

Great STEM Booklist

Selected by Erin Nguyen, Knox County Public Library

Picture Books:

11 Experiments That Failed by Jenny Offill

A hyper-curious young girl tries a series of wacky experiments, such as seeing if a piece of bologna will fly like a frisbee and determining whether seedlings will grow if watered with expensive perfume, and then must suffer the consequences of experiments gone awry.

Ada Twist, Scientist by Andrea Beaty

Ada Twist is a very curious girl who shows perseverance by asking questions and performing experiments to find things out and understand the world.

Cece Loves Science by Kimberly Derting

Cece, a budding and inquisitive scientist, and her equally curious best friend Isaac conduct experiments to see whether Cece's dog Einstein will eat his vegetables.

How to Code a Sandcastle by Josh Funk

Pearl and her trusty rust-proof robot, Pascal, need to build a sandcastle before summer vacation is over, and they're going to do it using code.

Easy Readers:

The Cookie Fiasco by Dan Santat

There are only three cookies and four hungry friends to share them with. This is not good. This is not equal! How are they ever going to solve this fiasco?

Min Makes a Machine by Emily Arnold McCully

On a very hot day, Min, a budding engineer, builds a machine that draws water from a well and into a swimming pool.

Juvenile Chapter Books:

Dragons vs. Unicorns by Kate Biberdorf

Fifth grader Kate the Chemist is chosen to be the assistant director of the school play *Dragons vs. Unicorns* and has to use her science knowledge to find out who is trying to sabotage the show.

Girls Who Code: The Friendship Code by Stacia Deutsch

Looking forward to joining the new coding club at school so that she can develop her app idea, Lucy is disappointed by the lukewarm reception she receives from the club's other members, who work with her to decipher mysterious coding notes.

Max Einstein (series) by James Patterson and Chris Grabenstein

Max Einstein and a group of international geniuses use their creativity and curiosity to help solve some of the world's toughest problems with science.

Nick and Tesla (series) by Bob Pflugfelder

After moving in with their eccentric uncle, Nick and Tesla encounter strange occurrences in their new neighborhood and build gadgets using simple household objects to help them solve the mysteries.

Juvenile Graphic Novels:

Secret Coders (series) by Gene Luen Yang

Welcome to Stately Academy, a school whose founder left many clues and puzzles to challenge his enterprising students.

Juvenile Nonfiction:

Bots!: Robotic Engineering by Kathy Ceceri

Learn about robots that vacuum our houses, work in our factories, help us learn at school, and more through hands-on STEM activities, coding challenges, and links to online sources.

Crazy Contraptions: Build Rube Goldberg Machines That Swoop, Spin, Stack, and Swivel by Laura Perdew
Presents machines designed by Goldberg, which were based on complicated chain reactions and used to accomplish simple tasks, and includes hands on engineering activities for learning.

Maker Lab: 28 Super Cool Projects: Build, Invent, Create, Discover by Jack Challoner

Learn about science using everyday materials in your own home kitchen.

You Wouldn't Want to Live without Coding! by Alex Woolf

Learn about how much we rely on coding in our daily lives to control things such as smartphones and laptops, kitchen appliances, weather forecasts, traffic lights, heating systems, elevators, cars, and the greenhouses where our food is grown.

Teen Fiction:

An Abundance of Katherines by John Green

Having been dumped for the nineteenth time by a girl named Katherine, recent high school graduate and former child prodigy Colin sets off on a road trip with his best friend to try to find some new direction in life while also trying to create a mathematical formula to explain his relationships.

The Evolution of Calpurnia Tate by Jacqueline Kelly

In central Texas in 1899, eleven-year-old Callie Vee Tate is instructed to be a lady by her mother, learns about love from the older three of her six brothers, and studies the natural world with her grandfather, the latter of which leads to an important discovery.

Warcross by Marie Lu

When teenage coder Emika Chen hacks her way into the opening tournament of the Warcross Championships, she glitches herself into the game as well as a sinister plot with major consequences for the entire Warcross empire.

Teen Nonfiction:

Hidden Human Computers: The Black Women of NASA by Sue Bradford Edwards and Duchess Harris

Edwards and Harris discuss the critical contributions black women made to NASA in the 1950s and their efforts that made it possible for young black women of subsequent generations to become the mathematicians and astrophysicists of today.