**Washington**

**Math K-5**

**Final by Topic**

**Prepared by Marzano Research Laboratory**

**2010**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Measurement Topic** | **K** | **1** | **2** | **3** | **4** | **5** |
| **Strand: Geometry/Measurement** |  |  |  |  |  |  |
| Perimeter, Area, Surface Area and Volume |  |  |  | + | + | + |
| Properties of Geometric Figures | + | + | + | + |  | + |
| Lines/Angles |  |  |  | + |  | + |
| Money |  |  | + |  |  |  |
| Measurement Using Non-Standard units/location terms | + | + | + |  |  |  |
| Time |  | + | + |  | + |  |
| Measurement using Standard and Metric Systems – length, weight, mass, capacity |  |  | + | + | + |  |
| Temperature |  |  |  | + |  |  |
| Proportionality and similarity |  |  |  |  | + |  |
| Transformations |  |  |  |  |  | + |
| **Strand: Number** |  |  |  |  |  |  |
| Place Value |  | + | + | + | + |  |
| Counting/Naming | + | + | + | + |  |  |
| Comparing/Ordering | + | + | + | + | + |  |
| Rounding |  |  |  | + | + |  |
| Fractions |  |  | + | + | + | + |
| Multiple Representations of fractions, decimals and the number system |  |  |  | + | + | + |
| Factors |  |  |  |  | + | + |
| Number representations (Exponents, Scientific Notation) |  |  | + |  |  |  |
| Number Systems |  | + |  |  |  | + |
| **Strand: Operation** |  |  |  |  |  |  |
| Addition and Subtraction |  |  | + | + |  |  |
| Compose and Decompose Numbers | + | + |  |  |  |  |
| Alternate and Mental strategies |  | + | + | + | + | + |
| Estimation |  |  | + | + | + | + |
| Multiple representations/Models | + | + | + | + | + | + |
| Performing operations using fractions and other components of the number system |  |  |  |  |  | + |
| Converting between fractions, decimals and mixed numbers |  |  |  |  | + |  |
| Multiplication and Division |  |  |  | + | + | + |
| **Strand: Algebra** |  |  |  |  |  |  |
| Patterns | + | + | + |  |  | + |
| Writing/Evaluating Expressions, equations and inequalities |  | + | + | + | + | + |
| Graphing |  |  |  |  | + | + |
| **Strand: Data Analysis, Statistics and Probability** |  |  |  |  |  |  |
| Data Displays |  |  | + | + | + | + |
| Analysis of data |  | + |  |  |  |  |
| Measures of Variability |  |  |  |  | + | + |
| Theoretical and Experimental Probability |  |  |  |  | + |  |
| **Strand: Processes** |  |  |  |  |  |  |
| Problem Solving | + | + | + | + | + | + |
| Communicating the results of a problem | + | + | + | + | + | + |
| Mathematical experimentation |  |  |  | + | + | + |

# Geometry/Measurement

## *Perimeter/Area/Surface Area/Volume*

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| **Strand: Geometry/Measurement** | | | |
| **Topic: Perimeter, Area, Surface Area and Volume** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
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|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  |  | | --- | --- | | * 3.4.D Measure and calculate perimeters of quadrilaterals.  |  | | --- | | * 3.4.E Solve single- and multi-step word problems involving perimeters of quadrilaterals and verify the solutions. | |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + perimeter, quadrilateral, length, and width * performs basic processes, such as:   + calculates perimeter of quadrilaterals when given the measurements   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| **Strand: Geometry/Measurement** | | | |
| **Topic: Perimeter, area, surface area and volume** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
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|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  |  | | --- | --- | | * 4.3.B Determine the approximate area of a figure using square units. * 4.3.C Determine the perimeter and area using formulas, and explain why the formulas work. | | | * 4.3.D Determine the areas of figures that can be broken down into rectangles. * 4.3.E Demonstrate that rectangles with the same area can have different perimeters, and that rectangles with the same perimeter can have different areas. | | * 4.3.F Solve single- and multi-step word problems involving perimeters and areas of rectangles and verify the solutions. |   **The student exhibits no major errors or omissions.** | | * Draw different rectangles, each with an area of 24 square units, and compare their perimeters. |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + multiplication, area, perimeter, length, width, formula, rectangle * performs basic processes, such as:   + uses the given formula (2L+2W) to determine perimeter of rectangles   + uses the given formula (LxW) to determine area of rectangles   + breaks down a figure into rectangles   + labels the dimensions of rectangles   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | * When given the formula (P=2L + 2W) or (A= L x W) students can determine the area and/or perimeter of a figure. * Ex:   Find the area and perimeter for the figure above.  2 in.  5 in. |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Geometry/Measurement** | | | |
| **Topic: Perimeter, area, surface area and volume** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
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|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  |  |  |  | | --- | --- | --- | --- | | * 5.3.D Determine the formula for the area of a parallelogram by relating it to the area of a rectangle. | | | | | * 5.3.E Determine the formula for the area of a triangle by relating it to the area of a parallelogram. | | | | * 5.3.F Determine the perimeters and areas of triangles and parallelograms. | | | * 5.3.I Solve single- and multi-step word problems about the perimeters and areas of quadrilaterals and triangles and verify the solutions. |   **The student exhibits no major errors or omissions.** | | * e.g., measure the base and height and apply the appropriate formula |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes and recalls specific terminology such as:   + parallelogram, rectangle, triangle, perimeter, area, quadrilaterals, formula, base, height * performs basic processes, such as:   + relates the area of a parallelogram to the area of a rectangle   + relates the area of a triangle to the area of a parallelogram   + given the base and height measures, determines the perimeters and areas of triangles and parallelograms   + given the dimensions of a figure, solves singl~~e~~ step word problems about the perimeters and areas of quadrilaterals, *but does not* verify the solution   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | * Determine the perimeter of triangles and parallelograms when all lengths are labeled. * Determine the area of triangles and parallelograms when figures are on a grid. |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Properties of Geometric Figures*

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| **Strand: Geometry/Measurement** | | | |
| **Topic: Properties of Geometric Figures** | | | |
| **Grade: K** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
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|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   * K.3.A Describe circles, triangles, rectangles, squares (as special rectangles), cubes, and spheres. * K.3.B Sort shapes using a sorting rule and explain the rule.  |  | | --- | |  |   **The student exhibits no major errors or omissions.** | | * Students should be encouraged to talk about the characteristics (e.g., round, four-cornered) of the various shapes and identify these shapes in a variety of contexts regardless of their location, size and orientation. * Students should sort shapes by given rules. Then students should be given the opportunity to make their own sorting rules and explain their reasoning. |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + circles, triangles, rectangles, squares, cubes, spheres, shapes * performs basic processes, such as:   + identifies and names circles, triangles, rectangles, squares (as special rectangles), cubes, and spheres   + sorts shapes according to attributes   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | * Given a selection of shapes students can sort them into two groups when given the attributes of ~~as~~ shape, size, and number of sides only. |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| **Strand: Geometry/Measurement** | | | |
| **Topic: Properties of Geometric Figures** | | | |
| **Grade: 1** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
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|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 1.3.A Compare and sort a variety of two- and three-dimensional figures according to their geometric attributes. * 1.3.B Name two-dimensional figures, including those in real-world contexts, regardless of size or orientation. * 1.3.C Combine known shapes to create shapes and divide known shapes into other shapes. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + compare, sort, combine, divide * performs basic processes, such as:   + sorts a variety of two dimensional figures according to their geometric attributes   + identifies examples of two-dimensional figures, including those in real-world contexts   + combines triangles to create rectangles OR divides rectangles into triangles   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | * Given a rectangle students can divide it into congruent triangles. |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| **Strand: Geometry/Measurement** | | | |
| **Topic: Properties of Geometric Figures** | | | |
| **Grade: 2** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 2.4.A Solve problems involving properties of two- and three-dimensional figures. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + side, angle, face * performs basic processes, such as:   + recognizes or recalls accurate statements about the properties of two dimensional figures   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| **Strand: Geometry/Measurement** | | | |
| **Topic: Properties of Geometric Figures** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 3.4.C Identify and describe special types of quadrilaterals. |   **The student exhibits no major errors or omissions.** | | * Use attributes such as parallel, perpendicular, intersecting lines, and right angles to identify and describe quadrilaterals including parallelograms, rectangles, rhombi or kites. |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + quadrilateral, squares, rectangle, parallelogram, rhombi, trapezoid, kite, and perpendicular * performs basic processes, such as:   + identifies simple quadrilaterals   + recognizes or recalls accurate information about lines such as parallel, perpendicular, and intersecting   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | * Student is able to name and identify simple quadrilaterals: squares, rectangles, and parallelograms. * Student is able to name and identify lines such as parallel, perpendicular, and intersecting. |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Geometry/Measurement** | | | |
| **Topic: Properties of Geometric Figures** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   * 5.3.A Classify quadrilaterals. * 5.3.C Identify, describe and classify triangles by angle measure and number of congruent sides. * 5.3.G Draw quadrilaterals and triangles from given information about sides and angles.   **The student exhibits no major errors or omissions.** | | * Classify triangles by their angles: acute, right, and obtuse * Classify triangles by their sides: scalene, isosceles or equilateral * Draw quadrilaterals or triangles given side and angle dimensions using a ruler, straight edge or protractor. |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls terms such as:   + quadrilateral, square, rectangle, parallelogram, rhombi, trapezoid, kite, vertex/vertices, side, intersect, parallel, perpendicular, congruent, equilateral triangle, isosceles triangle, scalene triangle, angle, acute, obtuse, and two-dimensional * performs basic processes, such as:   + identifies examples of quadrilaterals or triangles   + draws an equilateral triangle or regular quadrilateral   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | * Student is able to identify regular quadrilaterals such as squares, rectangles or parallelograms. (not trapezoids or irregular quadrilateral) * Student is able to identify right and equilateral triangles. * Student is able to draw equilateral triangles or regular quadrilaterals (not acute, right or obtuse triangles or trapezoids). |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Lines/Angles*

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| **Strand: Geometry/Measurement** | | | |
| **Topic: Lines/Angles** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  |  | | --- | --- | | * 3.4.A. Identify and sketch parallel, intersecting, and perpendicular lines and line segments. | | | * 3.4.B Sketch right angles. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + parallel, intersect, perpendicular, line , line segment, angle, and right angle * performs basic processes, such as:   + recognizes or recalls examples of parallel, intersecting, and perpendicular lines, right angles   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | * Students can match the terms (parallel, intersecting, and perpendicular lines, and right angles) to the appropriate figures |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Geometry/Measurement** | | | |
| **Topic: Lines/Angles** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 5.3.B Sketch and measure acute, right, and obtuse angles. |   **The student exhibits no major errors or omissions.** | | * Student uses a protractor to measure the size of different angles (acute, right, and obtuse) and correctly names each angle. * Student uses a protractor to draw angles given the degrees. |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + protractor, degree, acute angle, right angle, and obtuse angle * performs basic processes, such as:   + recognizes or recalls examples of acute, right, and obtuse angles   + demonstrates the correct use of a protractor to measure angles   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | * Students can match the term (right, acute, and obtuse) to the picture of different angles. * Students can demonstrate the correct use of a protractor to measure angles. |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Money*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Geometry/Measurement** | | | |
| **Topic: Money** | | | |
| **Grade: 2** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 2.2.H Name each standard U.S. coin, write its value using the $ (dollar) sign and the ¢ (cent) sign, and name combinations of other coins with the same total value. | | * 2.2.I Determine the value of a collection of coins totaling less than $1.00. | |   **The student exhibits no major errors or omissions.** | | * Student is able to recognize the coins and write the value using the correct sign. * Given a collection of coins such as a quarter, two pennies and a dime, student will be able to determine the total value as 37¢. |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + coin, penny, nickel, dime, quarter, half dollar, dollar * performs basic processes, such as:   + names each standard U.S. coin   + writes each coin’s value   + combines quarters or dimes to total a given value (less than $1.00)   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | * Student is able to recognize the following coins: nickel, penny, dime, and quarter. * Student is able to combine dimes or quarters to total a given value: 25, 50, 75 cents, or 20, 30, 40 cents, etc. |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Measurement using Non-Standard units/Location terms*

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| **Strand: Geometry/Measurement** | | | |
| **Topic: Measurement using Non Standard units/location terms** | | | |
| **Grade: K** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   * K.3.C Describe the location of one object relative to another object using words such as *in*, *out*, *over*, *under*, *above*, *below*, *between*, *next to*, *behind*, and *in front of*. * K.4.A Make direct comparisons using measurable attributes such as length, weight, and capacity.  |  | | --- | |  |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + in, out, over, under, above, below, between, next to, behind, and in front of, longer, shorter, taller, heavier, lighter, holds more than, holds less than * performs basic processes, such as:   + follows verbal directions to locate one object relative to another object   + recognizes or recalls appropriate object given the measureable attribute, such as length, weight or capacity   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Geometry/Measurement** | | | |
| **Topic: Measurement using Non Standard units/location terms** | | | |
| **Grade: 1** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  |  | | --- | --- | | * 1.4.A Explain why objects used to measure an attribute (length, weight, capacity) must be consistent in size. | | | * 1.4.B Use a variety of non-standard units to measure length. | | | | * 1.4.C Compare lengths using the transitive property. | | * 1.4.D Use non-standard units to compare objects according to their capacities or weights. | | | | | * 1.4.E Describe the connection between the size of the measurement unit and the number of units needed to measure something. | |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + length, weight, capacity * performs basic processes, such as:   + uses a variety of non-standard units, consistent in size, to measure a measurable attribute (length, weight, capacity)   + compares lengths of three objects   + recognizes the connection between the size of the measurement unit and the number of units needed to measure something   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Geometry/Measurement** | | | |
| **Topic: Measurement using Non Standard units/location terms** | | | |
| **Grade: 2** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 2.3.A Identify objects that represent or approximate standard units and use them to measure length. |   **The student exhibits no major errors or omissions.** | | * Find a non-standard unit of measure that is approximately the same as a standard unit of measure (e.g., a paperclip is approximately an inch) and use it to measure length |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + standard and non-standard units * performs basic processes, such as:   + uses a given non-standard unit to *(e.g., a one-inch paper clip)* to measure length   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | * Given an object such as a pencil, student is able to use it to measure the length of a desk. |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Time*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Geometry/Measurement** | | | |
| **Topic: Time** | | | |
| **Grade: 1** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 1.4.F Name the days of the week and the months of the year, and use a calendar to determine a day or month. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + Monday, Tuesday, Wednesday, Thursday Friday, Saturday, Sunday, January, February, etc.; month, day year * performs basic processes, such as:   + states how many days are in a week   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Geometry/Measurement** | | | |
| **Topic: Time** | | | |
| **Grade: 2** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 2.3.D Describe the relative size among minutes, hours, days, weeks, months, and years. * 2.3.E Use both analog and digital clocks to tell time to the minute. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + minutes, hours, days, weeks, months, years, analog, digital * performs basic processes, such as:   + states the number of hours in a day, days in a week, weeks in a month, or months in a year   + uses either analog or digital clocks to tell time to the minute   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Geometry/Measurement** | | | |
| **Topic: Time** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 4.4.C Estimate and determine elapsed time using a calendar, a digital clock, and an analog clock. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + elapsed time * performs basic processes, such as:   + selects and applies appropriate units and tools to measure time   + states the number of minutes in an hour, how days are segmented and how many days are in a year (and how these days are made up into months) *(e.g., 60 minutes equals one hour, a 24 hour time period is segmented into two 12 hour units, calendar year is 365 days, 56 weeks, and 12 months (consisting of 29 to 31 days))*   + converts between minutes, hours, days, and months   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Measurement using Standard and Metric Systems – length, weight, mass, capacity*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Geometry/Measurement** | | | |
| **Topic: Measurement using Standard and Metric Systems – length, weight, mass, capacity** | | | |
| **Grade: 2** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 2.3.B Estimate length using metric and U.S. customary units. | | * 2.3.C Measure length to the nearest whole unit in both metric and U.S. customary units. | |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + metric units (centimeters, meters), US customary units (inches, feet), estimate * performs basic processes, such as:   + recognizes or recalls examples of standard metric or customary U.S. units   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Geometry/Measurement** | | | |
| **Topic: Measurement using Standard and Metric Systems – length, weight, mass, capacity** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 3.5.C Estimate, measure, and compare weight and mass using appropriate-sized U.S. customary and metric units. | | * 3.5.D Estimate, measure, and compare capacity using appropriate-sized U.S. customary and metric units. | |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + mass, weight, ,capacity * performs basic processes, such as:   + recognizes or recalls examples of measurement tools used for measuring weight, mass and capacity   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Geometry/Measurement** | | | |
| **Topic: Measurement using Standard and Metric Systems – length, weight, mass, capacity** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 4.4.B Solve single- and multi-step problems involving familiar unit conversions, including time, within either the U.S. customary or metric system. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + unit, conversion, U. S. customary, metric, meters, centimeters, inches, feet, and yards * performs basic processes, such as:   + recognizes or recalls basic equality facts within systems: 100 centimeters equals a meter, or 12 inches equals a foot etc.   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Temperature*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Geometry/Measurement** | | | |
| **Topic: Temperature** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 3.5.B Measure temperature in degrees Fahrenheit and degrees Celsius using a thermometer. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + Fahrenheit, Celsius, temperature, degree * performs basic processes, such as:   + recognizes or recalls accurate statements about degrees Fahrenheit and degrees Celsius   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Proportionality and Similarity*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Geometry/Measurement** | | | |
| **Topic: Proportionality and similarity** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 4.3.A Determine congruence of two-dimensional figures. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + congruence * performs basic processes, such as:   + demonstrates direct comparisons by tracing, cutting, flipping, and/or folding   + recognizes examples of congruent and non-congruent figures   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Transformations*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Geometry/Measurement** | | | |
| **Topic: Transformations** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 5.3.H Determine the number and location of lines of symmetry in triangles and quadrilaterals. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + lines of symmetry * performs basic processes, such as:   + recognizes triangles and quadrilaterals with lines of symmetry   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

# Number

## *Place Value*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Place Value** | | | |
| **Grade: 2** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 2.1.B Connect place value models with their numerical equivalents to 1,000. | | * 2.1.C Identify the ones, tens, and hundreds place in a number and the digits occupying them. * 2.1.E Group three-digit numbers into hundreds, tens, and ones in more than one way. |   **The student exhibits no major errors or omissions.** | | * Group three digit numbers into hundreds, tens and ones in 3+ ways   Examples:   * + In the number 647, there are 6 hundreds, there are 4 tens, and there are 7 ones.   + There are 64 tens and 7 ones in 647.   + There are 647 ones in 647.   + There are 6 hundreds and 47 ones. |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + place value, ones, tens, hundreds, digit * performs basic processes, such as:   + connects place value models with numerical equivalents to 500   + identifies the ones, tens, and hundreds place in a two-digit number   + groups two-digit numbers into tens, and ones   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | * Student is able to group a three digit number into hundreds, tens and ones in 1-2 ways. (see 3.0) |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Place Value** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 3.2.G Multiply any number from 11 through 19 by a single-digit number using the distributive property and place value concepts. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + distributive property, multiply * performs basic processes, such as:   + uses base ten pieces to represent the multiplication of a two digit number by a one digit number   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Place Value** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  |  | | --- | --- | | **The student is expected to:**   * 4.1.D Multiply by 10, 100, and 1,000. | | | * 4.1.E Compare the values represented by digits in whole numbers using place value. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + place value and digits * performs basic processes, such as:   + multiplies by 10’s   + identifies the value of a digit in whole numbers using place value up through the 100’s place   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Counting/Naming*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Counting/Naming** | | | |
| **Grade: K** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  |  | | --- | --- | | **The student is expected to:**   * K.1.A Rote count by ones forward from 1 to 100 and backward from any number in the range of 10 to 1. | | | * K.1.B Read aloud numerals from 0 to 31. | | * K.1.E Count objects in a set of up to 20, and count out a specific number of up to 20 objects from a larger set. * K.1.G Locate numbers from 1 to 31 on a number line. | | |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + count, forward, backward, number * performs basic processes, such as:   + rote counts by one’s forward from 1-50 and backwards from 5-1   + reads aloud numerals from 0-15   + counts objects in a set up to 10 and count out a specific number of up to 10 objects from a larger set   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Counting/Naming** | | | |
| **Grade: 1** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  |  | | --- | --- | | **The student is expected to:**   * 1.1.A Count by ones forward and backward from 1 to 120, starting at any number, and count by twos, fives, and tens to 100. | | | * 1.1.C Read aloud numerals from 0 to 1,000. * 1.1.H Group and count objects by tens, fives, and twos. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + twos, fives, tens * performs basic processes, such as:   + counts by ones forward and backward from 1-50 starting at any number and counts by twos, fives and tens to 50   + reads aloud numerals from 0-50   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Counting/Naming** | | | |
| **Grade: 2** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 2.1.A Count by tens or hundreds forward and backward from 1 to 1,000, starting at any number. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + tens, hundreds, thousands * performs basic processes, such as:   + counts by tens or hundreds forward and backward from 1-500 starting at any number   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Counting/Naming** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 3.1.A Read, write, compare, order, and represent numbers to 10,000 using numbers, words, and symbols. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + compare, order, number words, symbols * performs basic processes, such as:   + matches numbers (up to 5,000) to corresponding words and/or symbols   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Comparing/Ordering*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Comparing/Ordering** | | | |
| **Grade: K** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * K.1.D Order numerals from 1 to 10. * K.1.F Compare two sets of up to 10 objects each and say whether the number of objects in one set is equal to, greater than, or less than the number of objects in the other set. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + equal to , greater than, less than * performs basic processes, such as:   + orders numbers from 1-5   + compares two sets of up to 5 objects each and says whether the number of objects in one set is equal to, greater than, or less than the number of objects in the other set   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Comparing/Ordering** | | | |
| **Grade: 1** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  |  |  | | --- | --- | --- | | **The student is expected to:**   * 1.1.B Name the number that is one less or one more than any number given verbally up to 120. | | | | * 1.1.D Order objects or events using ordinal numbers. | | * 1.1.E Write, compare, and order numbers to 120. | |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + ordinal number, compare * performs basic processes, such as:   + names the number that is one less or one more than any number given verbally up to 50   + recognizes or recalls examples of ordinal numbers up to and including 10   + writes, compares and orders numbers to 50   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Comparing/Ordering** | | | |
| **Grade: 2** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 2.1.F Compare and order numbers from 0 to 1,000. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + compares and orders numbers from 0-500   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Comparing/Ordering** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:** | | * 3.3.B Compare and order fractions that have denominators of 2, 3, 4, 5, 6, 8, 9, 10, and 12. | | | * 3.3.D Solve single- and multi-step word problems involving comparison of fractions and verify the solutions. | | |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + compares and orders fractions with like denominators   + recognizes or recalls examples of numbers represented by words or symbols   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Comparing/Ordering** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  |  | | --- | --- | | **The student is expected to:**   * 4.2.B Read, write, compare, and order decimals through hundredths. * 4.2.E Compare and order decimals and fractions (including mixed numbers) on the number line, in lists, and with the symbols <, >, or =. * 4.2.I Solve single- and multi-step word problems involving comparison of decimals and fractions (including mixed numbers), and verify the solutions. | | |  |   **The student exhibits no major errors or omissions.** | | * Represent, compare and order fractions, mixed numbers, and decimals to hundredths.   Examples:   * List in increasing order: 0.7, 0.2, 1.4 * Write an inequality that compares 0.05 and 0.50 |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + hundredths, tenths, decimal, fraction, mixed numbers * performs basic processes, such as:   + recognizes numbers with decimals through the hundredths   + compares and orders simple decimals and solves single step word problems involving decimals or fractions   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | * For example simple decimals might be: .10, .20, .25, .50, .75, .90, * For example, simple fractions: ¼, 1/3, ½, ¾ … |
| , | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Rounding*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Rounding** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 3.1.B Round whole numbers through 10,000 to the nearest tens, hundreds, and thousands. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + round, tens, hundreds, and thousands * performs basic processes, such as:   + recognizes examples of numbers being rounded to the nearest tens, hundreds and thousands   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Rounding** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 4.2.H Round fractions and decimals to the nearest whole number. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + fractions, decimals, rounding, whole numbers * performs basic processes, such as:   + recognizes examples of fractions and decimals that have been rounded to the nearest whole number   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Fractions*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Fractions** | | | |
| **Grade: 2** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 2.4.E Interpret a fraction as a number of equal parts of a whole or a set. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + whole, part, equal, set, fraction * performs basic processes, such as:   + recognizes or recalls accurate statements about fractions   + matches fractions to a pictorial representation   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Fractions** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 3.3.C Represent equivalent fractions with denominators of 2, 3, 4, 5, 6, 8, 9, 10, and 12. |   **The student exhibits no major errors or omissions.** | | * Student is able to identify all fraction equivalents to one half using denominators of 4, 6, 8, 10 and 12. |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + denominators, equivalent fractions * performs basic processes, such as:   + recognizes equivalent fractions with denominators of 2, 4, and 8   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | * Student is able to identify fractions equivalent to one half such as two-fourths or four-eighths. |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Fractions** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 4.2.F Write a fraction equivalent to a given fraction. * 4.2.G Simplify fractions using common factors. | |  | |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + equivalent fraction, simplify fractions * performs basic processes, such as:   + recognizes or recalls examples of equivalent fractions   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | * Matches equivalent fractions. |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Fractions** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 5.2.C Given two fractions with unlike denominators, rewrite the fractions with a common denominator. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + unlike denominators, common denominators * performs basic processes, such as:   + finds common denominators for unlike fractions that share common factors *(ex: denominators 2 and 4, or 3 and 6)*   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Multiple Representations of fractions, decimals, and the number system*

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| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Multiple Representations of fractions, decimals and the number system** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 3.3.A Represent fractions that have denominators of 2, 3, 4, 5, 6, 8, 9, 10, and 12 as parts of a whole, parts of a set, and points on the number line. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes specific terminology such as:   + fractions as parts of whole, parts of sets, as points, and number lines * performs basic processes, such as:   + represents fractions that have denominators of 2, 3, 4, 5, 6 as parts of a whole and points on a number line   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Multiple Representations of fractions, decimals and the number system** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 4.2.A Represent decimals through hundredths with place value models, fraction equivalents, and the number line. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + decimal, tenths, place value, equivalent * performs basic processes, such as:   + represents decimals through tenths with place value models, fraction equivalents and the number line   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Multiple Representations of fractions, decimals and the number system** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 5.2.A Represent addition and subtraction of fractions and mixed numbers using visual and numerical models, and connect the representation to the related equation. |   **The student exhibits no major errors or omissions.** | | Example: 1 – ¾ = |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + numerical models, visual models, related equation * performs basic processes such as:   + represents addition of fractions with like denominators using visual and numerical models   + represents subtraction of fractions with like denominators using visual and numerical models   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Factors*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Factors** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 4.1.B Identify factors and multiples of a number. |   **The student exhibits no major errors or omissions.** | | * Accurately identify factors and multiples of a number up to 100. |
| Factors | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + factor, multiple * performs basic processes, such as:   + recognizes or recalls factors and multiples of numbers through 8   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | * Identify factors and multiples of numbers through 12 * Factors of 12 are: 1,2,3,4,6,12 * Multiples are: 12, 24, 36, 48,etc. |
|  | **1.5** |  |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Factors** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 5.2.D Determine the greatest common factor and the least common multiple of two or more whole numbers. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + greatest common factor, least common multiples * performs basic processes, such as:   + identifies the greatest common factor of whole numbers up to 10 and/or the least common multiple of whole numbers up to 10   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Number Representations (Exponents, Scientific Notation)*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Number representations (Exponents, Scientific Notation)** | | | |
| **Grade: 2** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 2.1.D Write three-digit numbers in expanded form. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + expanded form * performs basic processes, such as:   + matches the expanded form of a two or three digit number to the value of the two or three digits used   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | * Matches 20 + 7 to the number 27 |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Number Systems*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Number Systems** | | | |
| **Grade: 1** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 1.1.I Classify a number as odd or even and demonstrate that it is odd or even. |   **The student exhibits no major errors or omissions.** | | Examples:   * 13 is odd because 13 counters cannot be regrouped into two equal piles. * 20 is even because every counter in this set of 20 counters can be paired with another counter in the set. |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + odd, even * performs basic processes, such as:   + recognizes even and odd numbers   + uses objects to demonstrate whether a number is odd or even   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | * For example 3 and 5 are odd numbers because they are on either side of the even number 4. * Student can use a ten’s frame to demonstrate whether a number is odd or even. |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Number** | | | |
| **Topic: Number Systems** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 5.5.A Classify numbers as prime or composite. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + prime, composite * performs basic processes, such as:   + recognizes or recalls accurate statements about prime and composite numbers   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

# Operation

## *Addition and Subtraction*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Addition and Subtraction** | | | |
| **Grade: 2** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  |  | | --- | --- | | **The student is expected to:**   * 2.2.A Quickly recall basic addition facts and related subtraction facts for sums through 20. * 2.2.B Solve addition and subtraction word problems that involve joining, separating, and comparing and verify the solution | | | * 2.2.C Add and subtract two-digit numbers efficiently and accurately using a procedure that works with all two-digit numbers and explain why the procedure works. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + facts, two-digit * performs basic processes, such as:   + recalls addition and subtraction facts for sums through 10   + accurately adds and subtracts two-digit numbers up to and including 20   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Addition and Subtraction** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 3.1.C Fluently and accurately add and subtract whole numbers using the standard regrouping algorithms. * 3.1.E Solve single- and multi-step word problems involving addition and subtraction of whole numbers and verify the solutions. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + regroup * performs basic processes, such as:   + adds and subtracts whole numbers through 3-digit numbers   + solves single-step word problems involving addition and subtraction of whole numbers   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Compose and Decompose Numbers*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Compose/Decompose Numbers** | | | |
| **Grade: K** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * K.1.C Fluently compose and decompose numbers to 5. * K.1.H Describe a number from 1-9 using 5 as a benchmark number. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + identifies numbers between 0 and 5   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Compose/Decompose Numbers** | | | |
| **Grade: 1** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 1.1.F Fluently compose and decompose numbers to 10. * 1.2.D Demonstrate the inverse relationship between addition and subtraction by undoing an addition problem with subtraction and vice versa. * 1.2.E Add three or more one-digit numbers using the commutative and associative properties of addition. * 1.2.G Quickly recall addition facts and related subtraction facts for sums equal to 10. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + fact family * performs basic processes, such as:   + fluently uses fact families to 5 to compose and decompose numbers   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Alternate and Mental Strategies*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Alternate and Mental Strategies** | | | |
| **Grade: 1** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 1.2.F Apply and explain strategies to compute addition facts and related subtraction facts for sums to 18. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + sum, addition, subtraction * performs basic processes, such as:   + recognizes or recalls strategies to compute addition facts and related subtraction facts for digits to 10   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Alternate and Mental Strategies** | | | |
| **Grade: 2** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 2.2.D Add and subtract two-digit numbers mentally and explain the strategies used. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + mentally adds or subtracts one digit numbers   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Alternate and Mental Strategies** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 3.2.D Apply and explain strategies to compute multiplication facts to 10 X 10 and the related division facts. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + multiplication, division, facts * performs basic processes, such as:   + computes multiplication facts to 10 x 10 and the related division facts   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Alternate and Mental Strategies** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 4.1.G Mentally multiply two-digit numbers by numbers through 10 and by multiples of 10. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + mentally multiply * performs basic processes, such as:   + multiplies one digit numbers by one digit numbers through 5 from memory   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Alternate and Mental Strategies** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 5.1.E Mentally divide two-digit numbers by one-digit divisors and explain the strategies used. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + divisor * performs basic processes, such as:   + mentally divides one digit numbers by one digit divisors   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## 

## *Estimation*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Estimation** | | | |
| **Grade: 2** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 2.2.E Estimate sums and differences. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + estimate * performs basic processes, such as:   + recognizes an appropriate estimation for given addition and subtraction problems   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Estimation** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 3.1.D Estimate sums and differences to approximate solutions to problems and determine reasonableness of answers. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + estimate, approximate, sum, difference * performs basic processes, such as:   + calculates sums and differences to approximate solutions to problems   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Estimation** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 4.1.H Estimate products to approximate solutions to problems and determine reasonableness of answers. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + estimate, product, approximate * performs basic processes, such as:   + calculates products to approximate solutions to problems   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Estimation** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 5.1.D Estimate quotients to approximate solutions and determine reasonableness of answers in problems involving up to two-digit divisors. | | * 5.2.G Estimate sums and differences of fractions, mixed numbers, and decimals to approximate solutions to problems and determine reasonableness of answers. | |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + quotient * performs basic processes, such as:  |  | | --- | | * + calculates quotients to approximate solutionsinvolving up to two-digit divisors | | * + calculates sums and differences of fractions, mixed numbers, and decimals to approximate solutions to problems | |   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Multiple Representations/Models*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Multiple Representations/Models** | | | |
| **Grade: K** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  |  | | --- | --- | | **The student is expected to:**   * K.2.C Model addition by joining sets of objects that have 10 or fewer total   objects when joined and model subtraction by separating a set of 10 or fewer  objects.   |  | | --- | | * K.2.D Describe a situation that involves the actions of joining (addition) or separating (subtraction) using words, pictures, objects, or numbers. | |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + joins 5 or fewer objects to model addition and separates 5 or fewer objects to model subtraction   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Operations** | | | |
| **Topic: Multiple Representations/Models** | | | |
| **Grade: 1** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 1.2.A Connect physical and pictorial representations to addition and subtraction equations. * 1.2.C Represent addition and subtraction on the number line. | |  | |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + number line * performs basic processes, such as:   + places random numbers on a number line up to and including 10   + recognizes physical and/or pictorial representations of addition and subtraction equations   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## 

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| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Multiple Representations/Models** | | | |
| **Grade: 2** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 2.4.C Model and describe multiplication situations in which sets of equal sizes are joined. * 2.4.D Model and describe division situations in which sets are separated into equal parts |   **The student exhibits no major errors or omissions.** | | |  | | --- | |  |  * You have 4 boxes with 3 apples in each box. How many apples do you have? |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + multiplication, division * performs basic processes, such as:   + given models of multiplication and division situations, determines the product or the quotient   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Multiple Representations/Models** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  |  | | --- | --- | | **The student is expected to:**   * 3.2.A Represent multiplication as repeated addition, arrays, counting by multiples, and equal jumps on the number line, and connect each representation to the related equation. | | | * 3.2.B Represent division as equal sharing, repeated subtraction, equal jumps on the number line, and formation of equal groups of objects, and connect each representation to the related equation. | | | | * 3.2.F Solve and create word problems that match multiplication or division equations. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + represents multiplication as repeated addition, arrays, counting by multiples   + represents division as equal sharing, repeated subtraction and formation of equal groups of objects   + matches word problems with multiplication or division equations   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Operations** | | | |
| **Topic: Multiple Representations/Models** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 4.1.C Represent multiplication of a two-digit number by a two-digit number with place value models. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + represents multiplication of a one digit number by a two digit number with place value models   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Operations** | | | |
| **Topic: Multiple Representations/Models** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 5.1.A Represent multi-digit division using place value models and connect the representation to the related equation. * 5.1.F Solve single- and multi-step word problems involving multi-digit division and verify the solutions. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + single digit, multi-digit, division * performs basic processes, such as:   + represents single digit division using place value models   + solves single-step word problems involving multi-digit division   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Performing operations using fractions and other components of the number system*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Performing operations using fractions and other components of the number system** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 5.2.E Fluently and accurately add and subtract fractions, including mixed numbers. | | * 5.2.F Fluently and accurately add and subtract decimals. * 5.2.H Solve single- and multi-step word problems involving addition and subtraction of whole numbers, fractions (including mixed numbers), and decimals, and verify the solutions. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + fraction, mixed number, decimal * performs basic processes, such as:   + adds and subtracts fractions with like denominators, including mixed numbers   + adds and subtracts decimals to the tenths place   + solves single- word problems involving addition and subtraction of whole numbers, and fractions with like denominators and decimals to the tenths place   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Converting between fractions, decimals and mixed numbers*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Converting between fractions, decimals and mixed numbers** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  |  | | --- | --- | | **The student is expected to:**   * 4.2.C Convert a mixed number to a fraction and vice versa, and visually represent the number. | **The student is expected to:**   * 5.2.E Fluently and accurately add and subtract fractions, including mixed numbers. | | * 4.2.D Convert a decimal to a fraction and vice versa, and visually represent the number. | * 5.2.F Fluently and accurately add and subtract decimals. * 5.2.H Solve single- and multi-step word problems involving addition and subtraction of whole numbers, fractions (including mixed numbers), and decimals, and verify the solutions. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + matches a mixed number to a fraction   + matches a fraction to a mixed number   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Multiplication and Division*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Multiplication and division** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | |  | | --- | | **The student is expected to:**   * 3.2.E Quickly recall those multiplication facts for which one factor is 1, 2, 5, or 10 and the related division facts. | | * 3.2.C Determine products, quotients, and missing factors using the inverse relationship between multiplication and division. | | | | * 3.2.H Solve single- and multi-step word problems involving multiplication and division and verify the solutions. | |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + solves single -step word problems involving multiplication and division   + recalls multiplication facts for which one factor is 1, 2 or 5 and the related division facts   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Multiplication and Division** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 4.1.A Quickly recall multiplication facts through 10 X 10 and the related division facts. | | * 4.1.F Fluently and accurately multiply up to a three-digit number by one- and two-digit numbers using the standard multiplication algorithm. * 4.1.I Solve single- and multi-step word problems involving multi-digit multiplication and verify the solutions. * 4.1.J Solve single- and multi-step word problems involving division and verify the solutions. | |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + multiplication, division, algorithm * performs basic processes, such as:   + from memory, recalls single digit by double digit (to 10) multiplication facts   + multiplies up to a three-digit number by one-digit number   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Operation** | | | |
| **Topic: Multiplication and division** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 5.1.B Determine quotients for multiples of 10 and 100 by applying knowledge of place value and properties of operations. * 5.1.C Fluently and accurately divide up to a four-digit number by one- or two-digit divisors using the standard long-division algorithm. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + multiples, properties of operations * performs basic processes, such as:   + determines quotients for multiples of 10 applying knowledge of place value   + fluently and accurately divides up to a three-digit number by one- or two-digit divisors   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

# Algebra

## *Patterns*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Algebra** | | | |
| **Topic: Patterns** | | | |
| **Grade: K** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  |  | | --- | --- | | * K.2.A Copy, extend, describe, and create simple repetitive patterns. | | | * K.2.B Translate a pattern among sounds, symbols, movements, and physical objects. |   **The student exhibits no major errors or omissions.** | | Examples: Red, red, yellow, red, red, yellow could translate to clap, clap, snap, clap, clap, snap |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + patterns * performs basic processes, such as:   + recognizes and copies simple repeating patterns using sounds, symbols, movements or physical objects   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Algebra** | | | |
| **Topic: Patterns** | | | |
| **Grade: 1** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 1.2.I Recognize, extend, and create number patterns. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + number patterns, extend * performs basic processes, such as:   + recognizes simple number patterns   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Algebra** | | | |
| **Topic: Patterns** | | | |
| **Grade: 2** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 2.2.F: Create and state a rule for patterns that can be generated by addition and extend the pattern. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + rule * performs basic processes, such as:   + when given a rule for patterns that can be generated by addition, extends the pattern   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Algebra** | | | |
| **Topic: Patterns** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 5.4.A Describe and create a rule for numerical and geometric patterns and extend the patterns * 5.4.B Write a rule to describe the relationship between two sets of data that are linearly related |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + recognizes examples of numerical and geometrical patterns   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Writing/Evaluating expressions, equations and inequalities*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Algebra** | | | |
| **Topic: Writing/Evaluating Expressions, equations and inequalities** | | | |
| **Grade: 1** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   * 1.2.B Use the equal sign (=) and the word *“equals”* to indicate that two expressions are equivalent. * 1.2.H Solve and create word problems that match addition or subtraction equations.   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + equal, = , expressions * performs basic processes, such as:   + recognizes or recalls the equal sign (=) or the term equals to indicate that two expressions are equivalent   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Algebra** | | | |
| **Topic: Writing/Evaluating Expressions, equations and inequalities** | | | |
| **Grade: 2** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 2.2.G Solve equations in which the unknown number appears in a variety of positions. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + unknown, solve, equations * performs basic processes, such as:   + solves equations in which the unknown number appears after the equal sign   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Algebra** | | | |
| **Topic: Writing/Evaluating Expressions, equations and inequalities** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 3.5.A Determine whether two expressions are equal and use “=” to denote equality. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + expressions, equality * performs basic processes, such as:   + evaluates simple expressions   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | Example:    9 = + 4  Write the number that completes this equation. |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| **Strand: Algebra** | | | |
| **Topic: Writing/Evaluating Expressions, equations and inequalities** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 4.4.A Represent an unknown quantity in simple expressions, equations, and inequalities using letters, boxes, and other symbols. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + recognizes the variable in simple expressions, equations and inequalities   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Algebra** | | | |
| **Topic: Writing/ Evaluating Expressions, equations and inequalities** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 5.4.C Write algebraic expressions that represent simple situations and evaluate the expressions, using substitution when variables are involved. |   **The student exhibits no major errors or omissions.** | | Examples:   * Evaluate (4 x n) + 5 when n=2 * Compare the answers A and B below, why aren’t the answers the same?   A: (3 x 10) + 2  B: (3 x (10 + 2)   * Evaluate and write algebraic expressions using variables to represent situations. |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + algebraic, expressions, situations, evaluate, variables * performs basic processes, such as:   + writes simple algebraic equations for a given situation   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | Example:  Five kids were playing ball, a half an hour later there were 12 kids playing ball. How many kids joined the ball game?  Write a simple equation to represent the situation.  5 + n = 12 |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Graphing*

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| --- | --- | --- | --- |
| **Strand: Algebra** | | | |
| **Topic: Graphing** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 4.4.D Graph and identify points in the first quadrant of the coordinate plane using ordered pairs. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + ordered pairs, graph, points, quadrant, coordinate plane * performs basic processes, such as:   + recognizes points in the first quadrant of the coordinate plane   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Algebra** | | | |
| **Topic: Graphing** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 5.4.D Graph ordered pairs in the coordinate plane for two sets of data related by a linear rule and draw the line they determine. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + linear rule, coordinate plane * performs basic processes, such as:   + graphs ordered pairs in the coordinate plane   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

# Data Analysis, Statistics and Probability

## *Data Displays*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Data Analysis, Statistics and Probability** | | | |
| **Topic: Data Displays** | | | |
| **Grade: 2** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 2.4.B Collect, organize, represent, and interpret data in bar graphs and picture graphs. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + collect, organize, represent, interpret * performs basic processes, such as:   + given the data, creates simple bar graphs and picture graphs   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Data Analysis, Statistics and Probability** | | | |
| **Topic: Data Displays** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 3.5.E Construct and analyze pictographs, frequency tables, line plots, and bar graphs. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + pictographs, frequency tables, line plots, and bar graphs * performs basic processes, such as:   + recognizes or recalls examples of graphs: pictographs, frequency tables, line plots and bar graphs   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Data Analysis, Statistics and Probability** | | | |
| **Topic: Data Displays** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 4.4.H Display the results of probability experiments and interpret the results. |   **The student exhibits no major errors or omissions.** | | * Displays include tallies, frequency tables, graphs, pictures, and fractions. |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + probability, experiments * performs basic processes, such as:   + displays the results of a probability experiment with tallies, or pictures   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Data Analysis, Statistics and Probability** | | | |
| **Topic: Data Displays** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 5.5.C Construct and interpret line graphs. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + line graphs; interpret, construct * performs basic processes, such as:   + recognizes or recalls the difference between a line graph and a histogram   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Analysis of Data*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Data Analysis, Statistics and Probability Strand:** | | | |
| **Topic: Analysis of data** | | | |
| **Grade: 1** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 1.5.A Represent data using tallies, tables, picture graphs, and bar- type graphs * 1.5.B Ask and answer comparison questions about data. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + compare, data, * performs basic processes, such as:   + answers simple descriptive questions about data   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | * Ex. who has the fewest pockets |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Measures of Variability*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Data Analysis, Statistics and Probability** | | | |
| **Topic: Measures of variability** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 4.4.E Determine the median, mode, and range of a set of data and describe what each measure indicates about the data. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls terminology such as:   + mean, median, mode * performs basic processes, such as:   + recognizes or recalls accurate statements about median, mode and range   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Data Analysis, Statistics and Probability** | | | |
| **Topic: Measures of variability** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 5.5.B Determine and interpret the mean of a small data set of whole numbers. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + mean * performs basic processes, such as:   + determines the mean of a small data set of whole numbers (set of 5 numbers)   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | | * Given a set of numbers (heights of students) determine mean of that set. |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Theoretical and Experimental Probability*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Data Analysis, Statistics and Probability** | | | |
| **Topic: Theoretical and Experimental Probability** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 4.4.G Determine a simple probability from a context that includes a picture. | | * 4.4.F Describe and compare the likelihood of events. | |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + probability, likelihood of events (certain, likely, unlikely, impossible) * performs basic processes, such as:   + determines a simple probability using spinners, coins, and other manipulatives related to probability   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

# Processes

## *Problem Solving*

|  |  |  |  |
| --- | --- | --- | --- |
| **Strand: Processes** | | | |
| **Topic: Problem Solving** | | | |
| **Grade: K** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   * Use the Problem Solving Process to solve grade level appropriate problems  |  |  |  | | --- | --- | --- | | |  | | --- | | * K.5.A Identify the question(s) asked in a problem. * K.5.B Identify the given information that can be used to solve a problem. * K.5.C Recognize when additional information is required to solve a problem. * K.5.D Select from a variety of problem-solving strategies and use one or more strategies to solve a problem. * K.5.E Answer the question(s) asked in a problem. | | * + K.5.G Determine whether a solution to a problem is reasonable. | |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + recognizes or recalls accurate statements about problem solving using grade specific performance expectations   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Processes** | | | |
| **Topic: Problem Solving** | | | |
| **Grade: 1** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   * Use the Problem Solving Process to solve grade level appropriate problems:  |  | | --- | | * + 1.6.A Identify the question(s) asked in a problem.   + 1.6.B Identify the given information that can be used to solve a problem.   + 1.6.C Recognize when additional information is required to solve a problem.   + 1.6.D Select from a variety of problem-solving strategies and use one or more strategies to solve a problem.   + 1.6.E Answer the question(s) asked in a problem.   + 1.6.F Identify the answer(s) to the question(s) in a problem. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + recognizes or recalls accurate statements about problem solving using grade specific performance expectations   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| --- | --- | --- | --- |
| **Strand: Processes** | | | |
| **Topic: Problem Solving** | | | |
| **Grade: 2** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   * Use the problem solving process to solve grade level appropriate problems:  |  | | --- | | * 2.5.A Identify the question(s) asked in a problem and any other questions that need to be answered in order to solve the problem. * 2.5.B Identify the given information that can be used to solve a problem. * 2.5.C Recognize when additional information is required to solve a problem. * 2.5.D Select from a variety of problem-solving strategies and use one or more strategies to solve a problem. * 2.5.G Determine whether a solution to a problem is reasonable. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + recognizes or recalls accurate statements about problem solving using grade specific performance expectations   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| **Strand: Processes** | | | |
| **Topic: Problem Solving** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   * Use the steps of the problem solving process to solve grade level appropriate problems:  |  | | --- | | * 3.6.A Determine the question(s) to be answered given a problem situation. * 3.6.B Identify information that is given in a problem and decide whether it is necessary or unnecessary to the solution of the problem. * 3.6.C Identify missing information that is needed to solve a problem. * 3.6.D Determine whether a problem to be solved is similar to previously solved problems, and identify possible strategies for solving the problem. * 3.6.E Select and use one or more appropriate strategies to solve a problem. * 3.6.H Analyze and evaluate whether a solution is reasonable, is mathematically correct, and answers the question. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + recognizes or recalls accurate statements about problem solving using grade specific performance expectations   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| **Strand: Processes** | | | |
| **Topic: Problem Solving** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   * Use the steps of the problem solving process to solve grade level appropriate problems:  |  | | --- | | * 4.5.A Determine the question(s) to be answered given a problem situation. * 4.5.B Identify information that is given in a problem and decide whether it is essential or extraneous to the solution of the problem. * 4.5.C Identify missing information that is needed to solve a problem. * 4.5.D Determine whether a problem to be solved is similar to previously solved problems, and identify possible strategies for solving the problem. * 4.5.E Select and use one or more appropriate strategies to solve a problem and explain why that strategy was chosen. * 4.5.F Represent a problem situation using words, numbers, pictures, physical objects, or symbols. * 4.5.H Analyze and evaluate whether a solution is reasonable, is mathematically correct, and answers the question. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + recognizes or recalls accurate statements about problem solving using grade specific performance expectations   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| **Strand: Processes** | | | |
| **Topic: Problem Solving** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   * Use the steps of the problem solving process to solve grade level appropriate problems:  |  | | --- | | * 5.6.A Determine the question(s) to be answered given a problem situation. * 5.6.B Identify information that is given in a problem and decide whether it is essential or extraneous to the solution of the problem. * 5.6.C Determine whether additional information is needed to solve the problem. * 5.6.D Determine whether a problem to be solved is similar to previously solved problems, and identify possible strategies for solving the problem. * 5.6.F Represent a problem situation using words, numbers, pictures, physical objects, or symbols. * 5.6.H Analyze and evaluate whether a solution is reasonable, is mathematically correct, and answers the question. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + recognizes or recalls accurate statements about problem solving using grade specific performance expectations   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Communicating the results of a problem*

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| **Strand: Processes** | | | |
| **Topic: Communicating the Results of a Problem** | | | |
| **Grade: K** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
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|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student, while solving grade level appropriate problems, is expected to:**   |  | | --- | | * K.5.F. Describe how a problem was solved. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * recognizes or recalls specific terminology such as:   + solve, problem * performs basic processes, such as:   + K.5.E answers the question(s) asked in a problem   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| **Strand: Processes** | | | |
| **Topic: Communicating the Results of a Problem** | | | |
| **Grade: 1** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student, while solving grade level appropriate problems, is expected to :**   * 1.6.G Describe how a problem was solved.   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + identifies a strategy to solve a problem   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| **Strand: Processes** | | | |
| **Topic: Communicating the Results of a Problem** | | | |
| **Grade: 2** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student, while solving grade level appropriate problems, is expected to:**   |  | | --- | | * 2.5.E Identify the answer(s) to the question in the problem. * 2.5.F Describe how a problem was solved. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + identifies a strategy to solve a problem   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| **Strand: Processes** | | | |
| **Topic: Communicating the Results of a Problem** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student, while solving grade level appropriate problems, is expected to:**   |  | | --- | | * 3.6.F Represent a problem situation using words, numbers, pictures, physical objects or symbols. * 3.6.G Explain why a specific problem-solving strategy or procedure was used to determine a solution. * 3.6.I Summarize mathematical information, draw conclusions, and explain reasoning. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + recognizes appropriate words, numbers, pictures or symbols that represent given problem situations   + recognizes or recalls accurate statements about or examples of specific problem-solving strategies or procedures   + identifies mathematical information from the problem   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| **Strand: Processes** | | | |
| **Topic: Communicating the Results of a Problem** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student, while solving grade level appropriate problems, is expected to:**   |  |  | | --- | --- | | * 4.5.G Explain why a specific problem-solving strategy or procedure was used to determine a solution.  |  | | --- | | * 4.5.I Summarize mathematical information, draw conclusions, and explain reasoning. | |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + recognizes appropriate words, numbers, pictures or symbols that represent given problem situations   + recognizes or recalls accurate statements about or examples of specific problem-solving strategies or procedures   + identifies mathematical information from the problem   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| **Strand: Processes** | | | |
| **Topic: Communicating the Results of a Problem** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student, while solving grade level appropriate problems, is expected to:**   |  | | --- | | * 5.6.E Select and use one or more appropriate strategies to solve a problem, and explain the choice of strategy. * 5.6.G Explain why a specific problem-solving strategy or procedure was used to determine a solution. * 5.6.I Summarize mathematical information, draw conclusions, and explain reasoning |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + selects an appropriate strategy   + recognizes or recalls examples of representations of problem situations   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

## *Mathematical Experimentation*

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| **Strand: Processes** | | | |
| **Topic: Mathematical Experimentation** | | | |
| **Grade: 3** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 3.6.J Make and test conjectures based on data (or information) collected from grade level appropriate explorations and experiments. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + recognizes or recalls examples of accurate conjectures based on data   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| **Strand: Processes** | | | |
| **Topic: Mathematical Experimentation** | | | |
| **Grade: 4** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 4.5.J Make and test conjectures based on data (or information) collected from grade level appropriate explorations and experiments. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + recognizes or recalls examples of accurate conjectures based on data   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |

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| **Strand: Processes** | | | |
| **Topic: Mathematical Experimentation** | | | |
| **Grade: 5** | | | |
| **Score 4.0** | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** | | **Sample Tasks** |
|  |
|  | **3.5** | In addition to score 3.0 performance, in-depth inferences and applications with partial success. |  |
| **Score 3.0** | **The student is expected to:**   |  | | --- | | * 5.6.J Make and test conjectures based on data (or information) collected from grade level appropriate explorations and experiments. |   **The student exhibits no major errors or omissions.** | |  |
|  | **2.5** | No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content |  |
| **Score 2.0** | **There are no major errors or omissions regarding the simpler details and processes as the student:**   * performs basic processes, such as:   + recognizes or recalls examples of accurate conjectures based on data   **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** | |  |
|  | **1.5** | Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content |  |
| **Score 1.0** | **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.** | |
|  | **0.5** | With help, a partial understanding of the 2.0 content but not the 3.0 content |
| **Score 0.0** | **Even with help, no understanding or skill demonstrated.** | |