First Grade Math Standards

Key Concept: **Number Sense and Base Ten**

The student will:

1.NSBT.1 Extend the number sequence to:

- count forward by ones to 120 starting at any number;
- count by fives and tens to 100, starting at any number;
- read, write and represent numbers to 100 using concrete models, standard form, and equations in expanded form;
- read and write in word form numbers zero through nineteen, and multiples of ten through ninety.

1.NSBT.2 Understand place value through 99 by demonstrating that:

- ten ones can be thought of as a bundle (group) called a "ten";
- the tens digit in a two-digit number represents the number of tens and the ones digit represents the number of ones;
- two-digit numbers can be decomposed in a variety of ways (e.g., 52 can be decomposed as 5 tens and 2 ones or 4 tens and 12 ones, etc.) and record the decomposition as an equation.

1.NSBT.3 Compare two two-digit numbers based on the meanings of the tens and ones digits, using the words greater than, equal to, or less than.

1.NSBT.4 Add through 99 using concrete models, drawings, and strategies based on place value to:

a. add a two-digit number and a one-digit number, understanding that sometimes it is necessary to compose a ten (regroup);
b. add a two-digit number and a multiple of 10.

1.NSBT.5 Determine the number that is 10 more or 10 less than a given number through 99 and explain the reasoning verbally and with multiple representations, including concrete models.

1.NSBT.6 Subtract a multiple of 10 from a larger multiple of 10, both in the range 10 to 90, using concrete models, drawings, and strategies based on place value.

Key Concept: **Algebraic Thinking and Operations**

The student will:

1.ATO.1 Solve real-world/story problems using addition (as a joining action and as a part- part-whole action) and subtraction (as a separation action, finding parts of the whole, and as a comparison) through 20 with unknowns in all positions.

1.ATO.2 Solve real-world/story problems that include three whole number addends whose sum is less than or equal to 20.

1.ATO.3 Apply Commutative and Associative Properties of Addition to find the sum (through 20) of two or three addends.

1.ATO.4 Understand subtraction as an unknown addend problem.

1.ATO.5 Recognize how counting relates to addition and subtraction.

1.ATO.6 Demonstrate:
a. addition and subtraction through 20;
b. fluency with addition and related subtraction facts through 10.

1.ATO.7 Understand the meaning of the equal sign as a relationship between two quantities (sameness) and determine if equations involving addition and subtraction are true.

1.ATO.8 Determine the missing number in addition and subtraction equations within 20.

1.ATO.9 Create, extend and explain using pictures and words for:
a. repeating patterns (e.g., AB, AAB, ABB, and ABC type patterns);
b. growing patterns (between 2 and 4 terms/figures).

Key Concept: **Geometry**

The student will:

1.G.1 Distinguish between a two-dimensional shape's defining (e.g., number of sides) and non-defining attributes (e.g., color).

1.G.2 Combine two-dimensional shapes (i.e., square, rectangle, triangle, hexagon, rhombus, and trapezoid) or three-dimensional shapes (i.e., cube, rectangular prism, cone, and cylinder) in more than one way to form a composite shape.

1.G.3 Partition two-dimensional shapes (i.e., square, rectangle, circle) into two or four equal parts.

1.G.4 Identify and name two-dimensional shapes (i.e., square, rectangle, triangle, hexagon, rhombus, trapezoid, and circle).

Key Concept: **Measurement and Data Analysis**

The student will:

1.MDA.1 Order three objects by length using indirect comparison.

1.MDA.2 Use nonstandard physical models to show the length of an object as the number of same size units of length with no gaps or overlaps.

1.MDA.3 Use analog and digital clocks to tell and record time to the hour and half hour.

1.MDA.4 Collect, organize, and represent data with up to 3 categories using object graphs, picture graphs, t-charts and tallies.

1.MDA.5 Draw conclusions from given object graphs, picture graphs, t-charts, tallies, and bar graphs.

1.MDA.6 Identify a penny, nickel, dime and quarter and write the coin values using a ¢ symbol.