



Outstanding Science Trade Books for Students K–12: 2001 (Books published in 2000)

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The books on this list are targeted at grades K–8.

Archaeology, Anthropology, and Paleontology

A Dinosaur Named Sue: The Story of the Colossal Fossil. Pat Relf with the SUE Science Team of The Field Museum. Illustrated with photographs. Scholastic. 64pp. Paperback. Trade ISBN 0-439-09985-4, \$15.95. (F). (I, A) *T. REX* - an instantaneous adrenaline shot to paleontologists of all ages. Sue, named after discoverer Susan Hendrickson, is the most complete **Tyrannosaurus Rex** in existence. The reader follows the scientific journey from the fossil excavation in 1990 to its display at Chicago's Field Museum. Vivid photographs, diagrams, and paintings will delight all. Prologue, Index. JCS (II, VI, VIII)

Biography

Exploring the Earth with John Wesley Powell. Michael Elsohn Ross. Illustrated by Wendy Smith. Carolrhoda Books/Lerner. 48pp. Library ISBN 1-57505-254-7, \$19.93. (I, A) Through an account of the life and journeys of John Wesley Powell, the reader is introduced to the exploration of geology across our country. Sidebars on various topics related to geology supplement the text. Important Dates, Glossary, Bibliography, Index. CAR (V, VII, I)

★ **Girls Who Looked Under Rocks: The Lives of Six Pioneering Naturalists.** Jeannine Atkins. Illustrated by Paula



Illustration by Paula Conner from *Girls Who Looked Under Rocks* by Jeannine Atkins, reprinted with permission from Dawn Publications, Inc.

Conner. Dawn Publications. 64pp. Paperback ISBN 1-58469-011-9, \$8.95. (I) The lives of six renowned, award-winning scientists are described from early childhood to maturity. Childhoods filled with adventures in nature suggest that many of these girls were encouraged by their families who recognized their gifts at an early age. Commitment and extraordinary intelligence helped these women succeed in nontraditional careers. Introduction, Recommended Reading. NPS (VII)

Great Black Heroes: Five Brilliant Scientists. Lynda Jones. Illustrated by Ron Garnett. Scholastic. 48pp. Paperback ISBN 0-590-48031-6, \$3.99. (I) Doctor, botanist, biologist, chemist, and nuclear scientist - these are the careers portrayed in this volume. These African Americans overcame similar obstacles to achieve their separate goals. This easy-to-read chapter book is a must for all libraries. PSB (VII)

Jacques Cousteau (A&E Biography series). Lesley A. DuTemple. Illustrated with photographs. Lerner Publications. 112pp. Library ISBN 0-8225-4979-4, \$25.26. (A) This biography shares the amazing journey of Jacques Cousteau from a small, weak boy to a pioneering underwater filmmaker. Readers learn how Cousteau led the crew of *Calypso* to develop new diving and filming technologies to share scientific research that opened a previously unknown undersea world. Timeline, Bibliography, Index. LMN (VI, VII, VIII)

★ **Pond Watching with Ann Morgan.** Michael Elsohn Ross. Illustrated by Wendy Smith. Carolrhoda Books/Lerner. 48pp. Library ISBN 1-57505-385-3, \$19.93. (A) Readers follow Ann Morgan as she uncovers the mysteries of newts, mayflies, and other water creatures. This work describes the life and work of Morgan, who studied, taught, and wrote about the animals of ponds and streams, and stressed the importance of an ecological approach to conservation. Important Dates, Glossary, Bibliography, Index. JKH (II, IV, VIII)

Earth and Space Science

★ **Cloud Dance.** Written and illustrated by Thomas Locker. Silver Whistle/Harcourt. 32pp. Trade ISBN 0-15-202231-7, \$16. (I) Locker attains a superb level of poetic text and spectacular drawings. The information is not only accurate but also beautifully portrayed. The metaphors provide vivid mental images; the captivating drawings add to the lushness of the text with their hues and softness. The technical information about clouds at the end adds useful detail. About Clouds, Types of Clouds. PSB (V)

★ **Dr. Art's Guide to Planet Earth: For Earthlings Ages 12 to 120.** Art Sussman, Ph.D. Illustrated by Emiko-Rose Koike. Chelsea Green. 128pp. Paperback ISBN 1-890132-73-X, \$14.95. (I, A) Dr. Art's systems-based Earth guide introduces three easy-to-understand principles that explain how our planet works - Matter Cycles, Energy Flows, and Life Webs. This full-color, engaging guide will help us better understand Earth's systems. Dr. Jane Goodall proclaims "[this book] deserves a place not only in every classroom but also every home." Author's Note, Glindex (glossary + index), Web Sites. JCS (I, V, VII)

Earth's Fiery Fury. Sandra Downs. Illustrated with photographs. Twenty-First Century Books/Millbrook Press. 64pp. Library ISBN 0-7613-1413-X, \$23.40. (I, A) Through narration and

photographs, this book provides a comprehensive overview of volcanism and related geothermal activity. A unique feature is the descriptive vocabulary that helps the reader build a mental picture. Glossary, Recommended Resources, Index. CAR (VI, I)

The International Space Station (Let's Read and Find Out Science Book series). Franklyn M. Branley. Illustrated by True Kelley. HarperCollins. 36pp. Trade ISBN 0-06-028702-0, \$16.95; Library ISBN 0-06-028703-9, \$16.89; Paperback ISBN 0-06-445209-3, Harper Trophy, \$5.95. (*P, I*) Got questions? This book has the answers - hundreds of them. It guides you through the construction of the Space Station to the virtual feeling of living 400 km (250 miles) above the Earth. Well designed, informative diagrams inspire readers to think beyond the box. Forward by Scott Carpenter, Experiment, Poster. JCS (V, VI)

The Reader's Digest Children's Atlas of the Universe. Robert Burnham. Illustrated by Wildlife Art Ltd. Reader's Digest Children's Books. 128pp. Trade ISBN 1-57584-373-0, \$24.99; Library ISBN 1-57584-379-X, \$26.99. (*I, A*) Beautiful illustrations and a strong layout create an eye-catching, informative reference. This atlas visits the planets in our solar system as well as asteroids, comets, and meteors before proceeding to the stars and galaxies of deep space. Suggested activities for the reader encourage hands-on exploration of the concepts presented. Glossary, Index, Universe Fact File (includes facts on our solar system and other celestial objects, astrological and technological events, timeline of astronomy, and universal records). TH (III, V, VI)

Environment and Ecology

Butternut Hollow Pond. Brian J. Heinz. Illustrated by Bob Marstall. Millbrook Press. 32pp. Trade ISBN 0-7613-1325-7, \$15.95; Library ISBN 0-7613-0268-9, \$22.90. (*I*) The reader explores the interdependence of organisms in a pond with particular emphasis on food webs. Excitement reigns as an animal quickly changes its role from hunter to hunted. Through text and watercolor illustrations, the reader develops an appreciation of ecology and the environment. NPS (I, IV)

Crab Moon. Ruth Horowitz. Illustrated by Kate Kiesler. Candlewick Press. 32pp. Trade ISBN 07636-0709-6, \$15.99. (*P, I*) In this story, Daniel discovers horseshoe crabs laying their eggs on a sandy beach during the full moon. As readers learn about the spawning of horseshoe crabs, they can feel Daniel's excitement as he explores his discovery. Author's Note. CAR (I, IV)

The Forest in the Clouds. Sneed B. Collard III. Illustrated by Michael Rothman. Charlesbridge. 32pp. Trade ISBN 0-88106-985-X, \$16.95; Paperback ISBN 0-88106-986-8, \$6.95. (*I*) This volume presents a vivid picture of Earth as a system via the cloud-shrouded areas of the mountainous tropical rain forests of Costa Rica. The focus is on the delicate balance of the flora and fauna in this ecosystem. Bibliography, Web Sites, Maps, Glossary. PSB (I, IV, VII)

A Handful of Dirt. Raymond Bial. Illustrated with photographs by the author and others. Walker. 32pp. Trade ISBN 0-8027-8698-7, \$15.95; Library ISBN 0-8027-8699-5, \$17.85. (*I*) Colorful photographs and meaningful text present the nature and importance of soil and the many forms of life it supports. This work takes the reader on an "eye-opening, down-in-the-dirt tour of one of Earth's most common but precious resources" - soil and its ecology. Further Reading, Index. JKH (IV)

Marine Mammal Preservation (The Science of Saving Animals series). Peggy Thomas. Illustrated with photographs. Twenty-First Century Books/Millbrook Press. 64pp. Library ISBN 0-7613-1458-X, \$23.90. (A) Students learn how scientific studies of animal behavior combined with public awareness can help to save lives of marine mammals. Research and rehabilitation techniques for whales, manatees, seals, and sea otters are featured. Glossary, Further Reading, Index. LMN (IV, VI, VII)

Our Big Home: An Earth Poem. Linda Glaser. Illustrated by Elisa Kleven. Millbrook Press. 32pp. Trade ISBN 0-7613-1292-7, \$14.95; Library ISBN 0-7613-1650-7, \$21.90. (P) Sun, rain, air, animals, people - all are a part of the Earth, our big home. Portraits of children and animals are whimsically detailed through delightful multicultural drawings from around the world. The language is melodic and full of cheerful metaphors that make the characters lively and memorable. PSB (I, IV, V)

River of Life. Debbie S. Miller. Illustrated by Jon Van Zyle. Clarion Books. 32pp. Trade ISBN 0-395-96790-2, \$15. (P) Rich in word choice, this book develops strong images of the life cycle that unfolds along a river, as winter melts into spring and spring becomes the warm days of summer. Inviting illustrations help tell this story of a river ecosystem. Glossary. TH (IV)

★ **The Spirit of the Maasai Man.** Written and illustrated by Laura Berkley. Barefoot Books. 32pp. Trade ISBN 1-902283-74-0, \$16.95. (J) A fascinating book that captures the perspective of a people in tune with the animal world. Effective words develop the message of the Maasai man as he sings to the animals. This book will provoke deep thought and much discussion as it raises questions about captive animals. Author's Note. TH (IV, VII)

Spring Thaw. Steven Schnur. Illustrated by Stacey Schuett. Viking. 32pp. Trade ISBN 0-670-87961-4, \$15.99. Paper ed. (F) Puffin Books. (P) Amidst beautiful illustrations, the text explores the changes in farmland as the signs of spring appear. More than melting of the snow, the story observes the gathering of maple syrup, the magnificence of young lambs, and the return of birds as spring arrives. NPS (IV, I)

This Is the Tree. Miriam Moss. Illustrated by Adrienne Kennaway. Kane/Miller. 32pp. Trade ISBN 0-916291-98-7, \$14.95. (P) The author has created the story of an ancient baobab tree and the wildlife in Africa that cohabitate with the tree. She has chosen a prose poem as the literary form for telling the story of this remarkable tree. The final double-page spread describes the parts of the tree in detail. JMH (IV)

Wild and Swampy. Written and illustrated by Jim Arnosky. HarperCollins. 32pp. Trade ISBN 0-688-17119-2, \$15.95; Library ISBN 0-688-17120-6, \$15.89. (I) Mangrove Swamps come alive. Acrylic paintings created from pen-and-ink journal sketches detail observations of a naturalist. This poetic account of life webbing through unique relationships creates visions beyond the story. Wild and Swampy weaves a tapestry of science and art. A great read-aloud selection despite a typographical error in the introduction that identifies a fir tree as "fur." Author's Note. JCS (I, II, IV)

Life Science

Animal Lives: The Rabbit. Sally Tagholm. Illustrated by Bert Kitchen. Kingfisher. 32pp. Trade ISBN 0-7534-5214-6, \$9.95. (P) Charming illustrations and an attractive layout support the lyrical and engaging text about the cyclical activities of rabbits. The storyline includes discussions of predators,

mating, and reproduction, as well as the growth and defenses of young rabbits. Rabbit Facts, Afterword, Glossary, Resources, Index. TH (IV)

★ **Dandelions: Stars in the Grass.** Written and illustrated by Mia Posada. Carolrhoda Books/Lerner. 32pp. Library ISBN 1-57505-383-7, \$15.95. (P) The life cycle of a dandelion is explored in rhyme. Colorful illustrations and the creative placement of text with pictures make this book inviting to the reader. Facts about Dandelions, Recipe for Dandelion Salad, Dandelion Science. CAR (IV)

Elephant Quest. Written and illustrated by Ted and Betsy Lewin. HarperCollins. 48pp. Trade ISBN 0-688-14111-0, \$15.95; Library ISBN 0-688-14112-9, \$15.89. (I) Ted Lewin's realistic paintings and Betsy Lewin's field sketches illuminate this four-day, real-life trip to Moremi Reserve in Botswana, Africa. This work is an adventure story that introduces the reader to the region's wildlife and ecology. African Elephant Facts, Index. JKH (IV)

Gorillas. Seymour Simon. Illustrated with photographs. HarperCollins. 32pp. Trade ISBN 0-06-023035-5, \$15.95; Library ISBN 0-06-023036-3, \$15.89. Paper ed. (F), Harper Trophy. (I) Through engaging narrative and fascinating color photographs, readers explore the physical characteristics of gorillas; how gorillas gather their food; how gorilla families live, communicate, and play; what is endangering gorilla populations; and what efforts are being made to protect the gorillas and safeguard their homes in central Africa, including the Congo, Rwanda, and Uganda. JKH (IV)



Illustration by Ted and Betsy Lewin from *Elephant Quest*, published by HarperCollins.

Jellies: The Life of Jellyfish. Twig C. George. Illustrated with photographs. Millbrook Press. 32pp. Library ISBN 0-7613-1659-0, \$21.90; Paperback ISBN 0-7613-1485-7, \$7.95. (P) The author reveals the details of a jellyfish's life examining its unique abilities as well as distinct limitations. The reader will appreciate the differences between jellyfish and other animals as comparisons are frequently made between pictured jellyfish and familiar animals or other aspects of the environment. NPS (IV, I)

The Kingfisher Book of Evolution. Stephen Webster. Illustrated with photographs and prints. Kingfisher. 96pp. Trade ISBN 0-7534-5271-5, \$21.95. (A) Beginning with the history and development of Darwin's theory of evolution, this book examines scientific study and provides examples of evidence supporting the theory. Evolution Facts, Glossary, Index. NPS (I, IV, VIII)

Leaping Grasshoppers. Christine Zuchora-Walske. Illustrated with photographs. Lerner Publications. 32pp. Library ISBN 0-8225-3634-X, \$21.27; Paperback ISBN 0-8225-3638-2, \$6.95. (P) The author presents information using simple text and vivid photographs to help the young reader understand why a grasshopper is an insect, the anatomy and life cycle of grasshoppers, and where grasshoppers are found. Terms are clearly defined in the text and again in the glossary. Parts of a Grasshopper's Body; Glossary; Hunt and Find (basic index). JKH (IV)

Meeting Dolphins: My Adventures in the Sea. Kathleen Dudzinski. Illustrated with photographs. National Geographic Society. 64pp. Trade ISBN 0-7922-7129-7, \$17.95. (I) This book is an account of

the author's work with dolphin communications. Marine biologist Dudzinski explains how gestures, sounds, and behaviors are used as communications tools. She also describes her invention - a mobile video/acoustic array system. It is used to determine which dolphin in a group is making sounds. Author's Note, Dolphins Chart, Resources, Index. JMH (IV, II, VII)

My Season with Penguins: An Antarctic Journal. Written and illustrated by Sophie Webb. Houghton Mifflin. 48pp. Trade ISBN 0-395-92291-7, \$15. (I, A) Antarctica - cold, windblown, desolate? Sophie Webb dispels these stereotypes through her story of the study of AdÈlie penguins. Her book is a personal view of scientists at work explained through the unique webs and relationships of Antarctic animals. Webb's diary and watercolors capture the AdÈlie penguin life history. Map, Glossary. JCS (II, IV, VII)

National Geographic Animal Encyclopedia. Jinny Johnson with contributors. Illustrated with drawings and photographs. National Geographic Society. 264pp. Trade ISBN 0-7922-7180-7, \$29.95. (I, A) The striking photographs and drawings supported by clearly written text invite the reader into this overview of animal facts. Stunning page borders delineate which animal group is represented in each section and a quick-reference fact box for each animal allows for easy comparisons of habitat and overall characteristics. How To Use This Book, Index. TH (IV)

Sea Critters. Sylvia A. Earle. Illustrated with photographs by Wolcott Henry. National Geographic Society. 32pp. Trade ISBN 0-7922-7181-5, \$16.95. (I) The skills of photographer Wolcott Henry and famed marine biologist Sylvia Earle are generously displayed in this beautiful volume. Various marine animal families are presented along with concise information on their characteristics and habitats. Numerous color photographs show the animals in their environments. Introduction, Sea Critters' Family Tree. PSB (IV, V)

Slinky Scaly Slithery Snakes. Dorothy Hinshaw Patent. Illustrated by Kendahl Jan Jubb. Walker. 32pp. Trade ISBN 0-8027-8743-6, \$16.95; Library ISBN 0-8027-8744-4, \$17.85. (P, I) This book explains how snakes survive. Dorothy Patent describes how they look, use their anatomy to move, catch prey, and avoid becoming the prey. She describes many different varieties of snakes and points out distinctive characteristics of each. Illustrations are a beautifully compatible addition to the text. Index of Scientific Names, Habitat Map. JMH (IV)

Slugs (Early Bird Nature Books series). Anthony D. Fredericks. Illustrated with photographs by Gerry Ellis. Lerner Publications. 48pp. Library ISBN 0-8225-3041-4, \$22.60. (P, I) Clear, magnified photographs and informative text come together to create an interesting read about an often maligned creature. The author has created a wonderful resource that describes the physical characteristics, habitat, and behavior of slugs. Note On Sharing the Book, Glossary, Index. JMH (IV)

★ **Tiger Math: Learning to Graph from a Baby Tiger.** Ann Whitehead Nagda and Cindy Bickel. Illustrated with photographs and graphs. Henry Holt. 32pp. Trade ISBN 0-8050-6248-3, \$16. (I) The authors cleverly describe the growth of T.J., an orphaned Siberian tiger cub, through the use of engaging text and various types of graphs. This book is a unique approach to integrating science and mathematics through a topic that is totally irresistible to the reader, a baby tiger cub's life. JMH (IV, I)

Physical Science

Building Big. Written and illustrated by David Macaulay. Walter Lorraine Books/Houghton Mifflin. 192pp. Trade ISBN 0-395-96331-1, \$30. (A) This companion to the PBS series "Building Big" provides insight into the forces architects take into account as they design structures and the techniques used to overcome the challenges of building big. Although this book does not use metric measurement, clear, well labeled illustrations show the reader details of the structures explained in the text. Glossary. TH (III, VI, VIII)

Science-Related Careers

★ **I Want to Be an Environmentalist** (I Want to Be... series). Stephanie Maze, Creator/Producer. Illustrated with photographs. Harcourt. 48pp. Trade ISBN 0-15-201862-X, \$18; Paperback ISBN 0-15-201939-1, \$9. (I) Many environmental careers are profiled within the context of ecological issues. A colorful format focuses on topics from high-tech data collection to famous environmentalists to ways children can get involved in preservation of the environment. Government and Environmental Organizations Listing. LMN (VI, VII)

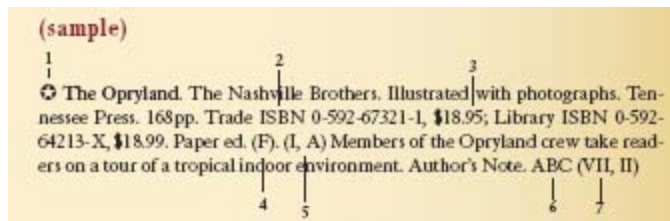
The Wildlife Detectives: How Forensic Scientists Fight Crimes Against Nature. Donna M. Jackson. Illustrated with photographs by Wendy Shattil and Bob Rozinski. Houghton Mifflin. 48pp. Trade ISBN 0-395-86976-5, \$16. (A) Readers can follow a crime scene investigation of the illegal shooting of an elk in Yellowstone National Park. A team of forensic scientists uses various techniques including DNA profiling to solve the crime in an effort to protect animals in the future. Information Sources, Wildlife Forensic Terms, Index. LMN (II, VII)

Technology and Engineering

Girls Think of Everything: Stories of Ingenious Inventions by Women. Catherine Thimmesh. Illustrated by Melissa Sweet. Houghton Mifflin. 64pp. Trade ISBN 0-395-93744-2, \$16. (I) Women have changed our lives with their inventions from windshield wipers to bulletproof vests. Thimmesh show us their inspirations and path to innovation. We learn how the inventors overcame obstacles and used creative thinking to solve problems. Resources, Index, List of Women Inventors. LMN (II, VI, VIII)

Out of Sight: Pictures of Hidden Worlds. Seymour Simon. Illustrated with photographs. SeaStar/North-South. 48pp. Trade ISBN 1-58717-011-6, \$15.95; Library ISBN 1-58717-012-4, \$15.88. (I) The reader journeys to microscopic, distant, and speeding worlds through the use of specialized equipment. From white blood cells to objects stopped in a split second, the reader is provided with text and unbelievable pictures. CAR (II, VI)

About the Annotations



In addition to standard publishing information, the annotations indicate the following:

1. Titles marked with ☉ are Selectors' Choices—books that individual panel members responded to with particular enthusiasm.
2. International Standard Book Numbers (ISBN) are included for all available editions (trade, library, and paperback).
3. The prices are current as of January 2005.
4. The notation Paper ed. (F) indicates that a paperback edition is forthcoming and whether the publisher is different from the hardcover edition.
5. Reading levels [P = Primary (K–2); E = Elementary (3–5); I = Intermediate (6–8); A = Advanced (9–12)] are provided by the reviewers. They are intended as guidelines and are not meant to limit the potential use of titles.
6. The reviewer's initials follow each description (see [Members of the Book Selection Panel](#)).
7. The most relevant National Science Content Standards are indicated by Roman numerals (see below).

National Science Content Standards

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

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 2006. They are intended primarily for kindergarten through twelfth grade. They were selected by members of 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 looks at both content and presentation. Selection is based generally on the following criteria:

- The book has substantial science content;
- Information is clear, accurate, and up to date;

- Theories and facts are clearly distinguished;
- Facts are not oversimplified to the point where the information is misleading;
- Generalizations are supported by facts and significant facts are not omitted; and
- Books are free of gender, ethnic, and socioeconomic bias.

The panel also uses rigorous selection guidelines relating to the presentation of material, including the following: logical presentation and a clear sequence of ideas; appropriate content level for the intended audience; compatible text and illustrations; illustrations that are accurate representations in size, color, and scale; appropriate trim size and format of the book for the subject and audience; and well organized layout that advances the text. The panel also gives attention to the quality of binding, paper, reproduction, and the appropriateness of typeface.

Each panel member reads 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 from The Children's Book Council and in standard reference works such as *Children's Books in Print*. CBC's Members List is [available online](#).

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

About CBC and NSTA

The Children's Book Council (CBC) is a not-for-profit association encouraging the use and enjoyment of children's books and related literacy materials. CBC is the official sponsor of National Children's Book Week and Young People's Poetry Week.

The National Science Teachers Association (NSTA) 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, call 800-722-NSTA.

Single copies of this list are available for \$2.00 with a stamped (3 oz.) self-addressed 6" x 9" envelope from CBC at 12 West 37th St., 2nd fl, New York, NY 10018. 3-19 copies, \$1.50 each; 20 or more copies, 75¢ each. Payment must accompany order