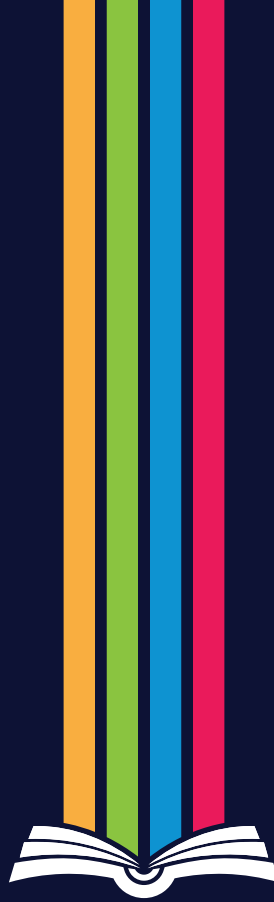




Best
STEM
Books

NSTA National
Science
Teachers
Association



STEM books offer endless opportunities for engaged learning. They invite students to see the world differently and to think in new ways about what they observe.

We have chosen titles that provoke readers to examine the “thinking stance” of characters — not simply to look at actions and results.

Best STEM Books winners explore problems and possible solutions in the scientific world and, where applicable, in the lives of the protagonists. Instead of focusing on specific content, the Best STEM Books emphasize real-world issues that cross disciplinary boundaries.

Teachers can use these books to foster and model “minds-on” work. Parents, grandparents, and other caregivers can involve even the very youngest children in the process of STEM thinking.

How do we prepare 21st-century kids for challenges and jobs that we at present cannot even describe? The Best STEM Books help by celebrating convergent and divergent thinking, analysis and creativity, persistence, and the sheer joy of figuring things out.

WINNING TITLES



Astronaut-Aquanaut How Space Science and Sea Science Interact

Jennifer Swanson
National Geographic Kids

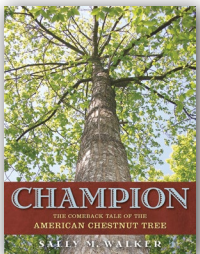
Choose to blast off or take a dive deep into this intriguing text where readers use divergent thinking to explore outer space or the vast ocean.



The Brilliant Deep Rebuilding the World's Coral Reefs

Kate Messner
Illustrated by *Matthew Forsythe*
Chronicle Books

Subtle tones and warm, glowing illustrations highlight the passionate and innovative efforts of Ned Nedimyer and his environmental conservancy and coral reef restoration project.



Champion The Comeback Tale of the American Chestnut Tree

Sally M Walker
Macmillan Children's Publishing Group /
Henry Holt and Co. (BYR)

The American Chestnut Tree survives due to the efforts of researchers and conservationists. This secondary level treatment of STEM in forestry is readable and informative.



Countdown 2979 Days to the Moon

Suzanne Slade
Illustrated by *Thomas Gonzalez*
Peachtree Publishers

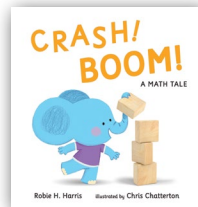
An historical recounting of the push to be the first country to land a man on the Moon, the book uses beautiful illustrations to describe the daring vision shared by NASA.



Counting Birds The Idea that Helped Save Our Feathered Friends

Heidi E. Stemple
Illustrated by *Clover Robin*
The Quarto Group/Seagrass Press

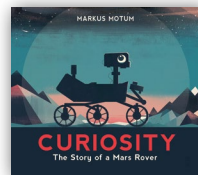
Bird enthusiast Frank Chapman is tired of watching birds being killed for hunting and fashion, so he devises a plan that is still used today to protect and save our feathered friends!



CRASH! BOOM! A Math Tale

Robie H. Harris
Illustrated by *Chris Chatterton*
Candlewick Press

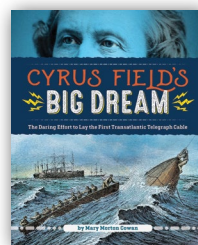
The persistence shown by Elephant during several revisions of the design lets children know it is ok to have failures as long as you keep trying. Introduction to mathematics concepts.



Curiosity The Story of a Mars Rover

Markus Motum
Candlewick Press

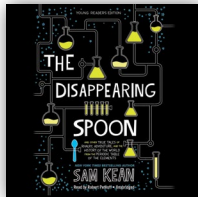
Find out the story behind the technological wonder of Curiosity, the NASA rover on Mars, that is working to help answer scientists' questions about the Red Planet.



Cyrus Field's Big Dream The Daring Effort to Lay the First Transatlantic Telegraph Cable

Mary Morton Cowan
Boyds Mills Press/Calkins Creek

Be amazed by Cyrus Field's determination and persistence in his 10-year effort to lay the first transatlantic telegraph cable linking North America and Europe.



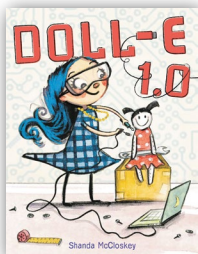
The Disappearing Spoon

And Other True Tales of Rivalry, Adventure, and the History of the World from the Periodic Table of the Elements (Young Readers Edition)

Sam Kean

Little, Brown Books for Young Readers

Kean uses engaging stories of personalities and rivalries to explain how the table, standard in any chemistry classroom, describes chemical behavior and predicts the existence of elements.

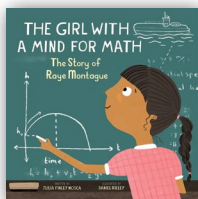


Doll-E 1.0

Shanda McCloskey

Little, Brown Books for Young Readers

Techy Charlotte loves to tinker but when she gets a doll she is puzzled what to do with it... but she figures out how to make it "work".



The Girl with a Mind for Math

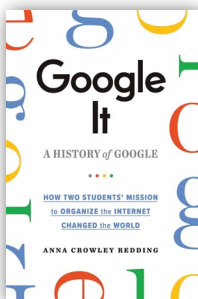
The Story of Raye Montague

Julia Finley Mosca

Illustrated by *Daniel Rieley*

The Innovation Press

Raye Montague decides to become an engineer and ends up changing the way ships are designed. The book looks at sexism and racial inequality.



Google It

A History of Google

Anna Crowley Redding

Macmillan Children's Publishing Group/Feiwel & Friends

From its start as BackRub, discover the humble beginnings of Google that have spurred on innovative technological ideas inspired by creators Sergey Brin and Larry Page.

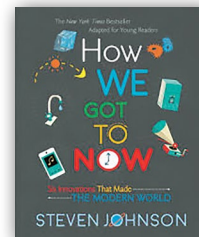


The House That Lou Built

Mae Respicio

Random House Children's Books/Wendy Lamb Books

During her quest to build a tiny house, Lou discovers that her problem-solving skills can also apply to struggles at home.



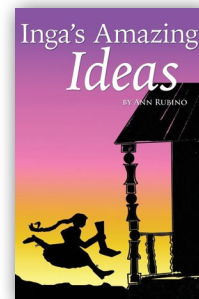
How We Got to Now

Six Innovations That Made the Modern World

Steven Johnson

Penguin Young Readers/Viking BFYR

From sand to smartphones and from microscopy to sanitation, kids can explore the world's most important innovations and how they impact us today.

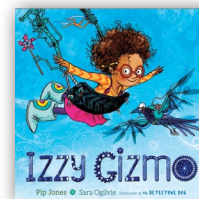


Inga's Amazing Ideas

Ann Rubino

Catree

Off the orphan train, Inga isn't the boy her adoptive parents were looking for. But her inventive spirit helps family and community in this period novel for elementary readers.



Izzy Gizmo

Pip Jones

Illustrated by *Sara Ogilvie*

Peachtree Publishers

This book tells the story of a young inventor who uses her creativity and problem-solving skills to help a crow fly again.



Joan Procter, Dragon Doctor

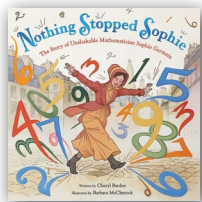
The Woman Who Loved Reptiles

Patricia Valdez

Illustrated by *Felicita Sala*

Random House Children's Books/Alfred A. Knopf BFYR

Delightful portrayal of Joan Procter's contributions to reptile research and innovative work with Komodo Dragons.



Nothing Stopped Sophie The Story of Unshakable Mathematician Sophie Germain

Cheryl Bardoe
Illustrated by *Barbara McClintock*
Little, Brown Books for Young Readers

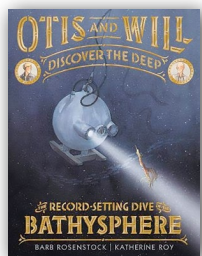
Young Sophie does not take no for an answer and becomes a successful mathematician against all odds. Her life teaches us great determination.



Spring After Spring How Rachel Carson Inspired the Environmental Movement

Stephanie Roth Sisson
Macmillan Children's Publishing Group/
Roaring Brook Press

This pictorial Rachel Carson biography illustrates how Carson's writings and early love of nature led to a national environmental movement.



Otis and Will Discover the Deep The Record-Setting Dive of the Bathysphere

Barb Rosenstock
Illustrated by *Katherine Roy*
Little, Brown Books for Young Readers

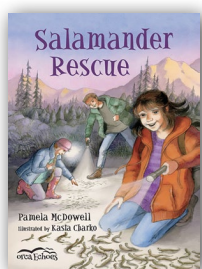
While submarines study the deep ocean today, find out how two curious scientists, Will Beebe and Otis Barton, bravely took the first deep-sea dive in the Bathysphere in 1930.



When Sparks Fly The True Story of Robert Goddard, the Father of US Rocketry

Kristen Fulton
Illustrated by *Diego Funck*
Simon & Schuster/Margaret K. McElderry Books

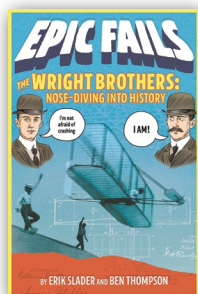
Through lively text and colorful illustrations, this book describes the journey of Robert Goddard, father of US rocketry, and reveals how childhood curiosity paved the way for space exploration.



Salamander Rescue

Pamela McDowell
Illustrated by *Kasia Charko*
Orca Book Publishers

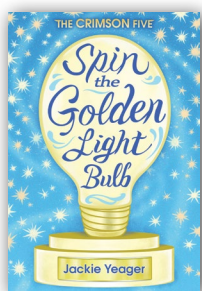
In this chapter book, children observe and implement solutions of salamander migration to make positive change for the environment.



The Wright Brothers Nose-Diving into History (Epic Fails #1)

Eric Slader and Ben Thomson
Macmillan Children's Publishing Group/
Roaring Brook Press

Using both humor and facts, Orville and Wilbur Wright's mishaps and successes in achieving powered, piloted flight are related in this accessible, well-illustrated book.



Spin the Golden Lightbulb

Jackie Yeager
Illustrated by *Gabrielle Esposito*
Amberjack Publishing

A sixth grader competes for a place in a futuristic school for inventors. The fictional plot provides great discussions of the process of innovation in this novel for middle readers.

Full reviews of these books are available online at
www.nsta.org/publications/stembooks



Full reviews of these books will be available in the February 2019 issues of NSTA's K-12 journals and online at

www.nsta.org/publications/stembooks