

Algebra: Academic Option or Absolute Necessity?

by Bethany Barnosky [11/05]

2 Corinthians 4:17

"For momentary, light affliction is producing for us an eternal weight of glory far beyond all comparison"

A formal algebra course is probably *not* a necessity if you feel God's calling to a truly non-mathematical vocation... becoming head cashier at Wal-Mart or working the drive-through at McDonalds. Being a lay-evangelist or missionary probably doesn't *require* mathematical knowledge past arithmetic.

Algebra is an *absolute* necessity for any "calculation based" science course. Dr. Jay L. Wile, author of the Apologia science books recommends Algebra I as a prerequisite for Chemistry and Algebra II as a prerequisite for Physics. Chemistry and Physics can not be studied at the high school or college level without a solid algebra background.

A formal algebra course is probably *not* a necessity if you are going to leave home and immediately become a full-time homemaker. In my home I use algebra all the time for tricky cooking equivalents, knitting conversions, and the like. It is certainly helpful when it comes to homeschooling!

Algebraic thinking is an *absolute* necessity for understanding our "media rich" world. Without algebra and statistics, you are at the mercy of politicians and reporters to interpret the latest polls and medical studies. Without an understanding of logic it is difficult to see the inherent illogic in the arguments of so many activists and lawyers.

A formal algebra course is probably *not* a necessity if you are going directly into a "trade skill" and have solid mathematical skills. Algebraic thinking and computations are used in many trade skills, from cooking to plumbing to construction work. However, being brilliant at "crunching the numbers" isn't necessarily required. It may be just as well to know basic math well and be willing to look up an unknown in a book.

Algebra is an *absolute* necessity for a well-rounded "Liberal Arts" education and for admission to most colleges. You need algebra in order to comprehend statistics--a necessary course in most college majors and in the "real world". Most colleges and scholarships will require Algebra as a prerequisite to admissions. If you are accepted without it, you will be sent into remedial classes; these classes cost the same as any other college classes but offer no credit toward graduation, financial aid, or class standing. Algebra is also prevalent on the SATs and, later, the GREs... taking Algebra in high school keeps these options open.

Algebra is the "branch of mathematics that uses letters, etc., to represent numbers and quantities"

Many students "choke" at Algebra I not because of its inherent difficulty but because it reveals a student's lack of understanding of basic arithmetic concepts. This lack of understanding is more damaging to future prospects than the lack of a formal algebra course.

National mathematics standards (as defined by the National Council of Teachers of Mathematics) emphasize algebraic thinking across all grades--using "real world" problems to encourage students to look for the unknown.

I discovered this post on a national home school bulletin board:

"Dh [dear husband] and I are teaching high school chemistry for our local coop (using Apologia as the text). One of the students dropped the class this week because he cannot do the math (basic algebra) required to do the homework and test problems... rather than have him struggle through the class, his mom dropped him from the course.

...I guess, in my mind, algebra and the basic sciences are essential for a person to understand in the modern world. I am so concerned for this young man that he is being cut off from many career/education choices and may well suffer for this lack of training in math and science for many years. How does this happen? How can I keep my own children from being in this situation?..."

How would you respond? Find this thread at www.sonlight-forums.com/showthread.php?t=145581

For more information, consider: http://www.haptonstahl.org/tower/use_of_math.htm
<http://www.stolaf.edu/other/extend/Expectations/skills.html>