First Grade Correlation Benchmarks and Indicators
Mathematics

Number, Number Sense and Operations Standard

A. Use place value concepts to represent whole numbers using numerals, words and physical models.

_____ 5. Use place value concepts to represent whole numbers using numerals, words, expanded notation and physical models with ones and tens. Ex:
a) Develop a system to group and count by twos, fives and tens.
b) Identify patterns and groupings in a 100's chart and relate to place value concepts.
c) Recognize the first digit of a two-digit number as the most important to indicate size of a number and the nearness to 10 or 100.

_____ 3. Read and write the numerals for numbers to 100.

B. Recognize, classify, compare and order whole numbers.

_____ 1. Use ordinal numbers to order objects; e.g., first, second, third.

_____ 2. Recognize and generate equivalent forms for the same number using physical models, words and number expressions; e.g., concept of ten is described by "10 blocks", full tens frame, numeral 10, 5 + 5, 15 – 5, one less than 11, my brother's age.

C. Represent commonly used fractions using words and physical models.

_____ 9. Represent commonly used fractions using words and physical models for halves, thirds and fourths, recognizing fractions are represented by equal size parts of a whole and of a set of objects.

D. Determine the value of a collection of coins and dollar bills.

_____ 6. Identify and state the value of a penny, nickel, dime, quarter and dollar.

_____ 7. Determine the value of a small collection of coins (with a total up to one dollar) using 1 or 2 different types of coins, including pennies, nickels, dimes and quarters.

E. Make change using coins for values up to one dollar.

_____ 8. Show different combinations of coins that have the same value.

F. Count, using numerals and ordinal numbers.

_____ 4. Count forward to 100, count backwards from 100, and count forward and backward starting at any number between 1 and 100.

G. Model, represent and explain addition as combining sets and counting on.

_____ 10. Model, represent and explain addition as combining sets (part + part = whole) and counting on. Ex:
a) Model and explain addition using physical materials in contextual situations.
b) Draw pictures to model addition.
c) Write number sentences to represent addition.
d) Explain that adding two whole numbers yields a larger whole number.

_____ 12. Use conventional symbols to represent the operations of addition and subtraction.

H. Model, represent and explain subtraction as comparison, take-away and part-to-whole.

_____ 11. Model, represent and explain subtraction as take-away and comparison. Ex:
a) Model and explain subtraction using physical materials in contextual situations.
b) Draw pictures to model subtraction.
c) Write number sentences to represent subtraction.
d) Explain that subtraction of whole numbers yields an answer smaller than the original number.

_____ 12. Use conventional symbols to represent the operations of addition and subtraction.

I. Model, represent and explain multiplication as repeated addition, rectangular arrays and skip counting.

_____ 13. Model and represent multiplication as repeated addition and rectangular arrays in contextual situations; e.g., four people will be at my party and if I want to give 3 balloons to each person, how many balloons will I need to buy?

J. Model, represent and explain division as sharing equally, repeated subtraction and rectangular arrays.

_____ 14. Model and represent division as sharing equally in contextual situations; e.g., sharing cookies.

K. Demonstrate fluency in addition facts with addends through 9 and corresponding subtractions.

_____ 16. Develop strategies for basic addition facts, such as:
- a) counting all;
- b) counting on;
- c) one more, two more;
- d) doubles;
- e) doubles plus or minus one;
- f) make ten;
- g) using ten frames;
- h) identify property (adding zero).

_____ 17. Develop strategies for basic subtraction facts, such as:
- a) relating to addition (for example, think of 7 – 3 = ? as "3 plus ? equals 7");
- b) one less, two less;
- c) all but one (for example, 8 – 7, 5 – 4);
- d) using ten frames;
- e) missing addends

Measurement Standard

A. Explain the need for standard units of measurement.

_____ 1. Recognize and explain the need for fixed unit and tools for measuring length and weight; e.g., rulers and balance scales.

C. Develop common referents for units of measure for length, weight, volume (capacity) and time to make comparisons and estimates.

_____ 2. Tell time to the hour and half hour on digital and analog (dial) timepieces.

_____ 3. Order a sequence of events with respect to time; e.g., summer, fall, winter and spring; morning, afternoon and night.

D. Apply measurement techniques to measure length, weight and volume (capacity).

_____ 4. Estimate and measure weight using non-standard units; e.g., blocks of uniform size.

_____ 5. Estimate and measure lengths using non-standard and standard units; i.e., centimeters, inches and feet.

Geometry and Spatial Sense Standard

A. Describe and create plan figures: circle, rectangle, square, triangle, hexagon, trapezoid, parallelogram and rhombus, and identify them in the environment.

_____ 2. Create new shapes by combining or cutting apart existing shapes.

_____ 3. Identify the shapes of the faces of three-dimensional objects.

B. Describe solid objects: cube, rectangular prism, sphere, cylinder, cone and pyramid, and identify them in the environment.

_____ 3. Identify the shapes of the faces of three-dimensional objects.

C. Sort and compare two-dimensional figures and three-dimensional objects according to their characteristics and properties.

_____ 1. Identify, compare and sort two-dimensional shapes; i.e., square, circle, ellipse, triangle, rectangle, rhombus, trapezoid, parallelogram, pentagon and hexagon. Ex:

a) Recognize and identify triangles and rhombuses independent of position, shape or size;

b) Describe two-dimensional shapes using attributes such as number of sides and number of vertices (corners or angles).

D. Identify, explain and model (superposition, copying) the concepts of shapes being congruent and similar.

_____ 5. Copy figures and draw simple two-dimensional shapes from memory.

E. Recognize two- and three-dimensional objects from different positions.

_____ 5. Copy figures and draw simple two-dimensional shapes from memory.

F. Describe location, using comparative (before, after) directional (above, below) and positional (first, last) words.

_____ 4. Extend the use of location words to include distance (near, far, close to) and directional words (left, right).

G. Identify and draw figures with line symmetry.

_____ 5. Copy figures and draw simple two-dimensional shapes from memory.

Patterns, Functions and Algebra Standard

A. Sort, classify and order objects by size, number and other properties, and describe the attributes used.

_____ 1. Sort, classify and order objects by two or more attributes, such as color and shape, and explain how objects were sorted.

B. Extend sequences of sounds and shapes or simple number patterns, and create and record similar patterns.

_____ 2. Extend sequences of sounds, shapes or simple number patterns, and create and record similar patterns. Ex:

a) Analyze and describe patterns with multiple attributes using numbers and shapes; e.g., AA, B, aa, b, AA, B, aa, b . . .

b) Continue repeating and growing patterns with materials, pictures and geometric items; e.g., XO, XOO, XOOO, XOOOO.

C. Create and extend patterns: and describe the rule in words…0

_____ 3. Describe orally the basic unit or general plan of a repeating or growing pattern.

D. Model, problem situations, using objects, pictures, numbers and other symbols.

_____ 5. Describe orally and model a problem situation using words, objects or number phrase or sentence.

E. Solve open sentences and explain strategies.

_____ 4. Solve open sentences by representing an expression in more than one way using the commutative property; e.g., 4 + 5 = 5 + 4 or the number of blue balls plus red balls is the same as the number of red balls plus blue balls (R + B = B + R).

Data Analysis and Probability Standard

A. Pose questions and gather data about everyday situations and familiar objects.

_____ 5. Construct a question that can be answered by using information from a graph.

B. Sort and classify objects by attributes, and organize data into categories in a simple table or chart.

_____ 1. Identify multiple categories for sorting data.

_____ 2. Collect and organize data into charts using tally marks.

_____ 6. Arrange five objects by an attribute, such as size or weight, and identify the ordinal position of each object.

_____ 7. Answer questions about the number of objects represented in a picture graph, bar graph or table graph; e.g., category with most, how many more in a category compared to another, how many altogether in two categories.

C. Represent data using objects, picture graphs and bar graphs.

_____ 3. Display data in picture graphs with units of 1 and bar graphs with intervals of 1.

_____ 4. Read and interpret charts, picture graphs and bar graphs as sources of information to identify main ideas, draw conclusions, and make predictions.

D. Describe the probability or chance events as more, less or equally likely to occur.

_____ 8. Describe the likelihood of simple events as possible/impossible and more likely/less likely; e.g., when using spinners or number cubes in classroom activities.