.93. (P,I) Mixed-media illustrations and large, labeled diagrams help explain the behavior and characteristics of the bald eagle. Information on the life cycle of the eagle and attempts by environmentalists to increase the number of birds in the wild is provided. Words that may be new to readers are introduced in italicized print and guides to the pronunciation of difficult words are provided in many instances. Fact List. JKH (I)

**SPECTACULAR SPIDERS.** Linda Glaser. Illustrated by Gay W. Holland. Millbrook. 32pp. Library ISBN 0-7613-0353-7, \$21.40. (P) Young readers venture into the fascinating and diverse world of spiders. A typical day for the black and yellow *Argiope aurantia*, a common garden spider, is described as the spider spins its web, catches a meal, and explores its environment. Author's Note. MBC (IV)

\* **WHY DOES THE CAT DO THAT?** Written and illustrated by Susan Bonners. Henry Holt. 32pp. Trade ISBN 0-8050-4377-2, \$15.95. (P,I) In this fascinating, informative, and beautifully illustrated picture book, the young reader will explore the scientific world of the common house cat. Some of the cat's most ordinary antics, such as hiding in a bag or pouncing on a toy, are deeply rooted in feline behavior, and are instincts retained from their wild ancestors. Author's Note. LLM (IV,I)

## Science-Related Careers

**WHAT IS A SCIENTIST?** Barbara Lehn. Illustrated with photographs by Carol Krauss. Millbrook. 32pp. Library ISBN 0-7613-1272-2, \$19.90. (P) This engaging book demonstrates what a scientist is by equating the hands-on, investigative curiosity of first-grade students with the scientific method of inquiry. Colorful photographs of the children at work employ a multi-cultural collection of real students as models. KBH (II,VII,I)

## About the Books and the Selection Process

The books that appear in this annotated bibliography were selected as outstanding children's science trade books published in 1998. They are intended primarily for kindergarten to the eighth grade. They were selected by a book review panel appointed by the National Science Teachers Association (NSTA) and assembled in cooperation with The Children's Book Council (CBC). NSTA and CBC have cooperated on this bibliographic project since 1973.

The panel also uses rigorous selection guidelines relating to the presentation of material, including the following:

- the presentation is logical and the sequence of ideas is clear; the content level is appropriate for the intended audience; text and illustrations are compatible; illustrations enhance the presentation and are accurate representations in size, color, and scale; trim size and format of the book are appropriate to the subject and audience;
- and layout is well organized and advances the text.

In addition, the panel gives attention to the quality of binding, paper, reproduction, and the appropriateness of typeface. All panel members read all the books, but annotations reflect only the appraisal of the panelist who wrote it and whose initials follow at the end of each entry. Publishers' names appear in abbreviated form; complete names and addresses are available in such standard reference works as *Children's Books in Print* (R.R. Bowker), *Literary Market Place* (R.R. Bowker), and from The Children's Book Council. To obtain CBC's Members List, send \$2 and a self-addressed 6" x 9" envelope with 77 cents postage to CBC, Attn: Members List, 568 Broadway, Ste. 404, New York, NY 10012-5497, or the list may be downloaded from the CBC Web site, <http://www.cbcbooks.org>.

Titles are arranged by subject category. Although some titles are appropriate for more than one category, they have been placed where their usefulness in science education appears greatest. Panelists have also indicated the National Science Content Standards (see [About the Annotations](#)) to which the books relate. Where more than one standard is listed, the most applicable standard is given first.

The Children's Book Council is a not-for-profit association encouraging the use and enjoyment of children's books and related literacy materials. Its members are publishers of trade books for children and producers of book-related materials for young people. CBC is the official sponsor of National Children's Book Week and Young People's Poetry Week. It cooperates on reading development projects with several national associations, including NSTA. To receive a brochure of CBC's reading encouragement materials, write to CBC, Attn: Catalog, 568 Broadway, Ste. 404, New York, NY 10012-5497.

The National Science Teachers Association is an organization of science education professionals and has as its purpose the stimulation, improvement, and coordination of science teaching and learning. For further information on NSTA membership and services, telephone (800) 722-NSTA. Visit NSTA's and CBC's Web sites at, respectively, <http://www.nsta.org> and <http://www.cbcbooks.org>.

Current members of the book review panel are

GERRY M. MADRAZO, JR. (Panel Chair)  
executive director and clinical associate professor  
Mathematics and Science Education Network  
University of North Carolina at Chapel Hill (GMM)

MICHAEL B. COWAN  
director  
science and social sciences resource center  
Mesa (Arizona) Public Schools (MBC)

DONNA M. DIECKMAN  
first-grade teacher  
Greenwood Elementary School  
Brookeville, Maryland (DMD)

JEANNETTE KAY HALL

librarian/media specialist/technology chairperson  
Northern High School  
Flint, Michigan (JKH)

KATHLEEN B. HORSTMAYER

first-grade teacher  
Gladwyne (Pennsylvania) School  
Lower Merion School District (KBH)

ROBERT J. KEARNEY

professor of physics  
University of Idaho, Moscow (RJK)

LAMOINE L. MOTZ

coordinator of science, health, and outdoor education  
Oakland County Schools  
Waterford, Michigan (LLM)

CHRISTINE A. ROYCE

academic dean/teacher  
Bishop Hannan High School  
Scranton, Pennsylvania (CAR)

NETTIE PORTER SMITH

director of elementary education  
Shelby County Schools  
Memphis, Tennessee (NPS)

## About the Annotations

- 1 Titles marked with \* are Selectors' Choices—books to which individual panel members responded with particular enthusiasm.
- 2 Title: Subtitle
- 3 Author
- 4 Illustrator
- 5 Publisher
- 6 Number of pages
- 7 International Standard Book Numbers (ISBNs) are included for all available editions (trade, library, and paperback). The symbol "F" indicates that a paperback edition is forthcoming.
- 8 Price as of January 1999
- 9 Reading Level:
  - P primary
  - I intermediate
  - A advanced
- 10 Brief descriptive annotation
- 11 Code indicating reviewer responsible for the annotation (see reviewer list above)
- 12 National science content standards, in order of applicability
  - I Unifying Concepts and Processes
  - II Science as Inquiry
  - III Physical Science
  - IV Life Science
  - V Earth and Space Science
  - VI Science and Technology
  - VII Science in Personal and Social Perspectives
  - VIII History and Nature of Science

(sample)

\* **THE RAIN FOREST** (*Exploring Our Environment* series). Elaine Crocker. Illustrated with various photographs. Ecosystem Press. 32pp. ISBN trade: 0-592-67321-1, \$18.95; library: O-592-64213-X, \$18.99. Paper ed., (F). (I,A) Through full-color photographs and an engaging narrative, readers can explore this wondrous ecosystem. Author's Note. ABC (VII,II)