Science is passion, science is wonder. The best books about science stir the minds and hearts of readers in very special ways; and when they do, the impressions they make can last for years. To make sure the treasures we share in this list are truly wonderful, for each of the last 38 years an intent group of science educators and bibliophiles has gathered to identify the best in science trade books for young readers. Our panel members found inspiration in the outstanding selections they have identified.

This year’s award winners represent an eclectic array of treats. Some (like Caldecott winner Dark Emperor and Other Poems of the Night and Poetreess) invoke readers’ aesthetic sense as they explore and explain in lyric poetry. Readers of Growing Patterns will never walk through a flower garden again without counting petals. Visual feasts like I Dreamed of Flying Like a Bird offer opportunities for vicarious inquiry. The Robin Makes a Laughing Sound will inspire artists and diarists to find their own muse. Teen readers will love the graphic novel style of How to Clean a Hippopotamus. Others will recognize the traditional page-turning appeal of a mystery in Case Closed and Every Bone Tells a Story. The youngest readers will find an invitation to explore the world in new ways in books like Newton and Me.

Yes, there’s a common element among the honorees—their ability to inspire readers to look beyond their pages to the world around. This year’s committee invites you to join them in another celebration of outstanding reading and great science.

Juliana Texley, Lead Reviewer, NSTA Recommends

About the Reviews

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 2011.
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 (K–2, 3–5, 6–8, and 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**


**S is for Scientists: A Discovery Alphabet.** Larry Verstraete. Illustrated by David Geister. Sleeping Bear Press. 32pp. Trade ISBN 978-1-58536-470-1, $16.95. (3–8) Science process skills—like the abilities to prove, question, and record—are each described in a poem. Brief descriptions of the work of both ancient scientists, such as Archimedes (265 BC), and present-day scientists, such as Katy Payne (1984), serve as examples of the skills in action. Suggestions for Hands-On Activities. (NHM) I. Supplemental Material: *On Being a Scientist*, video (National Academies of Science)

**Science as Inquiry**


*Every Bone Tells a Story: Hominin Discoveries, Deductions, and Debates.* Jill Rubalcaba and Peter Robertshaw. Charlesbridge Publishing. 192pp. Trade ISBN 978-1-58089-164-6, $18.95. (6–12) This book tells interesting stories about the discoveries of four different hominins, the deductions made by the archaeologists and scientists who studied these hominins, and the debates spurred on in the world of science about our ancestors. Introduction, Conclusion, For Further Reading, Timeline, Glossary, Hominins and Friends, Bibliography. (CMB) II, IV, VIII. Supplemental Material: *Information on forensics* (National Library of Medicine)


**Physical Science**


**Life Science**

*At Home with the Gopher Tortoise: The Story of a Keystone Species.* Madeleine Dunphy. Illustrated by Michael Rothman. Web of Life Children’s Books. 32pp. Trade ISBN 978-0-9777539-6-3, $16.95. Paperback ISBN 978-0-9777539-5-6, $9.95. (K–8) This book gives a simple yet in-depth look at the importance of an unassuming and often overlooked animal. Surprisingly, the gopher tortoise significantly affects more than 360 different kinds of animals that depend upon its burrows for shelter, food, or a place to raise young. This is a fascinating look at how one species can affect the fate of many.
Author’s Note, Selected Bibliography. (CSW) IV. Supplemental Material: Student workbook (The Charlotte Harbor National Estuary Program)


This book captures the motion of migrating animals in photographs and describes how these incredible journeys are driven by the animals’ survival mechanisms. Index. (KLO) IV, VII. Supplemental Material: Video, links, and more information on migrations (National Geographic)

_Hip-Pocket Papa._ Sandra Markle. Illustrated by Alan Marks. Charlesbridge Publishing. 32pp. Trade ISBN 978-1-57091-708-0, $15.95. (K–2) Threatened by drought in Australia’s temperate rain forest and predation by skinks, quolls, and spiders, a father frog no bigger than a thumbnail protects his brood of 12 tadpoles in pouches on his hips. Author’s Note, Resources, Glossary. (NHM) IV. Supplemental Material: Information on Australian frogs from New South Wales (NSW.gov)

_The Hive Detectives: Chronicle of a Honey Bee Catastrophe._ Loree Griffin Burns. Illustrated with photographs by Ellen Harasimowicz. Houghton Mifflin Harcourt. 80pp. Trade ISBN 978-0-547-15231-8, $18. (6–12). Learn about honeybees, the honey they make, bee keepers, and the scientists who research Bee Colony Collapse Disorder (CCD). Follow along from the beekeepers who noticed the collapse of their hives in 2006 to the researchers and scientists who started looking for the cause of CCD. Appendix, Glossary, Acknowledgments, Select References, Index. (CMB) IV, VII, VIII. Supplemental Material: Colony Collapse Disorder update (PBS) *Editor’s Note: To learn more about the author, hear her read, find teacher resources, and more, visit www.loreegriffinburns.com.


_It’s Harvest Time!_ Jean McElroy. Illustrated with photographs by Tilde. Little Simon, an imprint of Simon & Schuster Children’s Publishing. 14pp. Trade ISBN 978-1-4424-0352-9, $7.99. (K–2) This durable board book uses photographs and fold-out pages to show how five different types of seeds grow into unique plants and ultimately into fruits and vegetables that people eat. (NSC) IV. Supplemental Material: Cool Science for Curious Kids (including salad activities) (Howard Hughes Medical Institute)

_Kakapo Rescue: Saving the World’s Strangest Parrot._ Sy Montgomery. Illustrated with photographs by Nic Bishop. Houghton Mifflin Harcourt. 80pp. Trade ISBN 978-0-618-49417-0, $18. (6–12) Have you ever seen a nine-pound green-and-yellow parrot that doesn’t fly? Follow the scientists, rangers, and volunteers hard at work on a remote island near New Zealand to protect this uniquely loveable bird and bring it back from the brink of extinction. P.S. The Story Continues, Acknowledgments, Bibliography,
Index. (CMB) IV, VII, VIII. Supplemental Material: Kakapo Recovery (information, news, and ways to help) (Department of Conservation, Forest and Bird, and Rio Tinto Alcan)


Mammoths and Mastodons: Titans of the Ice Age. Cheryl Bardoe. Illustrated with color illustrations and photographs. Abrams Books for Young Readers. 48pp. Trade ISBN 978-0-8109-8413-4, $18.95. (3–8) Mammoths and mastodons are extinct, but their stories aren’t over. This book is an account of how real-life CSI techniques are being used to study a recently discovered, fully frozen baby mammoth, and how we are adding to our knowledge of these unique creatures. Glossary, Selected References, Index. (CSW) II, IV, VIII. Supplemental Material: Ice Age Animals of Utah (Utah Geological Survey)


Nic Bishop Lizards. Nic Bishop. Illustrated with photographs by Nic Bishop. Scholastic Nonfiction. 48pp. Trade ISBN 978-0-545-20634-1, $17.99. (K–5) This book contains amazing photographs of lizards from around the world, with explanatory text. The author explains the multiple steps and the variables manipulated to capture some of the shots. Author’s Note, Glossary, Index, Further Reading. (BCC) IV, VII. Supplemental Material: Nic Bishop Biography (Scholastic)


Project Seahorse. Pamela S. Turner. Illustrated with photographs by Scott Tuason. Houghton Mifflin Harcourt. 64pp. Trade ISBN 978-0-547-20713-1, $18. (6–12) Scientists off an island in the Philippines work to help the dwindling numbers of seahorses and to protect their coral reef ecosystem. In working with the local fishing community to protect this fragile ecosystem, a way of life is also being preserved. Glossary, Acknowledgments, Resources, Index, How to Help Seahorses. (CMB) IV, VII, VIII. Supplemental Material: Biography of Amanda Vincent (Director of Project Seahorse) and Links to Her Research (The University of British Columbia)

Slow Down for Manatees. Jim Arnosky. G.P. Putnam’s Sons. 32pp. Trade ISBN 978-0-399-24170-3, $16.99. (K–2) In this story, an injured manatee is rescued and taken to a recovery center where it gives birth. After rehabilitation, the mother and baby are released, giving readers an example of how scientists can work successfully with wild animals. Afterword. (SAR) IV, VIII. Supplemental Material: Manatee Activities (EarthWatch)


**Earth and Space Science**


Members of the Book Selection Panel

Nancy McDonough (NHM), Chair
Second-Grade Teacher, Walter Stillman School, Tenafly, New Jersey

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

Betty Crocker (BCC)
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Suzanne Flynn (SMF)
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J. Carrie Launius (JCL)
Science Coordinator, Hazelwood School District, Florissant, Missouri

Karen Ostlund (KLO)
Retired Professor, The University of Texas at Austin, Austin, Texas

Steve Rich (SAR)
K–8 Science Specialist, Georgia Department of Education, Atlanta, Georgia
Call for Submissions for 2012 Outstanding Science Trade Books for Students K–12

Deadline for submissions: June 15, 2011

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 2011.
- Titles originally published abroad are eligible only if they have a 2011 U.S. publication date; reprints or licensed editions of titles initially published in the United States before 2011 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.
- 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, 2011 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 2010. 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. 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.