BEST STEM BOOKS
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 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**

**Ada Lace Sees Red**  
*Emily Calandrelli with Tamson Weston*  
Illustrated by Renée Kurilla  
Simon & Schuster/Simon & Schuster Books for Young Readers  
Starts with a personal problem for a young girl who is struggling with her art project. It turns out she is color-blind, and ultimately uses STEM skills to succeed.

**The Book of Chocolate**  
*HP Newquist*  
Penguin Young Readers/Viking Books for Young Readers  
From bitter liquid origins in isolated places to a ubiquitous presence throughout the world today, chocolate has a rich history of product and process innovation.

**Cao Chong Weighs an Elephant**  
*Songju Ma Daemicke*  
Illustrated by Christina Wald  
Arbordale Publishing  
Seeing wise elders fail to find a solution, six-year-old Cao Chong creatively considers several designs and devises a process that employs concepts of buoyancy and displacement to weigh an elephant.
Best STEM Books

Caroline’s Comets
*Emily Arnold McCully*
Holiday House
This book has both STEM problem-solving and the societal barriers for a woman in astronomy as she worked to make discoveries on her own.

Find the Dots
*Andy Mansfield*
Candlewick Press/Candlewick Studio
The youngest readers are invited into observation, thinking, patterning, and iterative problem-solving.

Finding Wonders
*Jeannine Atkins*
Simon & Schuster/Atheneum Books for Young Readers
In free-verse poetry, three women answer questions, investigate, and think differently about metamorphosis, fossils, and comets.

The Doctor with an Eye for Eyes
*Julia Finley Mosca*
Illustrated by *Christina Wald*
The Innovation Press
Emphasis is on the struggle of a minority in science.

From Here to There
*HP Newquist*
Penguin Young Readers/Viking Books for Young Readers
Shows the progression of innovation in transportation, utilizing systems thinking as societal and engineering problems intersect.

Elon Musk and the Quest for a Fantastic Future
*Ashlee Vance*
HarperCollins
The growth of an innovator includes excellent examples of his failures, testing, and iteration.

Girl Code
*Andrea Gonzalez and Sophie Houser*
HarperCollins
Very relatable, authentic problem solving that represents STEM thinking. Girl programmers push through barriers in an exemplary way.

The End of the Wild
*Nicole Helget*
Little, Brown Books Young Readers
STEM skills help two girls educate a community about an environmental hazard and outsmart their own poverty in this middle-grade novel.
The Girl Who Thought in Pictures: The Story of Dr. Temple Grandin
Julia Finley Mosca
Illustrated by Daniel Rieley
The Innovation Press
Written in rhyme, this life story of animal scientist Dr. Temple Grandin captures the impact of her perseverance and creative thinking as she overcomes the challenges of autism.

Hidden Figures, Young Readers’ Edition
Margot Lee Shetterly
HarperCollins
Three African-American women--in the midst of systemic inequities--use their knowledge of STEM, their motivation to learn, and their ability to adapt to propel NASA’s space program forward while also ensuring their futures with the program.

How Could We Harness a Hurricane?
Vicki Cobb
Quarto/Seagrass Press
Includes information beyond the fascinating science of hurricanes. Readers consider how we might prevent, deflect, and reduce the impact of these destructive natural events.

John Deere, That’s Who!
Tracy Nelson Maurer
Macmillan Children’s Publishing Group/Henry Holt and Co. (BYR)
John Deere engages in figuring out a problem and working on the solution that had a huge impact for the American farmer.

Maya Lin
Jeanne Walker Harvey
Macmillan Children’s Publishing Group/Henry Holt and Co. (BYR)
A different way of seeing, with the problem defined and tested in an architectural way.

Music of Life
Elizabeth Rusch
Illustrated by Marjorie Priceman
Simon & Schuster/Atheneum Books for Young Readers
This discussion of the invention of the piano integrates music and science to interest children in fields not always considered STEM.

Newton’s Rainbow
Kathryn Lasky
Illustrated by Kevin Hawkes
Macmillan Children’s Publishing Group/Farrar, Straus and Giroux (BYR)
Beautifully-illustrated retelling of the investigations of an endlessly curious child who became a great scientist. For primary readers.

Science Comics: Flying Machines
Alison Wilgus
Illustrated by Molly Brooks
Macmillan Children’s Publishing Group/First Second
The aviation failures and successful innovations of the Wright brothers, along with the history and mechanics of flight, are presented in graphic-novel format. “Narrated” by sister Katharine Wright.
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<thead>
<tr>
<th>Book Title</th>
<th>Author</th>
<th>Publisher</th>
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<tbody>
<tr>
<td>Shark Lady</td>
<td>Jess Keating</td>
<td>Sourcebooks/Jabberwocky</td>
<td>A woman researcher who is brave enough to think differently, using research to dispel myths about sharks. Amazing illustrations.</td>
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<tr>
<td>Voyager’s Greatest Hits: The Epic Trek to</td>
<td>Alexandra Siy</td>
<td>Charlesbridge</td>
<td>From ancient questions about space to the development of the Voyager probes, the connections between science discoveries and technological design are presented in this engaging narrative.</td>
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<td>Interstellar Space</td>
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<td>Warcross</td>
<td>Marie Lu</td>
<td>Penguin Young Readers/G.P. Putnam’s Sons Books for Young Readers</td>
<td>STEM challenges within a world of competitive, online gaming and virtual reality technology will encourage today’s problem-solvers, in the cloud and close to home.</td>
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Full reviews of these books will be available in the February 2018 issues of NSTA’s K–12 journals and online at www.nsta.org/publications/stembooks/