

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Joyous Mathematics

“How to help kids love math”

by Bethany Barnosky

Life isn't perfect. It's not a bowl of cherries, a bed of roses, or a walk in the park. That having been said, what if your family looked forward to math class as a time of learning and discovery? There are four areas that can, with a little effort, make a huge improvement in the way your students perceive mathematics: attitude, curriculum, fun, and context.

How do you feel about math? Are you harboring awful memories of 9th grade Algebra? Does your checkbook give you a case of hives? If you want to have a great math class you simply *can't* communicate these horrors to your students! It's fine to dislike math, but you, the parent, need to put an optimistic face on things. It's amazing the difference a positive mental attitude can make! Along with an “I don't hate math” attitude, consider fostering a hearty work ethic (2 Thessalonians 3:8-10, Ephesians 4:28, et al) and a love for learning in your students. Sometimes you *won't* use a new math concept in “real life”, but it can be fun exploring it anyway!

I get this question, or it's variant, a lot: “Do I have to know algebra in order to teach it?” And the answer is, well, “Yes!” How can you “impart knowledge” to someone when you don't have that knowledge yourself? The good news is, of course, that homeschoolers don't need to understand and teach every course in their curriculum. A mom with a strong math background might use Saxon, ABeka, or Bob Jones, knowing that they can comfortably teach each topic that comes up. A less math-saavy mom might use Math-U-See, Teaching Textbooks, or VideoText Algebra. These programs include a teaching component, via DVD or computer program, that enables the teacher can be less “hands-on” and more of a proctor. You'll still need to answer questions and ensure that work is completed and corrected *daily*, but the burden of actually teaching daily math lessons is eliminated. For those tough questions, consider homeschool classes, a tutor, online “homework help”, or even just calling another mom. I know that I'm always thrilled to field a call from a student, or teacher, with a math conundrum... fun! Remember that the perfect curriculum won't help if you've placed your child above their standard of mastery—it's infinitely better to have a child successfully learning “behind” his grade level than constantly frustrated “at” grade level.

Many enjoyable aspects of life incorporate mathematical principles – why do we feel the need to suck out the fun and distill the remaining math down to its driest common denominator? There is a wealth of literature designed to help students relate to math—and help teachers bring the abstract language of mathematic symbolism down to a more prosaic, understandable level. Life and variety can be added to your math curriculum with books by Theoni Pappas or Loreen Leedy, Stanley Schmidt's *Life of Fred* curriculum, or Josh Rappaport's *Algebra Survival Guide: a Conversational Guide for the Thoroughly Befuddled*. Math is used for laying out sports fields, cooking, playing games, sewing, origami, and LEGOs. Shake things up with Fun Fridays, use colored markers on a white board, or simply integrate real-life mathematics into your daily life.

Mathematics is not the province of humanists, or even religiously neutral; mathematics was created and is maintained by the Creator of the universe. Teaching math from a Christian worldview changes the entire picture. Instead of vague, purposeless learning, students begin to understand that God created mathematical truths, keeps them functioning, and intends them for His glory. Katherine Loop, author of *Beyond Numbers*, puts it this way, “Once we realize that God created and sustains math, we will no longer regard math as meaningless symbols on a piece of paper.” Nothing makes a subject relevant like seeing its practical application in God's eyes.

Two minutes into the writing of this article my nine-year-old daughter looked over my shoulder and perked up, “That could be very useful!” Yes, she only “kind of likes” math, but she used to despise it...so we're headed in the right direction!

Consider making this the year that your family comes to finds peace and joy, even in mathematics.

Next issue: “iPod, mp3, and me” Please visit www.candlestarservices.com with questions, comments, or topics for future columns. Check out the *Family Math* series, Linda's Homeschool Page (www.bright.net/~double/math.htm), Pam Sorooshian's *Joyful Math* blog (homepage.mac.com/pamsoroosh/iblog/math), *Life of Fred* (www.stanleyschmidt.com/FredGauss/index2.html), and Katherine Loop (www.christianperspective.net)