Math Diagnostic Test Report for – Grade 2

Percentages - per Topic

- Number Sense: 92%
- Addition: 79%
- Subtraction: 83%
- Basic Multiply/Div: 92%
- Fractions: 92%
- Geometry: 96%
- Measurement: 83%
- Time/Money: 92%
- Basic Pre-Algebra: 92%
- Data Analysis: 88%

Percentage - per Test

- Test-1: 77%
- Test-2: 83%
- Test-3: 80%
- Test-4: 87%
- Test-5: 93%
- Test-6: 93%
- Test-7: 97%
- Test-8: 100%
The following is the list of standards tested.

1. **Number Sense**: Students understand the relationship between numbers, quantities, and place value in whole numbers up to 1,000:
   1.1 Count, read, and write whole numbers to 1,000 and identify the place value for each digit.
   1.2 Use words, models, and expanded forms (e.g., 45 = 4 tens + 5) to represent numbers (to 1,000).
   1.3 Order and compare whole numbers to 1,000 by using the symbols <, =, >.
   1.4 Students use estimation strategies in computation and problem solving that involve numbers that use the ones, tens, hundreds, and thousands places.

2. **Addition**: Students estimate, calculate, and solve problems involving addition of two- and three-digit numbers:
   2.1 Find the sum of two whole numbers up to three digits long.
   2.2 Understand and use the inverse relationship between addition and subtraction (e.g., an opposite number sentence for 8 + 6 = 14 is 14 − 6 = 8) to solve problems and check solutions.

3. **Subtraction**: Students estimate, calculate, and solve problems involving subtraction of two- and three-digit numbers:
   3.1 Find the difference of two whole numbers up to three digits long.
   3.2 Understand and use the inverse relationship between addition and subtraction (e.g., an opposite number sentence for 8 + 6 = 14 is 14 − 6 = 8) to solve problems and check solutions.

4. **Basic Multiplication and Basic Division**: Students model and solve simple problems involving multiplication and division:
   4.1 Use repeated addition, arrays, and counting by multiples to do multiplication.
   4.2 Use repeated subtraction, equal sharing, and forming equal groups with remainders to do division.
   4.3 Know the multiplication tables of 2s, 5s, and 10s (to “times 10”) and commit them to memory.

5. **Fractions**: Students understand that fractions and decimals may refer to parts of a set and parts of a whole:
   5.1 Recognize, name, and compare unit fractions from 1/12 to 1/2.
   5.2 Recognize fractions of a whole and parts of a group (e.g., one-fourth of a pie, two-thirds of 15 balls).
   5.3 Know that when all fractional parts are included, such as four-fourths, the result is equal to the whole and to one.
6. **Geometry**: Students identify and describe the attributes of common figures in the plane and of common objects in space:

   6.1 Describe and classify plane and solid geometric shapes (e.g., circle, triangle, square, rectangle, sphere, pyramid, cube, rectangular prism) according to the number and shape of faces, edges, and vertices.

   6.2 Put shapes together and take them apart to form other shapes (e.g., two congruent right triangles can be arranged to form a rectangle).

7. **Measurement**: Students understand that measurement is accomplished by identifying a unit of measure, iterating (repeating) that unit, and comparing it to the item to be measured:

   7.1 Measure the length of objects by iterating (repeating) a nonstandard or standard unit.

   7.2 Use different units to measure the same object and predict whether the measure will be greater or smaller when a different unit is used.

   7.3 Measure the length of an object to the nearest inch and/or centimeter.

   7.4 Recognize when an estimate is reasonable in measurements (e.g., closest inch).

8. **Time and Money**: Students model and solve problems by representing, adding, and subtracting amounts of money:

   8.1 Solve problems using combinations of coins and bills.

   8.2 Know and use the decimal notation and the dollar and cent symbols for money.

   8.3 Tell time to the nearest quarter hour and know relationships of time (e.g., minutes in an hour, days in a month, and weeks in a year).

   8.4 Determine the duration of intervals of time in hours (e.g., 11:00 a.m. to 4:00 p.m.).

9. **Pre-Algebra Problems**: Students model, represent, and interpret number relationships to create and solve problems involving addition and subtraction:

   9.1 Use the commutative and associative rules to simplify mental calculations and to check results.

   9.2 Relate problem situations to number sentences involving addition and subtraction.

   9.3 Solve addition and subtraction problems by using data from simple charts, picture graphs, and number sentences.

10. **Statistics, Data Analysis, and Probability**: Students collect numerical data and record, organize, display, and interpret the data on bar graphs and other representations:

    10.1 Record numerical data in systematic ways, keeping track of what has been counted.

    10.2 Represent the same data set in more than one way (e.g., bar graphs and charts with tallies).

    10.3 Identify features of data sets (range).

    10.4 Answer simple questions related to data representations.