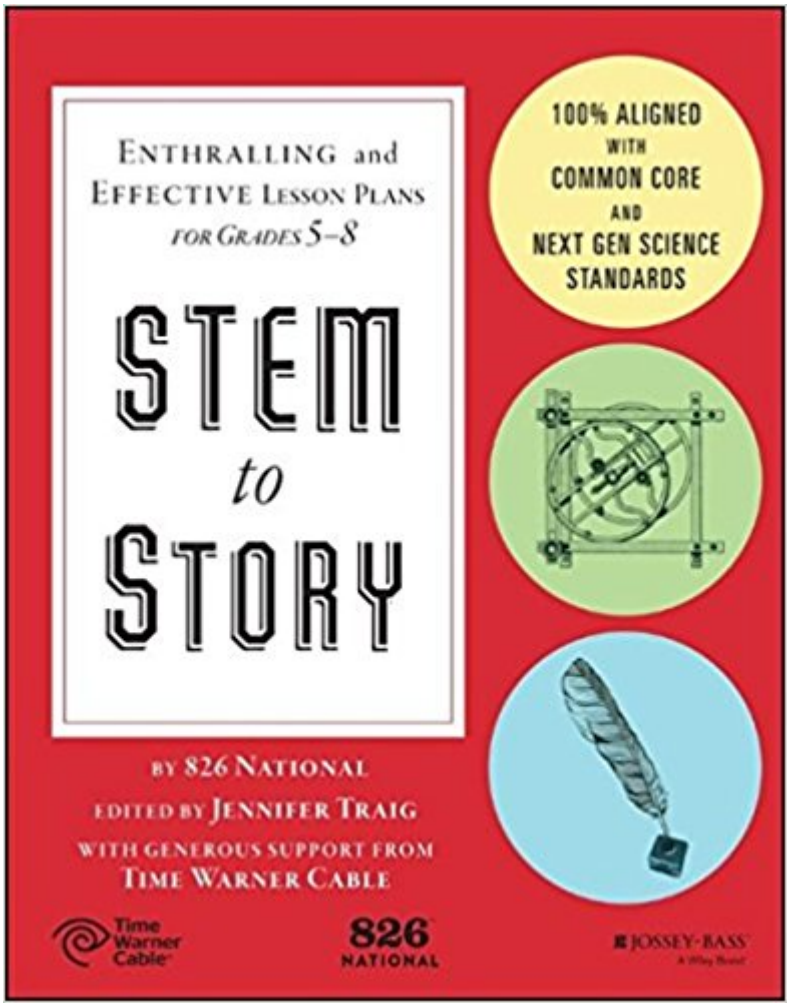
STEM To Story: Enthralling And Effective Lesson Plans For Grades 5-8



Synopsis

Bring STEM to lifeÃ Â for studentsÃ Â with zombies, rockets, celebrities, and more STEM to Story: Enthralling and Effective Lesson Plans for Grades 5-8 inspires learning through fun, engaging, and meaningful lesson plans that fuse hands-on discovery in science, technology, engineering, and math (STEM) with creative writing. The workshop activities within the book are the innovative result of a partnership between 826 National's proven creative writing model and Time Warner Cable's ConnectÃ Â a Million Minds, an initiative dedicated to connecting young people to the wonders of STEM through hands-on learning. Authentically aligned with both the Common Core State Standards and the Next Generation Science Standards, this book provides teachers, after-school and out-of-school providers, and parentsÃ Â with field-tested lessons, workshops, and projects designed by professionals in each field. Including reflective observations by arts and science celebrities like Jon Scieszka, Mayim Bialik, and Steve Hockensmith, lessons feature bonus activities, fun facts, and teaching points for instructors at every level. These quirky, exploratory lessons will effectively awaken student imaginations and passions for both STEM and creative writing, encourage identity with scientific endeavors, and make both science and writing fun. Grades five through eight is the critical period for engaging students in STEM, and this book is designed specifically to appeal to Ã¢â ¬â œ and engage Ã¢â ¬â œ this age group. The guided curricula fosters hands-on discovery, deep learning, and rich inquiry skills while feeling more like play than school, and has proven popular and effective with both students and teachers. Awaken student imagination and get them excited about STEM Fuse creative writing with STEM using hands-on activities Make scientific principles relevant to students' lives Inspire students to explore STEM topics further The demand for STEM workers is closely linked to global competitiveness, and a successful future in STEM depends upon an early introduction to the scientific mindset. The challenge for teachers is to break through students' preconceptions of STEM fields as "hard" or "boring," to show them that STEM is everywhere, it's relevant, and it's loads of fun. For proven lesson plans with just a dash of weird, STEM to Story is a dynamic resource, adaptable and applicable in school, after school, and at home.

Book Information

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Customer Reviews

Praise for STEM to Story "826 has always been a place where imagination and education meet. They are taking what is most exciting about STEM and creative writing and bringing the two together in unique and exciting ways. In these lessons, students are learning about the world around them and use actual scientific exploration to envision and build new ones."Ã¢â ¬â •Spike Jonze, Oscar-winning screenwriter and director "STEM to Story offers quality STEM activities that are easily implemented to engage middle school-aged youth. The activities provide hands-on learningÃ¢â ¬â •sparking creativity, curiosity and confidence in discovering STEM in fun and innovative ways."Ã¢â ¬â •Jorge Perez, VP of Youth Development, Family Enrichment and Social Responsibility, YMCA of the USA "A fabulous resource for teaching students one of the most important lessons: that science is fun, creative, and tremendously important for everyone. STEM to Story from 826 will help inspire future scientists by introducing them to the beauty of STEM, and help all students explore its impacts in their daily lives in positive and fun ways."Ã¢â ¬â •Rebecca Skloot, science writer and author of The New York Times bestseller, The Immortal Life of Henrietta Lacks "One of the great tragedies of traditional science education is that students often fail to realize that science is a deeply creative process. How wonderful to see in STEM to Story the science curriculum organically entwined with creative writing, bringing both imagination and the art of expression directly into the science classroom."Ã¢â ¬â •Brian Greene, professor of physics and mathematics, Columbia University; cofounder, World Science Festival STEM to Story inspires students to learn using fun, engaging, and meaningful lesson plans that combine hands-on discovery in science, technology, engineering, and math with creative writing. Aligned with both Common Core State Standards and Next Generation Science Standards, STEM to Story gives teachers a wide range of field-tested lessons, workshops, and projects that have been created and classroom tested by professionals in each field. The workshop activities within the book are the

innovative result of a partnership between 826 National’s proven creative writing model and Time Warner Cable’s Connect a Million Minds, an initiative dedicated to connecting young people to the wonders of STEM through hands-on learning.STEM to Story includes reflective observations by artsand science celebrities including Jon Scieszka, Mayim Bialik, andSteve Hockensmith. The dynamic lessons feature bonus activities,fun facts, and teaching points for instructors at every level.These quirky, exploratory lessons are sure to awaken youngimaginations and passions for both STEM and creative writing whileencouraging interest in scientific endeavors. Now teachers can makeboth science and writing a fun-filled adventure.

826 NATIONAL is a network of nonprofit creative writing and after-school tutoring centers dedicated to supporting students, ages 6 to 18, with opportunities to explore their creativity and writing skills, and to help teachers get their classes excited about writing. 826 National’s services are based on the understanding that great leaps in learning can happen with one-on-one attention, and that strong writing skills are fundamental to future success. JENNIFER TRAIG is the author of the memoirs Devil in the Details and Well Enough Alone, and the editor of The Autobiographer’s Handbook.

Timely delivery as promised and great product.

As a homeschooler, I am so excited to use this resource, or at least as much of it as possible. It’s clearly written for a classroom teacher, so teachers should feel comfortable knowing that instructions for teaching large numbers of students are neatly delineated. There are materials lists (nothing too outrageous or expensive), time required, lesson plans, take-home worksheets for extra enrichments, conversations starters, writing assignments, graphs, charts, games, and an unbelievable amount of fun for science learning. There will be prep work required for each of the sessions, so it’s not the "open-and-go" format preferred by some. However, the sessions seem well worth it.Homeschoolers should note that much of this will need adapting if you plan to do it with only one or 2 children, and some of it may simply be impossible to do. The final session, the "Zombie Apocalypse" that teaches everything from engineering to disease to statistics to probability, seems to me to be impossible to adapt to a single student. Quite a shame, because it’s a long session and looks like a great one. You could maybe do bits and pieces of some of it, but some of the work on infection depends on having large groups of people.One of the coolest things about the book is the way it spans multiple disciplines, but I don’t know if English teachers and science teachers work

together much, or if science teachers want to be assigning creative fiction work as part of their classes. As a homeschooler, I think this interdisciplinary work is fantastic, but if it's a pain in a school setting, you've been warned. Of course, the book offers so many different options for exploring the material, science teachers could just leave out the more English-oriented work and still get tremendous value for their money.Basically, for the price, this is one terrific resource. I've seen $20 books with much less to offer; this offers 12 neat lesson plans and is worth every penny.

Marian Jackson-ScottIn Stem to Story, a very unique presentation of science is shared. The book is clearly organized into 12 lesson plan chapters. First, the book provided a thorough background on STEM and gave a science glossary for the user to better understand the context of the book. In other words, parents would be able to follow the book to help their children with science achievement. In my opinion, STEM to Story built momentum for the reader to clearly visualize what was going on in the lessons. In Lesson 1, the authors approached the scientific method in a more 21st century learning style. Instead of rote facts/memorization, the authors focused on discoveries. The black box assignment gave the students an opportunity to reflect. It is ubiquitous throughout the book that all of the lessons were evident of project based learning and higher order thinking skills. The book provided an interdisciplinary connection between science, math, and writing. In my 18 years as an educator, this is one of the best presentations of an effective science and English connection. In this book, students are able to look at engineering as a field. This is a great way of engaging students in engineering. As the research points out that there is a severe shortage of engineering. Furthermore, there is a demand to increase minorities and females in STEM fields. Paper airplanes were a practical approach used to get students engaged. I think this was a good hook to read the rest of the book. Students were exposed to data analysis as well, which is useful for standardized tests. The ice cream experiment appeared fun and exciting. Perhaps, an extension on studying Louis Pasteur by adding social studies would have enhanced this lesson plan as well. I believe that Stem to Story is definitely a great book for students in schools. Also, it can be used in after school programs as well such as science academies to increase STEM participation. The inclusion of technical writing assignments throughout the book strengthened the context. Not only does this book engage students in critical thinking, but it is preparing students for their future employment as well. Employers are looking for employees to think critically and be able to communicate well. Overall, the book is a must read for educators and parents who want to help their students think critically.

There are 12 lesson plans in this book. Each involves quite a bit of reading. The title calls these lesson plans "enthralling," and I think that’s an accurate statement.Lesson plans range from Daylight Savings Time to Zombie Apocalypse. They seem to be extremely well-thought out, and far more enriching than any lessons I worked with as a kid. Chapter 7 is There May Be Bones. This chapter has 3 "sessions" of 90 minutes each. The students learn how scientists solve mysteries using evidence such as bones. The materials needed are simple, common items including a magnifying glass, tweezers, cotton swabs, and toothpicks.Each lesson emphasizes active learning beginning with framing questions. There are writing assignments. My impression is that this book will be useful for summer science camp, homeschooling, and parents who are able to dedicate a fair amount of time. I believe college students could use this book in teaching environments.