

Math Priority Standards for Q4

	K	1	2	3	4
1.1 Understands and applies properties of operations	X	X	X	X	X
1.2 Represents and solves problems fluently	X	X	X	X	X
1.3 Demonstrates mastery of grade-level facts	X	X	X	X	X
2.1 Knows number names and counts accurately					
2.2 Applies the concept of place value					
2.3 Develops understanding of fractions as numbers				X	X
3.1 Knows the meaning and process of measurement					
3.2 Represents and interprets data					
4.1 Names and reasons with shapes and their attributes					
4.2 Analyzes, compares, and creates shapes					

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Mathematics

Operations and Algebraic Thinking

Understands and applies properties of operations

Student can demonstrate an understanding of addition as putting together and adding to. Student can demonstrate an understanding of subtraction as taking apart and taking from.

Represents and solves problems fluently

Student can represent addition and subtraction in a variety of ways. Students can solve addition and subtraction word problems and add and subtract within 10.

Demonstrates mastery of grade-level math facts

Student can fluently add and subtract within 1 – 5.



Number and Operations

Knows number names and counts accurately

Student knows the number names and the count sequence to 100. Student can count to 100 by tens. Student can count to tell the number of objects to 20. Student can read and write numerals to 20. Student can compare relative size of written numerals 1 – 10.

Applies the concept of place value

Student will show and understand that numbers from 11-19 represent a group of ten and a number of ones. For example, "19 is 10 and 9 more."

Develops understanding of fractions as numbers

Not Applicable



- 6- Exceeds
- 5- Meets
- 4- Progressing Advanced
- 3- Progressing On Level
- 2- Progressing Below
- 1- Beginning
- M-Modified Standard
- N-Not Addressed

Measurement and Data

Knows the meaning and process of measurement

Student can describe and compare measurable attributes such as length and weight.

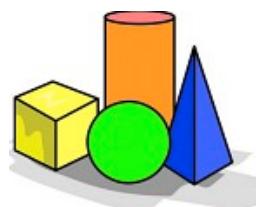


Represents and interprets data

1			
2			
3			
4			
5			

Students can classify objects into given categories; count the numbers of objects in each category and sort the categories by number of objects (less than or equal to 10).

Geometry



Names and reasons with shapes and their attributes

Student can identify circles, squares, rectangles, triangles, cylinders, cones, hexagons, cubes, and spheres. Student can identify shapes as two or three-dimensional.

Analyzes, compares, and creates shapes

Student can analyze, compare, create, and compose shapes. Student can describe their similarities and differences.

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Mathematics

Operations and Algebraic Thinking

Understands and applies properties of operations

Student can apply properties of operations (add in any order, don't subtract in any order) as strategies to add or subtract. Student can understand that subtraction is an unknown addend problem, example: $10-8=\underline{\hspace{1cm}}$ so $8+\underline{\hspace{1cm}}=10$.

Represents and solves problems fluently

Student can represent and solve problems using addition and subtraction within 20 by using objects, drawings and equations with a symbol.

Demonstrates mastery of grade-level math facts

Student relates counting to addition and subtraction by counting on and back. Student can add and subtract within 20 demonstrating fluency for addition and subtraction within 10.

1st
Grade

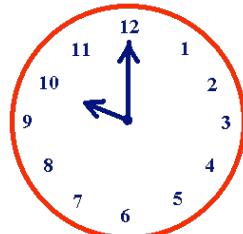
- 6- Exceeds
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Measurement and Data

Knows the meaning and process of measurement

Student can order and compare the length of three objects.

Student can express the length of an object as a whole number of units. Student can tell and write time to the hour and half hour using analog and digital clocks.



Represents and interprets data

Student can organize, represent and interpret data with up to three categories. Student can ask and answer questions about the data points and compare data in one category to another.

Number and Operations

Knows number names and counts accurately

Student can count, read and write numerals to 120. Student can represent a number of objects with a written numeral.



Applies the concept of place value

Student will understand that the two digits of a two digit number represent amounts of tens and ones. Student will understand that the numbers 11– 19 are composed of one ten and 1, 2, 3, 4, 5, 6, 7, 8, or 9 ones. Student will understand that ten ones is called a ten and that the numbers 10 – 90 represent tens and 0 ones.

Develops understanding of fractions as numbers

Not Applicable

See Geometry for some fraction learning.

Geometry

Names and reasons with shapes and their attributes

Student can identify and describe two and three dimensional shapes. Student can distinguish identifying characteristics for each shape.

Analyzes, compares, and creates shapes

Student can compose two and three-dimensional shapes. Student can partition shapes into 2 and 4 equal parts and describe the shares as halves, fourths, and quarters.



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Mathematics

Operations and Algebraic Thinking

Understands and applies properties of operations

Student can represent and solve one and two step addition and subtraction word problems within 100. Student can use repeated addition in arrays to gain foundations for multiplication.

Represents and solves problems fluently

Student can represent and solve word problems using addition and subtraction within 100 by using objects, drawings and equations with a symbol for the unknown number.

Demonstrates mastery of grade-level math facts

Student will fluently add and subtract within 20 using mental strategies such as counting on, making ten, deconstructing numbers, and using the relationship between addition and subtraction. By the end of Grade 2, student will know from memory all sums of two one-digit numbers.



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Number and Operations

Knows number names and counts accurately

Student can count, read, and write numerals, number names, and expanded form within 1000, as well as skip-count by 5s, 10s, and 100s.

Applies the concept of place value

Student will understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones and will compare two three-digit numbers using $<$, $>$, and $=$ symbols. Student will add and subtract within 1000 and add up to four two-digit numbers using various strategies. Student will mentally add or subtract 10 or 100 to a given number 100-900.



Develops understanding of fractions as numbers

N/A

See Geometry for some fraction learning.

Measurement and Data

Knows the meaning and process of measurement

Student can estimate and measure the length of an object by using the appropriate tool and will solve word problems involving lengths. Student can tell and write time from digital and analog clocks to the nearest five minute interval. Student can solve word problems using pennies, nickels, dimes, quarters, and dollars.



Represents and interprets data

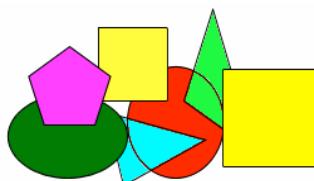
Student will make a line plot, bar graph, and picture graph, and solve problems about data presented in a bar graph.



Geometry

Names and reasons with shapes and their attributes

Student can use identifying characteristics to name triangles, quadrilaterals, pentagons, hexagons, and cubes.



Analyzes, compares, and creates shapes

Student can draw shapes having a given number of angles or sides, partition shapes into equal shares, describe shares using the words halves, thirds, half of, a third of, etc., and recognize that equal shares need not have the same shape.

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Mathematics

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3rd Grade

Operations and Algebraic Thinking

Understands and applies properties of operations

Student can fluently multiply and divide within 100 and can identify patterns using fact families, and understand that division is the inverse operation of multiplication.
($8 \times 5 = 40$, $5 \times 8 = 40$, $40/8 = 5$, $40/5 = 8$)

Represents and solves problems fluently

Student will represent and solve problems using all four operations with whole numbers, using drawings and equations with a symbol for the unknown number to represent the problem. Student can assess reasonableness using mental math and estimation strategies.

Demonstrates mastery of grade-level math facts

Student will fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division or properties of operations. By the end of Grade 3, student will know from memory all products of two one-digit numbers.

Number and Operations

Knows number names and counts accurately

Student can read, write, compare and round whole numbers to the nearest ten or hundred.



Applies the concept of place value

Student can add and subtract within 1000 fluently and can multiply one-digit whole numbers by multiples of 10 in the range of 10 – 90 using strategies based on place value and properties of operations.

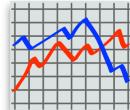
Develops understanding of fractions as numbers

Student can understand a fraction. Student can understand and represent a fraction as a number on the number line. Students can understand, recognize, generate and explain simple equivalent fractions. Students can express whole numbers as fractions and recognize fractions that are equivalent to whole numbers. Students can compare two fractions with the same numerator or the same denominator and use the symbols $>$, $<$, or $=$ and justify the conclusions.

Measurement and Data

Knows the meaning and process of measurement

Student can tell and write time to the nearest minute and measure time intervals in minutes. Student can solve word problems using addition and subtraction of time intervals in minutes and represent the problem on a number line diagram. Student can measure and estimate liquid volumes and masses of objects. Student can recognize area as an attribute and can measure areas by unit squares. Student can solve area and perimeter problems of plane figures.



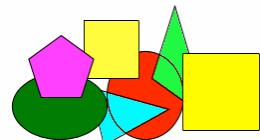
Represents and interprets data

Student can create a scaled picture graph and a scaled bar graph to represent a data set with several categories. Student can solve one and two step problems using data from the information in the bar graphs. Student create a line plot using data measured by halves, fourths, and whole inches.

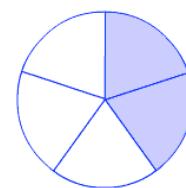
Geometry

Names and reasons with shapes and their attributes

Student can understand shapes in different categories may share attributes. Student can identify rhombuses, rectangles, and squares as quadrilaterals.



Analyzes, compares, and creates shapes



Student can draw examples of quadrilaterals that are not rhombuses, rectangles, or squares. Student can partition shapes into parts of equal areas and express the areas as fractions of the shape.

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Mathematics

- 6- Exceeds
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4th Grade

Operations and Algebraic Thinking

Understands and applies properties of operations

Student is fluent with factors and multiples within 100, can identify prime and composite numbers, and can identify patterns within groups of numbers to name the "rule" for the sequence.

Represents and solves problems fluently

Student can represent and solve problems using all four operations with whole numbers, using drawings and equations, and interpreting remainders when applicable.

Demonstrates mastery of grade-level math facts

Student has mastered all math facts to 100 in the four operations, and is fluent.



Number and Operations

Knows number names and counts accurately

Student can read, write, compare, and round multi-digit whole numbers to any place, using $>$, $<$, or $=$ symbols.

Applies the concept of place value

Student can add and subtract multi-digit whole numbers fluently, and can multiply numbers up to four digits by one digit, as well as two digit by two digit multiplication. Student can use arrays, equations, and/or area models to explain multi-digit multiplication. Student can divide numbers up to four digits by one digit, and find quotients using strategies based on place value, area models, arrays, or equations.

Develops understanding of fractions as numbers

Student can find and identify equivalent fractions, and can compare and order fractions with different numerators and denominators. Student can add and subtract fractions with like denominators. Student can multiply fractions by a whole number. Student can use decimal notation for fractions, and can compare decimals to hundredths, using $<$, $>$, or $=$ signs.

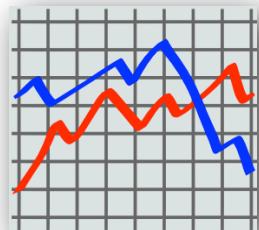
Measurement and Data

Knows the meaning and process of measurement

Student can solve word problems using the four operations to determine distances, elapsed time, money, liquid volume, and mass, and can represent answers using diagrams with a measurement scale. Student can apply area and perimeter formulas in real world situations. Student knows relative sizes of measurements within one system (i.e. metric measures of length, or American Standard measures of weight) and can convert measurements within one system. (For example, feet to inches, grams to kilograms, minutes to seconds or hours)

Represents and interprets data

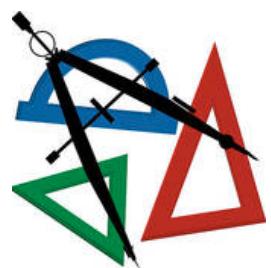
Student can make a line plot to display a data set in fractions of units, and can solve problems using the data presented in the line plot.



Geometry

Names and reasons with shapes and their attributes

Student can draw points, lines, segments, rays, angles, perpendicular and parallel lines, and can draw and identify lines of symmetry. Student can recognize these attributes in two dimensional shapes.



Analyzes, compares, and creates shapes

Student understands the concept of angle measure, and can measure and create angles using a protractor. Student can classify two dimensional shapes based on the presence or absence of parallel or perpendicular lines and size of angles, and can recognize right triangles as a category.