Outstanding Science Trade Books for Students K–12: 2005
(Books published in 2004)

OSTB home

The books that appear in this annotated bibliography selected as Outstanding Science Trade Books were published in 2004. Information at the end of this list includes details about the list and the selection process, a listing of the selection panel members, and more information about the Children's Book Council and NSTA.

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.
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

**Archaeology, Anthropology, and Paleontology**

*Feathered Dinosaurs of China.* Written and illustrated by Gregory Wenzel. Charlesbridge. 32pp. Trade ISBN 1-57091-561-X, $16.95; Paperback ISBN 1-57091-562-8, $6.95. (E) Paleontologists working in China have unearthed astonishing fossils of feathered dinosaurs. Conditions in this region of China were such that not only bones, but also feathers, fine hairs, and soft body parts were preserved. The book describes what life in the early Cretaceous period might have been like, and the author offers an exciting connection between birds and dinosaurs. Author’s Note, Glossary/Index. LO (IV, V)

**Biography**


struggles to recover from his injuries and return to high school. Includes some science and information about treatments used for burn victims. Author’s note. DTC (VII, VI, IV)


Illustrated with photographs. Enslow Publishers. 128pp. Library ISBN 0-7660-2130-0, $26.60. (A) This excellent biography of Linus Pauling illustrates his contributions to life and peace. The book charts Pauling’s interest in science from childhood experiences with chemistry to his Nobel Prizes. This inspirational book will show teenage scientists what is achievable through hard work and perseverance. Bibliography, Glossary, Index. CDC (VIII, VII, III)


🌟 *Marie Curie: A Brilliant Life.* Elizabeth MacLeod. Illustrated with prints and photographs. Kids Can Press. 32pp. Trade ISBN 1-55337-570-X, $16.95; Paperback ISBN 1-55337-571-8, $7.95. (I) Quotations, photo-graphs, reproductions of papers, and captions are used throughout this captivating biography to reveal the story of this pioneering scientist who was the first woman to win a Nobel Prize. The author describes Curie’s professional and personal achievements, tragedies, and lasting contributions to society. Timeline, Index, Resources. CBR (III, VII, VIII)

**Earth and Space Science**

🌟 *Are We Alone? Scientists Search for Life in Space.* Gloria Skurzynski. Illustrated with prints and photographs. National Geographic Society. 96pp. Trade ISBN 0-7922-6567-X, $18.95; Library ISBN 0-7922-6967-5, $28.90. (I) This book begins with a discourse on extraterrestrial life, describing the Search for Extraterrestrial Intelligence (SETI) project and the scientists involved. It further explains how researchers have discovered planets outside our solar system, how life may have formed, the extreme variety of life on our planet, and what “intelligence” is. Most fascinating are the short asides in
which scientists describe their lives and why they love the field they are working in. Glossary, Index, Selected Bibliography, Quote Sources. CVM (V, VII)

_Forces of Nature: The Awesome Power of Volcanoes, Earthquakes, and Tornadoes_. Catherine O’Neill Grace. Illustrated with prints and photographs. National Geographic Society. 64pp. Trade ISBN 0-7922-6328-6, $17.95. (I) This book uses striking color photographs from recent events (such as the Montserrat eruption, the Izmit earthquake in Turkey, and tornadoes in the United States) to illustrate these destructive forces of nature. The book explains, in scientific terms, how these events occur and the effects these catastrophes can have on human populations. Glossary, Bibliography Index. CDC (V, VII)

_Pterosaurs: Rulers of the Skies in the Dinosaur Age_. Caroline Arnold. Illustrated by Laurie Caple. Clarion Books. 40pp. Trade ISBN 0-618-31354-0, $16. (E) This book describes with great detail the lives of the various flying reptiles that ruled the air during the Mesozoic era. The fossil evidence for scientific inferences is presented, and wonderful illustrations bring these extinct pterosaurs to life. Index. CVM (V)

_Rocket Man: The Mercury Adventure of John Glenn_. Ruth Ashby. Illustrated by Robert Hunt and photographs from NASA. Peachtree Publishers. 144pp. Trade ISBN 1-56145-323-4, $12.95. (E) Part biography and part real-life adventure, this book about John Glenn climaxes with the story of his exciting space mission in the Mercury capsule, Friendship 7. This is a must-read for its historical perspective on the space program as well as its inspirational story. Includes a Space Explorers section—a brief history of the U.S. space program; Bibliography, For Further Reading and Viewing. LSG (V, VIII, VII)

_Scholastic Atlas of Weather_. QA International. Scholastic Reference. 80pp. Trade ISBN 0-439-41902-6, $17.95. (E) The ABCs of everyday weather, as well as severe conditions, will fascinate readers. Dust storms, hail, hurricanes, volcanoes, global warming, pollution, and the technology and tools meteorologists use are some of the many topics explored. Full-color illustrations, easy-to-read information, and nine weather-related experiments make this a useful classroom reference. Glossary, Index, Bibliography, Websites. VDW (V, VI)

_T. Rex_. Vivian French. Illustrated by Alison Bartlett. Candlewick Press. 32pp. Trade ISBN 0-7636-2184-6, $15.99. (P) This charmingly illustrated book presents the life of a Tyrannosaurus rex, including explanations of the fossil evidence behind this representation. Most importantly, the book also emphasizes the gaps in current knowledge of prehistoric life and suggests that the future scientist who will discover additional fossils and evidence might be the reader. The recurring theme is “Why don’t we know? It was millions and millions of years ago.” Index. CVM (II, V)

Environment and Ecology

_Endangered Planet_ (Kingfisher Knowledge). David Burnie. Illustrated with prints and photographs. Kingfisher/Houghton Mifflin Company. 64pp. Trade ISBN 0-7534-5776-8, $11.95. (I) This is an important book for everyone who is concerned about the environment. Illustrated with full-color photographs throughout, Endangered Planet describes natural cycles and habitats and the impact

**Arrowhawk.** Lola M. Schaefer. Illustrated by Gabi Swiatkowska. Henry Holt Books for Young Readers. 32pp. Trade ISBN 0-8050-6371-4, $16.95. (I) Based on the true story of a red-tailed hawk that was shot with an arrow, this book is simultaneously disturbing and heartwarming. Beautifully illustrated and written in scientific yet emotionally stirring prose, this book will make readers empathize with the hawk’s struggle to survive. A section at the end of the book discusses raptor conservation and provides a short summary of the actual events that inspired this story. DW (IV, VII)


**Forest Explorer: A Life-Size Field Guide.** Written and illustrated with photographs by Nic Bishop. Scholastic Press. 48pp. Trade ISBN 0-439-17480-5, $17.95. (E) Children of all ages will be fascinated with this photographic nature guide. Included are seven life-size habitat scenes showing more than 130 animals, from aphids to toads, in their natural surroundings. The reader is transported from the leafy forest understory to the treetops after dark. A wonderful picture index features photographs of each animal in the book. Table of Contents, Author’s Note: How to Use This Book, Picture Index. BGS (IV, II)

**Garden of the Spirit Bear: Life in the Great Northern Rainforest.** Dorothy Hinshaw Patent. Illustrated by Deborah Milton. Clarion Books. 40pp. Trade ISBN 0-618-21259-0, $16. (E) This book describes a unique northwestern rain forest inhabited by a type of black bear referred to as the “spirit bear.” Beautiful illustrations depict the relationships among the trees of the forest, salmon, and bears that are threatened by modern logging techniques such as clear-cutting. This book describes efforts to preserve portions of the spirit bear’s habitat and minimize the impact of human activities. Index, Resources. CBR (IV, VII)

**Looking for Seabirds: Journal from an Alaskan Voyage.** Written and illustrated by Sophie Webb. Houghton Mifflin Company. 48pp. Trade ISBN 0-618-21235-3, $16. (I) Using the format of a scientist’s notebook, the author describes how she worked with researchers to understand the birds that inhabit the Aleutian Islands of Alaska. The author looks at how these birds survive and the importance of understanding the possible impact of human activities on the Arctic marine ecosystem. Glossary. DAG (VIII, VII, IV)

can be found in one’s backyard, making this a valuable resource for anyone living in an urban setting.

Author’s Note. CRB (IV)

**One Small Place in a Tree.** Barbara Brenner. Illustrated by Tom Leonard. HarperCollins Publishers. 32pp. Trade ISBN 0-688-17180-X, $15.99; Library ISBN 0-688-17181-8, $16.89. (A) By looking at a microhabitat in a single tree, the reader will discover the relationships between the tree and the various organisms, from bears to beetles to birds, that make the tree their home. DAG (IV)

**The Race to Save the Lord God Bird.** Phillip Hoose. Illustrated with prints and photographs. Melanie Kroupa Books/Farrar, Straus and Giroux. 208pp. Trade ISBN 0-374-36173-8, $20. (I, A) Illustrated with black-and-white photographs and maps, this fascinating story documents the study of a disappearing species, the magnificent and elusive ivory-billed woodpecker. The inevitable collision between attempts to save the bird from extinction by preserving its old-growth forest habitat and the nation’s insatiable need for timber and wood products during the 1940s sets the stage for this tragic story. Timeline, Glossary, Index, Sidebar Text. CBR (IV, VII, VIII)

**Search for the Golden Moon Bear: Science and Adventure in the Asian Tropics.** Sy Montgomery. Illustrated with photographs. Houghton Mifflin Company. 80pp. Trade ISBN 0-618-35650-9, $16. (I) This engaging true story describes scientists’ search for a new species of bear. The author has done a wonderful job explaining the methods and techniques researchers used. The story ends with a twist often encountered when using the scientific method. Appendices, Further Readings with Websites, Index, Map of S.E. Asia, Bear Facts. LO (IV, VI, VII)

**The Temperate Forest: A Web of Life.** Philip Johansson. Illustrated with photographs. Enslow Publishers. 48pp. Library ISBN 0-7660-2198-X, $23.93. (E) The author takes the reader on a journey through a temperate forest, providing a glimpse of the plants and animals found there and the interactions between them that create food webs. The author also describes how energy flows through this biome. Table of Contents, Glossary, Further Reading, Internet Addresses, Index. LO (IV, I)

**Life Science**

**Bodyscope: Movers and Shapers.** Patricia Macnair. Illustrated with prints and photographs. Kingfisher/Houghton Mifflin Company. 40pp. Trade ISBN 0-7534-5791-1, $9.95. (E) Fifteen topics of interest include how the skeleton supports the body, what muscles do, how a broken bone heals, and skeleton secrets. One unique feature is the Info Lab, which supplies fast facts. Photographs, x-rays, and other graphics reinforce understanding. Glossary, Index, Websites, Pull-out Poster. VDW (IV)

Eliza and the Dragonfly. Susie Caldwell Rinehart. Illustrated by Anisa Claire Hovemann. Dawn Publications. 32pp. Trade ISBN 1-58469-060-7, $16.95; Paperback ISBN 1-58469-059-3, $8.95. (E) This is a story of Eliza, her entomologist aunt, and the life cycle of a dragonfly. Through Eliza’s interest in a dragonfly, the reader is introduced to life in a pond. The last portion of the book provides additional information and resources about dragonflies and related organisms. CRB (II, IV)


Lizards (Animal Ways). Dan Greenberg. Illustrated with prints and photographs. Benchmark Books/Marshall Cavendish. 112pp. Library ISBN 0-7614-1580-7, $21.95. (I) Students interested in reptiles will appreciate this book as will educators who teach taxonomy. With lively text and crisp, clear photos and graphics, this introduction to lizards outlines the basics of the lizard “family tree,” lizard biology, and the many different ecological niches of the suborder Sauria. Information about some of the most strange and wonderful lizard species is included. Bibliography, Glossary, Index, Book Resources List, Websites, Species Checklist, Evolutionary Timetable. DW (IV)


Snakes! Strange and Wonderful. Laurence Pringle. Illustrated by Meryl Henderson. Boyds Mills Press. 32pp. Trade ISBN 1-59078-003-5, $15.95. (E) They climb, dive, swim, and glide—all without legs, arms, fins, or wings! This brightly illustrated book introduces the reader to the amazing adaptations of snakes from the way they move and how they secure their prey to their different modes of reproduction. Note: The green bush viper, Atheris squamigera (also known as the Variable Bush Viper), illustrated on page 6 is an orange morph. A short history of the relationship between snakes and people is included at the end of the book with a reference to snake conservation. DW (IV, VII)


Physical Science


Technology and Engineering

Members of the Book Selection Panel

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About the Books and the Selection Process

The books that appear in this annotated bibliography selected as Outstanding Science Trade Books were published in 2004. 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 individual panelist 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 Member List is available at www.cbcbooks.org/about/members.html.
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 Education Standards (see explanation above) 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 nonprofit trade organization that encourages the use and enjoyment of books and related literacy materials for young people. The official sponsor of Children’s Book Week and Young People’s Poetry Week, the CBC supports reading-encouragement programs both independently and with other national and international organizations. The CBC’s members are U.S. publishers and packagers of trade books for children and young adults and producers of book-related materials for young people. For more information, see www.cbcbooks.org.

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 with a self-addressed 6" x 9" envelope with 83¢ postage to CBC at 12 West 37th St., 2nd fl, New York, NY 10018-7480. 10–24 copies, $1.50 each; 25 or more copies, $1 each. Payment must accompany order.