



Theo Gray's Mad Science: Experiments You Can Do at Home - But Probably Shouldn't

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Author of the best-selling book *The Elements* Theodore Gray demonstrates essential scientific principles through thrilling daredevil experiments.

"What a magnificent book. It's gorgeous, playful, and draws you in." —Adam Savage, cohost of *Mythbusters*

"Theodore Gray...has attained a level of near superhuman geekery that the rest of us can only mutely admire." —Cecil Adams, *The Straight Dope*

"Gray's encyclopedic knowledge and contagious enthusiasm transport us to deep intellectual realms while never sacrificing a sense of wonder and, above all, fun." —Oliver Sacks, author of *Awakenings*, *Musicophilia*, and *Uncle Tungsten: Memories of a Chemical Boyhood*

In *Mad Science*, Theodore Gray launches a toy rocket using the energy released from an Oreo cookie, ignites a phosphorus sun by suspending half a gram of white phosphorus in a globe filled with pure oxygen and creates a homemade hot tub by adding 500 pounds of quicklime to water. These are just a few of the 54 experiments included in this astonishing book that demonstrates essential scientific principles in ways you were likely never exposed to in school.

Every experiment in *Mad Science* is accompanied by full-color photographs that provide a front-row seat to rarely seen chemical reactions and glorious subatomic activity. To further enhance the hands-on experience, Gray includes step-by-step instructions for nearly every experiment. Following all of the safety guidelines, readers can even re-create some of the experiments in the book.

Mad Science is the perfect book for anyone fascinated by all things chemical, electrical, or explosive, and who loves a vicarious thrill.

Theo Gray's Mad Science: Experiments You Can Do at Home - But Probably Shouldn't Details

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From Reader Review Theo Gray's Mad Science: Experiments You Can Do at Home - But Probably Shouldn't for online ebook

Jennifer says

There's no vinegar and baking soda reactions in this book! It's stuffed with madcap experiments that generally outpace the average household. Science geek that I am, I would be unable / unwilling to do many of these experiments without my lab or local facilities yard.

That said, I love the way the book is written. The photographs are fantastic; more than once I caught someone reading this book over my shoulder on the train. I also appreciate the author maintaining a website (graysci.com) with up to date info on purchasing items as these change more frequently than published editions.

A great book that will appeal to the local geek, tinkerer, or mad person in your life.

Tiffany says

It read much more like an actual book compared to "Elements" and "Molecules". This one is not jam packed of gorgeous photos. I have really enjoyed reading about the variety of reactions, some simple and some complex.

Gord says

I've been waiting to get my hands on this one. Theo Gray has the temerity to show you how to do some experiments that must have given the publisher's lawyers fits.

Making salt? Sure. Sugar rockets? Check. Thermite?!? You betcha.

I'm really liking this movement back to giving readers a bit of credit. We're capable of thinking for ourselves and following directions and it's refreshing to be treated like an adult.

Frederick Bingham says

This was better than the second edition of the book. I especially liked the description of what happens when you combine sodium metal and chlorine gas: "Combining them borders on lunacy". I also enjoyed his description of how to handle gold leaf: "Brushes known as gliders' tips, made of red squirrel hair (none of that gray squirrel crap mind you) are used to pick up the sheets by static electricity." Unfortunately none of the experiments he describes are way beyond what us ordinary people are able to carry out in our kitchens, porches or garages.

Lafcadio says

The subtitle says it all. These experiments are dangerous and fascinating... and *possible* to do at home.

Glenn says

I won a copy of this book and it has taken me a while to get to it. My 16 year old son got to it first and is adding things to his Christmas list so he can do some of the experiments himself. There are lots of very cool things in the book and some of them definitely fall into the "not in my house" category. Others I will enjoy performing with my 2 teen-aged boys. This definitely gets the creative juices flowing and is fostering an interest in science in our home.

Patti P says

This was great. Really enjoyed it.

Michael Roop says

Okay. I know. I just picked this book up today, how could I have read it that quickly? Then answer is simple. I haven't. It's a DIY book full of projects you can do all on your own with detailed instructions on how to do it and a bunch of fluff to fill it out. This book is impressive. There are few projects in here that are elementary to Jr. high level, while others are freakin hardcore bordering on the insane. I have already made a list of all the projects in this book that I plan on busting out with a second list for the not so impressive ones that looked fun to try out when I'm bored. This book is solid and spot on. There is however one thing that puts a bit of a damper on things with this book. The binding is hard back and doesn't lay flat. It's gonna be hard to work with the book right in front of you on your work bench unless you have a book easel or something similar. That's it though. The only draw back and it's a pretty small one if you ask this hillbilly DIY'er. It's worth the money and the time. Right when I thought it couldn't get any better than backyard ballistics this book comes waltzing into my life with a crescendo of mayhem in it. Look out world I aint done breaking things yet.

Sarah says

Thanks to Goodreads and the publisher for a free copy of Theodore Gray's Completely Mad Science!

This book is exactly what it says on the tin: science experiments that you should try out -- at least without serious amounts of safety equipment -- because wow, could they ever go wrong.

Really, this speaks to the beautiful curiosity of humans. (Why would you want to charge your iPhone using fruit? Especially when you're risking shocking yourself or frying your phone? The better question is *why wouldn't you want to?*)

And fortunately, for those of us with that curious drive but without the courage or safety goggles to complete these experiments, there are gorgeous, full-colour pictures that show the experiments as they progress.

This is a wonderful, hilarious, thought-provoking book to flip through.

Heather says

Theodore Gray has an encyclopedic knowledge of chemistry and the elements and his knowledge and passion just ooze out of the pages in this thrilling science experiment book. What's in here? Making ice cream with liquid nitrogen, casting real silver bullets, preserving a snowflake for decades, electroplating your iPod and lots of things that burn or go BOOM!

But wait .. don't get too excited. Most of these experiments, as cool and mind stimulating as they are, have a high danger/explosive/toxicity level and are not suitable for the average home scientist. Some of the ingredients even have a warning that they might not be legal for private possession.

So, read this book to be inspired by chemical principles in action, but be warned that you may be able to do the experiments only in your mind.

I dream that perhaps he will write another gorgeous picture experiment book, but one that is a little more suited for an average family's garage workshop or kitchen lab. He's a genius with elements and I would love to do more dramatic experiments with my kids besides the ubiquitous volcano experiment to get them engaged with science.

Vanessa says

Such a neat concept with lots of awesome experiments, cool results, and info about the elements. The only downside is that many of the experiments require very specialized equipment. Still, definitely fun for the armchair scientist.

Skyler says

Theo Gray's Mad Science

By Theodore Gray

Everything about this book appeals to human nature and curiosity. Its contents are summarized spectacularly by the subtitle on the front cover: Experiments you can do at home – but probably shouldn't. And the author, Theodore Gray, wasn't joking, some of the concepts in this book are quite dangerous! This book is awesome in the true sense of the word. Explaining chemical reactions and concepts in the most extreme ways possible, Theodore Gray explains the relevance of over 50 chemical experiments in fresh and humorous ways, and then gives a step by step breakdown on how to carry them out. The processes are illustrated with stunning photographs of each step and the various results. Many of the experiments involve violent chemical reactions which usually make for spectacular photos and border on what one might imagine to be

alchemy or wizardry.

Some of the experiments are almost unachievable unless one has access to nuclear science equipment, or the odd bank or two of 12,000v capacitors. Like one experiment that uses extremely powerful magnetic fields to shrink most coins to half of their original size. Other experiments are rather simple and don't take much work at all, such as an experiment that illustrates some of the properties of aluminum, and the reason you are not allowed to bring mercury on air planes. The main reason is that when aluminum rusts or oxidizes, it creates a layer of extremely durable material that protects it from further oxidization. And mercury destroys this layer and will cause aluminum to rust away, right before your eyes! (Airplanes happen to be made of aluminum.)

The most dangerous experiment (nominated by the author) in this book has the end goal of salting popcorn. It doesn't exactly sound dangerous, but when you are combining liquid sodium, and the same kind of chlorine gas used in chemical warfare during World War I, it's a little trickier. The resulting ball of fiery madness gives off white smoke which is, roughly, gaseous table salt. Luckily this book is so well illustrated you need not endanger your personal safety because you can clearly observe the steps the author took through the photographs. And if you were to decide that you want to try these experiments, the author gives the most realistic and honest safety precautions that I have ever seen. Bluntly stating what could happen if you were to do something improperly, and what could happen even if you do everything correctly. Some experiments in this book do have the potential to be quite lethal.

Overall this book is the perfect combination of Theodore Gray's humor, photographs, knowledge, and daring "mad science" to provide the most entertaining form of chemistry oriented learning possible.

Alex says

Another great book from Theo Gray. I don't think I liked it as much as his *The Elements*, but still a good read. I was expected it to contain more experiments that you could actually (practically and safely) do at home in hopes of using them in my chemistry classroom, but it was more of an FYI kind of read. There were a few that I think I could pull off, but most are too dangerous or too expensive. However, the pictures and explanations and history are FANTASTIC as always, and I will certainly read *Mad Science 2*.

Martyn Lovell says

Mad science is an anthology of Gray's columns from *Popular Science* - in which he does relatively dangerous, but nonetheless fun experiments in his home with a mixture of everyday materials and obscure elements. The book is beautifully illustrated, but unless you are confident and a little crazy you won't be trying most of these at home - the copious frank safety warnings tell you why to steer clear.

Each experiment is only a few hundred words, so the coverage is naturally shallow. The writing style is engaging and enjoyable, and the selection of topics is diverse and interesting. The overall result is enjoyable but not compelling, and left me wanting a bit more depth.

Lauren says

Received this book via Goodreads Giveaway. -- What an interesting book. You can open up to any page and read about an experiment. Maybe some people can do some of these at home, but I doubt that I could. Just to name a few; BUILD YOUR OWN LIGHTBULB, MAKE ART WITH A PLASMA TORCH, and SAVE A SNOWFLAKE FOR DECADES. It's a great book to leave out and flip through when sitting around. Would also be great to show kids how cool science can be!
