

# WE'RE ALL IN

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# Family Math Newsletter

## Kindergarten

We had such a fantastic first few weeks of school.

We are so excited to continue our learning together!

Thank you for helping your scholar at home to excel in math this year.

We are learning about 2-dimensional figures and ordinal numbers (first, second, etc.).

Games such as Memory and I Spy are great games to reinforce 2-dimensional figures.

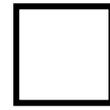
When giving your child a set of directions use ordinal numbers instead of using "then" and "finally." For example, "First make your bed, second get dressed, third brush your teeth."



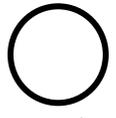
Rectangle



Triangle



Square



Circle

## First & Second Grade

We are learning different ways (standard, expanded, word) to write and decompose (break apart) numbers to 100 (first grade) or 1000 (second grade). We are also learning to compare numbers.

Play a twist on the game Categories with your child. Choose a target number and then each write down as many different ways to express that number in one minute. For each unique way, you score a point!

Target Number: 236

Kareem - 4 points

$$200+30+6$$

✓  $100+136$

✓  $50+150+30+6$

Two-hundred thirty-six

$$200+36$$

✓  $100+100+10+10+10+6$

✓  $200+30+5+1$

Tyler - 2 points

Two-hundred thirty-six

$$200+30+6$$

✓  $230+6$

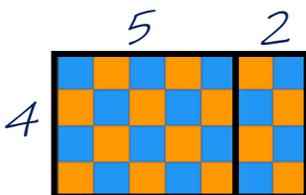
$$200+36$$

✓  $100+100+30+6$

## Third Grade

We are learning how to use properties to solve multiplication problems and apply our learning to area.

Flip over two playing cards or uno cards. Ask your child to multiply the two numbers by building an area model with blocks or Cheeze-Its. They can also draw it on grid paper. Encourage them to break it into easier multiplication problems like below.



$$A = l \times w$$

$$A = 4 \times 7$$

$$A = 4 \times (5+2)$$

$$A = (4 \times 5) + (4 \times 2)$$

$$A = 20 + 8 = 28$$

## School District of Osceola County



September 2022

# Fourth Grade & Fifth Grade

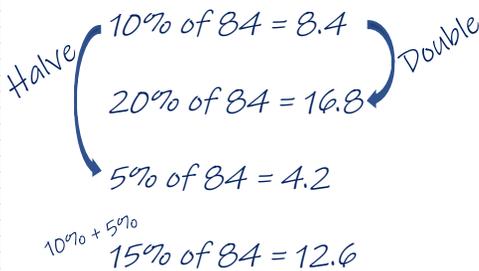
We are learning strategies for dividing multi-digit numbers by a one-digit number (4<sup>th</sup> grade) or two-digit number (5<sup>th</sup> grade) including partial quotients, halving, think multiplication, and the US Standard Algorithm. The last page of this newsletter has an overview of the strategies.

Ask your child how they solve a division problem and have them teach you their strategies.

## Sixth Grade

We are learning about percents and how they are used in the real-world including tip, tax, discount, markup, commission, percent change, and simple interest.

When calculating percents with your child, model your reasoning using 10% as a benchmark (shown below) or have your child calculate the tip or tax amount.



## Seventh Grade

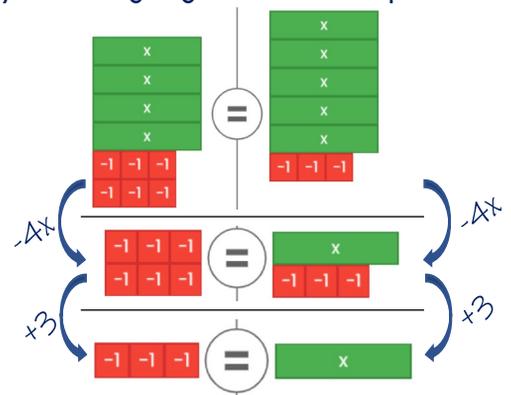
We are learning about proportional relationships and how to represent proportional relationships as a table, graph, and equation.

When shopping with your child ask questions such as, "How much would 3 apples cost if one is \$0.49?" or "If 4 rolls of toilet paper is \$2.99, how much would 16 rolls cost?"

## Eighth Grade

We are learning to solve multi-step equations and two-step inequalities algebraically and using Algebra Tiles to represent our thinking.

$$\begin{array}{r} 4x - 6 = 5x - 3 \\ -4x \quad -4x \\ \hline -6 = x - 3 \\ +3 \quad +3 \\ \hline -3 = x \end{array}$$



## Spotlight on New High School Credit Math Courses

With the new standards came new high school credit math courses. Over the next few editions, we will highlight one of the new courses each time. These courses include Math for College Algebra, Math for College Statistics, Math for Data and Financial Literacy.

### Math for College Algebra

This course builds upon important concepts from Algebra 1 and prepares students for future math courses. Students who want to strengthen their Algebra skills before taking Algebra 2 or who are looking for a future in the military may choose to take this course.

## Upcoming Tests for High School Students

**SAT Day** – October 12  
12<sup>th</sup> Grade Students

**ACT Day** – October 18  
11<sup>th</sup> Grade Students

**PSAT/NMSQT Day** – October 25  
10<sup>th</sup> Grade Students

# Strategies for Division

## Think Multiplication

In think multiplication, the division problem is rethought as a missing factor multiplication problem.

$$296 \div 4$$

$$4 \times \underline{\quad} = 296$$

$$4 \times 74 = 296$$

$$296 \div 4 = 74$$

## Partial Quotients

In partial quotients, easy to find groups are removed from the dividend (number being divided) until there are no more groups.

$$752 \div 16 = 42$$

16	$\overline{)752}$	
	$\underline{-160}$	$10 \times 16$
	592	
	$\underline{-320}$	$20 \times 16$
	272	
	$\underline{-160}$	$10 \times 16$
	112	
	$\underline{-80}$	$5 \times 16$
	32	
	$\underline{-32}$	$2 \times 16$
	0	
		↓
		42

## Halve to Simplify

In halve to simplify, both numbers in the problem are halved to maintain equivalency in the division problem but make the numbers smaller to reason with. You may halve the numbers multiple times or cut them in thirds as in the example below.

$$\begin{array}{l} \text{Halve} \left\{ \begin{array}{l} 216 \div 24 = 9 \\ 108 \div 12 \\ 54 \div 6 \\ 18 \div 2 = 9 \end{array} \right. \end{array}$$

## US Standard Algorithm

This is the traditional method for multi-digit division in the US. While this is a reliable strategy, the other strategies on this page are also useful strategies. Therefore, this strategy is taught to students with the other strategies and students engage in learning that asks them to choose a strategy for a given problem and justify their reasoning.

$$192 \div 12 = 16$$

12	$\overline{)192}$	16
	$\underline{-12}$	
	72	
	$\underline{-72}$	
	0	

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