

How To Use Dr. Wile's Science Curriculum

by Dr. Jay L. Wile, Ph.D.

Qualifications

- University Professor From 1990 - 1995
- Helped Develop Indiana's Only Residential High School for Gifted and Talented Students
- NSF-Sponsored Scientist with More Than \$200,000 In Research Grants
- Became Interested in Homeschooling Because of Excellent University Students Who Were Homeschooled
- Currently writes junior high school and high school science courses for homeschooled students

Starting With Elementary School

Science in the Beginning uses the days of creation to give you a general overview. That way, you have basic terminology, etc.

The rest of the series allows you to explore science as it developed in history.

Where Do You Begin?

If you haven't done much science, begin with *Science in the Beginning*.

If you have done science for at least a year, you could consider beginning with *Science in the Ancient World*.

If you have done a lot of science, you could just begin in the time period you are studying in history. You will lose the "story" of how science developed in history, but you will gain a science course that goes with the other things you are studying.

What To Cover

- ☺ 90 lessons in each book
- ☺ 18 of the lessons are challenge lessons (you can skip them if you want)
- ☺ If you want to do all lessons in a year, you do science every other day.
- ☺ If you skip the challenge lessons, you do science twice a week.
- ☺ If a book takes longer than a year, don't worry about it.
- ☺ You can come back to the challenge lessons if you begin by skipping them.

How You Prepare

In the introduction, there is a list of the lab supplies you need for each 15-lesson section of the course. Make sure you have those items. If you don't, put them on your grocery list. This is six weeks' worth of preparation. If you aren't doing the challenge lessons, don't worry about the red items.

What You Do Each Science Day

Each lesson has an activity. Some parents read the lesson themselves and then do the activity with the children, explaining what the activity means.

Some parents (or oldest siblings) read the lesson aloud, stopping to do the activity when it comes up in the reading. Then continuing the reading after the activity.

The review you do determines the depth for each student. Answers are in the *Helps & Hints* book.

Making It More Challenging

There are tests in the *Helps & Hints* book. They cover the non-challenge lessons, and there are two for each section.

They assume the students have done the “Oldest Student” review. I would only give the tests to 5th and 6th Graders. Tests can be good for the transition to junior high.

Things to Keep in Mind.

This is the age to allow them lots of time to explore, even if it means not covering the entire book this year.

When they reach junior high/High school, there are specific content goals. That’s not the case in elementary school.

There is no need to look ahead. The book will warn you ahead of time about anything you need to worry about before the next lesson.

The *Helps & Hints* book has hints if the experiment didn’t go well.

If I refer to something from a previous book, the *Helps & Hints* book tells you the book and lesson.

As your children get older, they should be the ones who gather the materials, set up the activity, etc. However, you must always supervise!

You Can Get Help!

<http://www.askdrwile.com>

This is in the introduction to the course. USE IT!

Junior High and High School

Three major differences from the elementary courses:

1. The student needs to do science every day.
2. The student reads a lot more and does fewer experiments.
3. The testing becomes mandatory, at least by high school.

Experiments for Junior High and High School

Junior High: Still use only household items

High School: Biology has three kinds of experiments – Microscope, Dissection, Household. The first two have kits, and you need to get at least one of those kits.

Chemistry has a kit you must buy.

Physics uses household items.

Most universities want to see three high school sciences, two of which have a laboratory component in which at least 24 hours were spent in lab. (The student **MUST** keep a notebook for the experiments.)

The experiments are not necessary for learning science, but they do help.

They are not done nearly as often as in the elementary series.

The student writes down observations and data while doing the experiment.

The student does any calculations needed.

The student writes a summary of what was done (not a step-by-step) and what was learned.

You grade based on how well someone who has not read the book would understand the lab.

What You Do Each Day

There are daily schedules available. Here is one resource for them:

<http://www.donnayoung.org/apologia>

The chemistry course has a daily reading schedule in Appendix B.

I prefer that you use a specific amount of time per day to determine what you do. Start with 45 minutes per day and see where you are at the end of 2 weeks, which is roughly what you want to spend per chapter/module.

Whatever the student needs to do comes to him or her in the reading.

1. **In-reading questions**
Student does them when they are reached, and checks them at the end of the chapter/module.
2. **Experiments**
Student does them when they are reached and records them in the lab notebook.
3. **End of the chapter/module questions**
Student does that after the chapter/module is done.
4. **Test**
Should be done without the book.

Resources for Help

1. **<http://www.askdrwile.com>**
For chemistry and for people who buy the Apologia-published books from Berean Builders.
2. **Course website**
Has links to videos or other instructional material if the student needs more help.
3. **Online courses**
Can be beneficial, not necessary.
4. **Course workbook**
I am not a fan of these.
5. **Instructional DVDs**
Not needed, and not available for chemistry.