

Grade K Mathematics Standards-based Skills Worksheet

Student: _____

Date: _____

Completed by (name): _____

Position: _____

School Division: _____

1. Review SOL strand for

Number and Number Sense
(SOL K.1, K.2a-c, K.3, K.4a-c, K.5.)

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

- Match each member of one set with each member of another set, using the concept of one-to-one correspondence to compare the number of members between sets, where each set contains 10 or fewer objects.
- Compare and describe two sets of 10 or fewer objects, using the terms *more*, *fewer*, and *the same*.
- Given a set of objects, construct a second set which has more, fewer or the same number of objects.

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

- Count orally the number of objects in a set containing 15 or fewer concrete objects, using one-to-one correspondence, and identify the corresponding numeral.
- Identify written numerals from 0 through 15 represented in random order.
- Select the numeral from a given set of numerals that corresponds to a set of 15 or fewer concrete objects.
- Write the numerals from 0 through 15.
- Write a numeral that corresponds to a set of 15 or fewer concrete objects.
- Construct a set of objects that corresponds to a given numeral, including an empty set.

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

- Identify the ordinal positions first through tenth using ordered sets of ten concrete objects and/or pictures of such sets presented from
 - left-to-right;
 - right-to-left;
 - top-to-bottom; and/or
 - bottom-to-top.

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

- Count forward from 0 to 100.
- Count backward from 10 to 0.

- Recognize the relationship of one more than and one less than a number using objects (i.e., five and one more is six; and one less than ten is nine).
- Group 100 or fewer objects together into sets of fives or tens and then count them by fives or by tens.
- Investigate and recognize the pattern of counting by fives to 100, using a variety of tools.
- Investigate and recognize the pattern of counting by tens to 100, using a variety of tools.

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

- Recognize fractions as representing parts of equal size of a whole.
- Given a region, identify half and/or a fourth of the region.
- Given a set, identify half and/or a fourth of the set.

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

1. Review SOL strand for Computation and Estimation (SOL K.6)	2. Review data on student performance and indicate all data sources analyzed to assess performance in this strand: <input type="checkbox"/> Present Level of Performance (PLOP) <input type="checkbox"/> Prior SOL data <input type="checkbox"/> Standardized test data <input type="checkbox"/> Classroom assessments <input type="checkbox"/> Teacher observations
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3. Check the areas that will require specially designed instruction critical to meeting the standard.
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The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to <input type="checkbox"/> Combine two sets with known quantities in each set, and count the combined set using up to 10 concrete objects, to determine the sum, where the sum is not greater than 10. <input type="checkbox"/> Given a set of 10 or fewer concrete objects, remove, take away, or separate part of the set and determine the result.
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4. Is/Are standard-based goal(s) needed? <input type="checkbox"/> YES Address areas of need in PLOP	<input type="checkbox"/> NO Check one or more justifications: <input type="checkbox"/> Accommodations Available (specify): <input type="checkbox"/> Area of Strength in PLOP <input type="checkbox"/> New Content <input type="checkbox"/> Other (Specify):
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5. Notes Supporting Data Analysis

<p>1. Review SOL strand for</p> <p>Measurement (SOL K.7, K.8, K.9, K.10)</p>	<p>2. Review data on student performance and indicate all data sources analyzed to assess performance in this strand:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Present Level of Performance (PLOP) <input type="checkbox"/> Prior SOL data <input type="checkbox"/> Standardized test data <input type="checkbox"/> Classroom assessments <input type="checkbox"/> Teacher observations
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<p>3. Check the areas that will require specially designed instruction critical to meeting the standard.</p>	
<p>The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to</p> <ul style="list-style-type: none"> <input type="checkbox"/> Describe the properties/characteristics (e.g., color, relative size) of a penny, nickel, dime, and quarter. <input type="checkbox"/> Identify a penny, nickel, dime, and quarter. <input type="checkbox"/> Identify that a nickel is the same value as five pennies. <input type="checkbox"/> Count a randomly placed collection of pennies and/or nickels (or models of pennies and/or nickels) whose value is 10 cents or less, and determine the value of the collection <p>The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to</p> <ul style="list-style-type: none"> <input type="checkbox"/> Identify a ruler as an instrument to measure length. <input type="checkbox"/> Identify different types of scales as instruments to measure weight. <input type="checkbox"/> Identify different types of clocks (analog and digital) as instruments to measure time. <input type="checkbox"/> Identify the components of a calendar, including days, months, and seasons. <input type="checkbox"/> Identify different types of thermometers as instruments used to measure temperature <p>The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to</p> <ul style="list-style-type: none"> <input type="checkbox"/> Tell time on an analog clock to the hour. <input type="checkbox"/> Tell time on a digital clock to the hour. <p>The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to</p> <ul style="list-style-type: none"> <input type="checkbox"/> Compare and describe lengths of two objects (as shorter or longer), using direct comparison or nonstandard units of measure (e.g., foot length, hand span, new pencil, paper clip, block). <input type="checkbox"/> Compare and describe heights of two objects (as taller or shorter), using direct comparison or nonstandard units of measure (e.g., book, hand span, new pencil, paper clip, block). <input type="checkbox"/> Compare and describe weights of two objects (as heavier or lighter), using direct comparison or nonstandard units of measure (e.g., book, cubes, new pencil, paper clip, block). <input type="checkbox"/> Compare and describe temperatures of two objects or environment (as hotter or colder), using direct comparison. 	

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

<p>1. Review SOL strand for Geometry (SOL K.11a-b, K.12)</p>	<p>2. Review data on student performance and indicate all data sources analyzed to assess performance in this strand:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Present Level of Performance (PLOP) <input type="checkbox"/> Prior SOL data <input type="checkbox"/> Standardized test data <input type="checkbox"/> Classroom assessments <input type="checkbox"/> Teacher observations
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3. Check the areas that will require specially designed instruction critical to meeting the standard.

<p>The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to</p> <ul style="list-style-type: none"> <input type="checkbox"/> Identify a circle, triangle, square, and rectangle. <input type="checkbox"/> Describe the characteristics of triangles, squares, and rectangles, including number of sides and number of angles. <input type="checkbox"/> Describe a circle using terms such as round and curved. <input type="checkbox"/> Trace a circle, triangle, square, and rectangle. <input type="checkbox"/> Compare and group plane geometric figures (circle, triangle, square, and rectangle) according to their relative sizes (larger, smaller). <input type="checkbox"/> Compare and group plane geometric figures (circle, triangle, square, and rectangle) according to their shapes. <input type="checkbox"/> Distinguish between examples and nonexamples of identified geometric figures (circle, triangle, square, and rectangle). <p>The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to</p> <ul style="list-style-type: none"> <input type="checkbox"/> Identify pictorial representations of a circle, triangle, square, and rectangle, regardless of their position and orientation in space. <input type="checkbox"/> Describe the location of one object relative to another, using the terms <i>above</i>, <i>below</i>, and <i>next to</i>. 	
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<p>4. Is/Are standard-based goal(s) needed?</p> <p><input type="checkbox"/> YES Address areas of need in PLOP</p>	<p><input type="checkbox"/> NO Check one or more justifications:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Accommodations Available (specify): <input type="checkbox"/> Area of Strength in PLOP <input type="checkbox"/> New Content <input type="checkbox"/> Other (Specify):
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5. Notes Supporting Data Analysis

<p>1. Review SOL strand for Probability and Statistics (SOL K.13, K.14,)</p>	<p>2. Review data on student performance and indicate all data sources analyzed to assess performance in this strand:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Present Level of Performance (PLOP) <input type="checkbox"/> Prior SOL data <input type="checkbox"/> Standardized test data <input type="checkbox"/> Classroom assessments <input type="checkbox"/> Teacher observations
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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

- Use counting and tallying to gather data on categories identified by the teacher and/or student (e.g., favorites, number of days of various types of weather during a given month, types of pets, types of shoes).

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

- Display data by arranging concrete objects into organized groups to form a simple object graph.
- Display gathered data, using pictures to form a simple picture graph (e.g., a picture graph of the types of shoes worn by students on a given day).
- Display gathered data in tables, either in rows or columns.
- Answer questions related to the gathered data displayed in object graphs, picture graphs, and tables by:
 - Describing the categories of data and the data as a whole (e.g., the total number of responses) and its parts.
 - Identifying parts of the data that represent numerical relationships, including categories with the greatest, the least, or the same.

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 K.15, K.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

- Sort objects into appropriate groups (categories) based on one attribute.
- Classify sets of objects into groups (categories) of one attribute.
- Label attributes of a set of objects that has been sorted.
- Name multiple ways to sort a set of objects

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

- Observe and identify the basic repeating pattern (core)_found in repeating patterns of common objects, sounds, and movements that occur in practical situations.

- Identify the core in a repeating pattern.
- Extend a repeating pattern by adding at least two repetitions to the pattern.
- Create a repeating pattern.
- Compare similarities and differences between patterns.

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