



[TIPS FOR TEACHERS AND CLASSROOM RESOURCES](#)

STEM and STEAM Books For Teachers, Teens, and Kids

By The Editorial Team

[Facebook](#) [Twitter](#) [Pinterest](#) [LinkedIn](#) [Email](#)

We know there are [many benefits](#) to teaching [STEAM](#) lessons and activities, but sometimes it's hard to know which STEM- or STEAM-related book to check out for lesson planning when there are hundreds to choose from. So we scoured the market for the best STEM and STEAM books to help streamline the process, and we've included Amazon publisher descriptions so you have a clear idea of what each one offers. Whether you teach teens or kids, there are fiction and nonfiction books listed here that are sure to engage, inspire, and inform.

Get Relevant Teaching Content and Updates Delivered Directly to Your Inbox. Subscribe Today!

Join

For teachers

scientists ages 5 – 10 with hands-on experiments that teach them how to apply the scientific method. From the home laboratory of former chemistry teacher and blogger behind the *Science Kiddo*, Crystal Chatterton combines fun experiments with the hows and whys behind them in *Science Experiments for Kids*.”

From STEM to STEAM: Brain-Compatible Strategies and Lessons That Integrate the Arts by David A. Sousa and Thomas J. Pilecki

Amazon publisher description: “Arts activities enhance the skills critical for achieving STEM success, but how do busy STEM educators integrate the arts into sometimes inflexible STEM curriculum? This new edition of *From STEM to STEAM* explores emerging research to detail the way.”

Invent To Learn: Making, Tinkering, and Engineering in the Classroom by Sylvia Libow Martinez

Amazon publisher description: “There’s a technological and creative revolution underway. Amazing new tools, materials, and skills turn us all into makers. Using technology to make, repair, or customize the things we need brings engineering, design, and computer science to the masses. Fortunately for educators, this maker movement overlaps with the natural inclinations of children and the power of learning by doing. The active learner is at the center of the learning process, amplifying the best traditions of progressive education. This book helps educators bring the exciting opportunities of the maker movement to every classroom.”

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

Amazon publisher description: “Build, create, invent, and discover 28 awesome experiments and activities with *Maker Lab*. Created in association with the Smithsonian Institution and supporting STEAM education initiatives, *Maker Lab* has 28 kid-safe projects and crafts that will get young inventors’ wheels turning and make science pure fun.”

Makerspaces in School: A Month-by-Month Schoolwide Model for Building Meaningful Makerspaces by Lacy Brejcha

Amazon publisher description: “Organized into an easy-to-follow, month-by-month plan for implementation, this book provides field-tested and research-based knowledge that will serve educators as they create and maintain a meaningful makerspace. Although science, technology, engineering, arts, and math have made huge gains in the past decade, STEAM jobs are not being filled at the rate they are being created or needed. *Makerspaces in School* promotes innovative thinking in students that fills this need. Through makerspaces, project-based learning provides opportunities for credible, legitimate, and authentic growth and development. This book will allow any educator to walk away with a plan to create a makerspace in his or her classroom or a school or districtwide model that works for many. Makerspaces are very fluid places — each is unique in its own way!”

Makerspace Sound and Music Projects for All Ages by Isaac W. Glendening and Mary Glendening

Amazon publisher description: “This easy-to-follow guide shows, step-by-step, how to work with sound generation, recording, editing, and distribution tools. Co-written by a professional audio engineer and a dedicated maker-librarian, *Makerspace Sound and Music Projects for All Ages* gets you started designing, programming, and assembling fun music and audio creations right away. The book features dozens of DIY projects complete with parts lists, start-to-finish instructions, and full-color illustrations that guarantee success. You will explore the latest inexpensive—or free!—audio software for Windows, Apple, iOS, and Android devices.”

STEM-Rich Maker Learning: Designing for Equity with Youth of Color by Angela Calabrese Barton and Edna Tan

Amazon publisher description: “In recent years, maker-centered learning has emerged in schools and other spaces as a promising new phase of STEM education reform. With a sharp focus on equity, the authors investigate community-based STEM making programs to determine whether, and how, they can address the educational needs of youth of color. They explore what it means for youth to engage in making with the explicit goal of addressing injustices in their lives.”

The Big Book of Makerspace Projects: Inspiring Makers to Experiment, Create, and Learn by Colleen and Aaron Graves

Amazon publisher description: “This easy-to-follow guide features dozens of DIY, low-cost projects that will arm you with the skills necessary to dream up and build your own creations. *The Big Book of Makerspace Projects: Inspiring Makers to Experiment, Create, and Learn* offers practical tips for beginners and open-ended challenges for advanced makers. Each project features non-technical, step-by-step instructions with photos and illustrations to ensure success and expand your imagination. You will learn smartphone tweaks, paper circuits, e-textiles, musical instruments, coding and programming, 3-D printing, and much, much more!”

For teens

Girls Who Code: Learn to Code and Change the World by Reshma Saujani

Amazon publisher description: “Since 2012, the organization [Girls Who Code](#) has taught computing skills and inspired over 40,000 girls across America. Now its founder, [Reshma Saujani](#), wants to inspire [others] to be a girl who codes! Bursting with dynamic artwork, down-to-earth explanations of coding principles, and real-life stories of girls and women working at places like Pixar and NASA, this graphically animated book shows what a huge role computer science plays in our lives and how much fun it can be. No matter your interest — sports, the arts, baking, student government, social justice — coding can help you do what you love and make your dreams come true.”

Stuff Matters: Exploring the Marvelous Materials That Shape Our Man-Made World by Mark Miodownik

Amazon publisher description: “Why is glass see-through? What makes elastic stretchy? Why does any material look and behave the way it does? These are the sorts of questions that renowned materials scientist Mark Miodownik constantly asks himself. Miodownik studies objects as ordinary as an envelope and as unexpected as concrete cloth, uncovering the fascinating secrets that hold together our physical world. In *Stuff Matters*, Miodownik explores the materials he encounters in a typical morning, from the steel in his razor to the foam in his sneakers. Full of enthralling tales of the miracles of engineering that permeate our lives, *Stuff Matters* will make you see stuff in a whole new way.”

The Disappearing Spoon: And Other True Tales of Madness, Love, and the History of the World from the Periodic Table of the Elements by Sam Kean

Amazon publisher description: “Why did Gandhi hate iodine (I, 53)? How did radium (Ra, 88) nearly ruin Marie Curie’s reputation? And why is gallium (Ga, 31) the go-to element for laboratory pranksters? The Periodic Table is a crowning scientific achievement, but it’s also a treasure trove of adventure, betrayal, and obsession. These fascinating tales follow every element on the table as they play out their parts in human history, and in the lives of the (frequently) mad scientists who discovered them. This book masterfully fuses science with the classic lore of invention, investigation, and discovery — from the Big Bang through the end of time.”

The Immortal Life of Henrietta Lacks by Rebecca Skloot

Amazon publisher description: “Her name was Henrietta Lacks, but scientists know her as HeLa. She was a poor Southern tobacco farmer who worked the same land as her slave ancestors, yet her cells — taken without her knowledge — became one of the most important tools in medicine. The first “immortal” human cells grown in culture, they are still alive today, though she has been dead for more than sixty years. HeLa cells were vital for developing the polio vaccine; uncovered secrets of cancer, viruses, and the atom bomb’s effects, helped lead to important advances like in vitro fertilization, cloning, and gene mapping, and have been bought and sold by the billions.”

The Universe in Your Hand: A Journey Through Space, Time, and Beyond by Christophe Galfard

Amazon publisher description: “Galfard’s mission in life is to spread modern scientific ideas to the general public in entertaining ways. Using his considerable skills as a brilliant theoretical physicist and successful young adult author, *The Universe in Your Hand* employs the immediacy of simple, direct language to show us, not explain to us, the theories that underpin everything we know about our universe. To understand what happens to a dying star, we are asked to picture ourselves floating in space in front of it. To get acquainted with the quantum world, we are shrunk to the size of an atom and then taken on a journey. Employing everyday similes and metaphors, addressing the reader directly, and writing stories rather than equations render these astoundingly complex ideas in an immediate and visceral way.”

What If?: Serious Scientific Answers to Absurd Hypothetical Questions by Randall Munroe

Amazon publisher description: “Millions of people visit [xkcd.com](#) each week to read [Randall Munroe](#)’s iconic webcomic. His stick-figure drawings about science, technology, language, and love have an enormous, dedicated following, as do his deeply researched answers to his fans’ strangest questions.”

For kids

Calling All Minus, [Temple Grandin](#) explores the ideas behind all of those questions and more. She delves into the science behind inventions, the steps various people took to create and improve upon ideas as they evolved, and the ways in which young inventors can continue to think about and understand what it means to tinker, to fiddle, and to innovate. And laced throughout it all, Temple gives us glimpses into her own childhood tinkering, building, and inventing.”

Code Your Own Games!: 20 Games to Create with Scratch by Max Wainwright

Amazon publisher description: “Calling all creative young gamers! With its easy-to-follow, illustrated step-by-step instructions, this book will teach you key concepts — like drawing shapes — so you can code your own games. By the end, any kid will be able to make 20 popular games, from Snake to Brick Bouncer.”

Maya Lin: Artist-Architect of Light and Lines by Jeanne Walker Harvey

Amazon publisher description: “As a child, Maya Lin loved to study the spaces around her. She explored the forest in her backyard, observing woodland creatures, and used her house as a model to build tiny towns out of paper and scraps. The daughter of a clay artist and a poet, Maya grew up with art and learned to think with her hands as well as her mind. From her first experiments with light and lines to the height of her success nationwide, this is the story of an inspiring American artist: the visionary artist-architect who designed the Vietnam Veterans Memorial.”

See You in the Cosmos by Jack Cheng

Amazon publisher description: “Eleven-year-old Alex Petroski loves space and rockets, his mom, his brother, and his dog Carl Sagan — named for his hero, the real-life astronomer. All he wants is to launch his golden iPod into space the way Carl Sagan (the man, not the dog) launched his Golden Record on the Voyager spacecraft in 1977.”

STEM Starters for Kids Engineering Activity Book: Packed with Activities and Engineering Facts by Jenny Jacoby and Vicky Barker

Amazon publisher description: “Engineering is what brings machines to life. Little learners can discover more about engineering at home by reading simple explanations and doing the beautifully illustrated activities on each page. Start a lifelong passion for STEM subjects and inspire children to, one day, contribute an invention of their own to the world.”

The Boy Who Harnessed the Wind: Young Readers Edition by William Kamkwamba and Bryan Mealer

Amazon publisher description: “When a terrible drought struck [William Kamkwamba](#)’s tiny village in Malawi, his family lost all of the season’s crops, leaving them with nothing to eat and nothing to sell. William began to explore science books in his village library, looking for a solution. There, he came up with the idea that would change his family’s life forever: he could build a windmill. Made out of scrap metal and old bicycle parts, William’s windmill brought electricity to his home and helped his family pump the water they needed to farm the land.”

The Girl Who Thought in Pictures: The Story of Dr. Temple Grandin (Amazing Scientists) by Julia Finley Mosca

Amazon publisher description: “If you’ve ever felt different, if you’ve ever been low, if you don’t quite fit in, there’s a name you should know... Meet Dr. [Temple Grandin](#) — one of the world’s quirkiest science heroes! When young Temple was diagnosed with autism, no one expected her to talk, let alone become one of the most powerful voices in modern science. Yet, the determined visual thinker did just that. Her unique mind allowed her to connect with animals in a special way, helping her invent groundbreaking improvements for farms around the globe!”

Join Resilient Educator

Subscribe To Our Newsletter To Get Content Delivered To Your Inbox. Click or Tap the Button Below.

Join



Professional Development Resources for STEM Teachers

Teachers: How to Find Cheap Books for Classrooms

4 Books Kindergarten Teachers can Read Out Loud

The Evolution of STEM and STEAM in the U.S.

4 Math Books for Teachers Who Need to Brush up on Their Skills

Using Agriculture to Teach STEAM

Tags: [Art](#), [Literacy](#), [Math and Science](#), [Mathematics](#), [Science](#), [STEAM](#)

Also of Interest:

[STEAM Education Teaching Resources](#)

[Teacher Resources for Social-Emotional...](#)

[Summer Professional Development for Teachers](#)



© 2021 Resilient Educator

[Join](#) [About](#) [Privacy](#) | [Citation](#)