# Grade 2: Standards-Based Skills Worksheet

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The skills inventory worksheets are designed to assist with data analysis and goal writing for standards-based IEPs. They are based on the [Virginia SOL Curriculum Frameworks](http://www.doe.virginia.gov/testing/sol/standards_docs/index.shtml). Go to [Standards-Based IEP](http://www.doe.virginia.gov/special_ed/iep_instruct_svcs/stds-based_iep/) for the *Standards-based Individualized Education Program (IEP) A Guide for School Divisions* for additional information on the process for creating standards-based IEPs.

## Directions

### **Step 1**

Go to [Standards-Based IEP](http://www.doe.virginia.gov/special_ed/iep_instruct_svcs/stds-based_iep/) for to print the appropriate PDF file **Skills Worksheet** that will match the projected (or current if mid-year) grade level for the student.

### **Step 2**

Gather and analyze data to identify how the student has performed in each of the strands included in the curriculum. **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

### **Step 3**

Based on prior performance, predict what level of instruction ***will be*** necessary for the student to successfully master upcoming curriculum in each of the strands using the following worksheets. Check the areas that specially designed instruction and/or supports may be critical to meeting the standard.

### **Step 4**

After completing the Worksheet, based on data and your knowledge of the student as discussed in the present level of academic and functional performance (PLOP), determine if a goal(s) is/are needed to address the specific skill(s). Guiding Question:  **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):

### **Step 5**

Additional space is provided under each strand for comments or notes on data analysis

## Essential Knowledge and Skills

### Strand: Number and Number Sense (SOL 2.1a-d, 2.2 a-c, 2.3a-b, 2.4a-c)

The student will:

* Demonstrate understanding of the ten-to-one relationships among ones, tens, and hundreds, using manipulatives. (a)
* Write numerals, using a model or pictorial representation (i.e., a picture of base-10 blocks). (a)
* Read three-digit numbers when shown a numeral, a model of the number, or a pictorial representation of the number. (a)
* Identify and write the place (ones, tens, hundreds) of each digit in a three-digit numeral. (a)
* 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). (a)
* Use models to represent numbers in multiple ways, according to place value (e.g., 256 can be 1 hundred, 14 tens, and 16 ones, 25 tens and 6 ones, etc.). (a)
* Use place value understanding to identify the number that is 10 more, 10 less, 100 more, or 100 less than a given number, up to 999. (b)
* Compare two numbers between 0 and 999 represented with concrete objects, pictorially or symbolically, using the symbols (>, <, or =) and the words *greater than, less than* or *equal to*. (c)
* Order three whole numbers between 0 and 999 represented with concrete objects, pictorially, or symbolically from least to greatest and greatest to least. (c)
* Round two-digit numbers to the nearest ten. (d)
* Determine patterns created by counting by twos, fives, and tens to 120 on number charts. (a)
* Describe patterns in skip counting and use those patterns to predict the next number in the counting sequence. (a)
* Skip count by twos, fives, and tens to 120 from various multiples of 2, 5 or 10, using manipulatives, a hundred chart, mental mathematics, a calculator, and/or paper and pencil. (a)
* Skip count by two to 120 starting from any multiple of 2. (a)
* Skip count by five to 120 starting at any multiple of 5. (a)
* Skip count by 10 to 120 starting at any multiple of 10. (a)
* Count backward by 10 from 120. (b)
* Use objects to determine whether a number is even or odd (e.g., dividing collections of objects into two equal groups or pairing objects). (c)
* Count an ordered set of objects, using the ordinal number words *first* through *twentieth*. (a)
* 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**.** (a)
* Write 1st, 2nd, 3rd, through 20th in numerals. (b)
* Recognize fractions as representing equal-size parts of a whole. (a)
* Name and write fractions represented by a set model showing halves, fourths, eighths, thirds, and sixths. (a, b)
* Name and write fractions represented by a region/area model showing halves, fourths, eighths, thirds, and sixths. (a, b)
* Name and write fractions represented by a length model showing halves, fourths, eighths, thirds, and sixths. (a, b)
* Represent, with models and with symbols, fractional parts of a whole for halves, fourths, eighths, thirds, and sixths, using:
* region/area models (e.g., pie pieces, pattern blocks, geoboards);
* sets (e.g., chips, counters, cubes); and
* length/measurement models (e.g., fraction strips or bars, rods, connecting cube trains). (b)
* Compare unit fractions for halves, fourths, eighths, thirds, and sixths), using words (greater than, less than or equal to) and symbols (>, <, =), with models. (c)
* Using same-size fraction pieces, from region/area models or length/measurement models, count the pieces (e.g., *one-fourth, two-fourths, three-fourths*, etc.) and compare those pieces to one whole (e.g., *four-fourths* will make one whole*; one-fourth* is less than a whole). (c)

### Strand: Computation and Estimation (SOL 2.5a-b, 2.6a-c)

*The student will:*

* Recognize and use the relationship between addition and subtraction to solve single-step practical problems, with whole numbers to 20. (a)
* Determine the missing number in an equation (number sentence) (e.g., 3 +\_= 5 or\_ + 2 = 5; 5 – \_ = 3 or 5 – 2 =\_). (a)
* 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). (a)
* Demonstrate fluency with addition and subtraction within 20. (b)
* Estimate the sum of two whole numbers whose sum is 99 or less and recognize whether the estimation is reasonable (e.g., 27 + 41 is about 70, because 27 is about 30 and 41 is about 40, and 30 + 40 is 70). (a)
* Estimate the difference between two whole numbers each 99 or less and recognize whether the estimate is reasonable. (a)
* Determine the sum of two whole numbers whose sum is 99 or less, using various methods. (b)
* Determine the difference of two whole numbers each 99 or less, using various methods. (b)
* Create and solve single-step practical problems involving addition or subtraction. (c)
* Create and solve two-step practical problems involving addition, subtraction, or both addition and subtraction. (c)

### Strand: Measurement and Geometry (SOL 2.7a-b, 2.8a-b, 2.9, 2.10a-b, 2.11, 2.12a-b, 2.13)

**The student will**

* Determine the value of a collection of coins and one-dollar bills whose total value is $2.00 or less. (a)
* Count by ones, fives, tens, and twenty-fives to determine the value of a collection of coins whose total value is $2.00 or less. (a)
* Compare the values of two sets of coins and one-dollar bills (each set having a total value of $2.00 or less), using the terms *greater than, less than*, or *equal to*. (a)
* Use the cent (¢) and dollar ($) symbols and decimal point (.) to write a value of money which is $2.00 or less. (b)
* Identify a ruler as an instrument to measure length. (a)
* Estimate and then measure the length of various line segments and objects to the nearest inch using a ruler. (a)
* Identify different types of scales as instruments to measure weight. (b)
* Estimate and then measure the weight of objects to the nearest pound using a scale. (b)
* Show, tell, and write time to the nearest five minutes, using an analog and digital clock.
* Match a written time (e.g., 4:20, 10:05, 1:50) to a time shown on a clock face to the nearest five minutes.
* Match the time (to the nearest five minutes) shown on a clock face to a written time.
* 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. (a)
* Identify specific days and dates (e.g., What is the third Monday in a given month? What day of the week is May 11?). (b)
* Identify different types of thermometers as instruments used to measure temperature.
* Read temperature in Fahrenheit to the nearest ten degrees on thermometers (real world, physical model, and pictorial representations).
* Draw a line of symmetry in a figure. (a)
* Identify figures with at least one line of symmetry, using various concrete materials (e.g., mirrors, paper folding, pattern blocks). (b)
* Determine a line of symmetry that results in two figures that have the same size and shape and explain reasoning. (a, b)
* Create figures with at least one line of symmetry using various concrete materials. (b)
* Determine similarities and differences between related plane and solid figures (circles/spheres, squares/cubes, rectangles/rectangular prisms), using models and cutouts.
* Trace faces of solid figures (cubes and rectangular prisms) to create the set of plane figures related to the solid figure.
* Identify and describe plane figures (circles, squares, and rectangles), according to their characteristics (number of sides, vertices, and angles). Squares and rectangles have four right angles.
* Identify and describe solid figures (spheres, cubes, and rectangular prisms), according to the shape of their faces, number of edges, and number of vertices, using models.
* Compare and contrast plane and solid figures (circles/spheres, squares/cubes, and rectangles/rectangular prisms) according to their characteristics (number and shape of their faces, edges, vertices, and angles).

### Strand: Probability and Statistics (SOL 2.14, 2.15)

*The student will:*

* 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.
* Predict which of two events is more or less likely to occur if an experiment is repeated.
* Collect and organize data using various forms of data collection (e.g., lists, tables, objects, pictures, symbols, tally marks, charts). Data points, collected by students, should be limited to 16 or fewer for no more than four categories. (a)
* Represent data in pictographs and bar graphs (limited to 16 or fewer data points for no more than four categories). (a)
* Read and interpret data represented in pictographs and bar graphs with up to 25 data points for no more than six categories (represented horizontally or vertically). State orally and in writing (at least one statement) that includes one or more of the following:
  + Describes the categories of data and the data as a whole (e.g., adding together all data points will equal the total number of responses);
  + Identifies parts of the data that have special characteristics; including categories with the greatest, the least, or the same;
  + Uses the data to make comparisons; and
  + Makes predictions and generalizations. (b)

### Strand: Patterns, Functions, and Algebra (SOL 2.16, 2.17)

*The student will:*

* Identify a pattern as growing or repeating.
* Describe the core (the part of the sequence that repeats) of a given repeating pattern.
* Describe how a given growing pattern is changing.
* Create a growing or repeating pattern, using objects, pictures, or numbers.
* Extend a given pattern, using objects, pictures, or numbers.
* Transfer a given growing or repeating pattern from one form to another using objects, pictures, or numbers.
* Identify equivalent values and represent equalities through the use of objects, words, and the equal (=) symbol.
* Identify and describe expressions that are not equal (e.g., 4 + 3 is not equal to 3 + 5).
* Recognize that equations can be used to represent the relationship between two expressions of equal value (e.g., 4 + 2 = 2 + 4 and 6 + 1= 4 + 3).
* Model an equation that represents the relationship of two expressions of equal value.
* Identify the equal symbol (=) as the symbol used to indicate that the values on either side are equal.
* Identify the not equal symbol (≠) as the symbol used to indicate that two values on either side are not equal.
* Identify values and expressions that are equal (e.g., 8 = 8, 8 = 4 + 4).
* Identify values and expressions that are not equal (e.g., 8 ≠ 9, 4 + 3 ≠ 8).
* Identify and use the appropriate symbol to distinguish between equal and not equal quantities (e.g., 9 + 24 = 10 + 23; 45 – 9 = 46 – 10; 15 + 16 ≠ 31 + 15).
* Use a model to represent the relationship of two expressions of equal value and two expressions that are not equivalent