## Math Curriculum for Home School <br> Comparison Chart

www.hearthstoneplan.org

For more reviews about math options see:
http://www.livingmath.net/MathPrograms/tabid/463/language/en-US/Default.aspx
and
www.HomeschoolMath.net A comprehensive math resource site for homeschooling parents, parents, and teachers that includes free math worksheets, lessons, online math games lists, ebooks, a curriculum guide, reviews, and more. The resources emphasize understanding of concepts instead of mechanical memorization of rules.

The following Math Curriculum and Books are most frequently recommended by home schooling families.

| Publisher/ <br> Creator | Web address | Cost | Summary |
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| Math for your <br> First and <br> Second Grader | Available on Amazon <br> $\frac{\text { http://www.amazon.com/Mat }}{\frac{\text { h-Your-First-Second-Grader- }}{\text { Teacher/dp/0471042420 }}}$ | New: \$4.00 <br> Used: $\$ .01$ and up | Based on standard math curriculums, this book covers all <br> the math that your first- and second-graders should be <br> learning and gives you dozens of proven techniques for <br> teaching these crucial skills. Steve Slavin, an educator with <br> a special gift for math instruction, shows parents how to |
| teach the fundamentals--counting, addition, subtraction, |  |  |  |
| fractions, simple word problems, even the beginnings of |  |  |  |
| multiplication and division--plus "new math" principles such |  |  |  |
| as grouping. Simple activities build these skills in a fun way, |  |  |  |
| step-by-step. All concerned parents, including home- |  |  |  |
| schoolers, will applaud this confidence-building guide. |  |  |  |


|  |  |  | "Math for your First and Second Grader by Steve Slavin has end of year tests. If you do not like the title put a book cover over it. It is what is inside that counts. If you get a question wrong it tells you what chapter addresses that. That way you can make sure their kooky teaching did not undermine her foundation. If your child bucks taking the tests, explain that you have no idea what she was taught and what she was not and taking these little tests help you decide what was not taught, what she needs, and you want math to be enjoyable." -Donna Goff |
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| Arithmetic Made Simple | Available on Amazon <br> http://www.amazon.com/Arith metic-Made-Simple-Robert- <br> Belge/dp/0385239386 | New; \$11.00 Used: \$. 01 and up | Arithmetic Made Simple will lay out the major rudiments needed before Algebra or Geometry. You can use it as a road map for what to cover. Use the lessons and tests in the book. If you need to break it down further, then google ways to teach the concept to children. <br> This book receives excellent reviews including this one: <br> "Arithmetic Made Simple has really helped our family. It contains easy-to-understand mathematics concepts from 4th grade level up to 9th grade. Each math topic is organized in a way to allow step-by-step learning. The sections on use of percentages have been extremely helpful - even to our 9th grader. This book would be extremely useful for an adult that is pursuing their GED. After the explanation of each topic there are sample problems and practice problems. Even the answers in the back have explanations of how many of the problems were worked. I highly recommend this book for every parent that has school-aged kids" |
| Charlotte Mason | http://www.pennygardner.com /Academic Subjects/Math/mat h.html | This website will provide links to several books and stories that talk through math problems. <br> Price varies | "Mathematics depend upon the teacher rather than the textbook and few subjects are worse taught; chiefly because teachers have seldom time to give the inspiring ideas... which should quicken the imagination. How living would Geometry become in the light of the discovers of Euclid as he made them!" $\sim$ Charlotte Mason |


| Family Math Series | See reviews at Good Reads: <br> https://www.goodreads.com/b ook/show/489265.Family Mat <br> h | Available on Amazon <br> New: \$10.00 <br> Used: \$0.25 and up | Using easy instructions and simple objects such as beans, blocks, pennies, buttons, and string, parents and kids solve problems together. FAMILY MATH is a rich resource of math curriculum including number and estimation, logical thinking, probability and statistics, geometry, measurement, and calculators. The stimulating games, puzzles, and projects entice kids in playful ways to master math concepts. The book has a step-by-step description of how to organize a FAMILY MATH class in your community. For families with children five to twelve years old. Grades K-8. |
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| Right Start Math <br> Spiral learning toward selfdiscovery and extensive card games for mastery | $\frac{\text { http://www.rightstartmath.c }}{\mathrm{om} /}$ | Book Bundles for each level: approx. \$85 <br> Math Kits with manipulatives \$150-\$180 <br> (purchased once for all grades, recommended add-ins available as children advance through the grades) <br> Currently writing new editions. The $2^{\text {nd }}$ edition of Level A and B are completed. (Kindergarten and $1^{\text {st }}$ grade). | Elementary Mathematics <br> This unique hands-on program de-emphasizes counting, uses visualization of quantities, and provides strategies (visual pictures) for learning the facts. Understanding and problem solving are emphasized throughout the curriculum. <br> The primary learning tool is the AL Abacus, a specially designed two-sided abacus that is both kinesthetic and visual. The AL Abacus is grouped in fives and tens for quick recognition of quantities. Children develop visual strategies as they use this manipulative. The back side of the AL Abacus teaches place value to the thousands. <br> The RightStart ${ }^{\text {TM }}$ Mathematics homeschool program is set up with levels, rather than grades, so that your child can begin at the proper level and advance at their own pace. |
| Saxon <br> Spiral approach | http://www.learningthings.c om/articles/Saxon-Math/54- <br> 4th-Grade.aspx <br> This website is just one of many that sells Saxon Math | Price varies <br> Math kits range from \$90.00-\$120 each year <br> Manipulatives sold separately <br> CD Roms $\$ 50.00$ for each level | CD Roms available for Math 4 and higher through pre-calculus <br> Each lesson in Saxon Math's textbook is taught step-by-step on a digital whiteboard, averaging about 10-15 minutes in length; and because each lesson is stored separately, you can easily move about from lesson-to-lesson as well as maneuver within the lesson you're watching. |


| Singapore <br> Mastery approach | http://www.singaporemath. <br> com/ <br> Online help available at: http://my.homecampus.com $. \mathrm{sg} /$ | Elementary Workbooks and Textbooks: \$12 each <br> Teacher's guides \$25-\$30 each <br> Middle and High School textbooks: \$22 each <br> Teaching notes for each level \$29 <br> Workbook solutions \$15 | The Primary Mathematics series has levels 1 through 6 which cover material for approximately grades one through seven. Each level has two textbooks (A and B). There is a student workbook as well as a home instructor's guide or teacher guide for each textbook. This is not as overwhelming as it sounds since these books range in size from only 80 to 128 pages each. In addition, textbooks and workbooks are each about 10 by $7 \frac{1}{2}$ inches, with uncrowded, large print. The amount of written work required of children is very reasonable. <br> While each level has both a teacher guide and a home instructor's guide available, the latter is designed specifically for homeschoolers, is less expensive, and is what I recommend. You do not need both. Teacher guides have additional teaching activities that might be useful, but most parents are not likely to use them. Both guides have answer keys, the component that you really need. <br> The program requires one-on-one teaching throughout most lessons for the younger grades. The textbooks use pictorial lessons to introduce new concepts that parents will need to work through with their children. Both the home instructor's guides and teacher guides help with lesson presentation.... Placement tests are available at their website. If your child is not starting at the beginning of the program, it is vital that you use the placement test to determine the appropriate level. It is not unusual for a child to place one or two levels below their official grade level. |
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| Life of Fred | http://lifeoffredmath.com/ | ```1 st }-\mp@subsup{4}{}{\mathrm{ th }}\mathrm{ grade: $160.00 4 th }-\mp@subsup{6}{}{\mathrm{ th }}\mathrm{ grade: $50.00 Pre-Algebra (5 th }-9\mp@subsup{}{}{\mathrm{ th }}\mathrm{ grade): $125.00 High School Algebra: $136.00 High School Geometry:$84.00 University (Calculus, Statistics, Linear Algebra): \$144.97``` | Written by Dr. Stanley Schmidt with the intent to make math come alive with lots of humor, clear explanations, and silly illustrations that stick in the mind. The student will learn to think mathematically. <br> Completion of this series prepares student for third year college math. |


| Math U See | http://www.mathusee.com/ | Elementary: \$50-\$75 per year for Instruction pack/student pack. <br> Pre-Algebra thru Calculus $\$ 90-\$ 120$ per class for instruction pack/student pack <br> Math manipulative blocks and other aids also available for purchase | Math-U-See is a complete K-12 math curriculum focused on homeschool and small group learning environments that uses manipulatives to illustrate and teach math concepts. We "Build Understanding" in students with a multi-sensory, mastery-based approach suitable for all levels and learning styles. Levels focus on a specific set of concepts while continuously reviewing and integrating previous concepts; other math topics are introduced where appropriate. Placement tests are offered. Students progress at their own rate. They complete approximately one student pack per year. <br> Instruction pack contains the instruction manual with lesson-by-lesson instructions and detailed solutions, and the DVD with lesson-by-lesson video instruction. |
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| Math Mammoth <br> Mastery approach | http://www.mathmammoth. com/ | Elementary <br> Approx. \$40-\$50 per year <br> Pre-algebra through Pre-calculus: Math mammoth website recommends textbooks from other publishers | Math Mammoth offers affordable, yet quality math worktexts and workbooks for grades 1-12, loved by parents, homeschoolers, and teachers. <br> All of the books are available as downloads-and most also as printed books. <br> Free math placement tests offered on the website |
| Teaching Textbooks | http://www.teachingtextboo ks.com/ | $3^{\text {rd }}-5^{\text {th }}$ grade: $\$ 120$ for complete set for each grade separately <br> $6^{\text {th }}-7^{\text {th }}$ grade: $\$ 150$ for complete set for each grade separately <br> Pre-algebra thru Pre-calculus: \$185 for complete set for each grade separately | Begins with $3^{\text {rd }}$ grade math and continues through precalculus <br> Placement tests offered <br> Receives great reviews from home school families <br> Complete set includes CD-ROM with video instruction and consumable workbooks |
| Christian Light Education | http://www.clp.org/store/by s ubject/4 | $1^{\text {st }}-12 \text { grade }$ <br> Student Workbooks \$34.00/year Teacher's Guide Books range from \$7.00 - \$18.00 each year <br> Additional workbooks and math | CLE's Mathematics program offers solid math instruction that teaches from a Christian perspective at a very reasonable price. Each grade level course includes a oneor two-volume teacher's guide and ten LightUnit student workbooks. (Third grade has a single volume for teacher's guide.) A few other items are either required or optional, |


|  |  | manipulatives available on the website | especially in the early grades. <br> CLE Mathematics teaches new concepts and skills in increments similar to Saxon's approach. Also like Saxon Math, CLE has built in continuous review. The program emphasizes mastering math facts and computation skills, often taking students into more challenging territory in some areas than do other math programs. <br> It uses manipulatives and visual aids frequently in first grade, but decreases their use in subsequent grade levels. By fourth grade, manipulatives are used only a few times. In the first grade program, manipulatives might be counting blocks, craft sticks, or whatever you choose to use for the most part, so there are no expensive manipulatives required. |
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| Abeka Math <br> Mastery based with lots of review | http://www.abeka.com/ABeka Online/ProductSearch.aspx?gra de=\&subject=MATH\&title=\&sb n= | Preschool: \$12.00-\$15.00 for workbooks <br> Elementary: \$22 each year for study kit; Parent kits range from $\$ 60-\$ 100$ each year <br> Junior High: \$100 each year for student textbooks, teacher key, tests and solutions <br> High School: \$150 each year for student textbook, teacher edition, tests and solution keys. | Pre-school thru $12^{\text {th }}$ grade <br> Provide student textbooks, teacher aids and support materials. Items are sold separately. Listed prices in this chart indicate the price of a full kit for each grade. <br> High school mathematics includes Algebra 2, Plane Geometry, Pre-calculus, Trigonometry <br> Abeka also sells curriculum for consumer math and business math |
| MEP | http://www.cimt.plymouth.ac. uk/projects/mep/ | Free <br> Student workbooks may be seen online and are also available for purchase | MEP is a free math curriculum from Great Britain. It is available as downloadable PDF files upon request (homeschoolers can send an email to request download access). Printed workbooks can be ordered at the website. |


|  |  |  | MEP is workbook-based, spiral curriculum that emphasizes concepts and logical thinking. It is considered somewhat untraditional in its approaches, and contains many puzzle-type problems that require "out-of-box" thinking. |
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| CTC Math | http://ctemath.com/ | \$197.00 per year for one student <br> \$297 per year for 2 or more students | Online math tutor: <br> Each of the 1,400+CTC math tutorials last around 4-9 minutes and presents the concepts of the math lesson step-by-step. Using synchronized audio and animation which harnesses both audio and visual learning styles simultaneously. CTC math lessons can be studied at home or at school and even on some modern mobile phones. |
| Mathhelp.com | http://www.mathhelp.com/ | \$50/month \$200/year | Online math tutor <br> $5^{\text {th }}$ grade through college algebra <br> Comprehensive homeschool math curriculum designed as an entire stand-alone solution, featuring over 450 online lessons with a personal math teacher inside every lesson! <br> 450 online lessons covering Pre-Algebra through Algebra 2 <br> - Printable extra problems worksheets in every lesson <br> - Printable chapter tests and complete solutions manual <br> - Grade reports for tracking student progress <br> - Based on curriculum at one of top private schools in U.S. |
| Purple math | Purplemath.com | Free | Online math tutor <br> This site uses selected lessons from mathhelp.com above. The lessons provide a basic review of Algebra principles. A subscription to mathhelp.com is required for more indepth study. |


| Elements of Mathematics Foundations | http://www.elementsofmathe matics.com/ | $\$ 305.95$ is for 540-day access to the online material | Elements of Mathematics: Foundations is a series of interactive, self-study math courses designed specifically for bright secondary school students that goes well beyond the typical gifted math class offered in schools or online. It is not an accelerated version of the standard US mathematics curriculum. <br> Based on the Intuitive Background books of the Elements of Mathematics (EM) series developed over many years by an international team of mathematicians, Elements of Mathematics: Foundations is a self-contained, self-study program that allows the talented student to complete all of middle and high school mathematics up to calculus before leaving middle school. |
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| Kahn Academy | https://www.khanacademy. org | free | Online Math Tutor: <br> Elementary math through University calculus and linear algebra |
| Challenge Math Books: |  |  |  |
| Real World Algebra By Edward Zacarro | Available on Amazon: <br> http://www.amazon.com/Real- <br> World-Algebra-Edward- <br> Zaccaro/dp/0967991528 | New: \$16.00 <br> Used: \$10.00 and up | Just as English can be translated into other languages, word problems can be "translated" into the math language of algebra and easily solved. Real World Algebra explains this process in an easy to understand format using cartoons and drawings. This makes self-learning easy for both the student and any teacher who never did quite understand algebra. Includes chapters on algebra and money, algebra and geometry, algebra and physics, algebra and levers and many more. Designed for children in grades 4-9 with higher math ability and interest but could be used by older students and adults as well. Contains 22 chapters with instruction and problems at three levels of difficulty. |


| Challenge Math <br> By Edward Zacarro | Available on Amazon: <br> http://www.amazon.com/Chall <br> enge-Elementary-Middle-School- <br> Student/dp/0967991552/ref=sr <br> 1 1?s=books\&ie=UTF8\&qid=1 403453093\&sr=1- <br> 1\&keywords=challenge+math | New: \$23.00 <br> Used: $\$ 15.00$ and up | This book explains difficult math concepts in an easy to understand and entertaining format using cartoons and drawings. Children love the real world connections between math and science and will be challenged by over 1000 problems in areas such as algebra, astronomy, trigonometry, probability, and more. Answers are included in the back of the book. A great resource for those of any age who love math. Challenge Math is designed for children in grades 4-8 with higher math ability and interest but could be used by older students and adults as well. Contains 20 chapters with instruction and problems at three levels of difficulty. Challenge Math can be used by children independently or in a classroom setting. This edition not only contains answers, but it also contains step by step solutions to the problems. |
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| Becoming a Problem Solving Genius <br> By Edward Zacarro | Available on Amazon: <br> http://www.amazon.com/Beco ming-Problem-Solving-GeniusStrategies/dp/0967991595/ref =sr 1 1?s=books\&ie=UTF8\&qi $d=1403453732 \& s r=1-$ <br> 1\&keywords=becoming+a+pro blem+solving+genius | New: \$19.00 <br> Used: $\$ 13.00$ and up | Every math student needs a tool belt of problem solving strategies to call upon when solving word problems. In addition to many traditional strategies, this book includes new techniques such as Think 1, the 2-10 method, and others developed by math educator Ed Zaccaro. Each unit contains problems at five levels of difficulty to meet the needs of not only the average math student, but also the highly gifted. Answer key and detailed solutions are included. Grades 4-12 |

