

# SKILL-BASED MATH CHECKLIST

## Grade 5

Name of Student\_\_\_\_\_

Name of Teacher\_\_\_\_\_ Date Completed\_\_\_\_\_

Please evaluate the student's skills in math based on the Common Core Standards below.

List some of the student's **strengths** in the classroom in the area of math:

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### Operations and Algebraic Thinking

|  | Insufficient Skills | Skills Emerging | Skill Mastered | Not Yet Taught |
|--|---------------------|-----------------|----------------|----------------|
| Can evaluate/simplify (solve) numerical expressions by following the order of operations.                |                     |                 |                |                |
| Can write simple expressions using numbers and symbols ( $=$ , $-$ , $x$ , $/$ ) without solving.        |                     |                 |                |                |
| Can interpret simple expressions using numbers and symbols ( $=$ , $-$ , $x$ , $/$ ) without solving.    |                     |                 |                |                |
| Can verbally describe what an expression represents using numbers and symbols ( $=$ , $-$ , $x$ , $/$ ). |                     |                 |                |                |
| Can complete number patterns with given rules.   |                     |                 |                |                |
| Can form ordered pairs using given rules, and graph them on a coordinate plane.                          |                     |                 |                |                |
| Can explain the relationship between the numbers (terms) in a pattern.                                   |                     |                 |                |                |
| Can name points as ordered pairs on a coordinate plane.  |                     |                 |                |                |

### Number and Operations in Base Ten

|  | Insufficient Skills | Skills Emerging | Skill Mastered | Not Yet Taught |
|--|---------------------|-----------------|----------------|----------------|
| Can read base ten numbers using decimals up to the thousandths place with number names and expanded notation.  |                     |                 |                |                |
| Can write base ten numbers using decimals up to the thousandths place with number names and expanded notation. |                     |                 |                |                |
| Can compare base ten numbers using decimals up to the thousandths place.                                       |                     |                 |                |                |
| Can round decimals to any place.   |                     |                 |                |                |
| Can reason and explain the answer derived when rounding.   |                     |                 |                |                |
| Can use the benchmarks (0, 0.5, 1, 1.5) to round.  |                     |                 |                |                |
| Can multiply numbers with two or more digits in the traditional way.   |                     |                 |                |                |
| Can divide a multi-digit number by a two-digit number.   |                     |                 |                |                |
| Can show work and explain how he/she got the answer through equations, rectangular array, and/or area model.   |                     |                 |                |                |

### Number and Operations in Base Ten (cont.)

|   | Insufficient Skills | Skills Emerging | Skill Mastered | Not Yet Taught |
|---|---------------------|-----------------|----------------|----------------|
| Can show how multiplication and division are related.                                   |                     |                 |                |                |
| Can check work using multiplication.  |                     |                 |                |                |
| Can show how division is related to subtraction.  |                     |                 |                |                |
| Can use inverse operations.   |                     |                 |                |                |
| When problem solving, can apply concepts of a quotient, divisor, and a dividend.        |                     |                 |                |                |
| Can add, subtract, multiply, and divide numbers with decimals.                          |                     |                 |                |                |
| Can use drawings, models, and strategies to the hundredths to explain his/her thinking. |                     |                 |                |                |

### Number and Operations Fractions

|   | Insufficient Skills | Skills Emerging | Skill Mastered | Not Yet Taught |
|---|---------------------|-----------------|----------------|----------------|
| Can add fractions with unlike denominators by finding common denominator.   |                     |                 |                |                |
| Can subtract fractions with unlike denominators by finding common denominators.   |                     |                 |                |                |
| Can add and subtract fractions with denominators that are the same when solving word problems.                              |                     |                 |                |                |
| Can add and subtract fractions with denominators that are different when solving word problems.                             |                     |                 |                |                |
| Can identify a fraction as a division problem.  |                     |                 |                |                |
| Can solve a whole-number division word problem as a fraction.   |                     |                 |                |                |
| Can write the quotient as a fraction or mixed number.   |                     |                 |                |                |
| Can multiply a fraction or whole number by a fraction.  |                     |                 |                |                |
| Can find the area of a rectangle using fraction side lengths.   |                     |                 |                |                |
| Can find the area of a rectangle by tiling it with unit squares.  |                     |                 |                |                |
| Can describe the relationship between scaling (resizing) and multiplication.  |                     |                 |                |                |
| Can describe how a factor changes when resized or scaled.   |                     |                 |                |                |
| Can explain why, when a number is multiplied by a fraction greater than 1, the product is greater than the original number. |                     |                 |                |                |
| Can explain why, when a number is multiplied by a fraction less than 1, the product is less than the original number.       |                     |                 |                |                |
| Can create equivalent fractions.  |                     |                 |                |                |
| Can use problem-solving strategies/ideas to multiply fractions and mixed numbers in everyday life.                          |                     |                 |                |                |
| Can use visual fraction models to show the solution.  |                     |                 |                |                |
| Can divide a fraction (less than 0) by a whole number greater than 0 by using what is known about multiplication.           |                     |                 |                |                |
| Can divide a whole number greater than 0 by a fraction (less than 0) using what is known about multiplication.              |                     |                 |                |                |
| Can use models to prove his/her answers.  |                     |                 |                |                |
| Can use what is known in real-world examples.   |                     |                 |                |                |

## Measurement and Data

|   | Insufficient Skills | Skills Emerging | Skill Mastered | Not Yet Taught |
|---|---------------------|-----------------|----------------|----------------|
| Can fluently convert measurement units within the same system.  |                     |                 |                |                |
| Can solve multi-step, real-world problems, based on different measurement systems.  |                     |                 |                |                |
| Can represent data in a line plot to display a data set of measurements in fractions of a unit.   |                     |                 |                |                |
| Can interpret the data on a line plot to solve problems.  |                     |                 |                |                |
| Can identify benchmark fractions.   |                     |                 |                |                |
| Can recognize that all solid figures have volumes.  |                     |                 |                |                |
| Can demonstrate and explain that a cube that measures one unit on each side is called one cubic unit.   |                     |                 |                |                |
| Can recognize that cubic units are used to measure volume.  |                     |                 |                |                |
| Can explain that to measure volume means a solid figure is packed with cubic unit cubes without any gaps or overlaps. The number of unit cubes in the figure is volume. |                     |                 |                |                |
| Can measure volume using unit cubes and improvised units.   |                     |                 |                |                |
| Can measure volume of combined rectangular prisms.  |                     |                 |                |                |
| Can distinguish between which cubic measurements to use for a given situation.  |                     |                 |                |                |
| Can use manipulatives to measure the volume of right rectangular prisms.  |                     |                 |                |                |
| Can use the volume formulas to determine the volume of right rectangular prisms.  |                     |                 |                |                |
| Can decompose solid figures into smaller right rectangular prisms.  |                     |                 |                |                |
| Can add the volumes of several right rectangular prisms to determine the volume of the original figure.   |                     |                 |                |                |

## Geometry

|   | Insufficient Skills | Skills Emerging | Skill Mastered | Not Yet Taught |
|---|---------------------|-----------------|----------------|----------------|
| Can use the x and y axis to locate and identify points on a coordinate plane.                                       |                     |                 |                |                |
| Can identify the origin on a coordinate plane.  |                     |                 |                |                |
| Can graph points in the first quadrant of a coordinate plane.   |                     |                 |                |                |
| Can represent real-world math problems by graphing points on a coordinate plane.                                    |                     |                 |                |                |
| Can understand and explain that two-dimensional figures can be categorized multiple ways based on their attributes. |                     |                 |                |                |
| Can classify two-dimensional shapes into groups and sub-groups based on their properties.                           |                     |                 |                |                |