What makes an outstanding book for a young reader? Although it would be hard to create a rubric for every book, experienced teachers recognize them quickly. They fascinate and captivate with both their content and style. Award-winning trade books inspire young readers to want more...more information, more books, more inquiry, more science.

The 37-year-old partnership between the National Science Teachers Association (NSTA) and the Children’s Book Council has been a celebration of great books. Studying the lists over the years, it is clear that there are trends in publishing. This year—the 40th anniversary of humankind’s “one small step” on the Moon—there is high interest in both space exploration and technology. Several of the winners describe scientific achievements that occurred when most of our students’ parents were children, yet their emphasis on scientific method and the excitement of inquiry will inspire future thinking in every reader. In a sense, many of this year’s winners comprise a “stimulus” to a new generation of innovative technologists. This is also the year when the entire world has struggled to come to consensus on climate change.

Other strands have remained constant over the years; the life sciences remain the most consistent source of high-interest books at the elementary level. Many of the winners have special features that make them ideal for sharing; lyric prose that reads like poetry; large, detailed graphics and photos that can be used for inquiry; and dual-level text for young readers and their mentors to share.

To earn a designation as an “outstanding trade book” a publication need not be absolutely perfect from every perspective. Some of the books work best for certain audiences and might be less effective for others. A few were recommended with reservations that are noted in the extended NSTA Recommends review (click on the titles to read the extended versions of the reviews). But every one has the potential to be that special invitation to a lifelong adventure in science for a student near you.

Those of you who’ve enjoyed this list for years will notice a change in the categories this year. Rather than group the books according to topic, we’ve reorganized them this year according to the National Science Education Standard that they most fully support (although many will fall into more than one, and this is noted in each annotation). You’ll also notice that this year we’ve attached some
supplemental material that can be used to extend learning. Click the links at the end of the review to learn more. Happy reading!

Juliana Texley, Lead Reviewer, NSTA Recommends

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 2010.
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, below).
7. The most relevant National Science Content Standards are indicated by Roman numerals (see below).


Book List

Unifying Concepts and Processes in Science

Science as Inquiry


*Written in Bone: Buried Lives of Jamestown and Colonial Maryland*. Sally M. Walker. Carolrhoda Books. 144pp. Trade ISBN 978-0-8225-7135-3, $22.95. (I, A) Meticulous detail and engaging text combine to uncover the stories of people’s lives in colonial times, as discovered by investigation and excavating. Walker’s firsthand account, working alongside scientists, forensic anthropologists, and archivists, is spellbinding. There is a strong emphasis on anatomy. Photographs and clear captions enhance the amazing text. Table of Contents, Author’s Note, Source Notes, Time Line, Selected Bibliography, Further Reading and Websites, Author’s Acknowledgments, Index, Photo Acknowledgments. DLK (II) Supplemental Material: [America’s Historic Triangle](Colonial Williamsburg)

Physical Science


Life Science

*A Place for Birds*. Melissa Stewart. Illustrated by Higgins Bond. Peachtree Publishers. 32pp. Trade ISBN 978-1-56145-474-7, $16.95. (E, I) Beautiful illustrations and clear, concise text provide a fascinating look at a variety of birds of North and Central America, the ecosystems that support them, and efforts to save them. Included is a list of actions that individuals can take to help protect these amazing creatures. Selected Bibliography, Range Maps of selected species inside front and back cover. CSW (IV) Supplemental Material: [Bird Beak Buffet](USGS)

*Animals Up Close*. Igor Siwanowicz. Illustrated with photographs by the author. DK Publishing. 96pp. Trade ISBN 978-0-7566-4513-7, $19.99. (E, I) Eye-catching, close-up photographs of more than 40 animals small enough to fit inside the human hand are supported by intricate details and descriptive text in this engaging book. Characteristics and vulnerabilities resulting from their small size and adaptations to improve their chances for survival provide a unique picture of these miniature aspects of nature. Foreword (Author’s Note), Table of Contents, Glossary, Index, Credits. DLK (IV) Supplemental Material: [Out of the Blue](National Park Service)
**Crocodile Safari.** Jim Arnosky. Scholastic Press. 40pp. ISBN 978-0-439-90356-1, $22.99. (P, E) The author invites us to join his adventures studying the American crocodile in the marshes of Southern Florida. The drawings, which are simple yet accurate, help tell the story of the many days and nights spent trying to locate these shy creatures. Depictions explaining the difference between the alligator and crocodile help us examine crocodiles that shared the Earth with dinosaurs. Additional Information, Song, DVD. JCL (IV, VIII) Supplemental Material: Reptiles: Alligator & Crocodile (San Diego Zoo)


SMF (IV) Supplemental Material: Impact of Climate Change on Bees in Eastern Forests: Pollination in Action (EPA)


Supplemental Material: Boreal Forest Succession (Alaska FWS)

Redwoods. Written and illustrated by Jason Chin. Roaring Brook Press. 40pp. Trade ISBN 978-1-59643-430-1, $16.95. (P, E) Finding a book about redwoods, a young boy goes on an imaginary journey from roots to canopy learning about the wondrous tree. The facts are embedded within a fantasy theme that makes this book one that you will want to read over and over again. The adventure is beautifully depicted by illustrations that will leave readers in awe. Additional Information. JCL (IV, VIII)

Supplemental Material: Into the Redwood Forest (National Park Service)

Saving the Ghost of the Mountain: An Expedition Among Snow Leopards in Mongolia. Sy Montgomery. Color photographs by Nic Bishop. Houghton Mifflin Books for Children. 80pp. Trade ISBN 978-0-618-91645-0, $18. (E, I) Follow research biologist Tom McCarthy and his team on an expedition in the remote Altai Mountains of Mongolia as they look for the elusive snow leopard. Readers learn about these beautiful cats, the Mongolian culture, and how the people of the region are working to save the snow leopard. Acknowledgments, Note From the Author, Note From the Photographer, Index. CMB (II, IV, VII)

Supplemental Material: Learning about Mountains (Mountain.org)

Under the Snow. Melissa Stewart. Illustrated by Constance R. Bergum. Peachtree Publishers. 32pp. Trade ISBN 978-1-56145-493-8, $16.95. (P) Under the snow lies a variety of habitats in which animals live and survive during the chilly winter months. This book describes these habitats in delightful lyrics supported by watercolor illustrations that capture the wonders under the snow. NSC (IV)

Supplemental Material: Hibernation-Migration Fascination (National Park Service)


Supplemental Material: Black and Yellow Argiope (FCPS)

What Bluebirds Do. Written and illustrated by Pamela F. Kirby. Boyds Mills Press. 48pp. Trade ISBN 978-1-59078-614-7, $18.95. (P, E) Vivid, up-close photographs of bluebirds portray daily activities of these familiar backyard birds. From building their nest to caring for their fledglings, the life cycle of bluebirds is presented in simple, easily read text. Bibliography, Glossary, Webliography, Additional Information. KTR (IV)

Supplemental Material: Bluebird (National Geographic Society)
Where Else in the Wild? MORE Camouflaged Creatures Concealed...and Revealed. David M. Schwartz and Yael Schy. Photographs by Dwight Kuhn. Tricycle Press. 50pp. Trade ISBN 978-1-58246-283-7, $16.99. (P, E) Ear-tickling poems and amazing photography keep you guessing as you look for camouflaged creatures on each page. Fold-out photos are accompanied by interesting text that explains how important it is for each creature to be able to hide in plain sight. Author’s Note, Introduction. CSW (IV) Supplemental Material: Out of the Blue (National Park Service)


Winter’s Tail: How One Little Dolphin Learned to Swim Again. Juliana Hatkoff, Isabella Hatkoff, and Craig Hatkoff. Scholastic Press. 40pp. Trade ISBN 978-0-545-12335-8, $16.99. (P) From Clearwater’s Marine Aquarium in Florida comes the true story of Winter, an Atlantic bottlenose dolphin rescued from a crab trap. Her seriously damaged tail threatened her survival until a team specializing in the development of prosthetics for humans fitted Winter with a prosthetic tail that she is now using with great command. Author’s Notes. NSC (IV, VI) Supplemental Material: Aqua Kids—Rehabilitation of Winter the Dolphin (Aqua Kids/Clearwater Marine Aquarium)

Earth and Space Science


Ice Scientist: Careers in Frozen Antarctic. Sara L. Latta. Enslow Publishers, Inc. 128pp. Library ISBN 978-0-7660-3048-0, $31.93. (I) Discover the unique opportunities that only the Antarctic can offer scientists. Follow these scientists as they explore this amazing world. Chapter Notes, Glossary, Internet Addresses, Index. DLW (V, VIII) Supplemental Material: Arctic & Antarctic Classroom Resources (National Science Foundation)

results of geology’s shaping forces of tides, wind, waves, and weather. The text is stunningly enhanced with color photography that puts readers in the pilot’s seat. Map, Glossary, Bibliography, Index. SMF (V) Supplemental Material: NOAA Coast Watch (NOAA)


Science and Technology


Science in Personal and Social Perspectives

Lucy Long Ago: Uncovering the Mystery of Where We Came From. Catherine Thimmesh. Houghton Mifflin Harcourt Children’s Book Group. 64pp. Trade ISBN 978-0-547-05199-4, $18. (I, A) Come along with paleoanthropologist Donald Johanson on the discovery of Lucy, the best-preserved hominid skeleton at the time it was found in 1974. He and scientists from all over the world worked to find out the answers to the many questions surrounding her and those traits that identified Lucy as a new species of hominid (Australopithecus afarensis). Glossary, Acknowledgments, Sources, Index. CMB (II, VII, VIII) Supplemental Material: People and Discoveries (PBS)

History and Nature of Science

🌟Earth Heroes: Champions of the Wilderness. Bruce and Carol L. Malnor. Illustrated by Anisa Claire Hovemann. Dawn Publications. 144pp. Paperback ISBN 978-1-58469-116-7, $11.95. (I) What is a wilderness and why is it important? What is a hero? Each of the eight people profiled in this book was once a curious child who grew up with a love of nature and a calling to preserve and protect our environment. You can become a hero just like them! Author’s Note, Timelines, Webliography, Index. SMF (V, VII, VIII) Supplemental Material: The Works and Life of Henry D. Thoreau (Thoreau-online.org)


to the history of space science and exploration is engaging and informative. Excellent research and clear, compelling text are supported with lifelike paintings that encapsulate all aspects of space history for young readers. A chronology of the Apollo missions is included. Quotations from important contributors to space and flight science enhance the text. Table of Contents, Author’s Note, Afterword, Timeline, Selected Resources, Websites. DLK (V, VII, VIII) Supplemental Material: Human Space Flight (NASA)


Members of the Book Selection Panel

J. Carrie Launius (JCL), Chair
Science Coordinator, Hazelwood School District, Florissant, Missouri

Carla Billups (CMB)
Fifth Grade Teacher, Jonathan Valley Elementary School, Maggie Valley, North Carolina

Nancy Chesley (NSC)
Elementary Science and Literacy Specialist, Maine Mathematics and Science Alliance, Augusta, Maine
Call for Submissions for 2011 Outstanding Science Trade Books for Students K–12

Deadline for submissions: June 15, 2010

Eligibility

- Titles should be for grades K–12.
- All titles must originate from a children’s publishing company or division and must be published (not simply distributed) by a publisher incorporated in the United States.
- Titles must be published in 2010.
- Titles originally published abroad are eligible only if they have a 2010 U.S. publication date; reprints or licensed editions of titles initially published in the United States before 2010 are not eligible.
- Original paperbacks are eligible; paperback reprints are not. If a book is published simultaneously in hardcover and paperback, either edition may be submitted. If both editions are submitted, they constitute separate entries.
- Revisions are eligible only if the book has been newly illustrated or if substantial text, constituting at least 25% of the book, has been changed or added.
- Math books are not eligible unless the mathematical principles are applied to scientific functions such as measuring for experiments, using statistical models for scientific research, and so on.
- Textbooks, workbooks, kits, experiment-only books, and activity books are not eligible.
• Spanish-language editions of titles published in English before 2010 are not acceptable. Spanish-language editions published simultaneously with English-language editions in 2010 are eligible.
• Fiction is eligible if the book has substantial science content.

Number of titles you may submit
Each participating publisher may submit an unlimited number of titles.

Submission guidelines
Books should have value for both classroom studies and library collections supporting students’ work.

Full submission guidelines will be available in late April, 2010 at www.cbcbooks.org.

About the Books and the Selection Process
The books that appear in this annotated bibliography selected as Outstanding Science Trade Books were published in 2009. They are intended primarily for grades K–12. 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 that the information is misleading.
• Generalizations are supported by facts, and significant facts are not omitted.
• 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 appear at the end of each entry.

Publishers’ names appear in abbreviated form; complete names and addresses are available from the CBC 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 Content Standards (see About the Annotations,
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, 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, visit [www.cbcbooks.org](http://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, visit [www.nsta.org](http://www.nsta.org) or call 800-722-NSTA.