

## How to Set Your Child up for Math Success

As homeschool parents, we teach our children a wide variety of subjects. But the difference in being able to answer a math problem and being able to pass on a love for the beauty of math are quite different! How do you choose a secondary math option that will be the most beneficial to your child? Here are some thoughts to consider as you determine whether a program will provide your child with an excellent math education:

1. Determine whether the curriculum is appropriately challenging:
  - Curriculum should help students to see the interconnectedness of math concepts. If each concept is taught without tying it back to previous learning, math will feel disjointed and confusing.
  - Curriculum should encourage students to consider multiple ways of solving a problem. This develops analytical skills that are beneficial in many different life situations.
  - Curriculum should challenge students to apply the concepts they are learning by solving a variety of problem types. There needs to be enough practice at a basic level to master the skill, deeper and more rigorous practice that will reinforce the connection of new learning to old learning, and word problems that help students to consider how the concepts can be used in real-world settings. There should not be an emphasis on completing a large number of repetitive, rote problems.
2. Consider whether the instruction will develop a love of math and display the beauty of math to your student:
  - Instruction should be engaging and encourage students to ask questions. There is rarely one path to a correct answer, but it is quite easy for students to “make up” a math rule that works sometimes...but not always. Having the opportunity to determine why something does and does not work is crucial to math success.
  - Students should be challenged to verbalize their own problem-solving process as well as hear others’ strategies. They will grow in their comprehension of the “big picture” of math as they see a variety of skills employed in unique ways that all lead to the same solution.
  - Instructors should demonstrate a true joy in helping students see the logical progression that builds concept upon concept and brings about clear and concise solutions to complicated mathematics problems.

3. Evaluate whether a program emphasizes the development of critical thinking skills:
  - Critical thinking is taught by encouraging students to apply old learning in new, abstract situations. If the focus is on learning steps to solve specific problem types in particular ways, the emphasis is more on memorization than on critical thinking.

A common thread in math education is that each course builds on the previous one, both in the level of difficulty and in the level of abstractness. By using a curriculum that challenges students to synthesize the information previously learned and apply it in a new way, by learning under a teacher who has a passion for communicating the beauty of math, and by working to develop critical thinking skills, your child will be set up for success that goes far beyond high school mathematics!

Let me know if I can help you in any way!



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