



Outstanding Science Trade Books for Students K–12: 2016 (Books published in 2015)

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Science teachers and mentors continue to be challenged to meet the high expectations of the *Framework for K–12 Science Education* and the *Next Generation Science Standards*. Indeed, the *Framework* urges us to help learners “[build] progressively more sophisticated explanations of natural phenomena...” while the *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.” The International Literacy Association supports our goal of increasing literacy for all learners.

We invite you to explore this year’s list of Outstanding Science Trade Books, which greatly adds to our 44-year history. In the award-winning books below, you’ll find not only traditional science content but also engineering and design. We hope you’ll enjoy enhancing your spirit of inquiry as you practice science through trade books.

Winning Titles

Title. Author(s). Illustrator. Publisher

[About Habitats: Polar Regions](#). Cathryn Sill. John Sill. Peachtree Publishers.

A simple and accurate description of Arctic and Antarctic regions accompanied by beautiful illustrations.

[Ada Byron Lovelace and the Thinking Machine](#). Laurie Wallmark. April Chu. Creston Books.

An inspirational story of Ada Byron Lovelace, who overcame struggles to pursue her interests in math and science.

After the Ashes. Sara K. Joiner. Holiday House.

Feel the impact of falling ash and a devastating tsunami generated by the cataclysmic eruption of Krakatau in 1883 through the lives of two fictional characters struggling to survive the ordeal.

Ancient Earth Journal: The Early Cretaceous. Juan Carlos Alonso and Gregory S. Paul. Walter Foster Jr., Quarto Children's Group USA.

Beautiful illustrations take readers on a trek through the early Cretaceous period of geologic time to explore the diversity of dinosaurs that roamed Earth circa 120 million years ago.

Animal Mouths. Mary Holland. Arbordale Publishing.

A description of the structures of mouths that allow various animals to survive by catching and eating plants, seeds, and other animals.

Bilby. Edel Wignell. Mark Jackson. Candlewick Press.

A description of how the endangered Australian marsupial, the bilby, survives and raises her young.

Birdology. Monica Russo. Photos by Kevin Byron. Chicago Review Press.

This fantastic book of bird information will inspire future ornithologists with independent field studies, tips for observing birds, and 30 hands-on activities.

The Call of the Osprey. Dorothy Hinshaw Patent. Photos by William Muñoz. Houghton Mifflin Harcourt.

Stunning photographs accompany this adventure as scientists in the field study everything from danger to migration of the magnificent osprey.

Chocolate. Kay Frydenborg. Houghton Mifflin Harcourt.

A wonderfully fast-paced narrative of the history and science of one of the world's favorite treats!

Dirty Rats? Darrin Lunde. Adam Gustavson. Charlesbridge.

A look at the differences between various species of rats and the important role a rat can play within an ecosystem.

Egg. Steve Jenkins and Robin Page. Houghton Mifflin Harcourt.

Delightful book about different egg-laying animals, types and sizes of eggs, the places eggs are laid, and the ways animals get out of them when the time comes!

Emu. Claire Saxby. Graham Byrne. Candlewick Press.

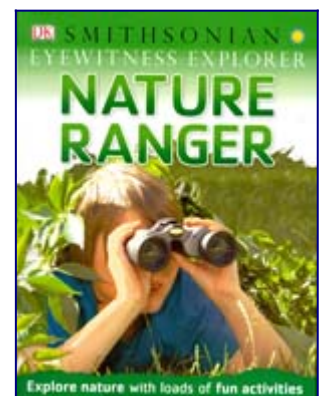
Have you ever met an emu? Now's the time to do so.

Eyewitness Explorer: Nature Ranger. DK Publishing.

Explore the wonders of our natural world like a true nature ranger; learn fascinating information, ranging from skull characteristics to outdoor experiments!

The Fantastic Ferris Wheel. Betsy Harvey Kraft. Steve Salerno. Henry Holt, Macmillan.

This fascinating account of how George Ferris turned a crazy idea into a reality will have you wanting to travel back in time to experience a ride on this marvelous invention.



Fire Birds. Sneed B. Collard III. Bucking Horse Books.

The phenomenal author Sneed B. Collard III investigates the rich diversity of bird life that comes out of the disaster of forest fires.

Flying Cars. Andrew Glass. Houghton Mifflin Harcourt.

Sure to be a hit with collectors and those interested in unique transportation, these stories showcase those that had ingenious ideas.

Food Engineering. Michael Burgan. Scholastic Library Publishing.

Farmers, scientists, and consumers all have a stake in the food technology industry, and Burgan's documentation provides insight into the role of science and technology in food production.

The Fruits We Eat. Gail Gibbons. Holiday House.

Discover a wide variety of delicious fruits in this information-packed, beautifully illustrated book that's great for young readers.

The Great Monkey Rescue. Sandra Markle. Millbrook Press, Lerner Publishing Group.

Sandra Markle documents the plight of the golden lion tamarin in the Brazilian forest through engaging narrative text supported by photographs and maps.

High Tide for Horseshoe Crabs. Lisa Kahn Schnell. Alan Marks. Charlesbridge.

Join the frenzy of migrating horseshoe crabs as you read about their arrival on the shores of the Delaware Bay, where they lay tiny eggs in golf ball-sized clusters.

Home Address: ISS. James Buckley Jr. Smithsonian, Penguin.

A fascinating look into the unique and amazing life on the International Space Station. (an easy reader with rich learning).

How to Swallow a Pig. Steve Jenkins and Robin Page. Houghton Mifflin Harcourt.

Learn about the dining style of a large snake and other useful survival skills employed by creatures in the wild in this eye-catching how-to for young readers.

Hurricane Watch. Melissa Stewart. Taia Morley. HarperCollins.

An exciting look into how hurricanes form, the scientists who work with them, and safety tips!

Inside Biosphere 2. Mary Kay Carson. Photos by Tom Uhlman. Houghton Mifflin Harcourt.

Part of the Scientists in the Field, Inside Biosphere 2 gives a brief overview of the original purpose of the enclosed living environment and a closer look into how scientists are using it to study Earth system processes today.

The Inventor's Secret. Suzanne Slade. Jennifer Black Reinhardt. Charlesbridge.

A story of friendship between two of the most successful inventors; the secret of their success will inspire today's young inventors.



Little Puffin's First Flight. Jonathan London. Jon Van Zyle. Graphic Arts Books.

A precious nature adventure, masterfully illustrated, that follows the life of a young puffin as he faces the dangers of the sea.

Magnificent Minds. Pendred E. Noyce. Tumblehome Learning, Inc.

Through photographs, timelines, and artifacts, Noyce brings the narrative stories of 16 truly magnificent women in STEM careers to life in this informational text.

Mrs. Carter's Butterfly Garden. Steve Rich. NSTA Kids.

Be inspired by former First Lady Rosalynn Carter's efforts to protect and save butterflies by creating a beautiful garden at her home in Plains, Georgia.

Next Time You See a Spiderweb. Emily Morgan. NSTA Kids.

Part of the Next Time You See... series, this book helps readers develop an understanding of the structure and function of webs created by spiders.

Ocean. DK Publishing.

A stunning visual encyclopedia that provides amazing information about oceans and marine life.

The Octopus Scientists. Sy Montgomery. Photos by Keith Ellenbogen. Houghton Mifflin Harcourt.

Join scientists as they travel to the island of Moorea to explore the fascinating mollusk, the octopus, in this vividly photographed story with detailed information about their findings—especially about their minds.

A Passion for Elephants. Toni Buzzeo. Holly Berry. Dial, Penguin.

Cynthia Moss studied and learned about these enormous animals that she grew to love and fought to protect from ivory poachers.

The Pier at the End of the World. Paul Erickson. Photos by Andrew Martinez. Tilbury House.

In the murky, cold waters surrounding a decaying pier in the north Atlantic coast, there is a habitat for "strange and beautiful" sea creatures that will fascinate you.

Raindrops Roll. April Pulley Sayre. Beach Lane Books, Simon & Schuster.

Take a close-up look at raindrops through Sayre's stunning photography, perfect for young readers.

Remarkable Minds. Pendred E. Noyce. Tumblehome Learning, Inc.

The inspirational stories behind 16 remarkable women in science and medicine that is sure to spur young women interested in the natural sciences.

Sally Ride. Tam O'Shaughnessy. Roaring Brook Press, Macmillan.

Personal account of Sally Ride's life as told in photos and words by her friend and life partner.

Sand Swimmers. Narelle Oliver. Candlewick Press.

Follow the footsteps of early explorers into the Dead Heart desert in the center of Australia and learn about the mysterious animals that survive in this harsh environment.

Small Wonders. Matthew Clark Smith. Giuliano Ferri. Two Lions.

The real life story of a curious boy, Jean-Henri Fabre, who was intrigued by the insect world, overcoming teasing to become an expert and Nobel Prize nominee.

So, You Want to Work with the Ancient and Recent Dead? J. M. Bedell. Aladdin, Simon & Schuster.

Terrific introduction for students who might want to become into an archeologist, forensic scientist, paleontologist, or medical examiner to explore what the remains of a dead organism is trying to tell us about its past.

Space! DK Publishing.

Appropriate as an astronomy resource for all age levels, this DK book includes high-quality captioned photos and multilayered text about planets, constellations, black holes, neutron stars, and more.

Spidermania. Alexandra Siy. Dennis Kunkel. Holiday House.

Did you know that the diving bell spider is the only one that lives underwater? Amazing photographs, descriptions, and information in this book will teach you so much more.

Spit & Sticks. Marilyn Grohoske Evans. Nicole Gsell. Charlesbridge.

The life cycle of swift birds and its analogy with a human family.

Steve Jobs. Jessie Hartland. Schwartz & Wade, Random House.

Hartland's graphic novel traces the life of Steve Jobs, including his struggles in most levels of formal schooling and his groundbreaking achievements in inventing technology devices that revolutionized digital communication.

Terrible Typhoid Mary. Susan Campbell Bartoletti. Houghton Mifflin Harcourt.

This search for the carrier of Typhoid reads like a mystery who-done-it; but this true story happened when the field of epidemiology was in its infancy.

The Walking Fish. Rachelle Burk and Kopel Burk. Tumblehome Learning, Inc.

Join seventh graders Alexis and Darshan on a wild hunt to find out more about an unusual fish!

Welcome to Mars. Buzz Aldrin with Marianne J. Dyson. National Geographic Society.

As NASA prepares for a future mission to Mars, moon explorer Buzz Aldrin offers valuable insights, based upon the latest thoughts on what it will take for human habitation on Mars to become a reality.

Welcome to New Zealand. Sandra Morris. Candlewick Press.

Beautifully illustrated model of a naturalist journal with drawings and observations of the natural world of an amazing country.

When the Earth Shakes. Simon Winchester. Viking, Penguin.

Explore some of Earth's most violent and dynamic forces such as earthquakes, volcanoes, and tsunamis in regard to their impact upon humankind and nature.

Wild at Heart. Terri Farley. Photos by Melissa Farlow. Houghton Mifflin Harcourt.

The advocacy of students and guiding adults is a critical factor in trying to save the iconic wild mustangs, which currently are endangered.