

# Makerspace/Design Thinking: Fiction

Compiled by Joan Pearce



## The Most Magnificent Thing

by Ashley Spires

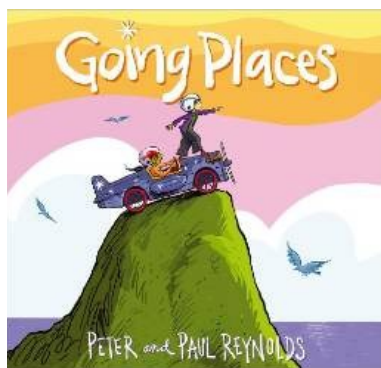
"A little girl has a wonderful idea. With the help of her canine assistant, she is going to make the most magnificent thing! She knows just how it will look. She knows just how it will work. But making the most magnificent thing turns out to be harder than she thinks." - from Follett



## Rosie Revere, Engineer

by Andrea Beaty

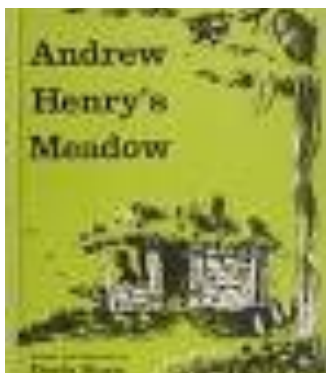
"Where some people see rubbish, Rosie Revere sees inspiration. Alone in her room at night shy Rosie constructs great inventions from odds and ends. Afraid of failure, she hides them under her bed, until a visit from her great-great-aunt Rose shows her that a first flop isn't a failure, but something to celebrate." - from Publisher



## Going Places

by Peter and Paul Reynolds

"Rafael has looked forward to the Going Places contest and builds his go-cart from a kit in record time, but his neighbor, Maya, has a much more interesting and creative idea for her entry and Rafael decides to help." - from Follett



## Andrew Henry's Meadow

by Doris Burn

"Feeling unappreciated by his family, a young boy who likes to build things runs away to a meadow where he constructs a house for himself and houses for other children to suit their hobbies." -from Follett (black and white illustrations, longer text)

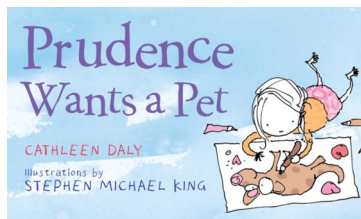
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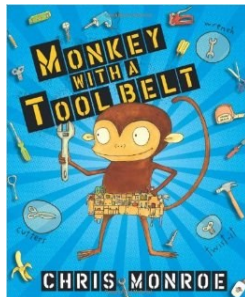
**Weslandia**  
by Paul Fleischman

"At school, Wesley learned that each civilization needs a staple food crop, so during his summer vacation he decides to sow a garden and start his own civilization. As Wesley's mysterious plants grow and bear fruit, Wesley experiments and finds that the plant will provide..." - from *Publisher*



**Prudence Wants a Pet**  
by Cathleen Daly

"Prudence is determined to have a pet in spite of her parents' objections, but a branch, a twig, a car tire, and even her baby brother fail to make her dreams come true." - from *Follett*



**Monkey With a Tool Belt**  
by Chris Monroe

"Clever monkey Chico Bon Bon builds lots of things with his many tools, and when he is captured by an organ grinder, he uses them to help him escape and get back home." - from *Follett* (Note: There are a few other titles in this series.)



**Awesome Dawson**  
by Chris Gall

"All his life, Dawson has been inventing things, repairing toys in unusual ways, and helping clean up his neighborhood by reusing discarded objects, but when his Vacu-Maniac malfunctions it is his friend Mooey whose brainpower saves the day." - from *Follett*

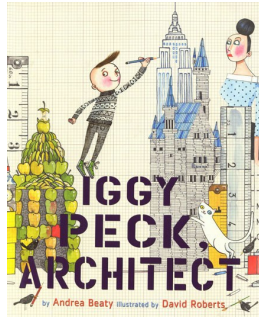


**My Dream Playground**  
by Kate M. Becker

"A resourceful little girl with big ideas becomes a key part of the team when a community of family, friends, and neighbours builds a playground." - from *Follett*

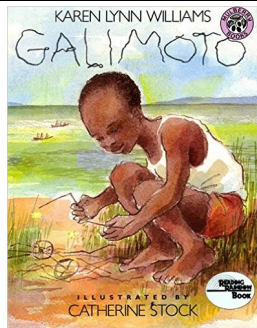
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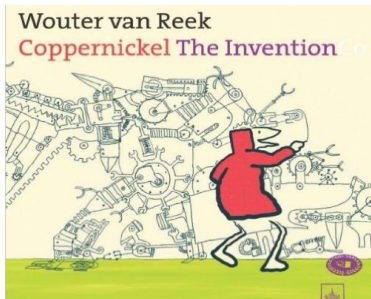
## Iggy Peck Architect by Andrea Beaty

"Iggy has one passion—building. His parents are proud of his fabulous creations, though they are sometimes surprised by his materials. But, when his second-grade teacher declares her dislike of his architecture, Iggy faces a challenge. He loves it too much to give up." - *from Publisher*



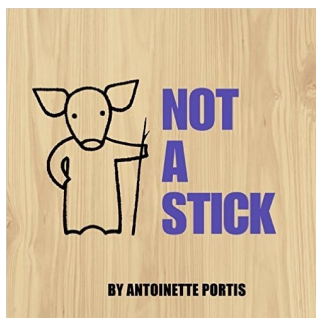
## Galimoto by Catherine Stock

"Walking through his village, a young African boy finds the materials to make a special toy." - *from Follett*



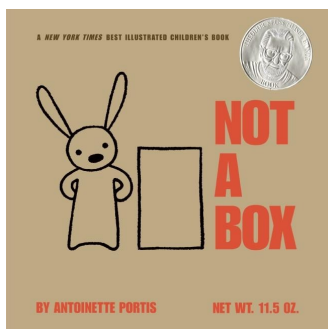
## Coppernickel, The Invention by Wouter van Reek

"Coppernickel, a bird of adventure, decides to invent a device for picking out-of-reach elderberries, but when things get out of control, his best friend, the dog Tungsten, comes to the rescue." - *from Follett*



## Not a Stick by Antoinette Portis

"An imaginative young pig shows some of the many things that a stick can be." - *from Follett*

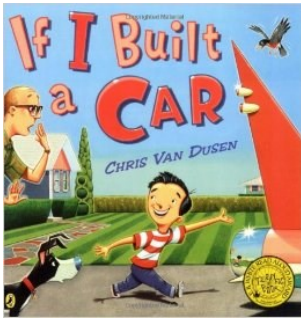


## Not a Box by Antoinette Portis

"A box is just a box...unless it's not a box. From mountain to rocket ship, a small rabbit shows that a box will go as far as the imagination allows." - *from Publisher*

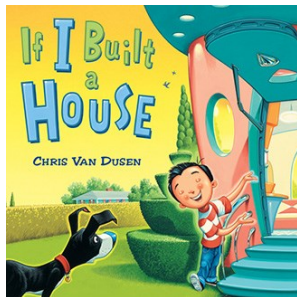
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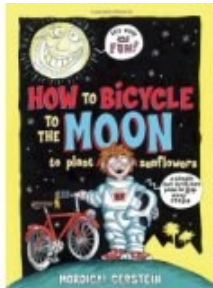
## If I Built a Car by Chris Van Dusen

"Jack describes the kind of car he would build--one with amazing accessories and with the capability of traveling on land, in the air, and on and under the sea." - from Follett



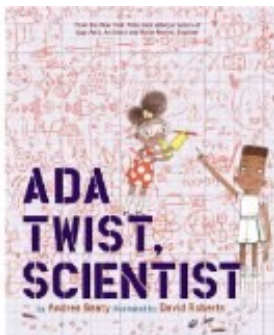
## If I Built a House by Chris Van Dusen

"In *If I Built a Car*, imaginative Jack dreamed up a whimsical fantasy ride that could do just about anything. Now he's back and ready to build the house of his dreams, complete with a racetrack, flying room, and gigantic slide. Jack's limitless creativity and infectious enthusiasm will inspire budding young inventors to imagine their own fantastical designs." - from Publisher



## How to Bicycle to the Moon to Plant Sunflowers by Mordicai Gerstein

"In this simple, step-by-step instructional picture book, learn how you too can visit the moon on your bicycle! All you need is a very long garden hose, a very large slingshot, a borrowed spacesuit, and a bicycle . . . and plenty of imagination." - from Publisher



## Ada Twist, Scientist by Andrea Beaty

"Like her classmates, builder Iggy and inventor Rosie, scientist Ada, a character of color, has a boundless imagination and has always been hopelessly curious. Why are there pointy things stuck to a rose? Why are there hairs growing inside your nose? When her house fills with a horrific, toe-curling smell, Ada knows it's up to her to find the source. Not afraid of failure, Ada embarks on a fact-finding mission and conducts scientific experiments, all in the name of discovery." - from Publisher

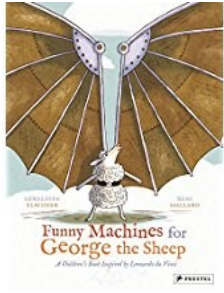


## Hank Finds an Egg by Rebecca Dudley

"While walking through the forest, Hank finds an egg—all alone—on the forest ground. After spotting its home high up in a tree, he diligently tries to find a way to return it to its nest. Hank uses his ingenuity to come up with the perfect solution to see the egg safely reach home, and is joyfully rewarded with newfound forest friends!" - from Publisher

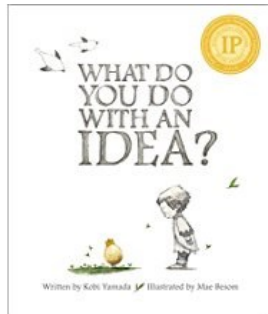
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## Funny Machines for George the Sheep by Géraldine Elschner

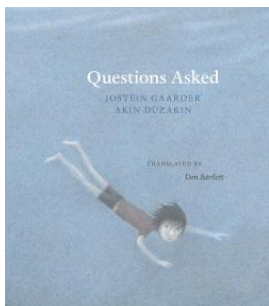
"Inspired by Leonardo da Vinci. George the sheep has serious worries: whenever it starts to rain, he begins to shrink. Even the vet is stumped. Finally George's ingenious shepherd takes matters into his own hands and this little sheep is not disappointed." - from Publisher



## What Do You Do With an Idea?

by Kobi Yamada

"This is the story of one brilliant idea and the child who brought it into the world. It's a story for anyone, at any age, who's ever had an idea that seemed too big, too odd, too difficult. Its a story to inspire you to welcome that idea, to give it space to grow, and to see what happens next." - from Publisher



## Questions Asked by Jostein Gaarder

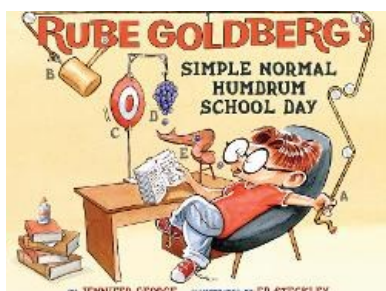
"The book follows a little boy traveling alone in an open landscape. Soon we realize he is on a journey of thoughts and dreams, asking questions about loss, myth, language, magic, and what it means to be a human being. Philosophical questions merge with the beautiful illustrations into a tale of friendship, love, and grief - and about daring to think about life as you live it." (Adrienne Gear—Question.)



## Claymates

by Dev Petty

"In this photographic friendship adventure, the clay-mates squish, smash, and sculpt themselves into the funniest shapes imaginable. But can they fix a giant mess before they are caught in the act?" - from Publisher

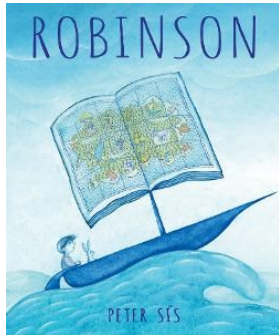


## Rube Goldberg's Simple Normal Humdrum School Day by Jennifer George

"If Rube's inventions are any indication, "normal" means something very different in the Goldberg household. For Rube, up is down, in is out, and the simplest path to accomplishing an everyday task--like brushing his teeth or getting dressed--is a humorously complicated one." - from Publisher

# Makerspace/Design Thinking: Fiction

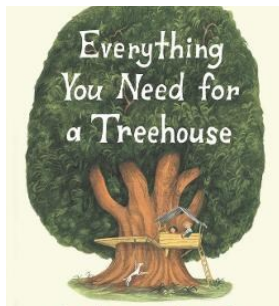
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## Robinson by Peter Sis

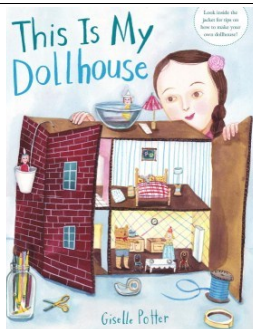
"A boy who loves adventure.  
A mysterious solo journey.  
A remote island wilderness.

Cast away in this beautiful dreamlike story  
and discover what surprises await." - from *Publisher*



## Everything You Need for a Treehouse by Carter Higgins

"This lyrical text gives life and meaning to all the requisite elements of a treehouse, from time, timber, and rafters to a rope of twisted twine, so you can sprawl out on a limb and slide back down again. Higgins's text, filled with beautiful images and an incredibly readable assonant cadence, captures the universal timelessness of the treehouse and celebrates all the creativity..." - *Pub.*



## This Is My Dollhouse by Giselle Potter

"A little girl who has made her own dollhouse from a box and her vivid imagination has trouble playing with her friend Sophie's perfect dolls and dollhouse, but when Sophie comes to visit she is afraid that her handiwork will not be good enough for Sophie." - from *Follett*

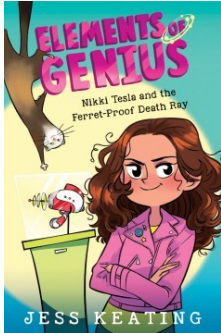


## The Most Magnificent Idea by Ashley Spires, c2022 (IL: K-3, RL: 2.9)

"The girl in this story, with her dog at her side, loves to make things. Her brain, she says, is an "idea machine," so full of ideas that she can hardly keep up. But then one day ... it isn't. All of a sudden, the girl can't come up with a single idea for what to make. She tries everything: brainstorming, gathering new supplies, even jumping up and down on one foot to shake an idea loose. But, nothing. The girl realizes, with no ideas taking up space in her brain, it's filling with sad instead. What if she never has another idea again?" - *Pub.*

# Makerspace/Design Thinking: Novels

Compiled by Joan Pearce



## Nikki Tesla and the Ferret-Proof Death Ray

Series: Elements of a Genius

by Jess Keating, c2019 (IL: 3-6, 4-6; RL: 6.2)

"Nikki Tesla is a genius and she amuses herself by inventing things...trouble is most of her inventions have serious, lethal potential...so she and her ferret are hustled off to the special Genius Academy with classmates who are equally exceptional, although she still worries about fitting in—but when her death ray disappears she has something bigger to worry about: who took it and what are they planning to do?" - *from Follett*



## Clan

by Sigmund Brouwer, c2020 (IL: 3-6, 4+; RL: 5.5)

"When Atlatl brings Cub back to his Clan, it begins a series of events that end with Atlatl being banished—the worst possible punishment for any Clan member...But before the Clan can leave him behind, disaster strikes, and Atlatl has to rely on his wits, his ingenuity and his



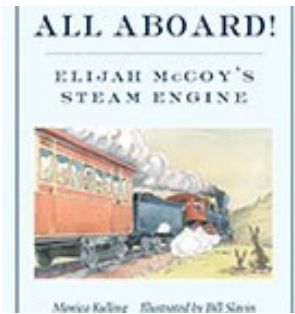
## Jinxed

by Amy McCulloch, c2021 (IL: 3-6, 4-7; RL: 6.6)

"After fourteen-year-old Lacey Chu repairs a highly advanced smartphone/robotic pet companion, or baku, called Jinx, the baku gets her into her dream school, Profectus, where she is exposed to dangerous secrets." - *from Follett*

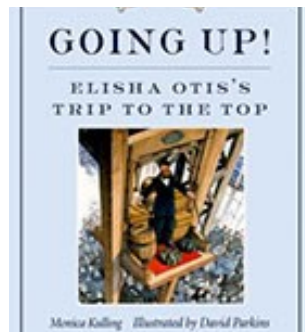
# Makerspace/Design Thinking: Non-Fiction

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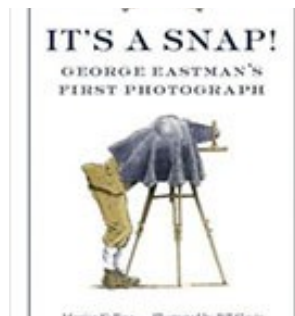
## All Aboard!! Elijah McCoy's Steam Engine by Monica Kulling

"Elijah McCoy, the son of a slave, followed his dreams to become a mechanical engineer. He learned everything about engines and used his knowledge to invent a means of oiling train engines while they were running." - from Follett (Note: More new titles are being added to this series.)



## Going Up! Elisha Otis's Trip to the Top by Monica Kulling

"Elijah Otis's invention of the elevator safety brake, enabled the high-rise to be possible." - from Follett



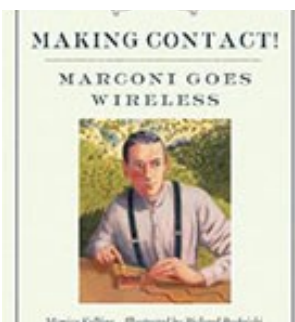
## It's a Snap! George Eastman's First Photograph by Monica Kulling

"In 1877 in Rochester, New York, George Eastman adopted a new hobby. Taking pictures! With all the equipment needed, the task was cumbersome. How could George make picture-taking easier and more fun?" - from Publisher



## In the Bag! Margaret Knight Wraps It Up by Monica Kulling

"Margaret Knight devoted her life to inventing, which was not common for women in the 1800's. She is best known for the clever, practical flat-bottomed paper bag she invented that is still being used today." - from Follett



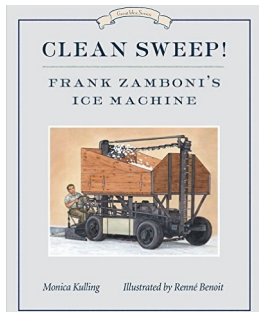
## Making Contact! Marconi Goes Wireless by Monica Kulling

"Born in Italy in 1874, Marconi grew up surrounded by his father's books. He was fascinated with radio waves and at the age of twenty became determined to find a way to use radio waves to send wireless messages. The rest is history." - from Publisher



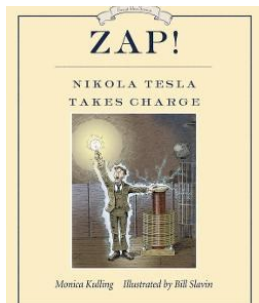
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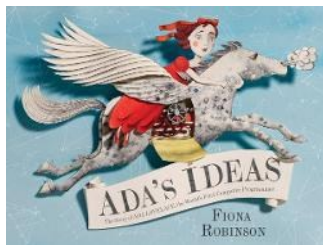
## Clean Sweep!: Frank Zamboni's Ice Machine by Monica Kulling

"When Frank Zamboni, along with his brother and cousin, opened their own skating rink in 1940 in Paramount, California, it could take an hour and a half for a crew to resurface the ice. Skaters became exasperated with the wait, so Frank was determined to do something about it." - from *Publisher*



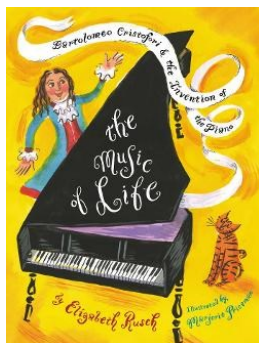
## Zap! Nikola Tesla Takes Charge by Monica Kulling

"Growing up in Smiljan, Croatia, Nikola Tesla dreamed about harnessing the power of Niagara Falls. In 1884, he walked down the gangplank into the New York Harbour with four cents in his pocket, a book of poems, a drawing of a flying machine, and a letter of introduction to Thomas Edison, the 'electrical wizard' of America." - from *Publisher*



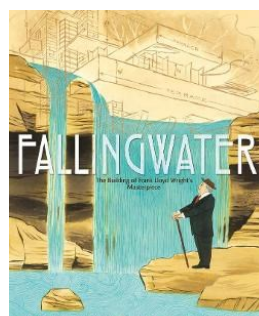
## Ada's Ideas: The Story of Ada Lovelace, the World's First Computer Programmer by Fiona Robinson

"Ada Lovelace (1815-1852) was the daughter of Lord Byron, a poet, and Anna Isabella Milbanke, a mathematician. Her parents separated when she was young, and her mother insisted on a logic-focused education, rejecting Byron's "mad" love of poetry. But Ada remained fascinated with her father and considered mathematics "poetical science." - from *Publisher*



## The Music of Life: Bartolomeo Cristofori & the Invention of the Piano by Elizabeth Rusch

"A biography of Bartolomeo Cristofori of Padua, Italy, whose desire to create a keyboard instrument that could play both softly and loudly resulted in the invention of the pianoforte, or piano." - from *Follett*



## Fallingwater: The Building of Frank Lloyd Wright's Masterpiece by Marc Harshman & Anna Egan Smucker

"This book guides young readers through Wright's process designing Fallingwater, from his initial inspirations to the home's breathtaking culmination. It is an exploration of a man, of dreams, and of the creative process; a celebration of potential." - from *Publisher*

# Makerspace/Design Thinking: Non-Fiction

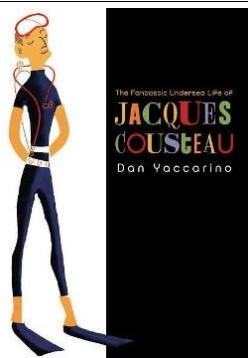
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## Mr. Ferris and His Wheel

by Kathryn Gibbs Davis

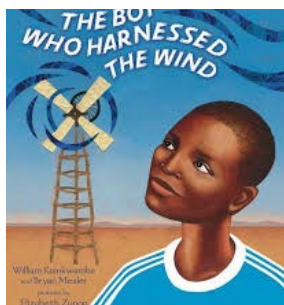
"Capturing an engineer's creative vision and mind for detail, this illustrated picture book biography sheds light on how the American inventor George Ferris defied gravity and seemingly impossible odds to invent the world's most iconic amusement park attraction, the Ferris wheel." - from Publisher



## The Fantastic Undersea life of Jacques Cousteau

by Dan Yaccarino

"From the first moment he got a glimpse of what lived under the ocean's waves, Cousteau was hooked. Over his long career he and his team of scientists invented diving equipment and waterproof cameras that enabled them to make films and television shows and share..." - from Publisher



## The Boy Who Harnessed the Wind

by William Kamkwamba

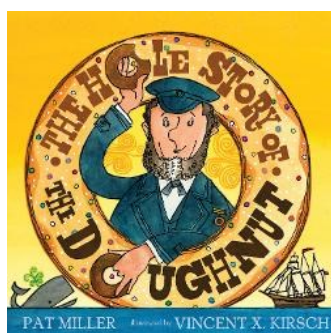
"The author details how he ignored naysayers and was able to bring electricity and running water to his Malawian village when he built a makeshift windmill out of metal and spare parts." - from Follett



## 125 Cool Inventions

by National Geographic Kids

"The future is now! Super smart toilets, sweet dream machines, bread buttering toasters, and flying hotels -- this fun and informative book gives curious kids the inside scoop on 125 amazing real inventions. It's sure to get gadget gurus, techies, and computer geeks thinking about the world of infinite possibilities." - from Publisher



## The Hole Story of the Doughnut

by Pat Miller

"In 1843, fourteen-year-old Hanson Gregory left his family home in Rockport, Maine, and set sail as a cabin boy on the schooner Achorn, looking for high-stakes adventure on the high seas. Little did he know that a boatload of hungry sailors, coupled with his knack for creative problem-solving, would yield one of the world's most prized and beloved pastries." - from Publisher

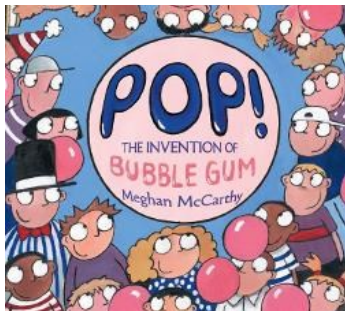
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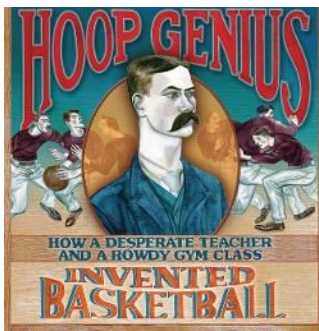
## On a Beam of Light: A Story of Albert Einstein by Jennifer Berne

"A boy rides a bicycle down a dusty road. But in his mind, he envisions himself traveling at a speed beyond imagining, on a beam of light. This brilliant mind will one day offer up some of the most revolutionary ideas ever conceived." - from Publisher



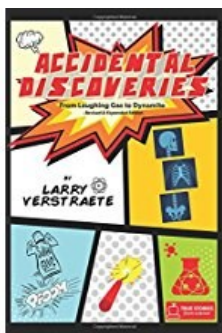
## Pop! The Invention of Bubble Gum by Meghan McCarthy

"Gum. It's been around for centuries—from the ancient Greeks to the American Indians, everyone's chewed it. But the best kind of gum—bubble gum!—wasn't invented until 1928, when an enterprising young accountant at Fleeer Gum and Candy used his spare time to experiment with different recipes." - from Publisher



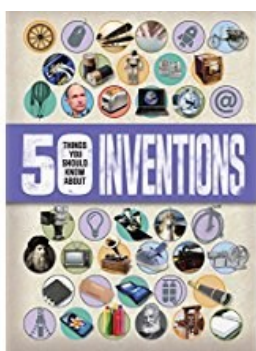
## Hoop Genius: How a Desperate Teacher and a Rowdy Gym Class Invented Basketball by John Coy

"Taking over a rowdy gym class right before winter vacation is not something James Naismith wants to do at all. The last two teachers of this class quit in frustration. The students--a bunch of energetic young men--are bored with all the regular games and activities. Naismith needs something new, exciting, and fast to keep the class happy--or someone's going to get hurt." - from Publisher



## Accidental Discoveries: From Laughing Gas to Dynamite by Larry Verstraete

"A man inhales laughing gas...and feels no pain in his leg - a blast of water in a bathroom leads to a billion dollar invention - a scientist dreams the answer to the question that had him stumped - a spill creates an explosive even more powerful than dynamite. Some discoveries come about by logic and reasoning. Others happen because of blunders, fumbles and freaky circumstances - in short, by accident." - from Publisher

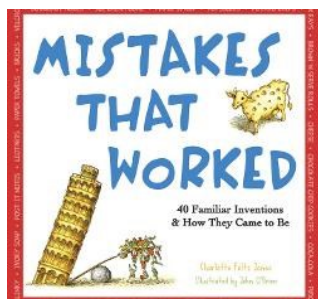


## 50 things You Should Know About Inventions by Clive Gifford

"Discover the stories behind the world's most important inventions, from everyday essentials to major scientific discoveries. Find out how inventors made dramatic breakthroughs in everything from batteries and microchips to magnetism and rocket power." - from Publisher

# Makerspace/Design Thinking: Non-Fiction

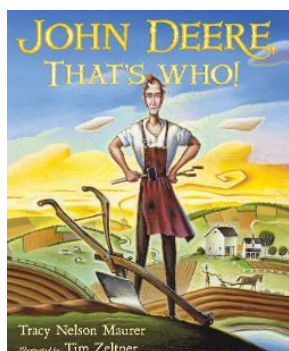
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## Mistakes That Worked: 40 Familiar Inventions and How They Came to Be

by Charlotte Foltz Jones

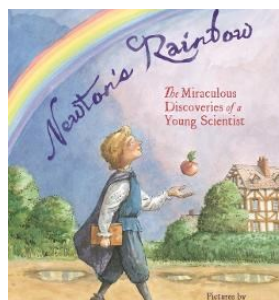
"Dozens of products and everyday household items had surprisingly haphazard beginnings. Coca-Cola, Silly Putty, X rays, and many other familiar things have fascinating stories behind them. Forty of these unusual tales, along with hilarious cartoons and weird, amazing facts, make up this fun-filled book." - from Publisher



## John Deere, That's Who!

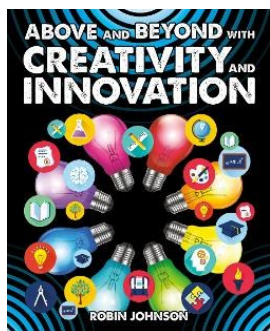
by Tracy Nelson Maurer

"Back in the 1830s, who was the young blacksmith from Vermont, about to make his mark on American history? Who moved to Illinois, where farmers were struggling to plow through the thick, rich soil they called gumbo? Who tinkered and tweaked and tested until he invented a steel plow that sliced into the prairie easy as you please? Long before the first tractor, who changed farming forever? John Deere, that's who!" - from Publisher



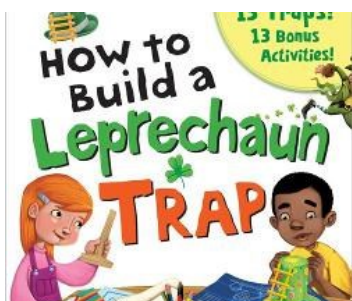
## Newton's Rainbow: The Revolutionary Discoveries of a Young Scientist

by Kathryn Lasky  
"Isaac Newton (1642-1727) grew from a quiet and curious boy into one of the most influential scientists of all time. *Newton's Rainbow* tells the story of young Isaac--always reading, questioning, observing, and inventing--and how he eventually made his way to Cambridge University, where he studied the work of earlier scientists and began ..." - from Publisher



## Fueling Your Future: Going Above and Beyond in the 21st Century (Crabtree)

"What does it take to be an engineer? This series delves into several branches of engineering, from civil engineering to robotic engineering. Readers will learn exciting facts and descriptions about careers within these branches, as well as the history and science behind each one. Each book also covers groundbreaking projects and developments in engineering, as well as the future of the field." - from Publisher (Grade Level: 4-5)



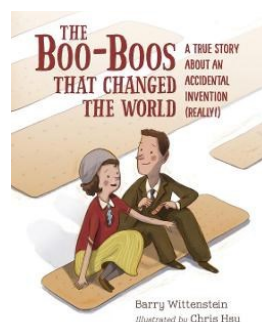
## How to Build a Leprechaun Trap by Larissa Juliano

"What's inside?

- \* 15 traps with step-by-step instructions sure to lure in your leprechaun
- \* STEAM Connections exploring the science, technology, engineering, arts, and mathematics behind each activity
- \* Yummy leprechaun recipes
- \* Exciting bonus activities
- \* Plus space to design your very own trap!" - from Publisher

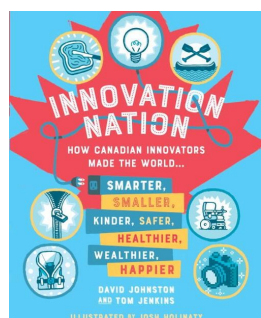
# Makerspace/Design Thinking: Non-Fiction

Compiled by Joan Pearce



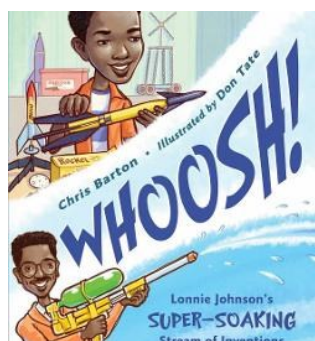
## **The Boo-Boos that Changed the World: A True Story About an Accidental Invention (Really!)** by B. Wittenstein

"Earle Dickson and his new bride Josephine begin their lives together. The end. (Not really. There's more.) Josephine has a proclivity for injuring herself. Earle attaches cotton to long strips of adhesive tape, telling Josephine to cut off a length when she needs one. Since Earle works as a cotton buyer at Johnson & Johnson, he shares his idea. They're a big hit. The end. (Again, not really!) After a few false starts (much like the hilarious "the end"s in this story), the Band-Aid is developed and becomes a massive hit. The end. (Really.)" - from Follett



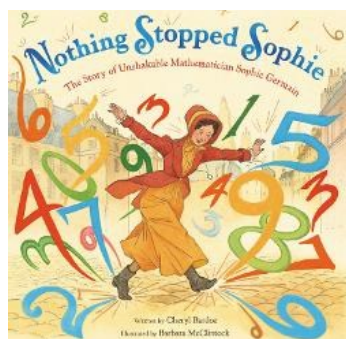
## **Innovation Nation: How Canadian Innovators Made the World Smarter, Smaller, Kinder, Safer, Healthier, Wealthier, Happier** by David Johnston

"From the marvels of aboriginal inventions such as the canoe, igloo and lifejacket to the latest pioneering advances in medicine, education, science, engineering and the arts, Canadians have improvised and worked together to make the world a better place." - from Publisher



## **Whoosh! Lonnie Johnson's Super-Soaking Stream of Inventions** by Chris Barton

"A childhood favorite and summer staple, the Super Soaker was invented entirely by accident. Trying to create a new cooling system for rockets, inventor Lonnie Johnson instead created the mechanics for an iconic toy. Lonnie Johnson's life began alongside a whole mess of brothers and sisters and grew to include a love for rockets, robots, inventions, and creativity." - from Publisher



## **Nothing Stopped Sophie: The Story of Unshakable Mathematician Sophie Germain**

by Cheryl Bardoe

"A biography of Sophie Germain, who grew up during the French Revolution and followed her dream of studying mathematics, becoming the first woman to win a grand prize from the Royal Academy of Sciences and changing the world with her discoveries." - from Publisher



## **Born Right** by Jordan Reeves

"Jordan Reeves tells her story about growing up in an able-bodied world and family, where she was treated like all of her siblings and classmates--and where she never felt limited. Whether it was changing people's minds about her capabilities, trying all kinds of sports, or mentoring other kids, Jordan has channeled any negativity into a positive, and is determined to create more innovations for people just like her. Her most famous invention, aptly called Project Unicorn, is a special prosthetic (that shoots glitter!) made with the help of a 3-D printer." - Follett

# Makerspace/Design Thinking: Non-Fiction

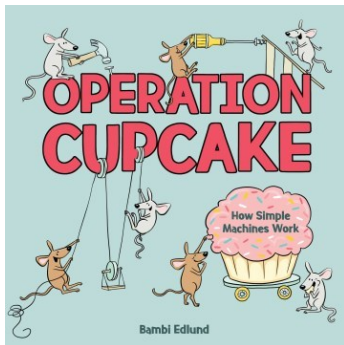
Compiled by Joan Pearce



## **Blue: A History of Color as Deep as the Sea and as Wide as the Sky**

by Nana Brew-Hammond, c2022 (IL: 1-4, RL: 4.8)

"This picture book follows one color's journey throughout history--from ancient Afghan painters to 1905, when a chemical blue dye was created--and around the world, as it becomes the blue we know today." - Follett



## **Operation Cupcake: How Simple Machines Work**

By Bambi Edlund, c2023 (IL: 2-6, RL: 5.1)

"In this hilarious story about a couple of clever mice on a quest for a tasty treat, readers get a "paws-on" introduction to six simple machines." - Pub.

# Makerspace/Design Thinking: NF Series

Compiled by Joan Pearce



## **STEM Trailblazers Biographies**

Lerner Publications, c2015-2018 (IL: 3-6; RL: 4.0-7.0)

"Read about the life stories and significant contributions of some of today's most accomplished figures in STEM fields. Narrative nonfiction text explores key details from each person's life, often including the pivotal moment that led them to their STEM career." - from *Follett*



## **Engineers Rule!**

PowerKids Press, c2016 (IL: 3-6; RL: 6.3-7.0)

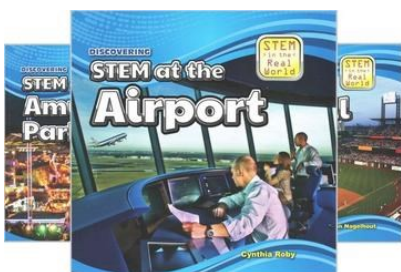
"What does it take to be an engineer? This series delves into several branches of engineering, from civil engineering to robotic engineering. Readers will learn exciting facts and descriptions about careers within these branches, as well as the history and science behind each one. Each book also covers groundbreaking projects and developments in engineering, as well as the future of the field." - from *Publisher*



## **Be a Maker**

Crabtree Publishing, c2016-2017 (IL: 3-6; RL: 6.4-8.0)

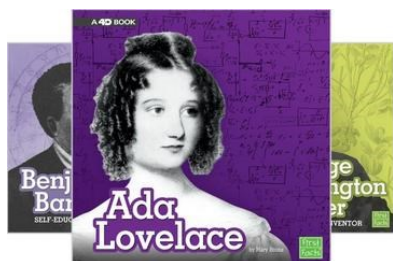
"The Maker movement celebrates qualities such as ingenuity, problem solving, collaboration, and thinking "outside the box." The Be a Maker! series embraces these same ideas to inspire new "makers" to explore and experiment with the world around them." - from *Publisher*



## **STEM in the Real World**

PowerKids Press, C2016 (IL: K-3, RL: 3.5-4.2)

"STEM is an acronym for "science, technology, engineering, and mathematics," and it's dominating classrooms all over the country. This series aims to take STEM out of the classroom and bring it into the real world, showing readers how STEM skills are essential to understanding the world around them." - from *Publisher*



## **STEM: Scientists and Inventors**

Crabtree, c2018-2019 (IL: K-3; RL: 2.5-3.6)

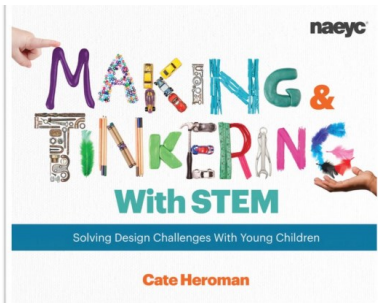
"Explore the lives and careers of some of the world's greatest inventors and scientists. From their childhood and education through their sources of inspiration and challenges faced." - from *Publisher*

### **Titles:**

Thomas Edison, Benhamin Banneker, Johannes Gutenberg, Marie Curie, George Washington Carver, Madam C.J. Walker

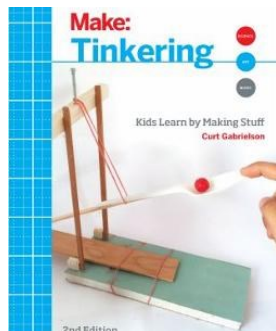
# Makerspace/Design Thinking: Professional

Compiled by Joan Pearce



## Making & Tinkering with STEM: Solving Design Challenges With Young Children by Cate Heroman

"Imagine your dream car. What special features does it have? What can you use to create it? Children will be inspired, delighted, and challenged as they use everyday materials and STEM concepts to design and build solutions to problems faced by characters in their favorite books." - from Publisher (LRC has made 25 kits from the challenges in this book.)



## Make: Tinkering: Kids Learn by Making Stuff by Curt Gabrielson

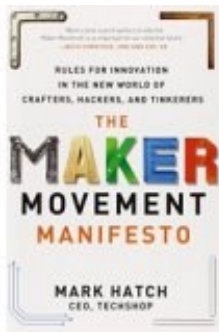
"Make: Tinkering lets you discover how, why--and even what it is--to tinker and tinker well. Author Curt Gabrielson draws on more than 20 years of experience doing hands-on science to facilitate tinkering: learning science while fooling around with real things." - from Publisher



## Rubber Band Engineer

by Lance Akiyama

"Discover unexpected ways to turn common materials into crafty contraptions that range from surprisingly simple to curiously complex. In vivid color photos, you'll be guided to create slingshot rockets, unique catapults, and even hydraulic-powered machines." - from Publisher (Note, this book is for older grades and teacher discretion is needed.)



## The Maker Movement Manifesto

by Mark Hatch (CEO, Techshop)

"A revolution is under way. But it's not about tearing down the old guard. It's about building, it's about creating, it's about breathing life into groundbreaking new ideas. It's called the Maker Movement, and it's changing the world." - from Publisher



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

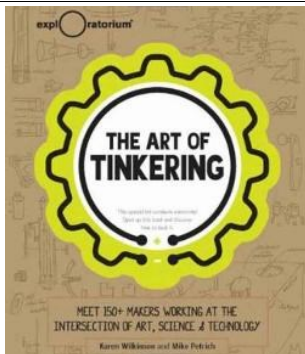
"This easy-to-follow guide features dozens of DIY, low-cost projects that will arm you with the skills necessary to dream up and build your own creations, with practical tips for beginners and open-ended challenges for advanced makers." - from Publisher

(Note, this book is for older grades and teacher discretion is needed.)



# Makerspace/Design Thinking: Professional

Compiled by Joan Pearce



## The Art of Tinkering

by Karen Wilkinson & Mike Petrich

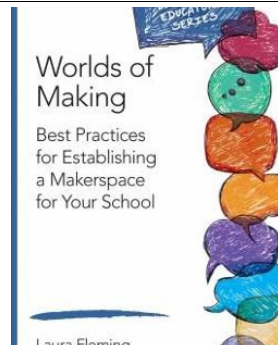
"*The Art of Tinkering* is an unprecedented celebration of what it means to tinker: to take things apart, explore tools and materials, and build wondrous, wild art that's part science and part technology. Join 150+ makers as they share the stories behind their beautiful and bold work and use this book to do some tinkering yourself." - *from Publisher*



## Your Starter Guide to Maker Spaces

by Nicholas Provenzano

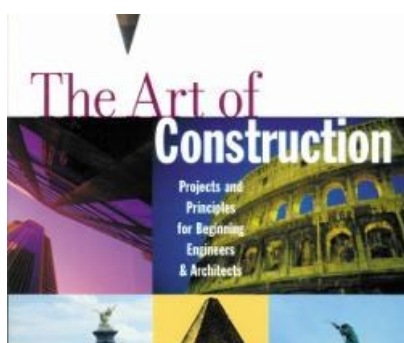
"Schools around the country are designing maker spaces to spark creativity. Students learn best when they are able to create and tinker and make. But how do you even begin when there are so many terms floating around? This book provides a fun, practical, and approachable framework for any teacher curious about getting started with makerspaces." - *from Follett*



## Worlds of Making: Best Practices for Establishing a Makerspace for Your School

by Laura Fleming

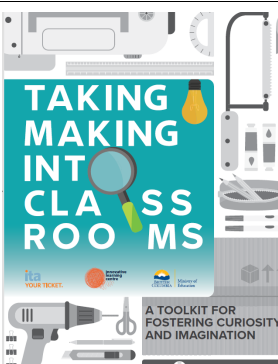
"Get the nuts and bolts on imagining, planning, creating, and managing a cutting-edge Makerspace for your school community. Nationally recognized expert Laura Fleming provides all the answers in this breakthrough guide." - *from Publisher*



## The Art of Construction: Projects and Principles for Beginning Engineers and Architects

by Mario Salvadori

"Explains how tents, houses, stadiums, and bridges are built, and how to build models of such structures using materials found around the home. A favourite of Martin Hartig." - *from Follett*



## Taking Making Into Classrooms: A Toolkit for Fostering Curiosity and Imagination

"Since 2013, colleagues associated with the Innovative Learning Centre have been pleased to provide toolkits on a range of topics. *Taking Making into Classrooms* is the fifth toolkit in this series, in preparation for Skills Exploration Days. It is accompanied by examples of tested design challenges." - *from Publisher*

(<http://innovativelearningcentre.ca/thinking/maker-days/>)

# Makerspace/Design Thinking: Professional

Compiled by Joan Pearce



## Maker Day Toolkit V2 by Dr. Susan Crichton and Deb Carter

"This book (<https://issuu.com/ubcedo/docs/makerdaytoolkitver2revisemay31e>) forms the foundation for *Taking Making into Schools*, the research-informed immersive professional learning (RIPL) events. *The Maker Day Toolkit* has a series of videos that help to unpack the content: <http://innovativelearningcentre.ca/>" - from Publisher



## B.C. Applied Design, Skills, and Technologies Curriculum

<https://www.curriculum.gov.bc.ca/curriculum>



## STEM PLAY: Integrating Inquiry into Learning Centers by Deirdre Englehart

"Most early childhood teachers are using learning centers in the classroom, but do not approach them in ways that fully support a variety of learning opportunities. This book approaches learning centers through the STEM (science, technology, engineering, math) lens, and shares how themes can be integrated into centers to promote creativity and higher-level thinking." - from Follett

# Makerspace/Design Thinking: Other

Compiled by Joan Pearce



*The Gifts* are the original educational toys developed by Friedrich Froebel inventor of kindergarten and made famous by Frank Lloyd Wright Buckminster Fuller and several Bauhaus artists. This Froebel USA set of Gifts 2-6 includes 5 wood block sets each in their own wood slide-top box. The entire set is available from Amazon for around \$535. The guide/book is in the public domain and can be downloaded.