

Parent University

(brought to you by your child's thinking classroom)

The Answers Are...

What do you
notice?

What do you
wonder?



Ch.
 $0 + 0 = 4$
 $0 + 4 = 4$
 $1 + 2 = 5$
 $2 + 3 = 5$

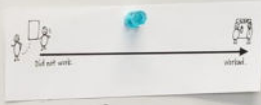
S.E.

$$1 + 4 = 5$$

$$4 + 1 = 5$$

$$5 + 2 = 7$$

$$2 + = 7$$



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What skills do you think this way of experiencing math develops in your child?

WHAT'S YOUR

STORY



How do you
feel about
today's math?

How Parents Feel About Today's Math

How Parents Feel	Explanation
Intimidated	Because their children are learning math in a totally different way, parents don't believe they can be helpful.
Frustrated	Parents feel unintelligent when unable to do "third-grade math homework."
Worried	Parents are anxious that their children will fail because of them.
Confused	Because parents rarely see anything familiar, math feels like a foreign language.

Four Core Wants

Helpful



Intelligent



Confident



Familiar



What Is Your Role?



teacher



coach



disciplinarian

Math Coach

“A parent’s role as a “math coach” includes being the child’s motivator and role model. Parents should maintain a lifelong learning attitude and help their child see that math is everywhere and that everyone can learn to be a mathematical thinker. They should also help their child see that adults use math in everyday life, which makes studying and learning it worthwhile. If available, parents should monitor their child by watching for signs of frustration and providing guidance, not answers. If they are unavailable for that level of support, parents should set up expectations for their child about how to handle frustration and what to do when they do not understand a math assignment. Overall, parents should keep a positive mindset around school and math and encourage their youngster to persevere through challenges.”

Top Three Facts Every Parent Needs to Know About Today's Math

- Math instruction evolves just like everything else.
- Mathematics is not a gene.
- We prepare kids for the future, not today.

Normalizing Struggle

Unproductive Beliefs	Productive Beliefs
Children who are good at math don't struggle.	All students should have the opportunity to struggle in math because struggle that results in success allows students to see they can overcome challenges.
Struggle lowers confidence.	Struggle builds confidence. People thrive when they see success after challenge.
Faster is better. Struggle is a signal that one isn't good at math.	Math is not about speed. Struggling means the content is appropriately challenging.

Mathematics Was About	Math Instruction Is About Today
Speed and recall of facts and steps	Efficiency and flexible but deep thinking
Working individually	Working collaboratively
Acquiring and using a procedure someone shows you (teacher or textbook)	Developing one's own understanding while also learning about how to use common procedures
Calculations	Concepts, procedures, and applications of concepts and procedures combined
Learning basic skills	Thinking deeply about mathematical concepts and relationships
Using one specific procedure	Selecting from a set of strategies or developing one's own strategy for solving a problem
Finding an exact answer	Finding an answer and explaining your thinking
Separating those who can do mathematics from those who cannot do it well	Providing access and opportunity for each and every student to learn mathematics
"Naked number" computation problems	Learning mathematics in authentic, relevant contexts

*Answers to Your
Biggest
Questions
About Teaching
Elementary
Math* by
SanGiovanni,
Katt, Knighten,
and Rivera, p. 3

Myths about mathematics	Facts about mathematics
Mathematics isn't for everyone.	Everyone is capable of learning mathematics.
Learn it for the test, and move on.	Understanding isn't forgotten.
"I'm not good at mathematics" is acceptable for some students.	"I can do mathematics" coupled with a growth mindset is necessary for all students.
Some students, especially boys, are better at mathematics than other students, like girls.	No one group is better at mathematics than another; everyone is able to do high-quality mathematics!
Some people are just better at mathematics.	Some people have more and better opportunities to learn and play with mathematics.
I don't have a math brain.	Everyone can think and reason about mathematical ideas and concepts.
If you are good at mathematics, it should be easy.	Engaging in productive struggle is an important component in learning mathematics.
Mathematics is a collection of tips, tricks, and shortcuts.	Mathematics should make sense, and students should understand how it works. This includes common efficiencies or shortcuts.
Being fast at mathematics is evidence of doing it well.	Doing mathematics with understanding, depth, and thoroughness is doing it well.

8 Standards for Mathematical Practice



MP 1: Make sense of problems and persevere in solving them.



MP 5: Use appropriate tools strategically.



MP 2: Reason abstractly and quantitatively.



MP 6: Attend to precision.



MP 3: Construct viable arguments and critique the reasoning of others.



MP 7: Look for and make use of structure.



MP 4: Model with mathematics.



MP 8: Look for and express regularity in repeated reasoning.

What You Might See This Year

- Building, modeling, equations
- Ten frames, Rekenreks, number paths, number lines in the spring
- Making a friendly number
- Subtracting as removal as well as difference or distance
- Many equations written horizontally
- Double Digit Addition without an algorithm

Tips for Parents

WORKING WITH YOUNG MATHEMATICIANS IN YOUR HOME

In General:

- Recognize that adults might have “math baggage” our kids don’t have.
- Avoid phrases like “I can’t do math” or “I was never good at math” and embrace the idea that ALL people can and should know that math is figure-out-able. 🗣️ 🗣️ 🗣️
- Build your own numeracy by participating in #MathStratChat every Wednesday evening on [Twitter](#), [Facebook](#), or [Instagram](#).
- NOTICE and WONDER together. 🗣️
- Wait a bit longer for a response to questions.
- While waiting, resist the urge to tell the right answer.
- Ask: What DO you know? How do you know? Does that always work?
- Play games with students. 🗣️ 🗣️

I commit to...

- Reading information sent home from my child's teacher.
- Asking my child's teacher for help or more information when I am unsure about a topic or want to understand my child's progress.
- Reinforcing the teacher's methods, not teaching my child math the way I learned it (unless that is how they are learning it).
- Speaking positively about math around and in front of my child.
- Helping my child notice math around them and in the real world.

I COMMIT



How do you
feel now
about today's
math?



One Last Request