

How to Help Your Child Learn Math

I've come across many parents who are intimidated by the thought of helping their kids out in Math, at least beyond Grade 4, because they themselves are not very good at it. Don't worry - Math is about the easiest subject to find (typically free) additional materials with which to help your child. Your job as a parent/educator is not to tell your child how to do something, but to help them figure out how to do it. The best role you can play is to be a fellow student with your child and learn together, showing them how to figure it out. This will empower your child to learn on their own. Do you really want to be doing their homework when they get to College? Even if you wanted to and could, this would do vastly more harm than good. The sooner your child learns to be an independent learner, the better.

Learning Math is now easier than ever

Children these days literally have tools that almost all of today's parents (at least those of us older than 30) could only have dreamed of when we were students. Just imagine if you could type almost any question into your browser and receive instructional videos, how to pdfs, and advice? Well, that world has been here for a decade or so. You use it all the time at work, and you can do the same with your child. Teach them how to teach themselves! What do you do when you want to learn something? Most of us "Google" it and the like. Teach your child to do the same, and use some well known websites for further help.

Khan Academy

The most obvious and well known free website for teaching your kids Math is www.khanacademy.org - it is brilliant, entirely free, and growing continually. It best serves older students from late middle school and high school onward, students who already have strong foundations. Nonetheless, the site has something for everyone. There truly is no excuse for you not to be able to help your child out with fractions, even if you have absolutely no recollection of how to find the LCD - Khan Academy is full of videos and practice. Some schools have even started using it for their primary curriculum. Go to the website and work with your child to find videos on what they are struggling with - watch the videos with them and do some practice afterward. Be sure to do this in a way that very explicitly shows them how you are doing it - and pass of the

reins as soon as possible (but continue to observe and redirect as needed). Your child should stop asking you Math questions and go to Khan Academy and figure it out on their own. You can setup a parent account that link's to your child's account, assign homework, etc.. Khan Academy is a great place to encourage independent learning.

Long Division and Fractions are Good Inflection Points

Long division and fractions are good inflection points for what has or has not been mastered before. If your child is struggling with either, there are deeper seated issues in Math that haven't been understood. Their foundations are weak and they are headed for possibly a life time of Math trouble. Long division for instance requires a mastery of rounding, estimation, subtraction, and multiplication (besides short division!). Weakness in any one of these areas will ensure difficulty, frustration, and possibly failure - we often find students who never had enough practice with subtraction and regrouping for instance and stumble through long division. Similarly, fractions employ many of the same underlying foundations. Times tables that are still weak will greatly impair one's abilities to calculate with fractions. If your child is having major problems with long division and fractions, you likely need to seek out some expert help to ensure that Math remains a part of their learning. They will likely require a rigorous, disciplined, and objective lesson plan that will cement their foundations together. This is hard to do on your own as a parent even if you have the knowledge because you lack objective distance from your child. We've had many educators come to us as parents for just this reason (we give them a special discount).

Cascading into Failure

Should students not find the time to go back and cement their foundations when they struggle with long division and fractions, they are heading for major difficulties in Algebra and Geometry. Ironically enough, many parents tell me that this is precisely when they started to switch off from Math - and here are their children repeating the same scenario. I'm sure genetics plays a minor part, but I would argue that the cycle mostly continues because: 1) Math is often poorly taught (often by teachers who had the same issues themselves); 2) Math is always overwhelmed with too many objectives (i.e. the standards are much too wide and try to do too much); and 3) students rarely practice actual calculations (just try to learn the piano merely by looking at one!). Many

students have a negative experience with Math in school and want to switch off from Math as soon as they can. This will impair them for life.

Switching Off

Switching off from Math usually occurs around Algebra, and gets worse with Geometry. The trouble is that if we allow our children to do so, we are also allowing them to lock themselves out of many great careers. Engineering for instance tends to be not only interesting, but also very well paid. An increasing number of careers require a solid proficiency (or better) in Math, and these are often careers that didn't require much Math in the past but now do (e.g. Market Research). We want our children to have as many options available to them as possible, and it is therefore essential that they gain a solid proficiency in Math.

What can we do as Parents?

The easiest thing to do is to try and teach your child how to learn Math by using the many free tools that are available to them on the Internet. If their foundations are weak, for instance they are struggling with long division, fractions, and pre-Algebra, they will likely require a more active and intensive expert intervention. The Learning Path excels in providing such expertise, and we are always happy to give free advice.

Don't Forget Basic Arithmetic

The Common Core standards, like the California standards they replaced, require your child to master a too-wide variety of concepts from too early an age. An Economist would realize that there is an "opportunity cost" of trying to do too much in too little time. Teachers are trying, as they are told they must, to teach your child every concept including the kitchen sink in Math. This ensures that your child masters none of the concepts, and priority is not sufficiently placed where it should be. The basic priority for many young children (up to Grade 3-4) should be a mastery of Arithmetic. You can do your child a great favor by ensuring they get sufficient practice to master addition, subtraction, multiplication, and division. To play the piano well you must practice some songs. Many parents make the mistake of thinking that knowledge of how to do these is sufficient. It is not. Our children need to have fluency with these skills or they will run

into problems later. So push your child to be fluent in arithmetic and you will do them a great deal of good.

