

Why Math Matters

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CORNERS

OUTREACH

The Importance of Math

How math impacts high school graduation

The System

The Georgia Department of Education (GaDOE) formally adopted the Common Core State Standards Initiative in 2010. Common Core Math, though frustrating and confusing to older generations, was developed around deepening our students' understanding of mathematical concepts. Many students know "what" to do, but few can comprehend or explain their reasoning as to "how" or "why". Common Core practices focus heavily on Base Ten models and visual representations of numbers to help grow a student's understanding of how numbers work and how they are related. Most of the United States have seen the value of the Common Core State Standards Initiative and have formally adopted its model.

With this being said, how have students responded to common core math?

Our Students

Many students have thrived under the common core math model. But some have challenges, especially English language learners (ELLs). Because of language barriers, many ELLs struggle with word problems, math modeling, and explaining their reasoning. And because many of their parents are ELLs as well-- even though math is universal-- parents are limited regarding the reinforcement of common core at home. Students begin to lose confidence, get discouraged, and start falling behind.

The Effect on Graduation

Studies have shown that eighth grade math proficiency directly correlates with high school graduation. This means those students who have high math proficiency by eighth grade tend to graduate high school, and those who do not are too far behind and fall short of graduation.

Math reciprocates upon itself; it builds upon a foundation. Students learn to count before they add, add before they multiply, multiply before manipulating fractions. Students take what they learned the grade before to help them progress through the grade ahead. Because of this, for students who are behind, intervention must take place well before eighth grade. Corners has identified elementary school as a prime place in a student's learning to support mathematical growth. And Corners has identified three effective ways to do this.

Kaily's Story

Kaily began coming to Corners Academy when she was just starting Kindergarten. Even then, you could see her eagerness to learn.

When she was in first grade, she continually finished her homework quickly and would ask for extra work. Nothing we gave was challenging; first grade was too easy.

So we decided to teach Kaily multiplication, a third-grade concept. We introduced the concept by modeling multiplication as repeated addition, a approach that she would understand. It took some time, but she eventually became very proficient.

With the additional help that Corners Academy provided Kaily, she was able to be challenged and advance more quickly.

The Corners Math Curriculum

There are three components of the Corners Academy math curriculum.

- 1. Confidence** – Students who bring confidence with them to a math problem are more likely to succeed. Even if it is a difficult problem, a student's confidence can lead them to grow into a deeper understanding. Through a predictable, yet challenging, math curriculum, Corners guides students into greater confidence in math while pushing students to learn and grow.
- 2. Number Sense** – Number sense pertains to how we can perceive and compare numbers. Through a greater number sense, students can identify reasonable strategies and solutions. For instance, the sum of two numbers should be greater than its addends. Likewise, students can recognize key words and comprehend what a word problem is asking them to do. The Corners curriculum develops appropriate word problems, worksheets, and lessons to build a student's ability to identify these things.
- 3. Fluency**- Number fluency is critical to the mathematical development of our students. The ability to add, subtract, multiply and divide efficiently are important components to academic success. Many times, things like fractions are confusing to students, because in order to manipulate fractions efficiently, students must be able to multiply efficiently. With greater fluency, students grow in confidence and free their minds to focus more on grade-level math instead of the foundational pieces.

At Corners Academy, students:

- Receive academic support with their homework daily.
- Spend 30 dedicated minutes twice a week using Corners Academy curriculum.
- Receive a math composition book to use for all Corners Academy work including word bank, Number of the Day and word problems. Students keep these composition books throughout their time at Corners Academy.
- Receive individualized tutoring, especially for those students who are significantly behind grade level.
- Are rewarded for their mathematical proficiency, growth, and effort.
- Have access to math games to not only engage them in a fun way, but to support confidence, number sense, and fluency.

What can you do?

There are 3 paths of investment:

- 1. Volunteer**- We need tutors, mentors and parent workshop volunteers. [Sign up today.](#)
- 2. Become a client** – Landscaping covers normal yard maintenance plus projects like new shrubs, flowers, pine straw, sod, sprinklers, retaining walls, drainage, etc. [Request a quote here.](#)
- 3. Become an investor** - Join our [931 Club of recurring donors](#). Commit to donating one penny for each student we tutored last year (or more if you're willing). Can't donate monthly? [Make a one-time donation.](#)

Through education and improved job options, together we can break the cycle of poverty and improve lives in our community today and for generations to come. Please join us!