

## **Standard 1:**

**Students develop number sense and use numbers and number relationships in problem-solving situations and communicate the reasoning used in solving these problems.**

*Second grade students will:*

- using objects and pictures, represent whole numbers including odds and evens from 0 to 1,000
- apply equalities and inequalities with whole numbers from 0 to 1,000 using the symbols =, •, <, >
- using concrete materials, demonstrate the meanings of fractions, including halves, thirds, fourths, eighths, and tenths of sets and wholes
- demonstrate equivalencies of coins (*for example, 5 nickels = 1 quarter*)
- combine coins up to \$1.00 (*for example, 20¢ = 2 dimes = 1 dime + 2 nickels = 4 nickels*)

*Third grade students will:*

- using objects and pictures, represent whole numbers including odds and evens from 0 to 10,000
- apply equalities and inequalities with whole numbers from 0 to 10,000 using the symbols =, •, <, >
- using concrete materials (*for example, fraction strips*), compare and order fractions with like denominators, such as halves, thirds, fourths, eighths, and tenths
- demonstrate different combinations of coins for change (*for example, 52¢ = 2 quarters and 2 pennies*)
- using concrete materials, make change up to \$1.00

*Fourth grade students will:*

- using objects and pictures, represent whole numbers including odds and evens from 0 to 1,000,000
- apply equalities and inequalities with whole numbers from 0 to 1,000,000 using the symbols =, •, <, >
- using concrete materials (*for example, fraction strips*), compare and order fractions with like and unlike denominators, such as halves, thirds, fourths, eighths, and tenths
- using concrete materials (*for example, base ten blocks*), represent the decimal fractions of tenths and hundredths
- using concrete materials, equate terminating decimals to their common fraction equivalents (*for example, 0.25 = 1/4*)
- demonstrate different combinations of currency and coins for change (*for example, \$2.39 = 2 dollar bills, 1 quarter, 1 dime, and 4 pennies*)
- using concrete materials, count change from the cost of the item, where the item costs no more than \$10.00, up to the amount of money received

## ***1.2 Reading and writing whole numbers and knowing place-value concepts and numeration through their relationships to counting, ordering, and grouping.***

*Second grade students will:*

- read and write numerals from 0 to 1,000 in meaningful contexts
- read and write the number words for zero to one hundred
- group objects by ones, tens, and hundreds
- order according to place value (*for example, given 9 ones, 5 tens, and 4 hundreds, the student can write the number 459; given the number 459, the student can show 4 hundreds, 5 tens, and 9 ones*)
- write three-digit numbers in expanded form (*for example,  $459 = 400 + 50 + 9$* )

*Third grade students will:*

- read and write numerals from 0 to 10,000 in meaningful contexts
- read and write the number words for selected numbers from zero to one thousand
- order according to place value (*for example, given 9 ones, 5 tens, 4 hundreds, and 7 thousands, the student can write the number 7,459; given the number 7,459, the student can show 7 thousands, 4 hundreds, 5 tens, and 9 ones*)
- identify place value through ten thousands (*for example, in 86,243, '6' is in the thousands place*)
- write four-digit numbers in expanded form (*for example,  $7,459 = 7,000 + 400 + 50 + 9$* )

*Fourth grade students will:*

- read and write numerals from 0 to 1,000,000 in meaningful contexts
- read the number words for selected numbers from zero to one million
- write the number words for selected numbers from zero to one hundred thousand
- order according to place value (*for example, given 9 ones, 5 tens, 4 hundreds, 7 thousands, and 8 hundred thousands, the student can write the number 807,459; given the number 807,459, the student can show 8 hundred thousands, 7 thousands, 4 hundreds, 5 tens, and 9 ones*)
- identify place value through hundred thousands (*for example, in 807,459, '8' is in the hundred thousands place*)
- write six-digit numbers in expanded form (*for example,  $807,459 = 800,000 + 7,000 + 400 + 50 + 9$* )
- relate decimals and fractions (that is, tenths and hundredths) to one another using objects and pictures

## ***1.3 Using numbers to count, to measure, to label, and to indicate location.***

*Second grade students will:*

- count by 1's, 2's, 5's, and 10's
- count from 1 to 1,000 by 100's
- starting with any whole number less than 1,000, count forward to 1,000
- use ordinal positions for first through thirty-first
- sequence selected whole numbers from 0 to 1,000
- locate and label the halfway point between whole numbers on the number line
- locate and label a point in the first quadrant of the coordinate plane (*for example,*

*locates the point (4,1)*

*Third grade students will:*

- count forward from any even number by 2's; and from any number by 10's and 100's (for example, 216, 316, 416, 516, ...)
- use ordinal positions for selected whole numbers greater than thirty-first
- sequence selected whole numbers from 0 to 10,000
- locate and label  $\frac{1}{2}$ 's and multiples of  $\frac{1}{4}$ 's between whole numbers on the number line
- locate and label a point in the first quadrant of the coordinate plane (for example, *locates the point (11,15)*)

*Fourth grade students will:*

- count forward from any number by 2's, 3's, 5's, 10's, and 100's
- sequence selected whole numbers from 0 to 100,000
- locate and label  $\frac{1}{2}$ 's and multiples of  $\frac{1}{4}$ 's and  $\frac{1}{3}$ 's between whole numbers on the number line
- locate and label a point in the first quadrant of the coordinate plane (for example, *locates the point (27,15)*) and on a city map (for example, (E23, 11))

***1.4 Developing, testing and explaining conjectures about properties of whole numbers, and commonly used fractions and decimals (for example,  $\frac{1}{3}$ ,  $\frac{3}{4}$ , 0.5, 0.75).***

*Second grade students will:*

- verify the commutative and associative properties of addition of whole numbers
- verify that subtraction of whole numbers is not commutative

*Third grade students will:*

- verify the commutative and associative properties of addition and multiplication of whole numbers
- verify the multiplication properties of zero and one with whole numbers

*Fourth grade students will:*

- verify division of whole numbers is not commutative
- continue to verify number properties from previous grades

***1.5 Using number sense to estimate and justify the reasonableness of solutions to problems involving whole numbers, and commonly used fractions and decimals (for example,  $\frac{1}{3}$ ,  $\frac{3}{4}$ , 0.5, 0.75).***

*Second grade students will:*

- estimate sums and differences first by rounding to the nearest ten prior to performing the operation, and then using the estimate to determine the reasonableness of the solution

*Third grade students will:*

- estimate sums and differences first by rounding to the nearest ten and hundred prior to performing the operation and, then, using the estimate to determine the reasonableness of the solution
- estimate products first by rounding to the nearest ten prior to performing the operation, and then using the estimate to determine the reasonableness of the solution

*Fourth grade students will:*

- estimate sums and differences first by rounding to the nearest ten, hundred, and thousand prior to performing the operation, and then using the estimate to determine the reasonableness of the solution
- estimate products first by rounding to the nearest ten and hundred prior to performing the operation and, then, using the estimate to determine the reasonableness of the solution

## **Standard 2:**

**Students use algebraic methods to explore, model and describe patterns and functions involving numbers, shapes, data, and graphs in problem-solving situations and communicate the reasoning used in solving these problems.**

*Second grade students will:*

- verbally describe patterns
- create and extend patterns using symbols, such as words and numbers
- find missing elements of a repeating pattern (for example, 1,3, \_\_,7)

*Third grade students will:*

- reproduce, extend, create, and describe patterns, such as in common fractions, geometric shapes, money, measurement, addition, subtraction, and multiplication facts
- find missing elements of patterns of multiples

*Fourth grade students will:*

- reproduce, extend, create, and describe patterns, such as in common fractions, geometric shapes, measurement, addition, subtraction, multiplication, and division facts
- find missing elements of a complex repeating pattern (for example, 1,1,2,3,5,\_\_,13,...)

### ***2.2 Describing patterns and other relationships using tables, graphs, and open sentences.***

*Second grade students will:*

- match tables and graphs of points on a coordinate plane

*Third grade students will:*

- given data, extend a table and plot points on a coordinate plane

*Fourth grade students will:*

- match tables, graphs, and open sentences that represent the same numerical pattern

### ***2.3 Recognizing when a pattern exists and using that information to solve a problem.***

*Second grade students will:*

- verbally describe the relationship between a graph and a table

*Third grade students will:*

- identify a rule using addition or subtraction and solve a problem using the rule

*Fourth grade students will:*

- identify a rule using addition, subtraction, or multiplication, and solve a problem using the rule

*2.4 Observing and explaining how a change in one quantity can produce a change in another (for example, the relationship between the number of bicycles and the numbers of wheels).*

*Second grade students will:*

- using concrete or pictorial patterns, determine how the change in one variable affects the change in another (for example, how changing the number of hands changes the number of fingers)

*Third grade students will:*

- determine how the change in one variable affects the change in the other by addition or subtraction

*Fourth grade students will:*

- determine how the change in one variable affects the change in the other by addition, subtraction, or multiplication

### **Standard 3:**

**Students use data collection and analysis, statistics, and probability in problem-solving situations and communicate the reasoning and processes used in solving these problems.**

*Second grade students will:*

- design a survey and collect data
- display data using tallies, bar graphs, pictographs, or tables
- transfer the same set of data to different displays (for example, from a table to a bar graph)

*Third grade students will:*

- select the appropriate type of graph to use in various problem-solving situations
- collect and display data using surveys, tallies, bar graphs, dot plots, pictographs, or tables
- use a computer to create bar and circle graphs
- use a timeline to display a sequence of events

*Fourth grade students will:*

- select the appropriate type of graph to use in various problem-solving situations
- collect and display data using line, dot plots, circle, or bar graphs
- use graph paper using the horizontal and vertical axes appropriately
- explain the basic concepts of sample bias and sample size when designing a survey

### **3.2 Interpreting data using the concepts of largest, smallest, most often, and middle.**

*Second grade students will:*

- interpret and compare data from displays, using the terms "least often," "most often", and "how much more" or "how much less"

*Third grade students will:*

- determine the median and mode from a data set
- using various displays of data, interpret and draw conclusions

*Fourth grade students will:*

- choose between median and mode to best describe the "middle" of a data set
- transfer the use of median and mode to other curricular areas
- using various displays of data, formulate questions, interpret, and draws conclusions

**3.3 Generating, analyzing, and making predictions based on data obtained from surveys and chance devices.**

*Second grade students will:*

- use survey data to make predictions about a larger similar population (for example, from a class survey make a prediction about all second graders in the school)
- roll a number cube to generate and record results
- analyze the results (including likely, more likely, less likely, and unlikely outcomes) of spinning a spinner
- recognize if different spinners are fair or unfair

*Third grade students will:*

- use survey data to make a prediction from various displays of data
- analyze the results of rolling a number cube
- predict the most likely outcome from spinners
- analyze the fairness of different spinners

*Fourth grade students will:*

- uses survey data to make and justify a real-world decision
- compare the outcomes of flipping a coin, spinning a spinner with four congruent sectors, and rolling a number cube
- analyze and predict which outcome is more likely from several events such as obtaining “heads” when flipping a coin, the spinner landing in one of the sectors, or rolling a “1” on a number cube
- analyze the fairness of various chance devices

**3.4 Solving problems using various strategies for making combinations (for example, determining the number of different outfits that can be made using two blouses and three skirts).**

*Second grade students will:*

- determine the number of outcomes when spinning a spinner
- using manipulatives or pictures, determine the possible combinations of matching a set containing two elements with a different set containing two elements

*Third grade students will:*

- determine the number of outcomes when rolling a number cube
- using manipulatives or pictures, determine the possible combinations of matching a set containing two elements with a set containing three elements

*Fourth grade students will:*

- determine the number of outcomes obtained from a variety of chance devices
- using paper-and-pencil techniques (for example, tree diagrams), display the possible combinations of matching two sets of elements

## **Standard 4:**

**Students use geometric concepts, properties, and relationships in problem solving situations and communicate the reasoning used in solving these problems.**

***4.1 Recognizing shapes and their relationships (for example, symmetry and congruence) using a variety of materials (for example, pasta, boxes, pattern blocks).***

*Second grade students will:*

- identify congruent figures from a selection of similar figures
- slide, flip, and turn concrete materials such as tangrams and pattern blocks to create and reproduce simple designs
- describe symmetry
- identify lines of symmetry of squares and rectangles

*Third grade students will:*

- compare similarities and differences between the concepts of similarity and congruence
- make a pattern by rotating, flipping, and sliding a two-dimensional figure
- identify lines of symmetry of regular hexagons, pentagons, and octagons

*Fourth grade students will:*

- define similarity and congruence
- identify the transformation that occurs when a figure is translated, reflected, or rotated
- identify the lines of symmetry of an equilateral triangle, parallelogram, and rhombus

***4.2 Identifying, describing, drawing, comparing, classifying, and building physical models of geometric figures.***

- describe the attributes of circles, triangles, and quadrilaterals such as squares and rectangles
- identifies right angles and not-right angles
- recognize the three-dimensional figures: cubes, spheres, cylinders, cones, and pyramids
- draw right angles and not-right angles

*Third grade students will:*

- identify points, lines, line segments, and rays
- recognize and identify hexagons, pentagons, and octagons
- classify angles as obtuse, acute, or right
- draw obtuse, acute, and right angles
- compare what is the same and what is different between two-dimensional figures and three-dimensional figures
- draw rectangles and squares on a coordinate plane and identify the vertices with coordinates
- identify cubes, spheres, cylinders, cones, and pyramids
- build cubes (for example, with marshmallows and toothpicks) and spheres (for example, soap bubbles)

*Fourth grade students will:*

- identify parallel, perpendicular, and intersecting lines
- identify attributes of closed curves
- recognize and identify polygons including quadrilaterals such as trapezoids,

parallelograms, and rhombuses

- draw geometric polygons including quadrilaterals such as trapezoids, parallelograms, and rhombuses
- describe squares as rectangles
- describe a right angle as having a measure of 90°
- classify triangles by their angles (obtuse, acute, right)
- draw obtuse, acute, and right triangles on a coordinate plane and identify the vertices with coordinates
- compare what is the same and what is different between two-dimensional figures and three-dimensional figures
- identify rectangular prisms
- recognize and identify in three-dimensional figures the vertices, edges, and faces
- build cubes, prisms, and pyramids (for example, using straws and string)

#### ***4.3 Relating geometric ideas to measurement and number sense.***

*Second grade students will:*

- measure the lengths of the sides of triangles, squares, and rectangles to the nearest half inch and centimeter
- measures the perimeter of triangles, squares, and rectangles using non-standard and standard units

*Third grade students will:*

- measure the sides and perimeters of geometric shapes to the nearest half inch and centimeter
- measure the area of geometric figures using nonstandard units

*Fourth grade students will:*

- measure the sides and perimeters of geometric shapes to the nearest fourth inch and centimeter
- measure the area of geometric figures using standard units

#### ***4.4 Solving problems using geometric relationships and spatial reasoning (for example, using rectangular coordinates to locate objects, constructing models of three-dimensional objects).***

*Second grade students will:*

- draw a picture or diagram to solve a problem (for example, draw a map of the room to show how to get from a desk to the reading area; draw a map of the neighborhood)
- investigate and predict which pattern block shapes can be formed from the pattern block triangles
- investigate and predict the geometric shapes that result from cutting along a line of symmetry

*Third grade students will:*

- draw a picture or diagram to solve a problem (for example, use a number line to locate one half)
- investigate and predict geometric shapes by combining and subdividing groups of pattern blocks
- investigate and predict the result of changing the lengths of sides of polygons

investigate and predict the geometric figures that result from cutting along a line of symmetry

*Fourth grade students will:*

- draw a picture or diagram to solve a problem (for example, uses triangular pattern blocks to create a star; uses pattern blocks to tile a plane)
- investigate and predict the changing of angles (for example, those made from the hands of a clock over time)
- investigate and predict what must occur for similar figures to become congruent figures
- investigate and predict the geometric figures that result from cutting along a line of symmetry

## **Standard 5:**

**Students use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems.**

*5.1 Knowing, using, describing, and estimating measures of length, perimeter, capacity, weight, time, and temperature; and*

*5.3 Demonstrating the process of measuring and explaining the concepts related to units of measurement.*

*Second grade students will:*

- tell time to the nearest fifteen minutes, using an analog and digital clock
- use AM and PM
- estimate and measure the length of objects to the nearest half inch, foot, yard, centimeter, and meter
- estimate and measure the perimeter of a figure using non-standard and standard units
- estimate and measure the capacity of a container in cups, pints, quarts and gallons
- estimate and weigh an object on a balance with a non-standard unit and use a scale to measure an object to the nearest pound
- measures temperature to the nearest 2° and 10°F
- describe the units for measuring time, length, capacity, weight, and temperature
- know the number of hours in a day, months in a year, inches in a foot, feet in a yard, and cups in a pint

*Third grade students will:*

- tell time to the nearest five minutes, using an analog and digital clock
- estimate how long a minute is
- estimate and measure the length of objects
- estimate and measure the perimeter of an object with a string measured in U.S. customary and metric units
- estimate and measure areas using non-standard units
- estimate and measure the capacity of a container in cups, pints, quarts, gallons, and liters
- estimate and weigh an object on a balance or scale to the nearest ounce

- measure temperatures in both Fahrenheit and Celsius
- describe the units for measuring time, length, area, capacity, and temperature
- know the number of seconds in a minute, hours in a day, days in a month, days in a year, pints in a quart, quarts in a gallon, and centimeters in a meter

*Fourth grade students will:*

- tell time to the nearest minute, using an analog and digital clock
- tell the number of minutes in a day, days in a year and when a leap year occurs
- describes the units for measuring time
- estimate the perimeters of similarly-sized figures (for example, trapezoids, parallelograms and rectangles), measure the sides, and determine the perimeters
- measure the lengths of the sides of squares and rectangles and determine the areas
- measure the lengths of the sides of cubes and determine the volumes
- estimate and measure the capacity of containers
- estimate and weigh objects on a balance to the nearest ounce and gram
- compare the relationship between the temperature in Fahrenheit and Celsius
- determine the distance between points on vertical and horizontal line segments on a coordinate plane
- given a distance, find pairs of points on the coordinate plane separated by that distance
- describe the units for measuring length, area, volume, capacity, and temperature in U.S. customary and metric units
- know the number of years in a decade and a century, feet in a mile, millimeters and centimeters in a meter, ounces in a pound, and pounds in a ton

***5.2 Comparing and ordering objects according to measurable attributes (for example, longest to shortest, lightest to heaviest).***

*Second grade students will:*

- compare objects according to the measurable attributes of length, capacity, weight, and temperature
- order objects according to the measurable attributes of length, capacity, weight and temperature
- compare and order various times

*Third grade students will:*

- compare objects according to the measurable attributes of length, area, capacity, weight, and temperature
- order objects according to the measurable attributes of length, area, capacity, weight and temperature
- compare and order various times

*Fourth grade students will:*

- compare objects according to the measurable attributes of length, area, volume, capacity, weight, and temperature in U.S. customary and metric units
- order objects according to the measurable attributes of length, area, volume, capacity, weight and temperature in U.S. customary and metric units
- compare and order various times

***5.4 Using the approximate measures of familiar objects (for example, the width of your finger, the temperature of a room, the weight of a gallon of milk) to develop a sense of measurement.***

*Second grade students will:*

- use familiar objects as referents for measurement (for example, a second grader is a little taller than a meter)

*Third grade students will:*

- use familiar objects as referents for measurement (for example, the width of the index fingernail equals approximately one centimeter; ten pennies weigh approximately an ounce)

*Fourth grade students will:*

- use familiar objects as referents for measurement (for example, one paper clip equals one gram; the length of the arm span equals approximately one meter)

***5.5 Selecting and using appropriate standard and non-standard units of measurement in problem-solving situations.***

*Second grade students will:*

- select the appropriate units of measurement of time, length, capacity, weight, and temperature

*Third grade students will:*

- select the appropriate units of measurement of time, length, area, capacity, weight, and temperature

*Fourth grade students will:*

- select the appropriate units of measurement of time
- select the appropriate units of measurement of length, area, volume, capacity, weight, and temperature in U.S. customary and metric units

**Standard 6:**

**Students link concepts and procedures as they develop and use computational techniques, including estimation, mental arithmetic, paper-and-pencil, calculators, and computers, in problem-solving situations and communicate the reasoning used in solving these problems.**

***6.1 Demonstrating conceptual meanings for the four basic arithmetic operations of addition, subtraction, multiplication, and division.***

*Second grade students will:*

- using concrete materials, demonstrate and verbally explain addition of whole numbers with regrouping for two-digit numbers
- using concrete materials, demonstrate and verbally explain subtraction of whole numbers without regrouping for two-digit numbers
- using concrete materials or pictures, demonstrate multiplication without regrouping of whole numbers (for example, using arrays or grouping sets of objects)
- using concrete materials or pictures, demonstrate division of whole numbers without

remainders as partitioning of sets

using concrete materials or pictures, demonstrate the inverse relationship of addition and subtraction of whole numbers

using concrete materials or pictures, demonstrate multiplication of whole numbers as repeated addition

*Third grade students will:*

using concrete materials, demonstrate and verbally explain addition and subtraction of whole numbers with regrouping for up to four-digit numbers

using concrete materials or pictures, demonstrate multiplication with regrouping of whole numbers

using concrete materials, demonstrate division of whole numbers with remainders as partitioning of sets

using paper-and-pencil, demonstrate the inverse relationship of addition and subtraction

of whole numbers

using paper-and-pencil, demonstrate multiplication of whole numbers as repeated addition

*Fourth grade students will:*

explain in writing what addition, subtraction, multiplication, and division of whole numbers means

demonstrate the inverse relationship of multiplication and division of whole numbers

demonstrate division of whole numbers as repeated subtraction

## ***6.2 Adding and subtracting commonly used fractions and decimals using physical models (for example, $\frac{1}{3}$ , $\frac{3}{4}$ , 0.5, 0.75).***

*Second grade students will:*

using concrete materials or pictures, add and subtract halves, thirds, and fourths

find the total value of coins not to exceed \$1.00

*Third grade students will:*

using concrete materials, demonstrate addition and subtraction of proper fractions with common denominators of ten or less

using coins as models, add and subtract decimals in which sums and differences may exceed \$1.00

*Fourth grade students will:*

using concrete materials, demonstrate addition and subtraction of proper fractions with common denominators of twelve or less without regrouping

using concrete materials, demonstrate addition and subtraction of mixed numerals with common denominators of twelve or less

add and subtract decimals to the one-hundredths

compute the total cost of items to \$10.00

determine change received for \$10.00 or less

**6.3 Demonstrating understanding of and proficiency with basic addition, subtraction, multiplication, and division facts without the use of a calculator.**

*Second grade students will:*

- demonstrate understanding of basic addition and subtraction facts
- demonstrate automatic recall of basic addition and subtraction facts
- use sums on an addition facts table to locate all addends for a particular sum (for example,  $7 = 0 + 7$ ,  $7 = 1 + 6$ , . . . )

*Third grade students will:*

- demonstrate understanding of basic multiplication and division facts of 1's, 2's, 3's, 5's, and 10's
- demonstrate automatic recall of basic multiplication facts of 1's, 2's, 3's, 5's, and 10's
- continue automatic recall of basic addition and subtraction facts
- use a multiplication facts table to locate all factors for a particular product (for example,  $6 = 1 \times 6$ ,  $6 = 2 \times 3$ , . . . )

*Fourth grade students will:*

- demonstrate understanding of basic multiplication and division facts through 100
- demonstrate automatic recall of basic multiplication and division facts through 100
- continue automatic recall of basic addition and subtraction facts

**6.4 Constructing, using, and explaining procedures to compute and estimate with whole numbers.**

*Second grade students will:*

- use estimation techniques such as rounding and compatible numbers (numbers whose sum is 10) before performing operations
- using paper-and-pencil, demonstrate addition of two-digit whole numbers with and without regrouping
- using paper-and-pencil, demonstrate subtraction of two-digit whole numbers without regrouping

*Third grade students will:*

- use estimation techniques such as front-end rounding, rounding, and compatible numbers (numbers whose sum is 10, 100, 1,000..) before performing operations
- using paper-and-pencil, demonstrate the four basic operations of whole numbers including
  - a) addition and subtraction of four digits
  - b) multiplication of two digits by one digit, regrouping included
  - c) division of two digits by a one-digit divisor obtaining one-digit quotients

*Fourth grade students will:*

- use estimation techniques such as front-end rounding, rounding, compatible numbers (numbers whose sum is 10, 100, 1,000...) and clustering (for example,  $27 + 28 + 30 + 31$  equals approximately  $4 \times 30 = 120$ ) before performing operations
- using paper-and-pencil, demonstrate the four basic operations of whole numbers including
  - a) multiplication of two digits by two digits and three digits by one digit with regrouping
  - b) division of two digits by a one-digit divisor

**6.5 Selecting and using appropriate methods for computing with whole numbers in problem solving situations from among mental arithmetic, estimation, paper-and-pencil, calculator and computer methods.**

*Second grade students will:*

- given a real-world problem-solving situation, use the correct operation (addition or subtraction) and appropriate method (mental arithmetic, estimation, paper-and-pencil, calculator, or computer) to solve the problem
- determine from real-world problems whether an estimated or exact sum or difference is acceptable

*Third grade students will:*

- given a real-world problem-solving situation, use the correct operation (addition, subtraction, or multiplication) and appropriate method (mental arithmetic, estimation, paper-and-pencil, calculator, or computer) to solve the problem
- determine from real-world problems whether an estimated or exact sum, difference, or product is acceptable

*Fourth grade students will:*

- given a real-world problem-solving situation, use the correct operation (addition, subtraction, multiplication, or division) and appropriate method (mental arithmetic, estimation, paper-and-pencil, calculator, or computer) to solve the problem
- determine from real-world problems whether an estimated or exact sum, difference, product, or quotient is acceptable