The Book of Massively Epic Engineering Disasters: 33 Thrilling Experiments Based on History's Greatest Blunders

Sean Connolly

The Book of Massively Epic Engineering Disasters: 33 Thrilling Experiments Based on History's Greatest Blunders

Sean Connolly

The Book of Massively Epic Engineering Disasters: 33 Thrilling Experiments Based on History's Greatest Blunders Sean Connolly
It’s hands-on science with a capital “E”—for engineering.

Beginning with the toppling of the Colossus of Rhodes, one of the seven wonders of the ancient world, to the destructive, laserlike sunbeams bouncing off London’s infamous “Fryscraper” in 2013, here is an illustrated tour of the greatest engineering disasters in history, from the bestselling author of *The Book of Totally Irresponsible Science*.

Each engineering disaster includes a simple, exciting experiment or two using everyday household items to explain the underlying science and put learning into action. Understand the *Titanic*’s demise by sinking an ice-cube-tray ocean liner in the bathtub. Stomp on a tube of toothpaste to demonstrate what happens to non-Newtonian fluids under pressure—and how a ruptured tank sent a tsunami of molasses through the streets of Boston in 1919.

From why the Leaning Tower of Pisa leans to the fatal design flaw in the Sherman tank, here’s a book of science at its most riveting.

The Book of Massively Epic Engineering Disasters: 33 Thrilling Experiments Based on History's Greatest Blunders Details

Date	:	Published September 5th 2017 by Workman Publishing Company
ISBN	:	9780761183945
Author	:	Sean Connolly
Format	:	Hardcover 256 pages
Genre	:	Nonfiction, Science, Childrens, Middle Grade

From Reader Review The Book of Massively Epic Engineering Disasters: 33 Thrilling Experiments Based on History's Greatest Blunders for online ebook

Kevin says

What fun! A well researched introduction to root cause analysis of why things fail by looking at some of the biggest in history. Backed up with you-can-do-this-at-home experimental guides to learn the principles being discussed in a well-thought out step-wise manner.

Hella fun!

Andrienne says

Children will breeze through the concepts with plenty of tidbits to spur further reading. It is a good supplement for school and also a good resource to homeschooling.

Jessica says

Thank you to Kid Lit Exchange for access to a free review copy of this book. All opinions are my own.

Books about STEM are everywhere these days. This one, which features historical engineering feats and dissects their downfalls using modern day science, is fun and unique. Each disaster featured includes What Went Wrong (explanation), Turn Back the Clock (reflect using modern scientific knowledge), and then one or two related experiments. It’s full of fact boxes, definitions, and historical information. Intended for ages 9+, this book is going to appeal to lots of middle grade readers.

Mary Beth says

I won this book in a Goodreads Giveaway. Fun, informative and experiential approach to design blunders throughout the centuries. Using memorable and some obscure engineering miscalculations throughout history, the author explains in very understandable terms the mistake that lead to disaster and then sets forth a very do-able experiment to show the science behind what went wrong. The various chapters in the book could lead to some fine science fair entries as well as classroom experiments that will illustrate numerous scientific facts that will stick in students minds forever. From the Leaning Tower of Pisa to the Hindenburg, the Tay Bridge Collapse to the Fryscraper, The Trapped Chilean Miners to the Titanic, memorable disasters can lead to memorable science -- and fun do-at-home experiments! Great book for the curious middle grade student or parent / teacher who wants a hands-on approach to applied science. Highly recommend. Would be terrific for a homeschool environment as well.

Lisa says

I wished I had this book when I was teaching Science in 3rd grade. Excellent hands on experiments and explains science terms well.

Valerie says

Thank you to @kidlitexchange network for the review copy of this book! Opinion is my own ? Great book about engineering disasters-many of which I have never heard about! Includes experiments that readers can try...would be a fun book to add to a makerspace in a classroom or library! ????

Annie says

This is a really well researched and beautifully illustrated book aimed at middle readers. Important engineering concepts such as stability, center of mass, movement, potential energy, load bearing and materials use, among others, are defined and illustrated through experiments. Each of the experiments is used to explain engineering disasters from the ancient world up to the modern day.

The chapters are broken up into digestible sidebars and short texts which are full of interesting trivia. The book could have been very dry and, dare I say, boring. It's emphatically not boring. I really enjoyed reading the history and the whys-and-wherefores of the science behind the scenes.

STEM (science technology engineering and math) education is so vitally important to problem solving and progress as well as safeguarding our limited resources. Getting young people interested with accessible and fun learning materials is a huge positive part of the equation.

This book would a welcome addition to a classroom unit on engineering or natural science as well as a good starting point for a multitude of science fair projects or a homeschooling unit.

It's a solid book, 256 pages, and very useful and interesting for budding engineers.

Five stars
Disclosure: I received an ARC at no cost from the author/publisher.

Carolyn Woods says

We loved Perfectly Perilous Math, Totally Irresponsible Science, and Potentially Catastrophic Science, so when I saw this was available I knew I needed to check it out!

And, it did not disappoint!

This book describes 20 famous disasters - think the sinking of the Titanic or the failure of theTacoma Narrows Bridge - and then gives an experiment to help learners understand the scientific principles that led to the disaster. The experiments used common household materials - no trips to the chemical supply house

needed!

I'd say the experiments are targeted to elementary age, and the information on the disasters could be fun for anyone.

Highly recommend!

West Hartford Children's Library says

This book showcases 33 Experiments that demonstrate what happened in history’s most famous engineering disasters; such as the demise of Titanic. Perfect for those loving science, technology, or why things happen. For the curious mind!

Hillary Overton says

There are

Sharon Tyler says

The Book of Massively Epic Engineering Disasters: 33 Thrilling Experiments Based on History's Greatest Blunders by Sean Connolly is a children's non fiction book that explores and explains some of the more interesting engineering blunders of the world. Ever wonder why Italy’s Leaning Tower of Pisa has been slowly toppling over for centuries? Stack books on a foundation of paper balls to learn about rickety building foundations and center of mass. How about the 15-foot-high tidal wave of molasses that tore through the streets of Boston in the Great Molasses Flood of 1919? Karate chop a full tube of toothpaste (outside!) to demonstrate the messy behavior of non-Newtonian fluids.

The Book of Massively Epic Engineering Disasters offers young (and adult) readers information and activities that bring that information home. It is an illustrated look at the physics and technology that makes up crumbling buildings, sinking ships, wobbly bridges, mud-stuck tanks, and so on. I like that the book covers well known engineering issues, like the Leaning Tower of Pisa and Titanic, but it also deals with lesser known mistakes like the Fidnae Stadium collapse in ancient Rome. There are also 33 hands-on experiments to help readers see their new understanding and information in action.

The Book of Massively Epic Engineering Disasters will help Children and adults understand the science and concepts behind these mishaps and disasters while offering pathways to further information and research. This is a good book for use in schools, independent study, homeschooling, or simply reading by those that are interested in the information included.

Theresa Grissom says

This is a really good book where students not only learn about famous architecture but also can do hands on experiments to help understand why things went wrong. Students who love experimenting will especially love this book.