On Parenting

How to get reluctant children to embrace math

By Mari-Jane Williams March 5, 2014

Let's put it in algebraic terms. If X equals disengaged kids and Y equals parents who are intimidated by elementary-school homework, the sum of the variables is Z: an epic math fail.

"The number of smart kids I have seen who hate math is remarkable," said Suzanne Sutton, the creator of Newtonswindow.com, a Rockville-based Web site that offers parents strategies for making school fun for kids.

Part of the problem? Plenty of smart parents shun math as well, says Laura Overdeck, founder of the <u>Web site</u> Bedtime Math, an app that provides parents with a daily math problem to solve with their child.

"Many parents didn't learn math well in school and got turned off. So if parents don't like math, it's hard for them to raise kids who love math," Overdeck said. "We have this great culture around reading, with reading for pleasure and bedtime stories, but we don't have an equivalent for math. It's not seen as recreational."

Add me to that list. It's not that I was bad at math when I was in school. I was okay, just not terribly interested. Then I studied English at a liberal-arts college that didn't have a math requirement. So between high school and my own children's forays into elementary-school math, my calculations were limited to balancing a checkbook or figuring out a tip.

These days, I'm Googling fractions, multiples and factors to help my son through fourth-grade math. It's only going to get harder from here. Finding the least common denominator is easy compared with algebra and geometry.

I want my children to love math, or at least feel confident in their abilities, which is tricky because it's not a subject that gave me the warm fuzzies. With all of the emphasis schools and employers are placing on STEM — science, technology, engineering and math — courses and skills, though, I know that children also *need* to be comfortable with math.

"In general, young children do embrace math; they love numbers," said Sandra Sheppard, the executive producer of "Cyberchase," a PBS cartoon about a group of kids who use math skills to protect the world from villains.

"But as they move through school, there's a certain point at which some children start to disengage and struggle, around third or fourth grade. We developed 'Cyberchase' with that target in mind, to try to make math more relevant to children and show math in a context that shows kids math is everywhere and all kids can engage in it."

So how do parents get children to embrace numbers as eagerly as "Sesame Street's" Count Von Count, who told The Post, "I fell in love with numbers when I was 1 year old, then 2 years old, then again at 3. And at 4, and 5, and 6 and 7... ah-ha-ha! I love counting!"?

Here are some suggestions from experts on inspiring kids to love math:

• Never say you weren't good at math (even if you weren't).

None of us would dream of saying that about reading. But math? Eh. We say it all the time.

"We have such a double standard," said Overdeck, a mom of three in New Jersey. "It's completely acceptable for an Ivy League graduate to say they're not good at math." In Overdeck's house, the bedtime math problem is as much a beloved tradition as reading "Goodnight Moon" is for many families.

You might suffer from math anxiety, but don't share it with your child, Overdeck said. By telling him that you were lousy at math, or that you don't get it, either, you're sending the message that it's okay to give up.

Instead, tell your child that a problem looks tough, then sit down and say you're going to figure it out together, Sutton said.

• Celebrate a mathematician.

Kids are taught about Paul Revere's ride and Shakespeare's tragedies. Find me a teen, though, who can name a famous mathematician and tick off his accomplishments.

"Imagine if we learned American history by reading a few documents and never knowing the people," Sutton said. "Mathematicians are fascinating."

Sutton suggests celebrating the birthday of a great mathematician. Discuss Pythagoras, Isaac Newton, RenéDescartes or Carl Friedrich Gauss. Read up on their accomplishments and talk about how they changed the world. Sweeten the deal with a little cake, or make a game to help your child learn about them.

"Make math less of an edifice in clouds that only Jack and the Beanstalk can climb up to," Sutton said. "Teach your child there are heroes who accomplish things with their brains, not just their bodies."

• Teach them that struggling is okay.

When a child is having trouble on the soccer field, parents tell her to keep at it, because practice will make her better. But when she struggles with math, Sutton said, parents run to the nearest tutor as if there is a crisis. That creates a stigma around math.

Instead, if your child is feeling discouraged, tell her that's part of the process: It's supposed to be hard. The challenges and problem-solving are what make math fun, Sutton said.

"Cyberchase" features regular kids rather than prodigies doing math problems, Sheppard said, for exactly that reason: to show that everyone makes mistakes, and when you do, you can back up and figure out a way out of the problem. Struggling with math is not the same as failing.

"Kids have different learning styles, and our cast has different learning styles," Sheppard said. "Kids have different strengths and weaknesses, and math is something to be approached independently, but also collaboratively. Our characters are not math superstars, they're just like every kid. They come across problems in the road, and they make mistakes and persevere and learn through that experience."

• Adopt a more math-centric vocabulary.

If your child is working a puzzle, instead of suggesting he turn a piece to make it fit, ask him to rotate it, said Rosemarie Truglio, senior vice president for curriculum and content for Sesame Workshop.

When you're looking at shapes with your child, don't just ask how many sides a triangle has, Truglio said. Also ask the number of angles, to increase their knowledge of math vocabulary.

"There's a lot of math language that children don't get introduced to," Truglio said, adding that parents should

point out to their children that they're doing math when they are baking or building with blocks.

• Weave math into everyday activities.

Whether you are measuring flour and sugar for cookies (fractions!) or counting apples as you drop them into a bag at the grocery store (one-to-one correspondence!), find ways to incorporate math in your daily life, said Rose Moore, the Pre K-12 mathematics coordinator for Fairfax County Public Schools.

"Things we do every day have connections to math," said Moore. "Let them see that."

Moore also likes games for demystifying math. She uses Cootie to teach her 3-year-old counting and number recognition. If your child loves Angry Birds, use it to teach him about angles, slopes and parabolas.

• Let them be the experts.

Sutton suggests "hiring" your child to teach you something he is working on in school. To do that, he will have to learn the concept well enough to be able to explain it. Choose something he will be doing soon, and have him research it. Once he masters the skill, sit down for a lesson. It's fine to pay him for the tutoring if he needs an extra incentive, Sutton said.

"The goal is to make them an expert in something, so when it comes up in the curriculum, they know what it feels like to know a lot about it," Sutton said. "That confidence is a great thing, and they got there on their own."

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