




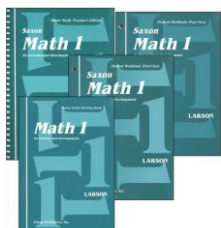
## CURRICULUM CONUNDRUMS: MATH

A MENTOR MOM © CLASS

by Melissa Coombs, Adrienne Georgia, Jennifer Georgia, Marty Huie, Melissa Orton,  
Barbara Ritter, H.J. Vandam, and Sherry Veach

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	<p><b><u>ALEKS – Assessment and Learning in Knowledge Spaces (<a href="http://www.aleks.com">www.aleks.com</a>)</u></b></p> <p>ALEKS is a computer-based math program for grades 3-12. It is accessible from any computer with Internet access so it is flexible and mobile. It is a complete curriculum for math with no textbook required. “Artificial Intelligence” targets gaps in student knowledge, and gives them practice on those gaps as well as teaching new concepts. The students read to learn new concepts, then the computer gives them practice problems on the concepts until they gain mastery. It also re-teaches as necessary. There are placement tests for students to take before they choose a course, and a pie chart helps them keep track of their progress. There are regular assessments to test progress and a master account allows parents to know where the student is at all times. There are no grades per se so you may need to find another method of accountability. I found tracking time-spent per child worked well.</p> <p style="text-align: right;">– presented by Sherry Veach</p> <p>Price - \$20/month, \$100/6 months, \$180/12 months</p>
	<p><b><u>Miquon Math Lab (<a href="http://www.keypress.com">www.keypress.com</a>)</u></b></p> <p>Miquon Math Lab is a manipulative-based program for grades 1 to 3 (but I start it in Kindergarten), which has children build models of each concept before working with it symbolically. By the end of first grade they have been exposed to addition, subtraction, multiplication and division, and by third grade have learned fractions, equalities and inequalities, place value, number lines and functions, factoring, squaring, graphing equations, geometric recognition, length, area and volume, series and progressions, grid and arrow games, mapping, clock arithmetic, and word problems. The things I like best are how it encourages children to look for patterns, prepares children for algebra through several unusual problem formats, and asks children to make up their own problems and have other people work them out -- getting them involved in thinking creatively about mathematics. You need a set of Cuisenaire rods (\$10 - \$15 depending on type selected) and rod track (\$3.25), sold by Rainbow Resources. <i>Lab Sheet Annotations</i> is the teacher’s manual, which tells what to do with each page in the workbook, and has games and activities (\$13.50) and the workbooks are \$5.50 each - two per grade-level. A very inexpensive, fun, high-quality math program for the little ones.</p> <p style="text-align: right;">– presented by Jennifer Georgia</p>
	<p><b><u>Right Start Mathematics (<a href="http://www.alabacus.com">www.alabacus.com</a>)</u></b></p> <p>Right Start Math is a program for K-4th grade. What makes it different? Using a unique Abacus, math games, and an awesome curriculum, young children learn what numbers are and how to work with our place value system, which creates a visual picture in their head about what math really is. On the website you will find program information, excellent power-point presentations, and even an interactive abacus to see how the visualization works.</p> <p>From the website: “This unique program uses visualization of quantities, de-emphasizes counting, and provides strategies (visual pictures) for learning the facts. The primary learning tool is the ALAbacus, a specially designed two-sided abacus that is both kinesthetic and visual.</p> <p>“Understanding is stressed. Math needs to be taught so 95% is understood and only 5% memorized. When children understand, they need to spend less time in review and practice. When children don’t understand, they memorize until the burden becomes too great and then give up. Rote memorizing is high maintenance; it requires constant review. And those merely memorizing math usually can’t apply it and generally dislike it.”</p> <p>Price - Starter Kit with lesson books: \$100 - \$163</p> <p style="text-align: right;">– presented by Barbara Ritter</p>



### Saxon Math ([www.saxonpublishers.com](http://www.saxonpublishers.com))

“Saxon Publishers have consistently been one of homeschoolers' top choices when it comes to math curriculum. Their incremental approach to education has been proven to be one of the most effective teaching methods; learning pieces of information in small amounts, and then continually repeating concepts keeps information fresh and active in one's mind, preventing once-learned information from slipping away. Applauded by public, private, and home schools, and by experts and scholars alike, Saxon has proven itself committed to continued educational success.” – Christian Book.com

Some of the things I like about Saxon Math are:

1. They incorporate geometry right along with regular math lessons.
2. They start algebra early, but in really simple terms.
3. They have extra practice problems in the back of the book that the student can use if needed.
4. The corresponding DIVE Cds ([www.diveintomath.com](http://www.diveintomath.com)) are great and allow for more independent learning.
5. Grades 1 and 2 have a lot of hand-on activities.
6. They are thorough.
7. Most lessons do NOT require a lot of prep on the part of the parent.
8. The lessons for older kids have a good number of story problems which give the students opportunities to practice real life application.
9. The mental math practices at the beginning of the middle to older books give a different brain work out than the typical math fact.
10. If you are new to homeschooling, Saxon provides you with the comfort of a schedule if you choose to use it.

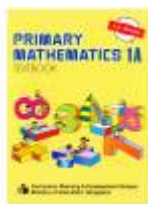
Additional Resources:

Saxon Placement Guides: <http://www.sonlight.com/saxon-placement-tests.html>

Using John Saxon's Math Books by Art Reed – (I have not read this, but many homeschool moms have and they highly recommend it)

Price - Lower level: books \$65, Manipulative kits \$33- \$62, Upper level: books \$44, DIVE CDs \$50, books and CDs together: \$85

– presented by Melissa Orton



### Singapore Math ([singaporemath.com](http://singaporemath.com))

Singapore Math is a math curriculum which was originally designed by the education system in Singapore. The one that is available through most vendors is the U.S. Edition. It is similar to that of the original Singapore editions however, with the U.S. currency and measurements and U.S. terms. The textbooks and workbooks are both relatively thin and use color illustrations in the early ages. There are 2 textbooks and 2 workbooks for each level.

Primary Math, the U.S. edition, covers core subjects and then uses that knowledge to solve problems. It is visual and has many word problems. It “uses a concrete-to-pictorial-to-abstract approach to teaching. Concrete illustrations are incorporated heavily in the early grades, gradually giving way to more abstract representations so that math is learned meaningfully. The program builds strong problem solving, critical thinking, and computational skills through well-chosen practice problems.”

There are home guides for many of the levels. The guides may not be as necessary for the earlier levels. Many of the illustrations are self-explanatory. Children address some subjects such as multiplication and division earlier than in other curricula (by the end of level 1B).

I've used Singapore as a supplement to my other curriculum. I've enjoyed all the word problems that my children have had to address. It gives them another opportunity to use the math facts they've learned presented in a different manner. It's been a great program to use to reinforce what has been taught in our other curriculum. I do like the conciseness of the lessons. My children have also enjoyed the colorful texts as well.

Price - Student books + teacher guide (for one year) - \$54

– presented by H.J. Vandam

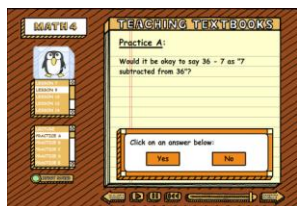


**Math-U-See ([www.mathusee.com](http://www.mathusee.com))**

Math-U-See is a K-12 math program spanning from early childhood number recognition through Calculus. It follows a pattern of “say it”, “build it”, “color it”, and “write it”; touching on auditory, kinesthetic, and visual learning styles. With a degree in Civil Engineering and decades of experience as a math tutor, I have come to love this program and have learned some new ways of looking at old math. It’s emphasis is on being sure that children understand the why’s behind math problems, not just the rules. Anyone can do math given a formula and the numbers to fill in the blanks; Not everyone can take real life problems and know which formula is the right one to use or which numbers fit which variables. It is also an easy program to follow with DVD lessons that can be watched again and again. I usually watch the lesson with my child, we then go over the concept with some examples, and I send them off with their workbooks and manipulatives. Also, lot’s of review is built into the program to help them continue to practice what they learn so they don’t loose it.

Price - Lower level books and manipulative: \$100, Upper level: \$140

– presented by Marty Huie



**Teaching Textbooks ([www.teachingtextbooks.com](http://www.teachingtextbooks.com))**

A few years ago I was struggling trying to teach math to 5 children, all at different levels. There just was not enough time in the day to give each child the personal help they needed. I was explaining this to a friend, and she said, "Haven't you heard of Teaching Textbooks? It has saved our homeschool!" I went home and purchased the Algebra 1 program immediately. We fell in love with it, and I ended up purchasing 4 more levels! This program has made all the difference for us! We are finally succeeding in math...and I am not the one doing the teaching!

Teaching Textbooks is a computer-based math program. All of the lessons are taught by a wonderful, patient, and calm math teacher. The student watches the lesson on the computer screen, which appears as the teacher's white board. Then they do practice problems, and the computer gives immediate feedback regarding if the problem was answered correctly or not. Then the student does a set of about 30 problems. With the lower levels, answers are keyed right into the computer and immediate response is given. (There is fun animation and small incentives.) In the upper levels, the problems have to be worked out and then the student checks his work using an answer key. If a problem was missed, they put in the Solutions CD to see the teacher explain how to work the problem. That is my favorite part about this program! The teacher gives an explanation to every single problem in the book! I love this program because I feel like each of my children have their own personal math tutor! The kids love the program because it is fun, interactive, and they can do it on their own....and the word problems are kid friendly and deal with real life situations. Excellent program!

Price - Lower level: \$120, Upper level: \$185

– presented by Melissa Coombs



**Harold Jacobs: *Elementary Algebra, Geometry: Seeing, Doing, Understanding, and Mathematics: A Human Endeavor***

We love the Harold Jacobs books; they are actually fun to read! He is a master mathematician who is on a mission not only to teach, but to capture students’ imagination. His approach focuses on understanding, rather than method, and he showers you with interesting tidbits (comic strips, historical facts, and modern applications) along the way to keep you awake. Our family has not yet used the Algebra text, which covers everything in “traditional” algebra 1 and 2, but in more simple language--many great reviews online. I used the Geometry book in between Saxon Algebra 1 and 2, and found it fascinating. It teaches Euclidean and non-Euclidean geometry through formal proofs and theorems, and also teaches logic and deductive reasoning. Some of the problems involve simple algebra review, and the latest edition contains problems that could be found on the SAT.

*Mathematics: A Human Endeavor* is the ultimate “love of learning” book for math. It can be used at any level from middle school to high school. Some of the topics are inductive and deductive reasoning, number sequences, functions, graphs, scientific notation, logarithms, geometry, curves, combinations and permutations, topology, probability, and statistics. But don’t be scared! His friendly writing style and focus on finding beauty in math help to make these topics understandable and interesting.

Price - Hardcover student texts: \$74 - \$83, teacher manual + answer key: \$28 - \$67

– presented by Adrienne Georgia

“For those TJEers, this book falls into my category as a ‘classic’- Jennifer Georgia”

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Melissa Coombs has been homeschooling her 5 children for 10 years and has been using Teaching Textbooks for the past 2 years...with grade levels 4 and 5, Algebra 1 and Geometry.

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Adrienne Georgia was homeschooled her entire life, and is now a Sophomore at BYU, majoring in Mechanical Engineering. She did Saxon for middle and high school math, but used Harold Jacobs for a welcome break.

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Jennifer Georgia and her husband Paul have been homeschooling their children since birth, and their oldest is now a junior in college.  
[www.georgiatimes.blogspot.com](http://www.georgiatimes.blogspot.com)

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Marty Huie has been homeschooling her children for 8 years and has used Math-U-See from the beginning. She has 4 children ages from 16-10, they reside in Gloucester, VA.

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Melissa Orton has been homeschooling her three girls for nine years. They have used Saxon Math 1 through Algebra 1.

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Barbara Ritter has homeschooled her 7 children since 1989, when the oldest was 11. She liked RightStart Math so much, she bought the entire program, even though there were only 2 children who were elementary age, one 3rd grade age, and the other Kindergarten.

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H.J. Van Dam has 4 children. Thus far she's homeschooled her oldest 2 children from the beginning. She's used this program mostly as a supplement from K-4th grade.

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Sherry Veach is the mother of four children ages 18 to 7 and has been homeschooling for eight years. She has used Saxon for years but started using ALEKS with her oldest son when he hit a snag with Algebra 2, which worked very well for him.