



MATH MATTERS



Resources and Ideas for Families

WELCOME!

This newsletter is sent home to families every nine weeks. It provides information on what your child is learning in math, activities you can do at home to reinforce the content, and suggestions for books and resources you can use to help your child learn math.

BUILDING A MATHEMATICAL COMMUNITY

Student Collaboration

Collaborative learning gives the responsibility of the learning to the students by using groups and pairs of students to fulfill a task or assignment within the classroom. The Common Core Math Practice Standard 3 calls for students at all grades to listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

Within a Collaborative Group:

- Students are invested in their own learning.
- Learners actively participate.
- Teachers become learners at times, and learners sometimes teach.
- Respect is given to every member.
- The project/question should be of interest and challenging to students.
- Diversity is celebrated and all contributions are valued.
- Students learn skills for resolving conflicts when they arise.
- Members draw upon their past experience and knowledge.
- Goals are clearly identified and used as a guide.
- Tools such as manipulatives or calculators are made available.



Check out this great website for generating math word problems!

<http://gregtangmath.com/wordproblems>

MATH IS FUN!

Check out the **MATH IS FUN** website which contains resources to help children learn math. Here you will find "How to Videos", Online Games, Vocabulary, and APPs related to the content your child is learning.



www.jcpsmath.weebly.com

During the 3rd nine weeks, Fifth Grade students learn to:

- **Find the volume of a right rectangular prism by packing it with cubes.** Fifth graders will learn different ways to measure volume. One strategy is filling a box with a unit (such as a 1-inch by 1-inch by 1-inch cube) to determine the volume.
- **Apply the formula Volume (V) = length x width x height and $V = \text{base} \times \text{height}$.** After filling boxes with units, students use the formulas length x width x height and/or base x height to determine the volume of a right rectangular prism such as a rectangular box or a cube.
- **Solve real-world word problems by decomposing a solid figure into two right rectangular prisms and adding their volumes together.**
- **Add, subtract, multiply, and divide decimals to the hundredths.** Fifth graders will learn a variety of strategies to add, subtract, multiply and divide decimals.
- **Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, and interpret the quotient in the context of the problem.** For example, how much chocolate will each person get if 3 people share $\frac{1}{2}$ lb. of chocolate equally? OR How many $\frac{1}{3}$ cup servings are in 2 cups of raisins?
- **Solve real world problems of multiplication with fractions and mixed numbers.** For example: A baker needs $3\frac{1}{4}$ cups of flour for a cake. If she makes 5 cakes, how many cups of flour will she need?



Check Out These Books!

Below are some suggested books which connect to math content students are learning this cycle.

- *Millions to Measure* by David M. Schwartz
- *Counting on Frank* by Rod Clement
- *Fraction Action* by Loreen Leedy
- *Fractions, Decimals, and Percents* by David Adler
- *Multiplying Menace: The Revenge of Rumpelstiltskin* by Pam Culvert
- *Delightful Decimals and Perfect Percents* by Lynette Long



Activities to Try at Home

- Practice estimating volume using a box and household items. Use an item such as a bar of soap, box of toothpaste, box of cereal, or cake mix and predict how many of each item is needed to fill the box.
- Find boxes around the house and have your child practice finding the volume by measuring with a ruler. Measure the same box with inches and centimeters; then discuss with your child why the volume is bigger in centimeters than in inches.
- Use dice to practice finding all the ways to create a rectangular prism with a certain volume. Roll two dice to make your volume. Then work together to think of at least 3 ways to create a box with this volume. For example, if player 1 rolls a 3 and a 6, think of all the ways to make a box with a volume of 36. Some examples could be: $1 \times 4 \times 9$, $2 \times 3 \times 6$, or $2 \times 2 \times 9$.
- Use a measuring tape and work with your child to measure the volume of rooms in your home. Have your child predict which room he thinks will have the greatest and the least volume.

MATH TASK

Painting a Room

From: *Illustrative Mathematics*

Kulani is painting his room. He needs $\frac{1}{3}$ of a gallon to paint the whole room.

- A. What fraction of a gallon will he need for each of his walls if he uses the same amount of paint on each wall?
- B. Explain your work and draw a picture to support your reasoning.

Solution: $\frac{1}{3} \div 4 = \frac{1}{12}$

