

# Elementary Math

## Family Newsletter



### 2nd Quarter News

First Quarter has come to a close and your child has settled into their learning routines. Take time to review the math topics that your child has worked on last quarter. At parent teacher conferences, ask for specific ideas that would benefit your child and take a few minutes daily to work with your child. If your child is a K-2<sup>nd</sup> grader, ask your child's teacher for their student login for ConnectEd and 3<sup>rd</sup>-5<sup>th</sup> to use online at home. Below are the concepts that your child will be learning this quarter.

### Helping your child at home.

Take 10-15 minutes nightly to talk with your child about what they have been working on in math class. Help your child see how we use math daily at home by trying these activities:

#### LEARNING OPPORTUNITIES

As you cook your family meals take time to have your child help measure ingredients. Doubling the recipe is a great math lesson and tasty for the family.

#### MATH TALK

Ask your child open ended questions. Ask questions like: I wonder how many leaves are on that tree, about how many pieces of candy do you think are in your bag, or I wonder how far is it to the corner. Help your child see we use math in many ways daily.



### Upcoming Events

Parent-Teacher Conferences

Check with your child's school for dates.

### Homework Help Center

Columbus Metropolitan Libraries

**3:00pm-6:00pm**

### K-12th Grade

Get free help with homework from the friendly staff.



## What is your child learning this quarter?

These are some of the skills your child will be learning during this grading period. Your involvement will help ensure your child's success.

---

### Kindergarten

#### Counting and Cardinality

- I can practice counting to 20 by counting forward and backward starting at any number.
- I can write the numbers from 0-10.
- I can count objects by touching and saying the correct number for each object and write the number after counting by understanding the last number I say tells the number of objects up to 20.
- I can understand that the next number when counting tells the quantity that is one larger.
- I can compare two groups and tell which has the greatest number, which has least number, or if they are the same number of objects.
- I can look at two numbers from 1 to 10 and tell which is larger/smaller, more/less, greater than/less than.

#### Operations and Algebraic Thinking

- I can add and subtract in many ways using fingers, objects, and pictures.
- I can add and subtract word problems within 10 by using objects or drawing pictures.
- I can break apart numbers from 1 to 10 and show different ways make that number. ( $5 = 4+1$  and  $5 = 3+2$ )
- I can easily add and subtract any of the numbers from 1 to 5.

#### Measurement and Data

- I can compare two objects by measuring and talk about how they are different.
- I can put objects in groups so that each group has something the same.
- I can count the objects in a group and put the groups in order from least to greatest.

### 1st Grade

#### Operations and Algebraic Thinking

- I can solve word problems using addition and subtraction within 20.
- I can solve problems using objects, drawings and numbers.
- I can solve word problems that require me to add three numbers using objects, drawings and numbers.
- I know lots of strategies for adding and subtracting the numbers 0-9 within 20.
- I can easily and quickly add and subtract numbers 0-9 within 10.

#### Number and Operations in Base 10

- I can add or subtract 10 from any number from 10 to 99 in my head and explain how I did it using place value.

- I can subtract a multiple of 10 from multiples of 10 (in the range of numbers 10-90), and explain the answer using a model, drawing, and other strategies.
- **Measurement and Data**
- I can tell time to the nearest hour or half hour on an analog or digital clock.
- I can name and identify the value of pennies and dimes.

## 2nd Grade

### Operation and Algebraic Thinking

- I can add and subtract numbers within 20 using an efficient strategy.

### Number and Operations in Base 10

- I can add and subtract within 100 efficiently and accurately using a variety of strategies.
- I can add up to four, two-digit numbers using a variety of strategies.
- I can add and subtract numbers from 0 to 1,000 using different strategies based on place value and regrouping.
- I can record the strategy that I used to add or subtract with a picture, numbers or an equation.
- I can mentally add and subtract 10 or 100 from any number from 100 to 900.
- I can use my understanding of place value to explain the properties of addition and subtraction.
- I can explain why various addition or subtraction strategies work using numbers, drawing, or objects.

### Measurement and Data

- I can solve real world math problems involving the addition and subtraction of lengths.
- I can add or subtract measurements less than 100 units in word problems using numbers and drawings.
- I can solve problems of addition and subtraction of whole numbers on a number line diagram.
- I can relate measurement to the number line.
- I can name and tell the value of nickels and quarters.
- I can find the value of a group of coins.
- I can solve addition and subtraction word problems involving money.
- I can collect measurement data and display the data and solve simple problems involving the data.
- I can create a picture graph or a bar graph.
- I can solve problems from the information on picture graphs or bar graphs.

## 3rd Grade

### Operations and Algebraic Thinking

- I can efficiently multiply any two numbers that result in an answer within 100.
- I can efficiently divide whole numbers with a divisor within 100 that results in a whole number quotient.
- I can instantly recall from memory the answer of any multiplication fact 0's – 9's.

### Number and Operation in Base Ten

- I can use my understanding of place value to help solve math problems in various ways.
- I can multiply a one-digit number by 10,20,30,40,50,60,70,80, 90.

## **Number and Operations – Fractions**

- I can explain any fraction as one part of a whole.
- I can begin to explain how fractions are related to whole numbers.
- I can explain any fractions as being the numbers of parts as the total number of the equal parts in the whole.
- I can draw a fraction and explain my representation.
- I can create and label a number line using fractions.
- I can explain and identify why two fractions are equal by using a visual model.
- I can explain and show how two fractions can be at the same spot on a number line.
- I can identify a fraction that is equal to a whole number.
- I can compare two fractions with the same numerator or the same denominator by using  $>$  (greater than),  $<$  (less than), or  $=$  (equal to).

## **Measurement and Data**

- I can draw charts and graphs with data and explain what these charts and graphs say about the data.
- I can measure to the half and fourth inch.
- I can create a line plot based on my measurement data.

## **4th Grade**

### **Operations and Algebraic Thinking**

- I can solve real world problems that require me to add, subtract, multiply, divide whole numbers.
- I can solve multi-step word problems using addition, subtraction, multiplication and division with remainders.
- I can solve multi-step word problems using addition, subtraction, multiplication and division using equations where a symbol is used for the unknown.
- I can determine if the answer makes sense by using mental math, estimation, and rounding.
- I can generate a number or a shape pattern that follows a given rule.
- I can look at a number or shape pattern and determine additional patterns found within the sequence.

### **Number in Operations in Base Ten**

- I can use and explain how to do math with multi-digit number.
- I am FLUENT with addition and subtraction.
- I can easily and accurately add and subtract multi-digit whole numbers.

### **Number and Operations - Fractions**

- I can create and order fractions and explain when they are equivalent.
- I can compare two fractions by creating a common numerator and denominators.
- I can compare two fractions using a number.
- I can explain adding and subtracting fractions with like denominators.
- I can solve real-world problems involving addition and subtraction of fractions.
- I can solve word problems involving multiplication of a fraction by a whole number using visual fractions models and equations.
- I can write fractions with denominators of 10 to equal fractions with denominators of 100.
- I can change fractions with denominators of 10 or 100 to decimals and can explain how these decimals differ in size.
- I can compare two decimals, explain my reasoning, and record the results using  $<$ ,  $>$ , or  $=$ .

# 5th Grade

## Operations and Algebraic Thinking

- I can write and explain number expressions.
- I can use and evaluate parentheses in numerical expressions.
- I can change a simple word expression into mathematical expression.
- I can explain the relationship between two number expressions without calculating.

## Number in Base Ten

- I can explain place value in our number system and how powers of 10 are used in multiplication, division and decimals.
- I can look at a multi-digit number and determine that the digit to the left is 10 times greater than a given digit.
- I can determine that in a multi-digit number, a digit to the right is  $\frac{1}{10}$  of the given digit.
- I can explain that when a number is multiplied by a power of 10, the answer can be found by moving the decimal point to the right (or adding zeros) for each power of 10 to make the number larger.
- I can explain that when the number is divided by a power of 10, the answer can be found by moving the decimal point to the left one place for each power of 10 to make the number smaller.
- I can correctly read and write decimal numbers to the thousandths place using base ten numerals and expanded form.
- I can compare decimals based on the value of the digits and record the answer using  $<$  (less than),  $>$  (greater than), and  $=$  (equals) symbols.
- I can round numbers and decimals to any given place value and explain the reasoning.
- I can perform operations with multi-digit whole numbers and with decimals to the hundredths.
- I am fluent in multiplication and can ACCURATELY and without outside aids, multiply multi-digit whole numbers.
- I can divide up to a 4-digit dividend by a 2-digit divisor using a variety of strategies.
- I can compute with decimals to hundredths in a variety of ways.
- I can explain how my strategy works and the reasoning I used to solve the decimal problems.