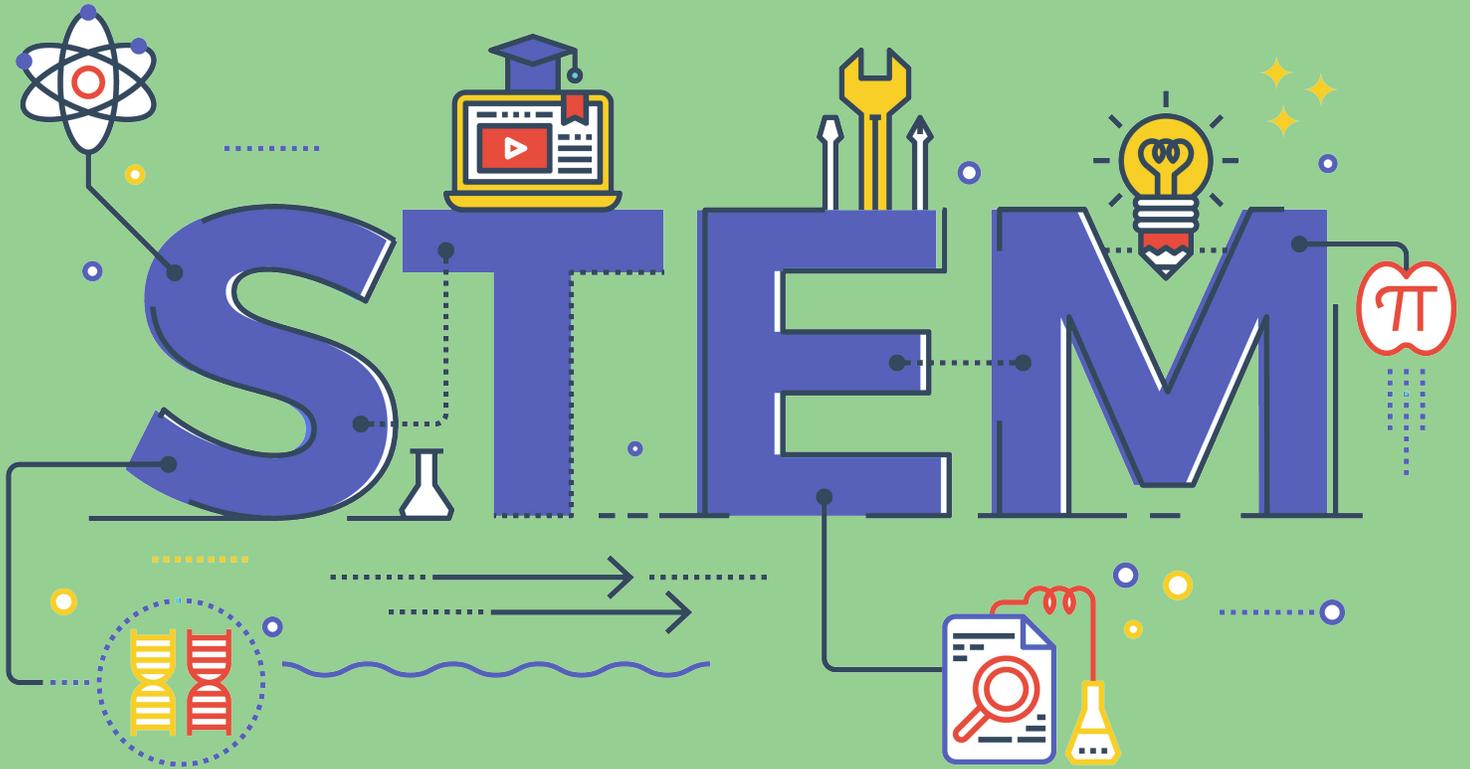


BEST



BOOKS



NSTA National Science Teachers Association

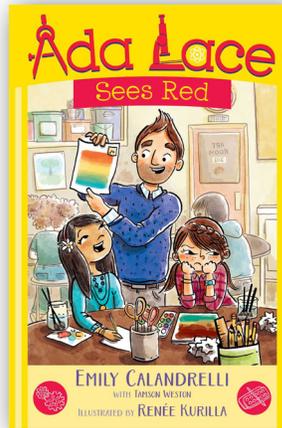
STEM books offer endless opportunities for engaged learning. They invite students to see the world differently and to think in new ways about what they observe.

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 youngest children in the process of STEM thinking.

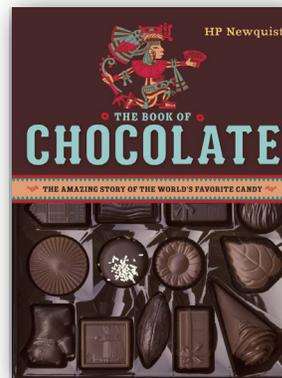
How do we prepare 21st-century kids for challenges and jobs that we at present cannot even describe? The Best STEM Books help by celebrating convergent and divergent thinking, analysis and creativity, persistence, and the sheer joy of figuring things out.



Ada Lace Sees Red
*Emily Calandrelli with
Tamson Weston*
Illustrated by *Renée Kurilla*

Simon & Schuster/Simon & Schuster Books for Young Readers

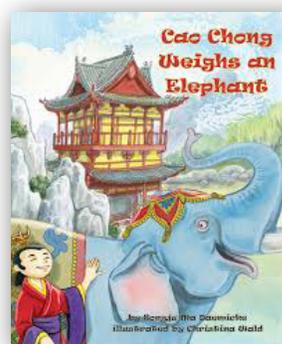
Starts with a personal problem for a young girl who is struggling with her art project. It turns out she is color-blind, and ultimately uses STEM skills to succeed.



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.



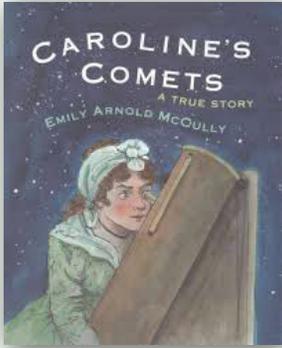
Cao Chong Weighs an Elephant

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.

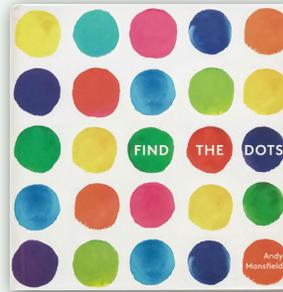
BEST STEM BOOKS



Caroline's Comets *Emily Arnold McCully*

Holiday House

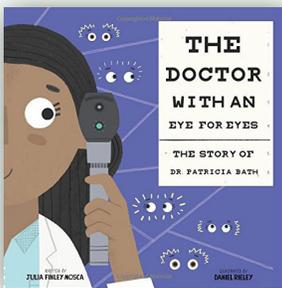
This book has both STEM problem-solving and the societal barriers for a woman in astronomy as she worked to make discoveries on her own.



Find the Dots *Andy Mansfield*

Candlewick Press/Candlewick Studio

The youngest readers are invited into observation, thinking, patterning, and iterative problem-solving.

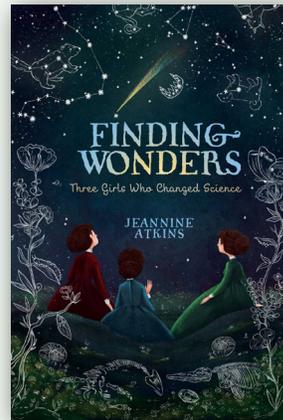


The Doctor with an Eye for Eyes

Julia Finley Mosca
Illustrated by *Christina Wald*

The Innovation Press

Emphasis is on the struggle of a minority in science.



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.

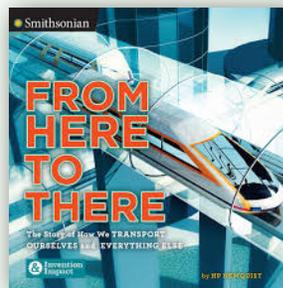


Elon Musk and the Quest for a Fantastic Future Young Readers' Edition

Ashlee Vance

HarperCollins

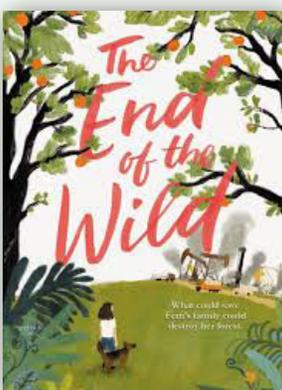
The growth of an innovator includes excellent examples of his failures, testing, and iteration.



From Here to There *HP Newquist*

Penguin Young Readers/Viking Books for Young Readers

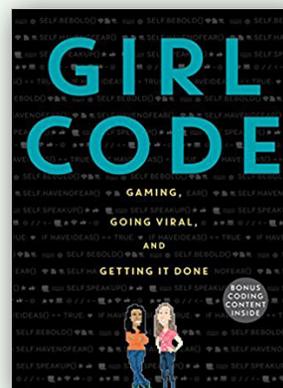
Shows the progression of innovation in transportation, utilizing systems thinking as societal and engineering problems intersect.



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.

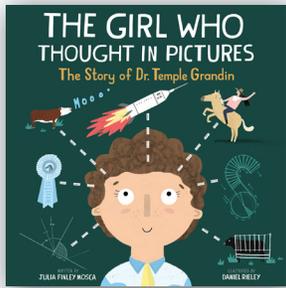


Girl Code

Andrea Gonzalez and Sophie Houser

HarperCollins

Very relatable, authentic problem solving that represents STEM thinking. Girl programmers push through barriers in an exemplary way.

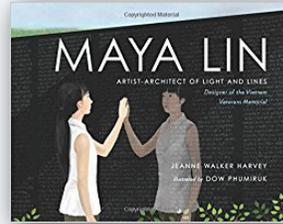


The Girl Who Thought in Pictures: The Story of Dr. Temple Grandin

Julia Finley Mosca
Illustrated by *Daniel Rieley*

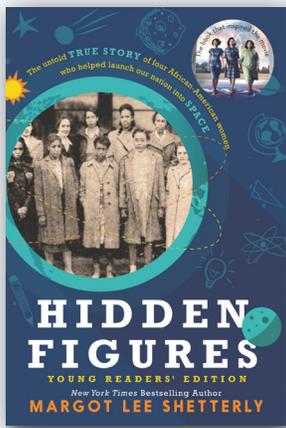
The Innovation Press

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.



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.



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.



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.

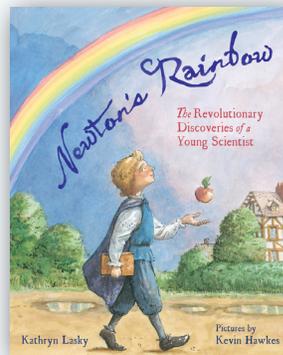


How Could We Harness a Hurricane?

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.

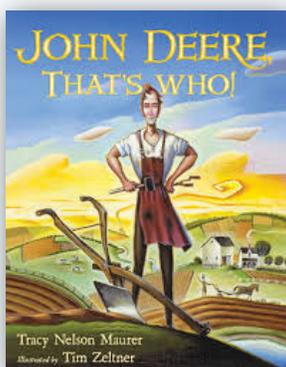


Newton's Rainbow

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.

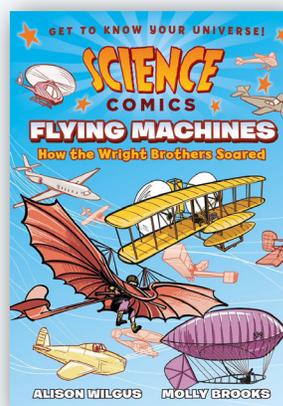


John Deere, That's Who!

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.



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.



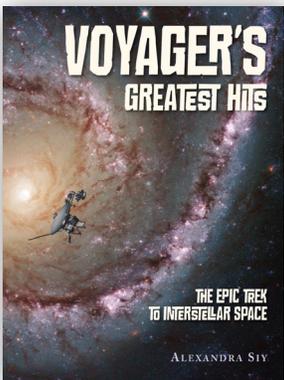
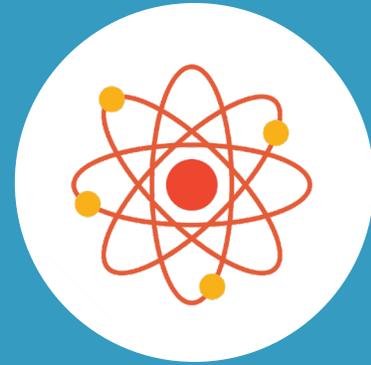
Shark Lady

Jess Keating

Illustrated by *Marta Álvarez Miguéns*

Sourcebooks/Jabberwocky

A woman researcher who is brave enough to think differently, using research to dispel myths about sharks. Amazing illustrations.

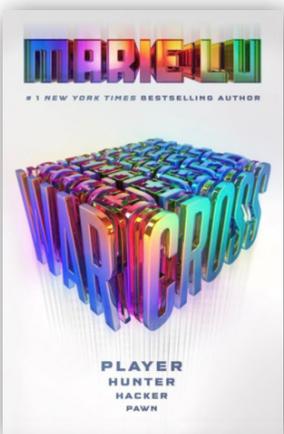


Voyager's Greatest Hits: The Epic Trek to Interstellar Space

Alexandra Siy

Charlesbridge

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.



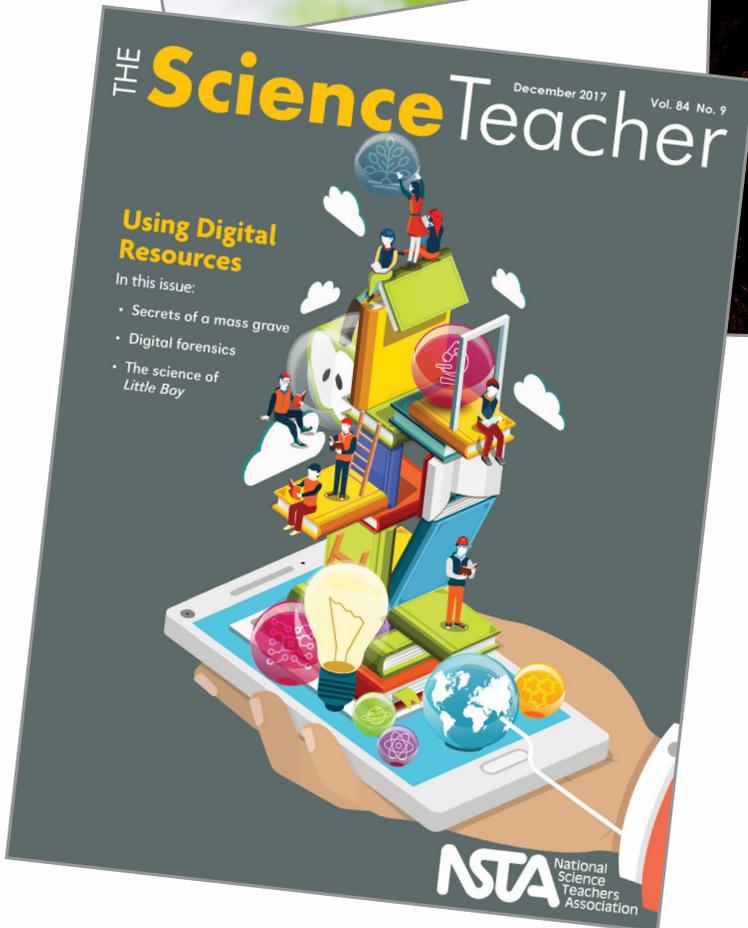
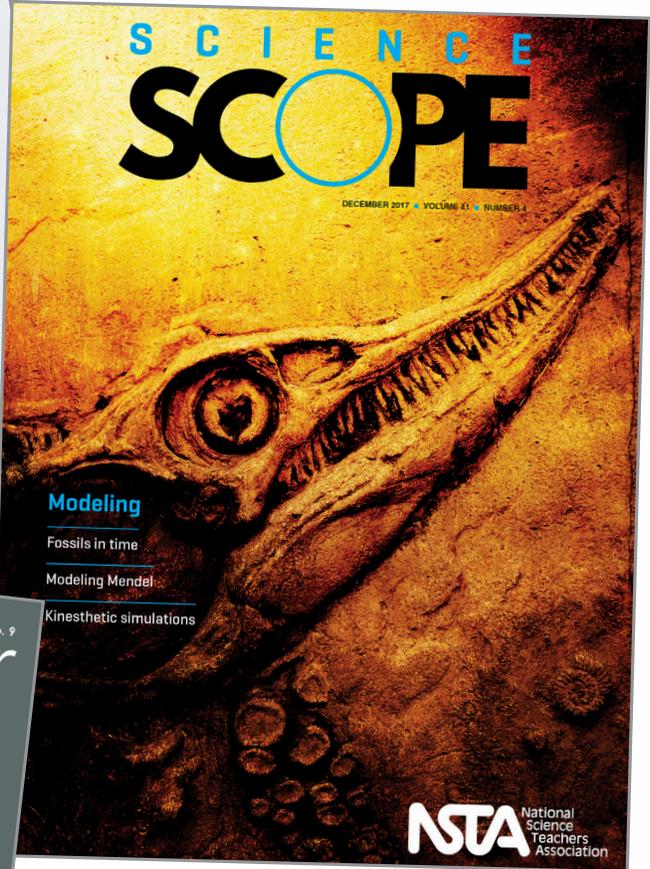
Warcross

Marie Lu

Penguin Young Readers/G.P. Putnam's Sons Books for Young Readers

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.





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/