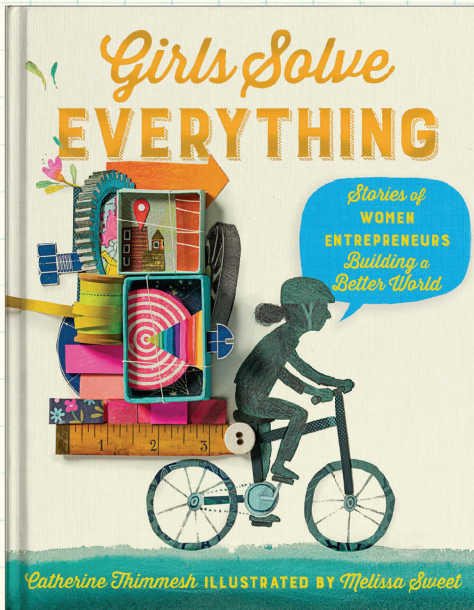


Girls Solve EVERYTHING

Catherine Thimmesh ILLUSTRATED BY Melissa Sweet



ABOUT THE BOOK

Women all over the globe are asking questions that affect lives and creating businesses that answer them. Questions like: can we keep premature babies warm when they're born far from the hospital? Can the elderly stay in their homes and eat a balanced diet? Women are taking on and solving these issues with their ingenuity and business acumen. How did they get their ideas? Where does the funding for their projects come from? And how have some of these businesses touched YOUR life?

*Girls Solve Everything: Stories of Women
Entrepreneurs Building a Better World*

By Catherine Thimmesh Illustrated by Melissa Sweet
Grades 5 and up



ABOUT THE BOOK

In kitchens and living rooms, in garages, labs, classrooms and basements, even in converted chicken coops, women and girls have invented ingenious innovations that have made our lives simpler and better. What inspired these girls, and just how did they turn their ideas into realities?

*Girls Think of Everything: Stories of Ingenious
Inventions by Women*

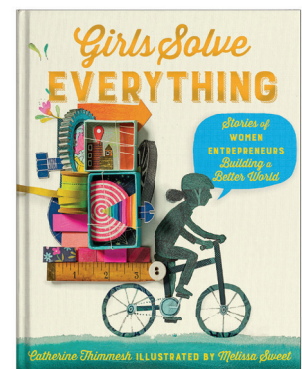
By Catherine Thimmesh Illustrated by Melissa Sweet
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So . . . what's **YOUR** great idea?

Girls Solve EVERYTHING

DISCUSSION QUESTIONS

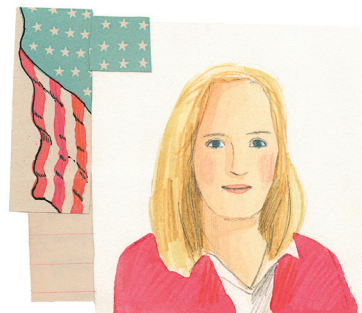
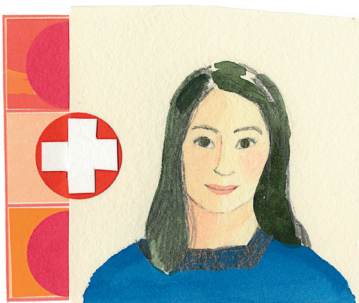
- Did you take the quizzes presented in the book? Were you surprised at some of the things you may have learned? Did any of these facts make you angry?
- Do you know what an entrepreneur is? What makes someone a social entrepreneur? What's the difference between a for-profit company and a nonprofit organization? If you had an idea to fix a social problem, which type of company would you want to start?
- Who were some of the early social innovators introduced in the book? What were their motivations? Why is Florence Nightingale called the founder of modern-day nursing?
- According to the book, "social entrepreneurs are problem-solvers at their core." Can you suggest some other characteristics of entrepreneurs from reading about these women?
- Do you know what activism is? Would you say that the entrepreneurs in this book are activists as well as entrepreneurs? Which of the ideas featured here are making an important social impact on the world? Do some of the ideas feel more important than others, to you? Which ones? Is it more important to solve a medical problem, help the environment or improve education?
- What are some examples from the book of companies or ideas that were started to begin solving the huge problem of poverty? Of hunger?
- Which of the companies featured in the book have you heard of, or been involved with? In your opinion, which company is the most important and/or has the most impact on the world? Which companies have done the best job of fulfilling their mission?
- Talia Leman of RandomKid says: "the benefit of kids stepping up is that they are not dissuaded by complexity." What are some other advantages that kids have over adult entrepreneurs? Do you think RandomKid's mission is a good one? How can inexperience be an asset, as Wendy Kopp believed it was for her?
- Jeroo Billimoria of Childline Helpline International believes that "most problems cannot be solved by a single individual or organization—but rather, that significant change happens collaboratively." How did this idea play out with Childline? How has Childline India partnered with other organizations?
- Talk about all the different tasks that need to be done when you are trying to start a company to solve a problem. What do you think is the hardest part: thinking of the idea, convincing people that it's a good idea, organizing, raising money or telling people about your company?



Girls Solve EVERYTHING

DISCUSSION QUESTIONS

- Finding funding is a big challenge for almost every entrepreneur. What are some of the ways that women in the book raised money for their ideas? If you had money to give, which three initiatives from the book would you financially support?
- Ting Shih of ClickMedix says: "You're going to fail many, many times. And I think the biggest lesson is how fast you can get back up and get back at it." Do you agree with her? What role does perseverance play in entrepreneurship?
- Give some examples from the book of when an entrepreneur had to have help from the government. Do you believe that governments are doing enough to help solve social problems? If they were doing more, would we need social entrepreneurs?
- "One of the things I believe," Radwa Rostom of Hand Over explains, "is that nothing is impossible. Even if the issue seems hopeless and requires a huge effort—you can at least take a small step and try to solve it." How did Radwa and other women from the book use small steps to build their companies?
- Talk about some of the ways these companies were started to solve a local problem and then expanded nationally and even internationally. What about the opposite? How does a large, national company/idea get implemented on a local level?
- In the days when the Philadelphia Ladies' Depository was founded, it was considered shameful for women to work. Why do you think that was so? How did the Depository help women to help themselves? What are some other examples from the book of women starting businesses to help other women?
- Talk about the role of technology in solving many of these problems. Why do you think that, traditionally, there have been so few women in tech jobs? Do you think that is changing? How are companies like Technovation changing this? How might the tech ideas dreamed up by women be different than those created by men?



Girls Solve EVERYTHING

ACTIVITIES

Social Studies

- The author asks: "What problems might you tackle—to brainstorm, to research, to innovate, to potentially solve? Are you ready to change the world?" Write an essay giving your answer to these questions. Alternatively, you could create a poem or write a song.
- Choose your favorite entrepreneur from the book and develop a slideshow, video, or essay about them and what impressed you most about their life and work.
- The book's back matter shares links to social entrepreneurship competitions. Research how to enter these contests and share what you learned by creating a presentation, designing a flyer, or writing an article for the school website.
- Write a report or create a video about the inventions in the book that directly impact children.
- Nadia Hamilton created the MagnusCards app to help people with autism complete daily activities. Research other inventions that help special populations. Choose three or four to highlight in a written report or oral presentation.
- Imagine you have an idea for a new invention and need to raise funds for prototyping and marketing. Research some ways that entrepreneurs find funding and take the next step by creating a presentation to show investors, designing a website to showcase your product to the world, create a crowdfunding campaign, or develop a pitch speech.

Art

- The book introduces many new vocabulary words, most of which are defined in the book's glossary. Starting with the glossary, add any other words you discovered in the book and share the definitions by creating a poster, a deck of flash cards, a presentation, or a video.
- Choose one of these quotes from the book and use it as inspiration to create your own work of art.

"Kids don't fall behind because they lack potential...they fall behind because they just haven't been given the opportunities they deserve."

"What the world needs is an outbreak of goodwill and human understanding."

"Hunger is not negotiable...it will not go away if we do nothing."

"When we plant trees, we plant the seeds of peace, of hope."

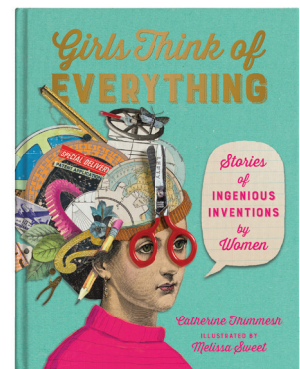
"Every little problem solved is actually a big problem solved, because we're all interconnected."



Girls Think of **EVERYTHING**

DISCUSSION QUESTIONS

- Talk about some of the reasons inventors come up with new ideas. Name some inventors from the book who made accidental discoveries. Which women invented things because they wanted to make a task easier? Who were the ones who were genuinely curious about doing something differently? Which ones worked for employers who gave them an assignment? Who wanted to do something good for the planet or for its people?
- What is a patent? What's the difference between a utility patent and a design patent? How do you receive a patent for your invention? For how many years is your invention protected?
- Who was the first American woman whose invention was documented? What was her invention? How was she able to get a patent for it? Which inventor holds the first U.S. patent awarded to a woman? What was it for?
- What are some of the challenges women inventors faced in the past? Who or what kept them from being given credit for their inventions? What were some of their difficulties when it came to actually making their inventions, or in finding customers?
- The author says that women "are combining their curiosity and creativity with persistence and optimism." Which of these traits do you think is the most important for an inventor to have? Why?
- How did Ruth Wakefield's accidental creation lead to a multimillion-dollar chocolate chip industry? What was she given when the Nestlé company bought the rights to her recipe? Does that seem like a fair payment to you?
- The chocolate chip cookie is an example of an invention that others have altered, changed, and possibly improved. Can you think of other examples from the book where people have taken an invention, changed it, and used it in ways it was not originally intended for?
- Which woman inventor from the book made the most money from her invention? Why did so many inventors fail to profit from their inventions? Do you think it was because they were women? Talk about those inventors in the book who first invented something to solve real-world problems, and later looked for ways to profit from their invention.
- Give an example from the book of a woman inventor who succeeded even though she did not have any experience in the field her invention was placed in. Why do you think she succeeded anyway? Was it just luck? Hard work? Stubbornness?



Girls Think of **EVERYTHING**

DISCUSSION QUESTIONS

- How do you think these inventors knew they had a good idea? What does it take to believe in your idea and try to convince others? Does it take a certain type of personality to believe in yourself?
- Talk about some of the ways that women inventors have raised money to build and then sell their inventions. Have you heard of IndieGogo and Kickstarter? Have you ever watched Shark Tank?
- Why did Grace Murray Hopper keep a clock in her office that ran backwards? Do you agree with Grace that "the worst phrase in the English language is 'but we've always done it that way?'" Do you think, based on this book, that inventors' brains work differently than the average person's does?
- Why do you think so many of the women featured in this book made discoveries involving food, clothing, childcare or household items? Think about the male inventors that you've heard of. What categories did their inventions fall into? Do you believe that men and women have an equal ability to invent things?
- Some of the inventors in the book, like Patsy O. Sherman, Jeanne Lee Crews, and Stephanie Kwolek, were assigned by their employers to invent something to solve a particular problem. In these cases, the patent belongs to the employer and not to the inventor. Do you think this is fair? Would you be as eager to make a discovery for your employer, as you would to work on your own idea?
- Talk about the career paths chosen by some of the women inventors. Do any of these call to you? Would you rather have a job that paid you to invent, or be an entrepreneur and complete the steps to bring your idea to the market?
- Which of the inventions featured in the book have you actually seen, heard of, or used? In your opinion, which invention is the most important and/or has had the most impact on the world?
- The illustrations that accompany the stories are very inventive. Talk about the similarities between creating an illustration, drawing or sculpture and coming up with a new idea. Aren't artists and inventors both creating something from nothing? If many inventions solve a problem, what's the reason for creating a work of art?
- Who were the two girl inventors mentioned in the book? What problems did their inventions solve? How were they supported by their parents and schools?
- Talk about the four teen inventors featured in the book: Azza Abdelhamid Faiad, Alissa Chavez, Trisha Prabhu, Kiara Nirghin. What problems were they trying to solve with their inventions? Who were the people and institutions that supported them?

Girls Think of **EVERYTHING**

ACTIVITIES

Writing

- Patsy O. Sherman, inventor of Scotchgard, said: “We have a secret weapon—women’s intuition. Trust your hunches.” Write an opinion essay about why you agree, or disagree, that women inventors can use their intuition to succeed in their ventures.
- Stephanie Kwolek, inventor of Kevlar®, wanted her career to be in either science or fashion. With her invention, she got to do both. Write an essay talking about two careers that interest you, and how you might combine them.
- Complete research to find three kid or teen entrepreneurs not featured in the book and write a report about them following the format used in the book. (They don’t have to be girls!)

Social Studies

- Research an inventor who was not featured in the book. Working with a partner, write and film an imaginary interview with the inventor about their life and work.
- Choose an invention from the book that was not already featured on Shark Tank, or an original invention of your own, and make a pitch video for the product to use as an audition for the show.
- The saying goes: “Necessity is the mother of invention.” Create a Pinterest board depicting inventions that came about because someone needed to solve a problem.

Art

- Choose an inventor not featured in the book from the lists at the front and back. Create an illustration of that inventor using the same style as that on the cover of the book or on its title page.
- Imagine that you are filling out a patent application for a new invention. Include a description, notes, diagrams and a sketch of your invention. Alternatively, share your idea and sketches on Instagram or TikTok.
- Investigate the contests and organizations listed in the book that encourage young people to use their creativity. Then design a wireframe for a website that collects that information for young inventors. Make sure to map out the main features and navigation of your website. Include brief descriptions of the organizations and give your site a name!

Class Activity

- As a class, brainstorm ideas for a new invention and then choose one to work on together. Divide the class into three teams: product development, finance/funding and marketing—and come up with a plan to bring the idea to life!

