

# Grade 1 Mathematics

## Standards-based Skills Worksheet

Student: \_\_\_\_\_

Date: \_\_\_\_\_

Completed by (name): \_\_\_\_\_

Position: \_\_\_\_\_

School Division: \_\_\_\_\_

### 1. Review SOL strand for

Number and Number Sense  
(SOL 1.1a-b, 1.2, 1.3)

### 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**

- Count by rote from 0 to 100, using the correct name for each numeral.
- Use the correct oral counting sequence to tell how many objects are in a set.
- Write numerals correctly.
- Write each numeral from 0 to 100.
- Read two-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) of each digit in a two-digit numeral (e.g., The place value of the 2 in the number 23 is tens. The value of the 2 in the number 23 is 20).
- Group a collection of objects into sets of tens and ones. Write the numeral that corresponds to the total number of objects in a given collection of objects that have been grouped into sets of tens and ones.

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

- Count by ones, twos, fives, and tens to 100, using concrete objects, such as counters, connecting cubes, pennies, nickels, and dimes.
- Demonstrate a one-to-one correspondence when counting by ones with concrete objects or representations.
- Skip count orally by twos, fives and tens to 100 starting at various multiples of 2, 5, or 10.
- Count backward by ones from 30.

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

- Represent a whole to show it having two equal parts and identify one-half ( $\frac{1}{2}$ ), and two halves ( $\frac{2}{2}$ ).
- Represent a whole to show it having three equal parts and identify one-third ( $\frac{1}{3}$ ), two-thirds ( $\frac{2}{3}$ ) and three-thirds ( $\frac{3}{3}$ ).
- Represent a whole to show it having four equal parts and identify one-fourth ( $\frac{1}{4}$ ), two-fourths ( $\frac{2}{4}$ ), three-fourths ( $\frac{3}{4}$ ) and four-fourths ( $\frac{4}{4}$ ).

- Identify and model halves, thirds, and fourths of a whole, using the set model (e.g., connecting cubes and counters), and region/area models (e.g., pie pieces, pattern blocks, geoboards, paper folding, and drawings).
- Name and write fractions represented by drawings or concrete materials for halves, thirds, and fourths.
- Represent a given fraction using concrete materials, pictures, and symbols for halves, thirds, and fourths. For example, write the symbol for one-fourth, and represent it with concrete materials and pictures.

**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 1.4 a-b, 1.5, 1.6)**

**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**

- Select a reasonable order of magnitude for a given set from three given quantities: a one-digit numeral, a two-digit numeral, and a three-digit numeral (e.g., 5, 50, and 500 jelly beans in jars) in a familiar problem situation.
- Given a familiar problem situation involving magnitude, explain why a particular estimate was chosen as the most reasonable from three given quantities: a one-digit numeral, a two-digit numeral, and a three-digit numeral.

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

- Identify + as a symbol for addition, – as a symbol for subtraction, and = as a symbol for equality.
- Recall and state orally the basic addition facts for sums with two addends to 18 or less and the corresponding subtraction facts.
- Recall and write the basic addition facts for sums to 18 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**

- Interpret and solve oral or written story and picture problems involving one-step solutions, using basic addition and subtraction facts (sums to 18 or less and the corresponding subtraction facts).
- Identify a correct number sentence to solve an oral or written story and picture problem, selecting from among basic addition and subtraction facts.

<p><b>4. Is/Are standard-based goal(s) needed?</b></p> <p><input type="checkbox"/> <b>YES</b> Address areas of need in PLOP</p>	<p><input type="checkbox"/> <b>NO Check one or more justifications:</b></p> <p><input type="checkbox"/> Accommodations Available (specify):</p> <p><input type="checkbox"/> Area of Strength in PLOP</p> <p><input type="checkbox"/> New Content</p> <p><input type="checkbox"/> Other (Specify):</p>
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**5. Notes Supporting Data Analysis**

<p><b>1. Review SOL strand for</b></p> <p><b>Measurement</b> <b>(SOL 1.7a-b, 1.8, 1.9, 1.10a-b, 1.11)</b></p>	<p><b>2. Review data on student performance</b> and indicate all data sources analyzed to assess performance in this strand:</p> <p><input type="checkbox"/> Present Level of Performance (PLOP)</p> <p><input type="checkbox"/> Prior SOL data</p> <p><input type="checkbox"/> Standardized test data</p> <p><input type="checkbox"/> Classroom assessments</p> <p><input type="checkbox"/> Teacher observations</p>
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<p><b>3. Check the areas that will require specially designed instruction</b> critical to meeting the standard.</p>	
<p><b>The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Identify the value of a nickel, a dime, and a quarter in terms of pennies.</li> <li><input type="checkbox"/> Recognize the characteristics of pennies, nickels, and dimes (e.g., color, size).</li> <li><input type="checkbox"/> Count by ones to determine the value of a collection of pennies whose total value is 100 cents or less.</li> <li><input type="checkbox"/> Count by fives to determine the value of a collection of nickels whose total value is 100 cents or less.</li> <li><input type="checkbox"/> Count by tens to determine the value of a collection of dimes whose total value is 100 cents or less.</li> <li><input type="checkbox"/> Count by ones, fives, and tens to determine the value of a collection of pennies and nickels, pennies and dimes, and nickels and dimes whose total value is 100 cents or less.</li> <li><input type="checkbox"/> Count by ones, fives, and tens to determine the value of a collection of pennies, nickels, and dimes whose total value is 100 cents or less.</li> </ul> <p><b>The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Tell time shown on an analog clock to the half-hour.</li> <li><input type="checkbox"/> Tell time shown on a digital clock to the half-hour.</li> <li><input type="checkbox"/> Match a written time to the time shown on a digital and analog clock to the half-hour..</li> </ul> <p><b>The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Measure the length of objects, using various nonstandard units (e.g., connecting cubes, paper clips, erasers).</li> <li><input type="checkbox"/> Measure the weight/mass of objects, using a balance scale with various nonstandard units (e.g., paper clips, bean bags, cubes).</li> <li><input type="checkbox"/> Measure the volume of objects, using various nonstandard units (e.g., connecting cubes, blocks, rice, water).</li> </ul> <p><b>The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Compare the volumes of two containers to determine if the volume of one is more, less, or equivalent to the other, using nonstandard units of measure (e.g., a spoonful or scoopful).</li> <li><input type="checkbox"/> Compare the volumes of two containers to determine if the volume of one is more, less, or equivalent to the other by pouring the contents of one container into the other.</li> </ul>	

- Compare the weight/mass of two objects, using the terms *lighter*, *heavier*, or *the same*, using a balance scale. The pan containing less weight/mass will rise and the pan containing more weight/mass will fall. If the objects are of equivalent weight/mass, the two pans will balance.

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

- Read a calendar to locate a given day or date.
- Identify the months of the year.
- Identify the seven days in a week.
- Determine the days/dates before and after a given day/date (e.g., yesterday, today, tomorrow).
- Determine the date 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 dates (e.g., the third Monday in a given month).

<p><b>4. Is/Are standard-based goal(s) needed?</b></p> <p><input type="checkbox"/> <b>YES</b> Address areas of need in PLOP</p>	<p><input type="checkbox"/> <b>NO Check one or more justifications:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Accommodations Available (specify):</li> <li><input type="checkbox"/> Area of Strength in PLOP</li> <li><input type="checkbox"/> New Content</li> <li><input type="checkbox"/> Other (Specify):</li> </ul>
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**5. Notes Supporting Data Analysis**

<p><b>1. Review SOL strand for</b></p> <p><b>Geometry (SOL 1.12, 1.13)</b></p>	<p><b>2. Review data on student performance</b> and indicate all data sources analyzed to assess performance in this strand:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Present Level of Performance (PLOP)</li> <li><input type="checkbox"/> Prior SOL data</li> <li><input type="checkbox"/> Standardized test data</li> <li><input type="checkbox"/> Classroom assessments</li> <li><input type="checkbox"/> Teacher observations</li> </ul>
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<p><b>3. Check the areas that will require specially designed instruction</b> critical to meeting the standard.</p>
<p><b>The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Describe a circle.</li> <li><input type="checkbox"/> Trace triangles, squares, rectangles, and circles.</li> <li><input type="checkbox"/> Describe triangles, squares, and rectangles by the number of sides, vertices, and right angles.</li> <li><input type="checkbox"/> Sort plane geometric figures into appropriate subsets (categories) based on characteristics (number of sides, vertices, angles, curved, etc.).</li> <li><input type="checkbox"/> Identify the name of the geometric figure when given information about the number of sides, vertices, and right angles.</li> </ul>

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

- Construct plane geometric figures.
- Identify models of representations of circles, squares, rectangles, and triangles in the environment at school and home and tell why they represent those figures.
- Describe representations of circles, squares, rectangles, and triangles in the environment and explain the reasonableness of the choice.

**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**

**Probability and Statistics  
(SOL 1.14, 1.15)**

**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**

- Investigate various forms of data collection, including counting and tallying, informal surveys, observations, and voting.
- Identify and describe various forms of data collection in practical situations (e.g., recording daily temperature, lunch count, attendance, and favorite ice cream.)

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

- Compare one category to another in a graph, indicating which has more or which has less, or which is equal to.
- Interpret information displayed in object graphs and picture graphs, using the words *more*, *less*, *fewer*, *greater than*, *less than*, and *equal to*.
- Find answers to questions, using graphs (e.g., “Which category has more?”, “How many more?”, and “How many in all?”).

**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

<p><b>1. Review SOL strand for</b> <b>Patterns, Functions, and Algebra</b> <b>(SOL 1.16, 1.17, 1.18)</b></p>	<p><b>2. Review data on student performance</b> and indicate all data sources analyzed to assess performance in this strand:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Present Level of Performance (PLOP)</li> <li><input type="checkbox"/> Prior SOL data</li> <li><input type="checkbox"/> Standardized test data</li> <li><input type="checkbox"/> Classroom assessments</li> <li><input type="checkbox"/> Teacher observations</li> </ul>
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<p><b>3. Check the areas that will require specially designed instruction</b> critical to meeting the standard.</p>	
<p><b>The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Sort and classify objects into appropriate subsets (categories) based on one or two attributes, such as size, shape, color, or thickness.</li> </ul> <p><b>The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Recognize the pattern in a given rhythmic, color, geometric figure, or numerical sequence.</li> <li><input type="checkbox"/> Describe the pattern in a given rhythmic, color, geometric figure, or numerical sequence in terms of the core (the part of the sequence that repeats).</li> <li><input type="checkbox"/> Extend a pattern, using manipulatives, geometric figures, numbers, or calculators.</li> <li><input type="checkbox"/> Transfer a pattern from one form to another.</li> <li><input type="checkbox"/> Create a repeating or growing pattern, using manipulatives, geometric figures, numbers, or calculators (e.g., the growing patterns 2, 3, 2, 4, 2, 5, 2, 6, 2, ...).</li> </ul> <p><b>The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Identify the equality (=) symbol.</li> <li><input type="checkbox"/> Recognize that the equations <math>4 + 2 = 2 + 4</math> and <math>6 + 1 = 4 + 3</math> represent the relationship between two expressions of equal value.</li> <li><input type="checkbox"/> Model an equation that represents the relationship of two expressions of equal value.</li> <li><input type="checkbox"/> Identify equivalent values (e.g., <math>3 = 3</math>, <math>4 + 3 = 8 - 1</math>, <math>7 = 2 + 5</math>, etc.).</li> </ul>	

<p><b>4. Is/Are standard-based goal(s) needed?</b></p> <p><input type="checkbox"/> <b>YES</b> Address areas of need in PLOP</p>	<p><input type="checkbox"/> <b>NO Check one or more justifications:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Accommodations Available (specify):</li> <li><input type="checkbox"/> Area of Strength in PLOP</li> <li><input type="checkbox"/> New Content</li> <li><input type="checkbox"/> Other (Specify):</li> </ul>
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## 5. Notes Supporting Data Analysis