

Book Reviews

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The following book reviews were written by NCSTA members and teachers. We hope to make this an ongoing feature in The Science Reflector. If you are an author who has a book you would like reviewed or a teacher who would like to write a review, please [contact Beth Harris](#).

[Nanoscale Science: Activities for Grades 6-12](#)

[It's Not Magic, It's Science!: 50 Science Tricks that Mystify, Dazzle & Astound](#)

Nanoscale Science: Activities For Grades 6-12

M. Gail Jones, Michael Falvo, Amy Taylor, Bethany Broadwell, NSTA Press- 2007

Scientists agree that nanotechnology will be the next great advancement in science, possibly having more of an impact than the Industrial Revolution. Students sometimes have trouble understanding this emerging field and teachers often don't know how to integrate this technology into their daily lessons.

Nanoscale Science contains activities that teachers can use to help students understand this new and fascinating field.

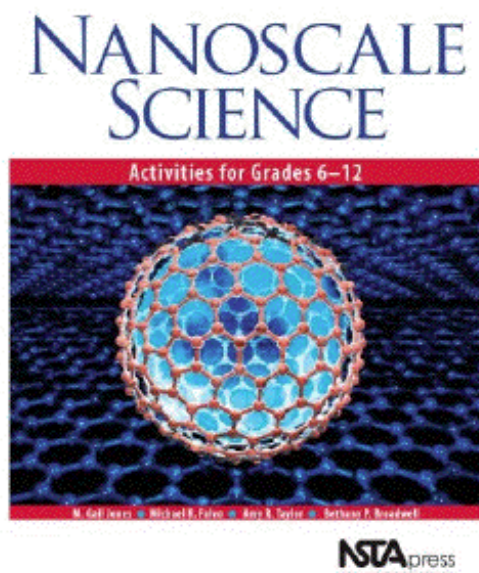
The book begins with a very easy to read introduction to the nanotechnology field. Teachers learn about the development of the field and its applications into different branches of science including physical, life and earth science. Also, teachers learn about the truths and myths associated with nanotechnology. The connection is also made between nanotechnology and the societal and ethical issues that may arise in the future.

To assist teachers the book is filled with hands on investigations for students to complete to better understand nanotechnology. The investigations are broken into 5 areas; Size and Scale, Tools and Techniques, Unique Properties and Behaviors, Nanotechnology Applications and Societal Implications. Each area contains 3-5 investigations for students to complete. None of the investigations requires specialized materials and most middle and high school labs should have all the materials on hand. The investigations begin with introduction/background information and have all the procedures for the teacher. Following are the student sheets with student procedures, data sheets and analysis questions.

At the end of the book is an appendix with a wide variety of follow-up resources for teachers and students. It includes websites, journal articles and books that could be used for further research, science fair projects or additional assignments.

What is, I feel the best part of the book is its connection to the NC Standard Course of Study. In the middle grades each grade level has the same two goals with Inquiry and Technological Design. This book can be easily adapted or used as is for any middle grades classroom with students at all ability levels.

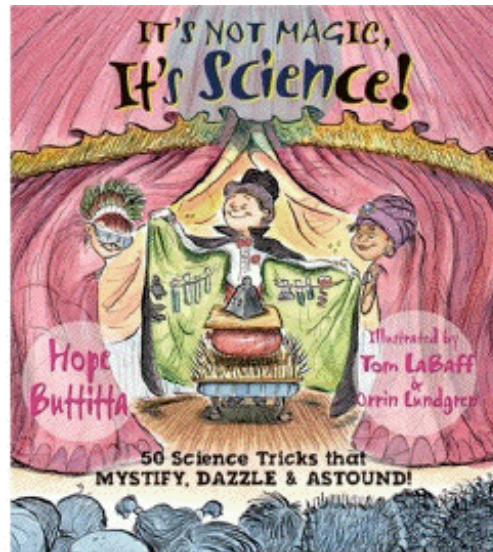
I would recommend this book to any middle grades teacher who is looking for simple but engaging activities to use in their classroom with a real-world connection. Nanotechnology is the future and we have the chance to expose our students to the technology in a fun and inviting way.



It's Not Magic, It's Science!: 50 Science Tricks that Mystify, Dazzle & Astound
by Hope Buttitta, Lark Books, 2007, 80 pp. ISBN 978-1579908836

Children can “mystify, dazzle and astound” their audiences by using any of the 50 science tricks in the book, *It's Not Magic, It's Science!* Calling themselves “lab coat magicians,” three friends, Tim, Lucinda, and Jessie, introduce themselves. Author, Hope Buttitta speaks through Tim and explains how he got the name “Tim the Amazing,” Tim tells how the three friends collected 50 science tricks that the reader can perform for their audiences.

Directions on how to use this book enable the reader to know a few simple directions before beginning any of the tricks. Things such as gathering all your materials in one place, reading through the instructions and explanations to make sure you know what you are doing, working on a flat surface such as a kitchen table, practicing several times before showing it to your audience, no giving away the answer, and cleaning up after you finish.



Each of the 50 tricks has a catchy title and an explanation of the title underneath it. One example has the title, “Eggs With Legs.” Below the title is the clarification, “Okay, the eggs won’t actually grow legs, but they will jump around a bit.” After the title and explanation is a list of what you will need to do that particular trick. Numbered step-by-step directions of how to perform the trick is listed under “What You Do.” In conclusion is a section titled “How It Works.” The author describes the scientific explanation behind each trick.

Several one-page articles on scientists and mathematicians, Isaac Newton’s three Laws of Motion, optical illusions, and various scientific principles are spread throughout the book relating to sections of different tricks.

It's Not Magic, It's Science is a fun book of science experiments presented in a way that is user friendly to anyone wanting to prove various scientific theories or just a means of entertaining family and friends.

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