

Math Matters!

News from the Math Coach: Ms. Sommer Spring 2010

What's happening in Math at GAE?

Highlights include:

PSSA's - We have certainly been busy this spring honing our math skills in time for the Pennsylvania System of School Assessments (PSSA's). Students in grades three through five completed three mornings of math assessments including multiple choice and open ended type questions. A big 'thank you' to our teachers and parents for preparing students to show what they know.

Partnership with ShopRite - In grade four, we are working on our 'Young Consumer' skills. Students have been learning about making balanced food choices following the USDA Food Pyramid guidelines. We will learn how to plan meals, make shopping lists, and budget our money to shop for a family of four for four days keeping within a \$100 budget!



Students will also be engaged in various problem solving activities. Our culminating shopping trips are scheduled for the mornings of May 13th (Miss Hood/Mr. Pedersen) and May 20th (Mrs. Bowen/Mrs. Peterson). We are still in

need of additional parent/guardian chaperones. Please contact your child's teacher. Thank you!

Math 24 Game - Our math club, consisting of fourth and fifth grade students has been working for months practicing their fact fluency and algebraic thinking skills while playing the fun and challenging game of '24'. We will have school wide competitions for grades four and five to choose the students who will represent Glen Acres at the district wide competition scheduled for May 14th to be held at Spellman.



Coach's Tip:

Try this website to find some great children's literature with a math focus:

<http://www.thereadingnook.com/math/>

Some of my favorites can be found under the geometry choices - the Sir Circumference series introduces young students to the world of circles including concepts such as Circumference, Diameter, Radius, Angles, and Pi.

Dividing by Zero

I don't know about you, but when I was going through school I was told that dividing by zero was 'undefined' - meaning you can't do it! Why? It is important for students to make connections to what they are already learning to understand this abstract concept. Students have been thinking about the inverse relationship between multiplication and division. In the younger grades students are becoming comfortable with addition and subtraction 'fact families'. Applying these principles,

$6 \div 2 = 3$, and inversely, $3 \times 2 = 6$. If I had six pretzels to divide evenly between two friends, each friend would get three pretzels.

What does $12 \div 0$ mean? Let's try to think about multiplication. Can you think of a number that when it is multiplied by 0 will produce 12? Students are comfortable with the idea that zero groups of something will produce zero. Since there is no number that we can multiply by zero to produce a non-zero amount, it follows that the inverse of dividing a non-zero number by zero will not produce a valid result.

Multiplying by One/Dividing by One

Why do we make a big deal about multiplying or dividing by one? Most students understand that one group of eight cookies gets you the same eight cookies. However, we use multiplication to show more than groups of objects. It is important that students 'own' the concept of multiplying by one because we often use different representations of one in higher math concepts such as fractions and algebra. We multiply by forms of one to add or subtract fractions using common denominators. We divide by one to simplify fractions and in factoring and simplifying algebraic expressions.

Money Makes the World Go Around!

With the parent use of credit and debit cards and student use of 'pin' numbers in the cafeteria, many of our students are not receiving real exposure to life skills such as counting coins and making change. I encourage you to create opportunities for students to handle real money. Do you give your child an allowance? If so, actually give them the dollar or whatever amount you have decided upon. Allow them to 'shop' with you, and have them pay for a treat using their own money, or maybe have them contribute some of their allowance to a charity. They can be saving and budgeting their money for a special gift. How much more money do they need? How many more weeks will it take to earn that money?