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| **Standard 1.1 Algebraic Reasoning-Patterns and Relationships- The student will use a variety of problem-solving approaches to create, extend, and analyze patterns-Discover, describe, extend, and create a wide variety of patterns using tables, graphs, rules, and verbal models (e.g., determine the rule from a table or “function machine”, extend visual and number pattern).** |
| **Topic: Algebraic Reasoning**  |
| **Grade: 1** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** **The student:*** Can extend, and create a wide variety of patterns using tables, graphs, rules, and verbal models (e.g., determine the rule from a table or “function machine”, extend visual and number pattern).
 | **Sample Activities** |
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| **Score 3.0****Capable**  | **The student will:*** **Discover and describe, a wide variety of patterns using tables, graphs, rules, and verbal models (e.g., determine the rule from a table or “function machine”, extend visual and number pattern).**

**The student exhibits no major errors or omissions.** |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Discover and describe, a wide variety of patterns using tables, graphs, rules, and verbal models (e.g., determine the rule from a table or “function machine”, extend visual and number pattern).

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Discover and describe, a wide variety of patterns using tables, graphs, rules, and verbal models (e.g., determine the rule from a table or “function machine”, extend visual and number pattern).

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 1.2 Algebraic Reasoning-Patterns and Relationships- The student will use a variety of problem-solving approaches to create, extend, and analyze patterns-Find variables in simple arithmetic problems by solving open sentences (equations)and other problems involving addition, subtraction, multiplication, and division with whole numbers.** |
| **Topic: Algebraic Reasoning**  |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Find variable, using algebraic problem techniques (e.g., use a balance to model an equation and show how subtracting a number from one side requires subtracting the same amount from the other side)- in simple arithmetic problems by solving open sentences (equations)and other problems involving addition, subtraction, multiplication, and division with whole numbers.
 | **Sample Activities** |
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| **Score 3.0****Capable**  | **The student:*** **Find variables in simple arithmetic problems by solving open sentences (equations)and other problems involving addition, subtraction, multiplication, and division with whole numbers.**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Find variables in simple arithmetic problems by solving open sentences (equations) and other problems involving addition, subtraction, multiplication, and division with whole numbers.

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Find variables in simple arithmetic problems by solving open sentences (equations) and other problems involving addition, subtraction, multiplication with whole numbers.

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 1.3 Algebraic Reasoning-Patterns and Relationships- The student will use a variety of problem-solving approaches to create, extend, and analyze patterns-Recognize and apply the associative property of multiplication (e.g., 6x(2x3)=(6x2)x3).** |
| **Topic: Algebraic Reasoning**  |
| **Grade:4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Recognize and apply the associative property, commutative property, and distributive property of multiplication.
 | **Sample Activities** |
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| **Score 3.0****Capable**  | **The student:*** Recognize and apply the associative property of multiplication (e.g., 6x (2x3)=(6x2)x3).
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Recognize the associative property of multiplication (e.g., 6x (2x3)=(6x2)x3).

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Recognize the associative property of multiplication (e.g., 6x (2x3) = (6x2) x3).

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 2.1ai Number Sense and Operation- The student will use numbers and number relationships to acquire basic facts. The student will estimate and compute with whole numbers and fractions-Number Sense-Place Value-Apply the concept of place value through 6 digits (e.g., write numbers in expanded form)** |
| **Topic: Number Sense and Operation**  |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Apply the concept of place value through 9 digits (e.g., write numbers in expanded form)
 | **Sample Activities** |
|  |
| **Score 3.0****Capable**  | **The student will:*** **Apply the concept of place value through 6 digits (e.g., write numbers in expanded form)**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Apply the concept of place value through 6 digits (e.g., write numbers in expanded form)

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Apply the concept of place value through 4 digits (e.g., write numbers in expanded form)

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 2.1aii Number Sense and Operation- The student will use numbers and number relationships to acquire basic facts. The student will estimate and compute with whole numbers and fractions-Number Sense-Place Value-Model, read, write and rename decimal numbers to the hundredths (e.g., money, numerals to words)**  |
| **Topic: Number Sense and Operation**  |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Model, read, write and rename decimal numbers to the thousandths (e.g., money, numerals to words)
 | **Sample Activities** |
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| **Score 3.0****Capable**  | **The student:*** **Model, read, write and rename decimal numbers to the hundredths (e.g., money, numerals to words)**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Model, read, write and rename decimal numbers to the hundredths (e.g., money, numerals to words)

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Recognize decimal numbers to the hundredths (e.g., money, numerals to words)

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 2.1bi Number Sense and Operation- The student will use numbers and number relationships to acquire basic facts. The student will estimate and compute with whole numbers and fractions-Number Sense-Whole Number, Fraction, and Decimal-Compare and order whole numbers and decimals to the hundredths place (e.g., pictures of shaded regions of two-dimensional figures, use >, <, = symbols)**  |
| **Topic: Number Sense and Operation**  |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Compare and order whole numbers and decimals to the thousandths place (e.g., pictures of shaded regions of two-dimensional figures, use >, <, = symbols) and represent with models the connection between fractions and decimals, compare and order fractions and decimals, and be able to convert from one representation to the other to solve problems (e.g., use 10x10 grids, base 10 blocks).
 | **Sample Activities** |
|  |
| **Score 3.0****Capable**  | **The student:*** **Compare and order whole numbers and decimals to the hundredths place (e.g., pictures of shaded regions of two-dimensional figures, use >, <, = symbols)**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Compare and order whole numbers and decimals to the hundredths place (e.g., pictures of shaded regions of two-dimensional figures, use >, <, = symbols).

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Compare and order whole numbers and decimals to the tenths place (e.g., pictures of shaded regions of two-dimensional figures, use >, <, = symbols)

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 2.1bii Number Sense and Operation- The student will use numbers and number relationships to acquire basic facts. The student will estimate and compute with whole numbers and fractions-Number Sense-Whole Number, Fraction, and Decimal-Use 0, ½, and 1 or 0, 0.5, and 1 as benchmarks and place additional fractions, decimals, and percents on a number line (e.g., 1/3, ¾, 0.7, 0.4, 62%, 12%)**  |
| **Topic: Number Sense and Operation**  |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Use 0, ½, and 1 or 0, 0.5, and 1 as benchmarks and place additional fractions, decimals, and percents on a number line (e.g., 1/3, ¾, 0.7, 0.4, 62%, 12%)
 | **Sample Activities** |
|  |
| Score 3.0Capable  | **The student will**:* **Use 0, ½, and 1 or 0, 0.5, and 1 as benchmarks and place additional fractions, decimals, and percents on a number line (e.g., 1/3, ¾, 0.7, 0.4, 62%, 12%)**
* **The student exhibits no major errors or omissions**.
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Use 0, ½, and 1 or 0, 0.5, and 1 as benchmarks and place additional fractions and decimals on a number line (e.g., 1/3, ¾, 0.7, 0.4)

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Use 0, ½, and 1 or 0, 0.5, and 1 as benchmarks and place additional fractions and decimals on a number line (e.g., 1/3, ¾, 0.7,0.4)

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 2.1biii Number Sense and Operation- The student will use numbers and number relationships to acquire basic facts. The student will estimate and compute with whole numbers and fractions-Number Sense-Whole Number, Fraction, and Decimal-Compare, add, or subtract fractional parts ( fractions with like denominators and decimals) using physical or pictorial models. (e.g., egg cartons, fraction strips, circles, and squares).**  |
| **Topic: Number Sense and Operation**  |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Compare, add, or subtract fractional parts ( fractions with unlike denominators and decimals) using physical or pictorial models. (e.g., egg cartons, fraction strips, circles, and squares).
 | **Sample Activities** |
|  |
| **Score 3.0****Capable**  | **The student will:*** **Compare, add, or subtract fractional parts ( fractions with like denominators and decimals) using physical or pictorial models. (e.g., egg cartons, fraction strips, circles, and squares).**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Compare, add, or subtract fractional parts ( fractions with like denominators and decimals) using physical or pictorial models. (e.g., egg cartons, fraction strips, circles, and squares).

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Compare and add fractional parts ( fractions with like denominators and decimals) using physical or pictorial models. (e.g., egg cartons, fraction strips, circles, and squares).

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 2.1biv Number Sense and Operation- The student will use numbers and number relationships to acquire basic facts. The student will estimate and compute with whole numbers and fractions-Number Sense-Whole Number, Fraction, and Decimal-Explore and connect negative numbers using real world situations (e.g., owing money, temperature, measuring elevations above and below sea level)**  |
| **Topic: Number Sense and Operation**  |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Identify and compare negative numbers using real world situations (e.g., owing money, temperature, measuring elevations above and below sea level)
 | **Sample Activities** |
|  |
| **Score 3.0****Capable**  | **The student will:*** **Explore and connect negative numbers using real world situations (e.g., owing money, temperature, measuring elevations above and below sea level)**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Identify negative numbers using real world situations (e.g., owing money, temperature, measuring elevations above and below sea level)

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Identify negative numbers using real world situations (e.g., owing money, temperature, measuring elevations above and below sea level)

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 2.2a Number Sense and Operation- The student will use numbers and number relationships to acquire basic facts. The student will estimate and compute with whole numbers and fractions-Number Operations-Estimate and find the product of up to three-digit by three-digit using a variety of strategies to solve application problems.**  |
| **Topic: Number Sense and Operation**  |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Estimate and find the product of up to three-digit by three-digit using a variety of strategies to solve application problems, and prove correct answers through division.
 | **Sample Activities** |
|  |
| **Score 3.0****Capable**  | **The student will:*** **Estimate and find the product of up to three-digit by three-digit using a variety of strategies to solve application problems.**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Estimate and find the product of up to three-digit by two-digit using a variety of strategies to solve application problems.

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Estimate and find the product of up to three-digit by one-digit using a variety of strategies to solve application problems.

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 2.2bi Number Sense and Operation- The student will use numbers and number relationships to acquire basic facts. The student will estimate and compute with whole numbers and fractions-Number Operations-Division Concepts and Fact Families-Demonstrate fluency (memorize and apply)with basic division facts up to 144/12=12 and 12x12=144).**  |
| **Topic: Number Sense and Operation**  |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Demonstrate fluency (memorize and apply) with basic division facts up to 144/12=12 and the associated multiplication facts 12x12=144) and identify common factors and multiples to create equivalent fractions with fluency.
 | **Sample Activities** |
|  |
| **Score 3.0****Capable**  | **The student:*** **Demonstrate fluency (memorize and apply) with basic division facts up to 144/12=12 and the associated multiplication facts 12x12=144).**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Demonstrate fluency (memorize and apply) with basic division facts up to 100/10=10 and the associated multiplication facts 10x10=100).

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Demonstrate fluency (memorize and apply) with basic division facts up to100/10=10 and the associated multiplication facts 10x10=100).

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 2.2bii Number Sense and Operation- The student will use numbers and number relationships to acquire basic facts. The student will estimate and compute with whole numbers and fractions-Number Operations-Division Concepts and Fact Families-Estimate the quotient with one- and two-digit divisors and a two- or three-digit dividend to solve application problems.** |
| **Topic: Number Sense and Operation**  |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Estimate and find the quotient (with and without remainders) with two-digit divisors and a two- or three-digit dividend to solve application problems.
 | **Sample Activities** |
|  |
| **Score 3.0****Capable**  | **The student will:*** **Estimate and find the quotient with one- and two-digit divisors and a two- or three-digit dividend to solve application problems.**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Estimate and find the quotient with one- and two-digit divisors and a two- or three-digit dividend to solve application problems.

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Estimate the quotient with one-digit divisors and a two- or three-digit dividend to solve application problems.

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 3.1 Geometry- The student will use geometric properties and relationships to analyze shapes-Identify , draw, and construct models of intersecting, parallel, and perpendicular lines** |
| **Topic: Geometry** |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Create models of intersecting, parallel, and perpendicular lines
 | **Sample Activities** |
|  |
| **Score 3.0****Capable**  | **The student will:*** **Identify draw, and construct models of intersecting, parallel, and perpendicular lines**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Identify and draw intersecting, parallel, and perpendicular lines

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Identify intersecting, parallel, and perpendicular lines

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 3.2 Geometry- The student will use geometric properties and relationships to analyze shapes-Identify and compare angles equal to, less than, or greater than 90 degrees (e.g., use right angles to determine the approximate size of other angles).** |
| **Topic: Geometry** |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Measure and classify angles (e.g., acute, right, obtuse, straight).
 | **Sample Activities** |
|  |
| **Score 3.0****Capable**  | **The student will:*** **Identify and compare angles equal to, less than, or greater than 90 degrees (e.g., use right angles to determine the approximate size of other angles).**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Identify angles equal to, less than, or greater than 90 degrees (e.g., use right angles to determine the approximate size of other angles).

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Identify angles equal to, less than, or greater than 90 degrees (e.g., use right angles to determine the approximate size of other angles**).**

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 3.3 Geometry- The student will use geometric properties and relationships to analyze shapes-Identify, draw, and construct models or regular and irregular polygons including triangles, quadrilaterals, pentagons, hexagons, heptagons, and octagons to solve problems.** |
| **Topic: Geometry** |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Compare and contrast the basic characteristics of circles and polygons including triangles, quadrilaterals, pentagons, hexagons, heptagons, and octagons to solve problems.
 | **Sample Activities** |
|  |
| **Score 3.0****Capable**  | **The student will:*** **Identify, draw, and construct models of regular and irregular polygons including triangles, quadrilaterals, pentagons, hexagons, heptagons, and octagons to solve problems.**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Identify regular and irregular polygons including triangles, quadrilaterals, pentagons, hexagons, heptagons, and octagons to solve problems.

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Identify regular and irregular polygons including triangles, quadrilaterals, pentagons, hexagons, heptagons, and octagons to solve problems.

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 3.4 Geometry- The student will use geometric properties and relationships to analyze shapes-Describe the effects on two-dimensional objects when they slide (translate), flip (reflect), and turn (rotate) (e.g., tessellations)** |
| **Topic: Geometry** |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Describe the effects on two-dimensional objects when they slide (translate), flip (reflect), and turn (rotate) (e.g., tessellations), and measure the degree of change.
 | **Sample Activities** |
|  |
| **Score 3.0****Capable**  | **The student will:*** **Describe the effects on two-dimensional objects when they slide (translate), flip (reflect), and turn (rotate) (e.g., tessellations)**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Identify when two-dimensional shapes have undergone a transformation such as slide (translate), flip (reflect), and turn (rotate) (e.g., tessellations)

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Identify when two-dimensional shapes have undergone a transformation such as slide (translate), flip (reflect), and turn (rotate) (e.g., tessellations)

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 4.1a Measurement- The student will solve problems using appropriate units of measure in a variety of situations-Measurement-Estimate the measures of a variety of objects using customary units.** |
| **Topic: Measurement** |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Estimate the measures of a variety of objects using customary units.

And convert basic measurements volume, mass, and distance within the same system (e.g., inches to feet, hours to minutes, etc.). | **Sample Activities** |
|  |
| **Score 3.0****Capable**  | **The student will:*** **Estimate the measures of a variety of objects using customary units.**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Estimate the measures of a variety of objects using customary units.

 **However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Estimate the measures of a variety of objects using customary units.

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 4.1b Measurement- The student will solve problems using appropriate units of measure in a variety of situations-Measurement-Establish benchmarks for metric units and estimate the measures of a variety of objects (e.g., mass: the mass of a raisin is about 1 gram, length: the width of a finger is about 1 centimeter).** |
| **Topic: Measurement** |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught*** Establish benchmarks for metric units and estimate the measures of a variety of objects (e.g., mass: the mass of a raisin is about 1 gram, length: the width of a finger is about 1 centimeter), and convert basic measurements volume, mass, and distance within the same system (e.g., meters to centimeters, liters to milliliters, etc.).

 | **Sample Activities** |
|  |
| **Score 3.0****Capable**  | **The student will:*** **Establish benchmarks for metric units and estimate the measures of a variety of objects (e.g., mass: the mass of a raisin is about 1 gram, length: the width of a finger is about 1 centimeter).**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Establish benchmarks for metric units and estimate the measures of a variety of objects (e.g., mass: the mass of a raisin is about 1 gram, length: the width of a finger is about 1 centimeter).

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Establish benchmarks for metric units and estimate the measures of a variety of objects (e.g., mass: the mass of a raisin is about 1 gram, length: the width of a finger is about 1 centimeter).

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 4.1d Measurement- The student will solve problems using appropriate units of measure in a variety of situations-Measurement-Develop and use the concept of area of different shapes using grids to solve problems.** |
| **Topic: Measurement** |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Develop and use the formula of area of squares and rectangle**.**
 | **Sample Activities** |
|  |
| **Score 3.0****Capable**  | **The student will:*** **Develop and use the concept of area of different shapes using grids to solve problems.**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Develop and use the concept of area of different shapes using grids to solve problems.

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Develop and use the concept of area of different shapes using grids to solve problems.

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 4.2a Measurement- The student will solve problems using appropriate units of measure in a variety of situations-Time and Temperature-Solve elapsed time problems** |
| **Topic: Measurement** |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Solve elapsed time problems when the time passes from am to pm or from one day to the next.
 | **Sample Activities** |
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| **Score 3.0****Capable**  | **The student will:*** **Solve elapsed time problems**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Solve elapsed time problems

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | Solve simple addition problems with time (e.g., 15 minutes added to 1:10p.m.) **With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |
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| **Strand: Standard 4.2bMeasurement- The student will solve problems using appropriate units of measure in a variety of situations-Time and Temperature-Read thermometers using different intervals (intervals of 1, 2, or 5) and solve for temperature change** |
| **Topic: Measurement** |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Read thermometers using different intervals (intervals of 1, 2, or 5) and solve for temperature change including negative numbers.
 | **Sample Activities** |
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| **Score 3.0****Capable**  | **The student will:*** **Read thermometers using different intervals (intervals of 1, 2, or 5) and solve for temperature change**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Read thermometers using different intervals (intervals of 1, 2, or 5) and solve for temperature change

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Read thermometers and solve for temperature change.

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 4.3Measurement- The student will solve problems using appropriate units of measure in a variety of situations-Money-Determine the correct amount of change when a purchase is made with a twenty dollar bill** |
| **Topic: Measurement** |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | * **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.**
* Solve a variety of problems involving money**.**
 | **Sample Activities** |
|  |
| **Score 3.0****Capable**  | **The student will:*** **Determine the correct amount of change when a purchase is made with a twenty dollar bill**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Determine the correct amount of change when a purchase is made with a ten dollar bill

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Determine the correct amount of change when a purchase is made with a five dollar bill.

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 5.1a Data Analysis-The student will demonstrate an understanding of collection, display, and interpretation of data and probability-Data Analysis-Read and interpret data displays such as tallies, tables, charts, and graphs and use the observations to pose and answer questions (e.g., choose a table in social studies of population data and write problems).** |
| **Topic: Data Analysis** |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Read and interpret data displays such as tallies, tables, charts, and graphs and use the observations to pose and answer questions (e.g., choose a table in social studies of population data and write problems). Compare and translate displays of data and justify the selection of the type of table or graph.
 | **Sample Activities** |
|  |
| **Score 3.0****Capable**  | **The student will:*** **Read and interpret data displays such as tallies, tables, charts, and graphs and use the observations to pose and answer questions (e.g., choose a table in social studies of population data and write problems).**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Read graphs and charts, identify the main idea, draw conclusions, and make predictions based on the data.

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Read graphs and charts, identify the main idea, draw conclusions, and make predictions based on the data.

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 5.1b Data Analysis-The student will demonstrate an understanding of collection, display, and interpretation of data and probability-Data Analysis-Collect, organize, and record data in tables and graphs (e.g., line graphs, (plots), bar graphs, pictographs).**  |
| **Topic: Data Analysis** |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** * Collect, organize, and record data in tables and graphs (e.g., line graphs, (plots), bar graphs, pictographs) and formulate questions, design investigations, consider samples, and collect, organize, and analyze data using observation, measurement, surveys, or experiments (e.g., how far can 4th graders throw a softball based on where it first hits the ground.)
 | **Sample Activities** |
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| **Score 3.0****Capable**  | **The student will:*** **Collect, organize, and record data in tables and graphs (e.g., line graphs, (plots), bar graphs, pictographs).**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Collect, organize, and record data in tables and graphs (e.g., line graphs, (plots), bar graphs, pictographs).

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Construct bar graphs, frequency tables, line graphs (plots) and pictographs with labels and a title from a set of data.

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 5.2 Data Analysis-The student will demonstrate an understanding of collection, display, and interpretation of data and probability-Probability: Predict the probability of outcomes of simple experiments using words such as certain, equally likely, impossible (e.g., coins, number cubes, spinners)**  |
| **Topic: Data Analysis** |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond what was taught.** Determine the probability of events occurring in familiar contexts or experiments and express probabilities as fractions from zero to one (e.g., find the fractional probability of an event given a biased spinner). | **Sample Activities** |
|  |
| **Score 3.0****Capable**  | **The student will:*** **Predict the probability of outcomes of simple experiments using words such as certain, equally likely, impossible (e.g., coins, number cubes, spinners)**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Predict the probability of outcomes of simple experiments using words such as certain, equally likely, impossible (e.g., coins, number cubes, spinners)

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Describe the probability of outcomes of simple experiments using words such as more, less, or equally likely (e.g., coins, number cubes, spinners)

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |

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| **Strand: Standard 5.3 Data Analysis-The student will demonstrate an understanding of collection, display, and interpretation of data and probability-Central Tendency: Determine the median (middle), and the mode (most often) of a set of data**  |
| **Topic: Data Analysis** |
| **Grade: 4** |
| **Score 4.0****Exceptional**  | **In addition to Score 3.0, in-depth inferences and applications that go beyond** **what was taught.** * Central Tendency: Determine the median (middle), and the mode (most often) range (spread of ) and mean (average) of a set of data
 | **Sample Activities** |
|  |
| **Score 3.0****Capable**  | **The student will:*** **Central Tendency: Determine the median (middle), and the mode (most often) of a set of data**
* **The student exhibits no major errors or omissions.**
 |  |
| **Score 2.0****Emerging** | **There are no major errors or omissions regarding the simpler details and processes as the student:*** Central Tendency: Determine the median (middle), and the mode (most often) of a set of data

**However, the student exhibits major errors or omissions regarding the more complex ideas and processes.** |  |
| **Score 1.0****Beginning**  | * Central Tendency: Determine the mode (most often) of a set of data

**With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.**  |  |