

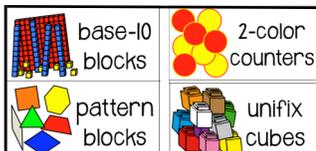
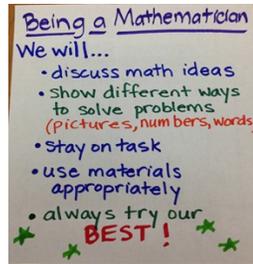
## Resources and Ideas for Families

### 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

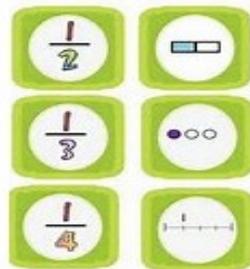
During the first nine weeks of school your child will work on building a mathematical community in their classroom. Students will explore how to be a mathematician.



During math class students will use a variety of hands-on materials such as: base-ten blocks, pattern blocks, dice, counters, etc.

Just like at home with their toys, your child will be expected to treat materials with respect and return them to their proper place.

Students will learn different ways to represent math ideas. While completing homework, encourage your child to represent their thinking in different ways.



While building a math community, your child's class will establish norms for math discussions. Some examples include: speaking respectfully to their teachers and peers, taking turns while speaking, using an inside voice, eyes on the speaker, and giving others time to think.

### Accountable Talk

Focused, collaborative talk meant to deepen and extend our thinking about a topic

**Rules:**

1. Say something meaningful
2. Listen with intent (SLANT)
3. Be flexible with your thinking
4. Address the point not the person

- S - Sit Up
- L - Look at the speaker
- A - Act like you care
- N - Nod your head
- T - Take turns talking

Encourage your child to explain their thinking about math games, homework, or math connections they find at home.

### MATH IS FUN!

Check out the [MATH IS FUN](http://www.jcpsmath.weebly.com) 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.

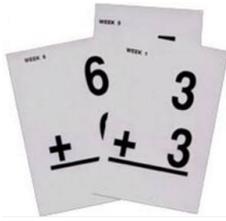
[www.jcpsmath.weebly.com](http://www.jcpsmath.weebly.com)

During the 1<sup>st</sup> nine weeks,  
Fourth Grade students learn to:

- **Determine factors and multiples of numbers.** For example, what are all the numbers that produce 30? ( $1 \times 30$ ,  $2 \times 15$ ,  $3 \times 10$ ,  $5 \times 6$ ). The factors of 30 are 1, 2, 3, 5, 6, 10, 15, and 30.
- **Explain how the value of a digit in a multi-digit whole number relates to the value of the digit to its right.** This means that a digit in the tens place will have a value ten times the same digit in the place to the right. For example, in the number 444, the 400 is ten times the 40, and the 40 is ten times the 4.
- **Compare two multi-digit numbers and use > (greater than), < (less than), or = (equal to) when recording comparisons.** A child would recognize  $5,405 > 4,503$ ;  $3,940 < 9,845$ ;  $2,345 = 2,345$
- **Multiply a whole number of up to 4-digits by 1-digit whole number or two two-digit whole numbers using strategies based on place value and properties of operations.** See "Strategies for Multiplication and Division" for more information.
- **Fluently add and subtract multi-digit numbers using the standard algorithm.** The standard algorithms are the traditional method of adding numbers with "Carrying" and "Borrowing" in subtraction and addition. It is important to note that carrying and borrowing are actually regrouping.
- **Find the whole number quotient of a division problem with up to 4-digit dividends and a 1-digit divisor.** See "Strategies for Multiplication and Division" for more information.

## Activities to try at home:

- Have your child practice rounding at the store. For instance, if you are at Target and see a video game that costs \$75 ask your child to round it to the nearest ten or nearest hundred. Explain how you use rounding when shopping to estimate cost.
- Allow your child to look through newspapers and magazines to find multi-digit numbers. Have your child practice reading and writing them in words.
- Review addition and subtraction facts using flashcards. Fourth graders should have basic addition and subtraction facts memorized at this point without the use of pictures or objects such as fingers. Flashcards can be purchased at stores such as Dollar Tree or you can make your own using index cards.



## Multiplication Strategies

**Break Apart Strategy**—Students using this strategy will break one of the factors apart creating easier problems to solve. For example, if given  $8 \times 157$ , a child may break apart the 157 and change the problem to  $(8 \times 100) + (8 \times 50) + (8 \times 7) = 1,256$ . This can easily be solved as  $8 \times 100$  is 800,  $8 \times 50$  is 400, and  $8 \times 7$  is 56. Add  $800 + 400 + 56$  together to arrive at the answer of 1,256. See this video for another example:

<http://viewpure.com/bMCXpt8kEmY>

## Division Strategies

**Use multiplication to solve division**—If solving a problem such as  $724 \div 4$ , a student can use known multiplication facts to help them arrive at an answer.

$$\begin{array}{r} 4 \times 100 = 400 \\ 4 \times 80 = 320 \\ 4 \times 1 = 4 \\ \hline 4 \times 181 = 724 \end{array}$$

See the video below for another example:

<http://viewpure.com/Nri-i6UnWbM>

**Use the array model to solve division problems**—Students can solve division problems by providing them with a visual representation. Visit the link below to see an example of this strategy:

<http://viewpure.com/wqz2W9QkpjY>

# MATH TASK

## COMPARING MONEY RAISED

- Helen raised \$12 for the food bank last year and she raised 6 times as much money this year. How much money did she raise this year?
- Sandra raised \$15 for the PTA and Nita raised \$45. How many times as much money did Nita raise as compared to Sandra?
- Luis raised \$45 for the animal shelter, which was 3 times as much money as Anthony raised. How much money did Anthony raise?



Answer:

- \$72
- 3 times as much
- \$15

From: *Illustrative Mathematics*