Grade 2 Mathematics
Standards-based Skills Worksheet

Student: _____   **Date:** _____

Completed by (name): _____   **Position:** _____

School Division: _____

1. **Review SOL strand for** Number and Number Sense (SOL 2.1a-c, 2.2a-b, 2.3a-c, 2.4a-c)	2. **Review data on student performance** and indicate all data sources analyzed to assess performance in this strand: ☐ Present Level of Performance (PLOP) ☐ Prior SOL data ☐ Standardized test data ☐ Classroom assessments ☐ Teacher observations

3. Check the areas that will require specially designed instruction critical to meeting the standard.

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

❑ Demonstrate the understanding of the ten-to-one relationships among ones, tens, and hundreds, using manipulatives (e.g., beans and cups, Base-10 blocks, bundles of 10 sticks).

❑ Determine the place value of each digit in a three-digit numeral presented as a pictorial representation (e.g., a picture of Base-10 blocks) or as a physical representation (e.g., actual Base-10 blocks).

❑ Write numerals, using a Base-10 model or picture.

❑ Read three-digit numbers when shown a numeral, a Base-10 model of the number, or a pictorial representation of the number.

❑ Identify the place value (ones, tens, hundreds) of each digit in a three-digit numeral.

❑ Determine the value of each digit in a three-digit numeral (e.g., in 352, the 5 represents 5 tens and its value is 50).

❑ Round two-digit numbers to the nearest ten.

❑ Compare two numbers between 0 and 999 represented pictorially or with concrete objects (e.g., Base-10 blocks), using the words *greater than, less than* or *equal to*.

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

❑ Count an ordered set of objects, using the ordinal number words *first* through *twentieth*.

❑ Identify the ordinal positions first through twentieth, using an ordered set of objects.

❑ Identify the ordinal positions first through twentieth, using an ordered set of objects presented in lines or rows from
  – left to right;
  – right to left;
  – top to bottom; and
  – bottom to top**.**

  ❑ Write 1ˢᵗ, 2ⁿᵈ, 3ʳᵈ, through 20ᵗʰ in numerals.

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

❑ Recognize fractions as representing equal-size parts of a whole.

❑ Identify the fractional parts of a whole or a set for $\frac{2}{2}, \frac{2}{3}, \frac{3}{4}, \frac{2}{6}, \frac{7}{8}, \frac{7}{10}$, etc.

- ❑ Identify the fraction names (halves, thirds, fourths, sixths, eighths, tenths) for the fraction notations $\frac{2}{2}$, $\frac{2}{3}$, $\frac{3}{4}$, $\frac{2}{6}$, $\frac{7}{8}$, $\frac{7}{10}$, etc.

- ❑ Represent fractional parts of a whole for halves, thirds, fourths, sixths, eighths, tenths using
    - − region/area models (e.g., pie pieces, pattern blocks, geoboards);
    - − sets (e.g., chips, counters, cubes); and
    - − measurement models (e.g., fraction strips, rods, connecting cubes).

- ❑ Compare unit fractions ($\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{6}$, $\frac{1}{8}$, and $\frac{1}{10}$) using the words *greater than*, *less than* or *equal to* and the symbols (>, <, =).

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

- ❑ Determine patterns created by counting by twos, fives, and tens on a hundred chart.

- ❑ Skip count by twos, fives, and tens to 100, using manipulatives, a hundred chart, mental mathematics, a calculator, and/or paper and pencil.

- ❑ Skip count by twos, fives, and tens to 100.

- ❑ Count backward by tens from 100.

- ❑ Use objects to determine whether a number is odd or even.

4. Is/Are standard-based goal(s) needed? ☐ **YES** Address areas of need in PLOP	☐ **NO Check one or more justifications:** ☐ Accommodations Available (specify): ☐ Area of Strength in PLOP ☐ New Content ☐ Other (Specify):

5. Notes Supporting Data Analysis

1. Review SOL strand for **Computation and Estimation** **(SOL 2.5, 2.6 a-b, 2.7a-b, 2.8, 2.9)**	**2. Review data on student performance** and indicate all data sources analyzed to assess performance in this strand: ☐ Present Level of Performance (PLOP) ☐ Prior SOL data ☐ Standardized test data ☐ Classroom assessments ☐ Teacher observations

3. Check the areas that will require specially designed instruction critical to meeting the standard.

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

- ❑ Recall and write the basic addition facts for sums to 20 or less and the corresponding subtraction facts, when addition or subtraction problems are presented in either horizontal or vertical written format.

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

- ❑ Regroup 10 ones for 1 ten, using Base-10 models, when finding the sum of two whole numbers whose sum is 99 or less.

- ❑ Estimate the sum of two whole numbers whose sum is 99 or less and recognize whether the estimation is reasonable.

- ❏ Find the sum of two whole numbers whose sum is 99 or less, using Base-10 models, such as Base-10 blocks and bundles of tens.

- ❏ Solve problems presented vertically or horizontally that require finding the sum of two whole numbers whose sum is 99 or less, using paper and pencil.

- ❏ Solve problems, using mental computation strategies, involving addition of two whole numbers whose sum is 99 or less.

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

- ❏ Regroup 1 ten for 10 ones, using Base-10 models, such as Base-10 blocks and bundles of tens.

- ❏ Estimate the difference of two whole numbers each 99 or less and recognize whether the estimation is reasonable.

- ❏ Find the difference of two whole numbers each 99 or less, using Base-10 models, such as Base-10 blocks and bundles of tens.

- ❏ Solve problems presented vertically or horizontally that require finding the difference between two whole numbers each 99 or less, using paper and pencil.

- ❏ Solve problems, using mental computation strategies, involving subtraction of two whole numbers each 99 or less

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

- ❏ Identify the appropriate data and the operation needed to solve an addition or subtraction problem where the data are presented in a simple table, picture graph, or bar graph.

- ❏ Solve addition and subtraction problems requiring a one- or two-step solution, using data from simple tables, picture graphs, bar graphs, and everyday life situations.

- ❏ Create a one- or two-step addition or subtraction problem using data from simple tables, picture graphs, and bar graphs whose sum is 99 or less.

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

- ❏ Determine the missing number in a number sentence (e.g., $3 + \_\_ = 5$ or $\_\_ + 2 = 5$; $5 - \_\_ = 3$ or

  $5 - 2 = \_\_$).

- ❏ Write the related facts for a given addition or subtraction fact (e.g., given $3 + 4 = 7$, write $7 - 4 = 3$ and $7 - 3 = 4$).

4. Is/Are standard-based goal(s) needed?
 	
☐ **YES** Address areas of need in PLOP
	☐ **NO Check one or more justifications:**
	  ☐ Accommodations Available (specify):
	  ☐ Area of Strength in PLOP
	  ☐ New Content
	  ☐ Other (Specify):

5. Notes Supporting Data Analysis

1. Review SOL strand for
 	
Measurement
(SOL 2.10a-b, 2.11a-c, 2.12, 2.13a-b, 2.14)
	2. **Review data on student performance** and indicate all data sources analyzed to assess performance in this strand:
	  ☐ Present Level of Performance (PLOP)
	  ☐ Prior SOL data
	  ☐ Standardized test data
	  ☐ Classroom assessments
	  ☐ Teacher observations

3. Check the areas that will require specially designed instruction critical to meeting the standard.

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

❑ Determine the value of a collection of coins and one-dollar bills whose total value is $2.00 or less.

❑ Compare the values of two sets of coins and one-dollar bills (each set having a total value of $2.00 or less), using the terms *greater than, less than*, or *equal to*.

❑ Simulate everyday opportunities to count and compare a collection of coins and one-dollar bills whose total value is $2.00 or less.

❑ Use the cent (¢) and dollar ($) symbols and decimal point (.) to write a value of money which is $2.00 or less.

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

❑ Estimate and measure the length of various line segments and objects to the nearest inch and centimeter.

❑ Estimate and then measure the weight/mass of objects to the nearest pounds/ounces and kilograms/grams, using a scale.

❑ Estimate and measure liquid volume in cups, pints, quarts, gallons, and liters.

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

❑ Show, tell, and write time to the nearest five minutes, using an analog and digital clock.

❑ Match a written time to a time shown on a clock face to the nearest five minutes.

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

❑ Determine the days/dates before and after a given day/date.

❑ Determine the day that is a specific number of days or weeks in the past or in the future from a given date, using a calendar.

❑ Identify specific days and dates (e.g., the third Monday in a given month or what day of the week does May 11 fall on).

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

❑ Read temperature to the nearest 10 degrees from real Celsius and Fahrenheit thermometers and from physical models (including pictorial representations) of such thermometers

4. Is/Are standard-based goal(s) needed?	☐ **NO Check one or more justifications:**
☐ **YES** Address areas of need in PLOP	☐ Accommodations Available (specify): ☐ Area of Strength in PLOP ☐ New Content ☐ Other (Specify):

5. Notes Supporting Data Analysis

1. Review SOL strand for **Geometry (SOL 2.15a-b, 2.16)**	2. **Review data on student performance** and indicate all data sources analyzed to assess performance in this strand: ☐ Present Level of Performance (PLOP) ☐ Prior SOL data ☐ Standardized test data ☐ Classroom assessments ☐ Teacher observations

3. Check the areas that will require specially designed instruction critical to meeting the standard.

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

- ❑ Identify figures with at least one line of symmetry, using various concrete materials.

- ❑ Draw a line of symmetry — horizontal, vertical, and diagonal — in a figure.

- ❑ Create figures with at least one line of symmetry using various concrete materials.

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

- ❑ Determine similarities and differences between related plane and solid figures (e.g., circle/sphere, square/cube, rectangle/rectangular prism), using models and cutouts.

- ❑ Trace faces of solid figures (e.g., cube and rectangular solid) to create the set of plane figures related to the solid figure.

- ❑ Identify and describe plane and solid figures (e.g., circle/sphere, square/cube, and rectangle/rectangular prism), according to the number and shape of their faces, edges, and vertices using models.

- ❑ Compare and contrast plane and solid geometric figures (e.g., circle/sphere, square/cube, and rectangle/rectangular prism) according to the number and shape of their faces (sides, bases), edges, vertices, and angles.

4. Is/Are standard-based goal(s) needed?	☐ **NO Check one or more justifications:**
☐ **YES** Address areas of need in PLOP	☐ Accommodations Available (specify): ☐ Area of Strength in PLOP ☐ New Content ☐ Other (Specify):

5. Notes Supporting Data Analysis

1. Review SOL strand for **Probability and Statistics** **(SOL 2.17, 2.18, 2.19)**	2. **Review data on student performance** and indicate all data sources analyzed to assess performance in this strand: ☐ Present Level of Performance (PLOP) ☐ Prior SOL data ☐ Standardized test data ☐ Classroom assessments ☐ Teacher observations

3. Check the areas that will require specially designed instruction critical to meeting the standard.

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

- Organize data from experiments, using lists, tables, objects, pictures, symbols, tally marks, and charts, in order to construct a graph.
- Read the information presented horizontally and vertically on picture graphs, pictographs, and bar graphs.
- Collect no more than 16 pieces of data to answer a given question.
- Represent data from experiments by constructing picture graphs, pictographs, and bar graphs.
- Label the axes on a bar graph, limiting the number of categories (categorical data) to four and the increments to multiples of whole numbers (e.g., multiples of 1, 2, or 5).
- On a pictograph, limit the number of categories to four and include a key where appropriate.

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

- Conduct probability experiments, using multicolored spinners, colored tiles, or number cubes and use the data from the experiments to predict outcomes if the experiment is repeated.
- Record the results of probability experiments, using tables, charts, and tally marks.
- Interpret the results of probability experiments (e.g., the two-colored spinner landed on red 5 out of 10 times).
- Predict which of two events is more likely to occur if an experiment is repeated.

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

- Analyze information from simple picture graphs, pictographs, and bar graphs by writing at least one statement that covers one or both of the following:
  – Describe the categories of data and the data as a whole (e.g., the total number of responses).
  – Identify parts of the data that have special characteristics, including categories with the greatest, the least, or the same.

  - Select the best analysis of a graph from a set of possible analyses of the graph.

4. Is/Are standard-based goal(s) needed? ☐ **YES** Address areas of need in PLOP	☐ **NO Check one or more justifications:** ☐ Accommodations Available (specify): ☐ Area of Strength in PLOP ☐ New Content ☐ Other (Specify):

5. Notes Supporting Data Analysis

1. **Review SOL strand for** **Patterns, Functions, and Algebra** **(SOL 2.20, 2.21, 2.22)**	2. **Review data on student performance** and indicate all data sources analyzed to assess performance in this strand: ☐ Present Level of Performance (PLOP) ☐ Prior SOL data ☐ Standardized test data ☐ Classroom assessments ☐ Teacher observations

3. Check the areas that will require specially designed instruction critical to meeting the standard.

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

❑ Identify a growing and/or repeating pattern from a given geometric or numeric sequence.

❑ Predict the next number, geometric figure, symbol, picture, or object in a given pattern.

❑ Extend a given pattern, using numbers, geometric figures, symbols, pictures, or objects.

❑ Create a new pattern, using numbers, geometric figures, pictures, symbols, or objects.

❑ Recognize the same pattern in different manifestations.

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

❑ Solve problems by completing a numerical sentence involving the basic facts for addition and subtraction (e.g., $3 + \_\_ = 7$, or $9 - \_\_ = 2$).

❑ Create a story problem for a given numerical sentence.

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

❑ Identify the equality (=) and inequality (≠) symbols.

❑ Identify equivalent values and equations. (e.g., $8 = 8$ and $8 = 4 + 4$)

❑ Identify nonequivalent values and equations. (e.g., $8 \neq 9$ and $4 + 3 \neq 8$)

❑ Identify and use the appropriate symbol to distinguish between equal and not equal quantities. (e.g., $8 + 2 = 7 + 3$ and $1 + 4 \neq 6 + 2$)

4. Is/Are standard-based goal(s) needed?	☐ **NO Check one or more justifications:**
☐ **YES** Address areas of need in PLOP	☐ Accommodations Available (specify): ☐ Area of Strength in PLOP ☐ New Content ☐ Other (Specify):

5. Notes Supporting Data Analysis