

The Homeschooler's Guide to
EXPERIMENTS

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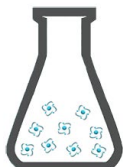
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Experiments



Reading Plans



Notebooking



Activities

Easy-to-use
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Dedication

A special thanks goes to our two children who have been willing guinea pigs in our grand homeschooling experiment. But most of all, I want to thank my husband who has supported and encouraged me on every step of the journey.

This book would not have been possible without the three most important people in my life. You guys make teaching science at home a blast!

Introduction

*Science is one of those great
subjects where making a mess
is educational!*

i

Get ready to be encouraged

I love experiments! I'm kinda geeky like that.

But I know that not everyone shares my enthusiasm for the hands-on aspect of science. And so, I wrote this book to encourage and inspire you to do experiments in your homeschool.

We will be looking at what experiments are and why we need to include them as a part of our homeschool science plans. We will discuss how to handle hands-on science in the lab and in nature. We won't slay the dreaded science fair project monster in this book – that has already been done in a previous one – but we will chat about a whole host of topics that will make doing experiments in your home much, much easier.

You can read the book as a whole or skip to the chapters you need to read at a particular moment. Either way, this book is your chance to pick my brain about how homeschoolers can do experiments in their kitchens, backyards, and sometimes even in their bathrooms!

I have purposely kept the chapters short and sweet, so that you won't get bogged down in all the details. My hope is that you will read a chapter, mull over it a bit, and then apply what fits to your unique homeschooling situation.

For all who pick up this guide, thank you for reading it! If you still have questions, please don't hesitate to send them our way via support@elementalscience.com.

Psst . . .

If you love experiments like I do – you are still welcome to pick away!

I think that you'll find a few golden nuggets of inspiration within these pages, too.

Part 1:
WHAT ARE
EXPERIMENTS?

*Today, we are going to do an
experiment.*

{Cue scary music}

/

The Realm of the Failed Experiment

We have all been there – the Realm of the Failed Science Experiment.

I am no exception. I, too, have visited this place.

Let me take you back a few years, to a time when our oldest was a bright young eight-year-old – at the time of writing this book, she is in high school.

Let's go back to a time when she was expecting to be amazed by her scientist mom. Back to a time when her mom was absolutely positive she could deliver that “wow” factor to their chemistry lesson.

It was a bright sunny day. We were in the kitchen, supplies gathered on the counter before us, while the baby slept peacefully in the other room. Mentally, I reviewed the list.

One soda bottle . . . check!

One packet of yeast . . . check!

Sugar . . . check!

Chapter 1: The Realm of the Failed Experiment

Warm water at just the right temperature . . . check!

A balloon . . . check!

Safety goggles . . . oops! {Grabbing a pair of sunglasses for each of us.}

Putting on the shades, I began, “Today, we are going to use the magic of science to blow up this balloon! With only a bit of yeast, sugar, and water, plus a whole lot of chemistry – it’s going to be amazing!!”

Our daughter smiled with anticipation. I handed her the yeast package and told her to dump it into the bottle. I added in a teaspoon of sugar.

She shook the bottle up a bit to mix up the yeast and sugar. Then, I handed her the mini-pitcher with the warm water and she carefully added it to the bottle.

Lightning quick, I grabbed the bottle when she was done, swirled it around several times, set it down, and stretched the balloon over the top as if I was a gold-medalist in topping bottles with balloons – this really should be a sport, as it can be quite challenging.

“Whew! Now, watch what happens!!” I exclaimed.

And we waited with bated breath . . . and we waited . . . and we waited. A disappointed sigh escaped our daughter’s lips.

“Just wait a minute,” I encouraged. “There’s a bit of foam – it’s going to happen.” Trying to convince myself of the same fact.

Chapter 1: The Realm of the Failed Experiment

So we waited . . . and we waited . . . and we waited some more.

Fifteen minutes later, which is like four hours in the life of an eight-year-old, the balloon had barely fluttered.

And I realized that we had just entered the Realm of the Failed Science Experiment.

Since that day, we have had a few failed experiments, but we have never had a failed learning experience. In this book, I am going to share with you all how to get out of the Realm of the Failed Science Experiment and into the Land of Science-learning!

We are going to go on a journey – on the way, we will learn why we need experiments, what makes something an “experiment,” and gather up a whole boatload of tips for doing these in your homeschool.

Grab a cup of coffee {tea, juice, or a water}, settle down into your chair, and let me lay out before you the homeschooler’s guide to experiments.