This year, science teachers and mentors have been challenged to meet the high expectations of A Framework for K–12 Science Education and the Next Generation Science Standards. The Framework urges us to help learners “[build] progressively more sophisticated explanations of natural phenomena...” while NGSS provides a model for “gathering, describing, and using information about the natural and designed world(s).”

In the development of curricula that meet these challenges, literature is an essential partner. “The NGSS are aligned with the CCSS [Common Core State Standards] to ensure a symbiotic pace of learning in all content areas.”

So, it is not surprising that this year’s list of Outstanding Science Trade Books is both the longest and richest in the program’s 42-year history. In these award-winning books you’ll find not only traditional science content, but also engineering and design. We hope you’ll enjoy indulging your spirit of inquiry as you practice science through trade books.
**Earth and Space Science**


**Eruption! Volcanoes and the Science of Saving Lives.** Elizabeth Rusch. Illustrated by Tom Uhlman. Houghton Mifflin Harcourt. 80pp. Trade ISBN 978-0-54750-350-9, $18.99. (6-8) Volcanologists are using science and technology to “take the pulse of volcanoes” in order to avert disasters that have led to loss of lives and land and disrupted people and communities around the globe. The book has a Volcanic Vocabulary list, Chapter Notes, Bibliography, Index. (LSG) VI

**Next Time You See a Sunset.** Emily Morgan. NSTA Kids, an imprint of NSTA Press. 32pp. Trade ISBN 978-1-936959-16-7, $9.95. (K-2) This engaging text guides young learners on an exploration of the phenomenon of sunsets, Earth’s day, shadows, and our star, the Sun. Students think, observe, and discover through questioning and ideas for investigations. Author’s Note to Parents and Teachers, Activities, Websites. (DMH) I, II, IV

**Tracking Tyrannosaurs: Meet T. Rex’s Fascinating Family, From Tiny Terrors to Feathered Giants.** Christopher Sloan. Illustrations by Xing Lida and Liu Yi. National Geographic Children’s Books. 48pp. Trade ISBN 978-1-42631-374-5, $18.95. (3-8) The fascinating text details over 20 kinds of tyrannosaurs. In addition, Tyrannosaur Tracker shares highlights of various paleontologists and their contributions. Key statistics for each species are explained and illustrated throughout this colorful, captivating book. Table of Contents, Author’s Note, Bibliography, Glossary, Resource list, Index, Dino database. (DMH) IV

**Volcano Rising.** Elizabeth Rusch. Illustrated by Susan Swan. Charlesbridge. 32pp. Trade ISBN 978-1-58089-408-1, $17.95. (K-2) This book is an excellent example of informational text supporting the important science concept of how the Earth can change quickly or slowly. This book could be used to instruct reading with excerpts of close reading. Within this text there are models and diagrams, which are parts of the science and engineering practices of the Next Generation Science Standards. Volcano Vocabulary, Selected Bibliography, Learn More. (KAR)


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**About the Reviews**

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 2014.
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 listed on page 70).
7. The most relevant National Science Education Content Standards are indicated by Roman numerals (see below).

**National Science Education Standards**

| I Unifying Concepts and Processes | VI Science and Technology |
| II Science as Inquiry | VII Science in Personal and Social Perspectives |
| III Physical Science | IV Life Science |
| V Earth and Space Science | VIII History and Nature of Science |

*Although NSTA has adopted and fully supports the Next Generation Science Standards, they were not finalized in time to be incorporated into this year’s Outstanding Science Trade Books list. Connections to NGSS will be made in next year’s list.

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68 Science and Children
History and Nature of Science


Life Science


Cougar: A Cat with Many Names. Stephen Person. Bearport Publishing. 32pp. Library ISBN 978-1-61772-569-2, $19.95. (3-5) The cougar story—their habitats, predation, child-rearing, and territoriality, presented through narrative and photographs—creates an awareness of these wild animals and their necessary adaptations to humans impinging on their natural environments. The book includes a glossary, bibliography, additional resources, index, Cougar Facts, and a “People Helping Cougars” section. (LSG)

The Dolphins of Shark Bay. Pamela S. Turner. Houghton Mifflin Harcourt. 80pp. Trade ISBN 978-0-54771-638-1, $18.99. (3-8) A true story about the lives of dolphins in Shark Bay and how they use sponges to find food. The story shows the lives of the whole family and the complexities that go along with being in a dolphin family. This is a Scientists in the Field series book. Index, More About Dolphins. (SLS)

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 producers of books for children and young adults and producers of book-related materials for young people. For more information, visit www.cbcbooks.org.

The books that appear in these lists were chosen by a review panel made up of educators and other subject-area experts, all appointed by the National Science Teachers Association (NSTA). NSTA and CBC have joined forces on developing this annual list since 1973, and over the years it has become the go-to resource for school librarians, science teachers, and parents eager to cultivate a love of science in young readers. Initially, the list was primarily targeted at grades K through 8. Beginning in 2002, it expanded to include high school. Down through the years, this effort has had but a single mission—to highlight the very best in science trade books for young audiences.

A Dragonfly’s Life. Ellen Lawrence. Bearport Publishing. 24pp. Library ISBN 978-1-61772-594-4, $17.95. (K-5) Written in the style of a student’s journal, with dated entries from June 1 to September 30, and including observations and illustrations, a dragonfly’s metamorphosis is documented in a most engaging way. The book includes a suggested Science Lab, Glossary, Index, and bibliography for both books and online resources. (LSG) II, VIII

(K–2) The bear wakes up in the early spring and looks for food from spring to fall. Follow this bear and read what he finds to eat. Each page shows how this bear looks for, finds, and eats a variety of foods. Author's Note, Meet the Bear pages. (SLS)


*Frog Song*. Brenda Z. Guiberson. Illustrated by Gennady Spirin. Henry Holt BYR, an imprint of Macmillan Children's Publishing Group. 40pp. Trade ISBN 978-0-8050-9254-7, $17.99. (K–5) Frogs and toads around the world are showcased in this artistically illustrated book. The brief text on the pages packs a wallop of information, including how each species reproduces and information about their habitats. The book is sprinkled with “sound” words that describe the songs they sing. Quick facts about each frog or toad, Author's note, Bibliography, and Websites. (CAC)


*Here Come the Humpbacks!* April Pulley Sayre. Illustrated by Jamie Hogan. Charlesbridge. 40pp. Trade ISBN 978-1-58089-405-0, $17.99. (3–5) As you follow the humpback whales from winter childbirth in the Caribbean to summerring in the northern Atlantic, the whales will "sing" their adventurous migration. Teachers or parents can help students with informational sidebars. The book includes a note to adults, summarizing the whales' migration and the study of whales. (LSG)


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**Members of the Book Selection Panel**

- **Brian Hamilton** (BGH). Chair Science Department Chair Centennial High School Columbus, OH
- **Connie Crittenden** (CAC) Multiage 4/5th Looping Teacher Explorer Elementary Williamston, MI
- **DeLene Hoffner** (DMH) 4th Grade Teacher Academy District 20 Colorado Springs, CO
- **Rebecca Monhardt** (RMM) Associate Professor Loras College Dubuque, IA
- **Jean Pelezko** (JMP) Science Lab Teacher New Century International Middle School Fayetteville, NC
- **Kathy Renfrew** (KAR) K–4 Math & Science Assessment Coordinator Department of Education Montpelier, VT
- **Vana Richards** (VJR) 5th Grade Teacher Kenneth J. Elementary School Emmett, ID
- **Linda Schoen Giddings** (LSG) Retired Science Consultant South Carolina Department of Education Columbia, SC
- **Stephanie Selznick** (SLS) Science Specialist Curley K–8 School Jamaica Plain, MA

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Expanded reviews of these award-winning books are available at www.nsta.org/recommends.
of each animal in the back of the book, and an explanation of averages. Author notes. (CAC)

The Long, Long Journey: The Godwit’s Amazing Migration. Sandra Markle. Illustrated by Mia Posada. Lerner Publishing Group/Millbrook Press. 32pp. Trade ISBN 978-0-7613-5623-3, $26.60. (K-2) Follow the amazing life of a bar-tailed godwit from hatching through growing up in the Alaskan summer, and on the longest migration ever recorded. Readers will be drawn into this beautifully illustrated tale of survival. Author’s Notes, Readers’ Notes, Lerner Source. (VJR)

Meat-Eating Plants: Toothless Wonders. Ellen Lawrence. Bearport Publishing. 24pp. Library ISBN 978-1-61772-589-0, $17.95. (3-5) Stunning detailed photographs and easy-to-read text take you directly inside meat-eating plants. Photographs and text highlight how the plants catch their prey. Readers are asked to supply the missing parts of the sentences to complete the definition of meat-eating plants. (DMH)

National Geographic Kids Bird Guide of North America. Jonathan Alderfer. National Geographic Children’s Books. 176pp. Trade ISBN 978-1-42631-094-2, $15.95. (K-5) This beginning bird guide is full of beautiful photographs with key facts to highlight each bird. It is wonderful guide to North American birds found from backyards to isolated forests. Readers will also learn about the habitats that the birds prefer. (DMH)


Next Time You See a Firefly. Emily Morgan. NSTA Kids, an imprint of NSTA Press. 32pp. Trade ISBN 978-1-936959-18-1, $9.95. (K-5) Wonderful close-up photographs of the pill bug, its habitat, and the curious kids observing them. Descriptions are clear and informative and explain in detail how the pill bug is not a

About the Books and the Selection Process

The books that appear in this annotated bibliography selected as Outstanding Science Trade Books were published in 2013. 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 reviews 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/membership/member-list.

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 Content Standards (see About the Reviews on page 68) to which the books relate. Where more than one standard is listed, the most applicable standard is given first.
bug but a crustacean that lives its whole life on land. Photo references, Activities for kids, and Websites. (CAC)

No Monkeys, No Chocolate. Melissa Stewart and Allen Young. Illustrated by Nicole Wong. Charlesbridge. 32pp. Trade ISBN 978-1-58089-287-2, $16.95. (K-2, 3-5) Enjoy this wonderful story about the cocoa bean, the main ingredient in chocolate found in the trees of the tropical rain forests. Through a series of causes and effects, this book beautifully illustrates how everything in the rain forest has an important part to play. The sidebar of two personified worms provides a whimsical summary of each page. (JMP)


A Place for Turtles. Melissa Stewart. Illustrated by Higgins Bond. Peachtree Publishers. 32pp. Trade ISBN 978-1-56145-693-2, $16.95. (K-5) Delightful beginner guide to turtles around the United States showing how human interaction can help or hurt the ecosystems of these magnificent and ancient animals. Beautifully detailed drawings accurately show each species of turtle in its environment. Turtle Tidbits, Bibliography of recommended resources, Websites for further information. Fly pages of book include range maps of all the turtles in the book. (CAC)


Roseate Spoonbill: Pretty in Pink. Stephen Person. Bearport Publishing. 32pp. Library ISBN 978-1-61772-570-8, $19.95. (3-5) The history of this bird through the eyes of biologist Jerry Lorenz. The book has photographs of all the stages of the bird's life, its habitat, what it eats, and how the Everglades need to be protected so this bird can survive. Author's Note, Bibliography, Glossary, Index, Roseate Spoonbill Facts, People Helping Spoonbills. (SLS)

See What a Seal Can Do. Chris Butterworth. Illustrated by Kate Nelms. Candlewick Press. 32pp. Trade ISBN 978-0-76366-574-6, $14.99. (K-5) Although seals may seem slow and lethargic on land, they are actually dynamos in water. Their feeding habits, adaptations, and habitat are covered in this simple story of a seal's day. Book includes facts about the seal as sidewrongs on each page. Fly pages show various species of seals. Index. (CAC)


Stripes of All Types. Susan Stockdale. Peachtree Publishers. 32pp. Trade ISBN 978-1-56145-695-0, $15.95. (K-2) Its beautiful illustrations and concise text give us a chance to see how animals' adaptations communicate information or protect them from predators. (BGH) II

Too Hot? Too Cold? Keeping Body Temperature Just Right. Caroline Arnold. Illustrated by Annie Patterson. Charlesbridge. 32pp. Trade ISBN 978-1-58089-276-6, $17.95. (K-5) No matter where we live, or what climate we live in, people and animals need to keep their temperature "just right." Remarkable connections made between humans and other animals around the world show how they adapt to heat and cold year round. Glossary, Author's Note. (CAC)

Physical Science

Things That Float and Things That Don’t.
David A. Adler. Illustrated by Anna Raff. Holiday House. 32pp. Trade ISBN 978-0-82342-862-5, $16.95. (K–5) Using charming illustrations and easily understood text, the basic principles of floatation and density are explained. Readers are asked to perform fun, simple experiments demonstrating the relationship of floating and sinking to density. (VJR)

Science and Technology


National Geographic Little Kids Ocean Counting.
Janet Lawler. National Geographic Children’s Books. 32pp. Trade ISBN 978-1-42631-116-1, $16.95. (K–2) Great connections to the Common Core State Standards in mathematics as students learn not only how to count but also about the beautiful creatures of the deep. It is an opportunity to be explicit about the connection between mathematics and science. The book includes visual displays of the creatures, Animal Facts, map of world showing where the photographs were taken, Glossary. (KAR) IV

Papa’s Mechanical Fish.

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What’s In There? All About Before You Were Born.

Yummy! Good Food Makes Me Strong!

One Minute Mysteries: 65 More Short Mysteries You Solve With Science.
Eric Yoder and Natalie Yoder. Science, Naturally! 188pp. Trade ISBN 1-9384920-0-5, $9.95. (3–7) One Minute Mysteries is a great way to get students thinking scientifically, or start off a lesson or a new unit. One-page scenarios give clues to the solution, but lots of "out of the box" thinking is required to come up with the answers. Mysteries cover life, physical, and Earth/space science, plus a section that requires math knowledge to solve. Keep this one on your desk for any spare moments during the day and keep your students on their toes! Includes an index. (CAC) III, IV, V

Something Stinks!
Gail Hendricks. Tumblehome Learning. 192pp. Trade ISBN 978-0-98500-089-1, $7.95. (3–5) A novel for the young adolescent that demonstrates relevance and purpose. As an emerging newspaper recorder, Emily decides to find out why dead fish are washing ashore along the Higleon River. Emily and her friends take science learning beyond the classroom. So, will the citizen scientist be able to solve the mystery? You will have to read the book to find out. (KAR)
motivate scientists and engineers to make further discoveries. (JMP) III


Science in Personal and Social Perspectives


Eight Dolphins of Katrina: A True Tale of Survival. Janet Wyman Coleman. Illustrated by Yan Nascimbene. Houghton Mifflin Harcourt. 40pp. Trade ISBN 978-0-54771-923-8, $16.99. (3-5) This touching story describes how eight dolphins raised in captivity were taken out to sea by Hurricane Katrina's storm surge. The dolphins stayed together and cared for each other, which is credited with helping them survive one of the worst natural disasters in U.S. history. Notes on the individual dolphins, Sources. (RMM)

Unifying Concepts and Processes

Scaly Spotted Feathered Frilled: How Do We Know What Dinosaurs Really Looked Like? Catherine Thimmesh. Houghton Mifflin Harcourt. 64pp. Trade ISBN 978-0-54799-134-4, $17.99. (3-8) Track the scientific process as dinosaurs' appearances change throughout history, with colored paintings created by respected paleoartists. It is a fascinating process, using only what is left of dinosaurs, whose images evolve with each new discovery. Glossary, Index, About the Artist, Sources, Dinosaur Groups. (VJR) VIII

Call for Submissions for 2015 Outstanding Science Trade Books for Students K-12

Deadline for submissions: June 30, 2014

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 2014.
• Titles originally published abroad are eligible only if they have a U.S. publication date; reprints or licensed editions of titles initially published in the United States before 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 are not acceptable. Spanish-language editions published simultaneously with English-language editions in 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 on June 1 at www.cbcbooks.org.

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