Operations and Algebraic Thinking

1) Use the four operations with whole numbers to solve problems. (OA1-3)

	1 **Area of Concern**	**2** **Emerging**	**3** **Progressing**	**4** **Secure**
Tri 1	Exhibits little understanding of how to: ● Make sense of addition and subtraction multi-step number stories and estimate to generate a reasonable answer to a problem before solving. ● Recognize comparison situations that are multiplicative. ● Identify a number story as additive or multiplicative and explain how they know.	Requires considerable support to: ● Make sense of addition and subtraction multi-step number stories and estimate to generate a reasonable answer to a problem before solving. ● Recognize comparison situations that are multiplicative. ● Identify a number story as additive or multiplicative and explain how they know.	With minimal support can: ● Make sense of addition and subtraction multi-step number stories and estimate to generate a reasonable answer to a problem before solving. ● Recognize comparison situations that are multiplicative. ● Identify a number story as additive or multiplicative and explain how they know.	Can consistently and independently: ● Make sense of addition and subtraction multi-step number stories and estimate to generate a reasonable answer to a problem before solving. ● Recognize comparison situations that are multiplicative. ● Identify a number story as additive or multiplicative and explain how they know.
Tri 2	Exhibits little understanding of how to: ● Solve multiplicative comparison number stories using multiplication.	Requires considerable support to: ● Solve multiplicative comparison number stories using multiplication.	With minimal support can: ● Solve multiplicative comparison number stories using multiplication.	Can consistently and independently: ● Solve multiplicative comparison number stories using multiplication.

	● Make a plan for solving multi-step number stories. ● Assess the reasonableness of answers by comparing to an estimate.	● Make a plan for solving multi-step number stories. ● Assess the reasonableness of answers by comparing to an estimate.	● Make a plan for solving multi-step number stories. ● Assess the reasonableness of answers by comparing to an estimate.	● Make a plan for solving multi-step number stories. ● Assess the reasonableness of answers by comparing to an estimate.
Tri 3	Exhibits little understanding of how to: ● Plan and solve and multi-step number stories the four operations. ● Assess the reasonableness of answers by comparing them to an estimate.	Requires considerable support to: ● Plan and solve and multi-step number stories the four operations. ● Assess the reasonableness of answers by comparing them to an estimate.	With minimal support can: ● Plan and solve and multi-step number stories the four operations. ● Assess the reasonableness of answers by comparing them to an estimate.	Can consistently and independently: ● Plan and solve and multi-step number stories the four operations. ● Assess the reasonableness of answers by comparing them to an estimate.

2) Gain familiarity with factors and multiples. (OA4)

	1 **Area of Concern**	**2** **Emerging**	**3** **Progressing**	**4** **Secure**
Tri 1	Exhibits little understanding of how to: ● Identify more than one factor pair for composite numbers less than 40. ● Write multiples of a 1-digit number. ● Identify prime and composite numbers less than 40.	Requires considerable support to: ● Identify more than one factor pair for composite numbers less than 40. ● Write multiples of a 1-digit number. ● Identify prime and composite numbers less than 40.	With minimal support can: ● Identify more than one factor pair for composite numbers less than 40. ● Write multiples of a 1-digit number. ● Identify prime and composite numbers less than 40.	Can consistently and independently: ● Identify more than one factor pair for composite numbers less than 40. ● Write multiples of a 1-digit number. ● Identify prime and composite numbers less than 40.
Tri 2				
Tri 3				

3) Generate and analyze patterns. (OA5)

	1 **Area of Concern**	**2** **Emerging**	**3** **Progressing**	**4** **Secure**
Tri 1				
Tri 2				
Tri 3	Exhibits little understanding of how to: ● Continue and describe number patterns.	Requires considerable support to: ● Continue and describe number patterns.	With minimal support can: ● Continue and describe number patterns.	Can consistently and independently: ● Continue and describe number patterns.

Numbers and Operations in Base Ten

1) Generalize place value understanding for multi-digit whole numbers. (NBT1-3)

	1 **Area of Concern**	**2** **Emerging**	**3** **Progressing**	**4** **Secure**
Tri 1	Exhibits little understanding of how to: Through 100,000s... ● Read and identify places in numbers using a tool. ● Read number names. ● Compare and order multi-digit numbers. ● Round numbers to the 2 largest place values. ● Recognize the relationships between place values that are ten times as large as another place for numbers up to 1,000.	Requires considerable support to: Through 100,000s... ● Read and identify places in numbers using a tool. ● Read number names. ● Compare and order multi-digit numbers. ● Round numbers to the 2 largest place values. ● Recognize the relationships between place values that are ten times as large as another place for numbers up to 1,000.	With minimal support can: Through 100,000s... ● Read and identify places in numbers using a tool. ● Read number names. ● Compare and order multi-digit numbers. ● Round numbers to the 2 largest place values. ● Recognize the relationships between place values that are ten times as large as another place for numbers up to 1,000.	Can consistently and independently: Through 100,000s... ● Read and identify places in numbers using a tool. ● Read number names. ● Compare and order multi-digit numbers. ● Round numbers to the 2 largest place values. ● Recognize the relationships between place values that are ten times as large as another place for numbers up to 1,000.
Tri 2	Exhibits little understanding of how to: Through 100,000s ● Read and identify places in numbers.	Requires considerable support to: Through 100,000s ● Read and identify places in numbers.	With minimal support can: Through 100,000s ● Read and identify places in numbers.	Can consistently and independently: Through 100,000s ● Read and identify places in numbers.

	● Read and write numbers in standard and expanded form. ● Compare and order numbers. ● Record comparisons using >, <, or = and explain.	● Read and write numbers in standard and expanded form. ● Compare and order numbers. ● Record comparisons using >, <, or = and explain.	● Read and write numbers in standard and expanded form. ● Compare and order numbers. ● Record comparisons using >, <, or = and explain.	● Read and write numbers in standard and expanded form. ● Compare and order numbers. ● Record comparisons using >, <, or = and explain.
Tri 3				

2) Use place value understanding and properties of operations to perform multi-digit arithmetic. (NBT 4-6)

	1 **Area of Concern**	**2** **Emerging**	**3** **Progressing**	**4** **Secure**
Tri 1	Exhibits little understanding of how to: ● Add and subtract multi-digit whole numbers.	Requires considerable support to: ● Add and subtract multi-digit whole numbers.	With minimal support can: ● Add and subtract multi-digit whole numbers.	Can consistently and independently: ● Apply the traditional addition and subtraction algorithms to add and subtract 3-digit problems. ● Use traditional addition and subtraction algorithms to add and subtract 4-digit problems. ● Use fact extensions to multiply by a multiple of 10.

Tri 2	Exhibits little understanding of how to: ● Use the traditional addition and subtraction algorithm to solve up to 4-digit problems. ● Accurately use and explain the traditional algorithms to add and subtract multi-digit whole numbers. ● Accurately multiply 2-digit by 1-digit whole numbers.	Requires considerable support to: ● Use the traditional addition and subtraction algorithm to solve up to 4-digit problems. ● Accurately use and explain the traditional algorithms to add and subtract multi-digit whole numbers. ● Accurately multiply 2-digit by 1-digit whole numbers.	With minimal support can: ● Use the traditional addition and subtraction algorithm to solve up to 4-digit problems. ● Accurately use and explain the traditional algorithms to add and subtract multi-digit whole numbers. ● Accurately multiply 2-digit by 1-digit whole numbers.	Can consistently and independently: ● Use the traditional addition and subtraction algorithm to solve up to 4-digit problems. ● Accurately use and explain the traditional algorithms to add and subtract multi-digit whole numbers. ● Accurately multiply 2-digit by 1-digit whole numbers.
Tri 3	Exhibits little understanding of how to: ● Accurately multiply a 3-digit by 1-digit numbers. ● Accurately multiply a 2-digit number by a multiple of 10. ● Illustrate and explain multiplication by a 1-digit number. ● Accurately divide a 2-digit by a 1-digit number.	Requires considerable support to: ● Accurately multiply a 3-digit by 1-digit numbers. ● Accurately multiply a 2-digit number by a multiple of 10. ● Illustrate and explain multiplication by a 1-digit number. ● Accurately divide a 2-digit by a 1-digit number.	With minimal support can: ● Accurately multiply a 3-digit by 1-digit numbers. ● Accurately multiply a 2-digit number by a multiple of 10. ● Illustrate and explain multiplication by a 1-digit number. ● Accurately divide a 2-digit by a 1-digit number.	Can consistently and independently: ● Accurately multiply a 3-digit by 1-digit numbers. ● Accurately multiply a 2-digit number by a multiple of 10. ● Illustrate and explain multiplication by a 1-digit number. ● Accurately divide a 2-digit by a 1-digit number.

	● Illustrate and explain division of 2-digit by a 1-digit number. ● Apply understanding of multiplying to multiply 4-digit by 1-digit number and a 2-digit by a 2-digit number. ● Attempt to Illustrate multiplication by a 1-digit number and a 2-digit by a 2-digit number. ● Accurately divide a 3-digit by a 1-digit number and illustrate/ explain.	● Illustrate and explain division of 2-digit by a 1-digit number. ● Apply understanding of multiplying to multiply 4-digit by 1-digit number and a 2-digit by a 2-digit number. ● Attempt to Illustrate multiplication by a 1-digit number and a 2-digit by a 2-digit number. ● Accurately divide a 3-digit by a 1-digit number and illustrate/ explain. .	● Illustrate and explain division of 2-digit by a 1-digit number. ● Apply understanding of multiplying to multiply 4-digit by 1-digit number and a 2-digit by a 2-digit number. ● Attempt to Illustrate multiplication by a 1-digit number and a 2-digit by a 2-digit number. ● Accurately divide a 3-digit by a 1-digit number and illustrate/ explain.	● Illustrate and explain division of 2-digit by a 1-digit number. ● Apply understanding of multiplication to multiply 4-digit by 1-digit number and a 2-digit by a 2-digit number. ● Attempt to illustrate/ explain multiplication by a 1-digit number and a 2-digit by a 2-digit number. ● Accurately divide a 3-digit by a 1-digit number and illustrate/ explain.

Number and Operations- Fractions

1) Extend understanding of fraction equivalence and ordering (NF1-2)

	1 **Area of Concern**	**2** **Emerging**	**3** **Progressing**	**4** **Secure**
Tri 1				
Tri 2	Exhibits little understanding of how to: ● Recognize two equivalent fractions through 12ths using a model. ● Recognize that fraction comparisons require same-size wholes using a model. ● Compare two fractions using a model.	Requires considerable support to: ● Recognize two equivalent fractions through 12ths using a model. ● Recognize that fraction comparisons require same-size wholes using a model. ● Compare two fractions using a model.	With minimal support can: ● Recognize two equivalent fractions through 12ths using a model. ● Recognize that fraction comparisons require same-size wholes using a model. ● Compare two fractions using a model.	Can consistently and independently: ● Recognize two equivalent fractions through 12ths using a model. ● Recognize that fraction comparisons require same-size wholes using a model. ● Compare two fractions using a model.
Tri 3				

2) Build fractions from unit fractions by applying and extending previous understandings. (NF3-4)

	1 **Area of Concern**	**2** **Emerging**	**3** **Progressing**	**4** **Secure**
Tri 1				
Tri 2	Exhibits little understanding of how to: ● Add fractions and subtract fractions (no regrouping) using manipulatives. ● Decompose fractions, represent with equation, and explain using a visual fraction model. ● Add mixed numbers and subtract mixed numbers (no regrouping) using manipulatives and visual fraction models. ● Use manipulatives and visual fraction models to add fractions in number stories.	Requires considerable support to: ● Add fractions and subtract fractions (no regrouping) using manipulatives. ● Decompose fractions, represent with equation, and explain using a visual fraction model. ● Add mixed numbers and subtract mixed numbers (no regrouping) using manipulatives and visual fraction models. ● Use manipulatives and visual fraction models to add fractions in number stories.	With minimal support can: ● Add fractions and subtract fractions (no regrouping) using manipulatives. ● Decompose fractions, represent with equation, and explain using a visual fraction model. ● Add mixed numbers and subtract mixed numbers (no regrouping) using manipulatives and visual fraction models. ● Use manipulatives and visual fraction models to add fractions in number stories.	Can consistently and independently: ● Add fractions and subtract fractions (no regrouping) using manipulatives. ● Decompose fractions, represent with equation, and explain using a visual fraction model. ● Add and subtract mixed numbers (no regrouping) using manipulatives and visual fraction models. ● Use manipulatives and visual fraction models to add fractions in number stories.
Tri 3	Exhibits little understanding of how to: ● Add and subtract mixed numbers using	Requires considerable support to: ● Add and subtract mixed numbers using	With minimal support can: ● Add and subtract mixed numbers using	Can consistently and independently: ● Add and subtract mixed numbers using

	manipulatives and visual fraction models. ● Add and subtract fractions in number stories using manipulatives and visual fraction models. ● Find a multiple of 1/b. ● Use multiple strategies to multiply a fraction by a whole number. ● Write a multiplication equation with a letter standing for the unknown to represent a number story involving multiplication of a fraction by a whole number. ● Add and subtract mixed numbers using manipulatives and visual fraction models. ● Add and subtract number stories. ● Multiply a fraction by a whole number, using manipulatives and visual fraction models.	manipulatives and visual fraction models. ● Add and subtract fractions in number stories using manipulatives and visual fraction models. ● Find a multiple of 1/b. ● Use multiple strategies to multiply a fraction by a whole number. ● Write a multiplication equation with a letter standing for the unknown to represent a number story involving multiplication of a fraction by a whole number. ● Add and subtract mixed numbers using manipulatives and visual fraction models. ● Add and subtract number stories. ● Multiply a fraction by a whole number, using manipulatives and visual fraction models.	manipulatives and visual fraction models. ● Add and subtract fractions in number stories using manipulatives and visual fraction models. ● Find a multiple of 1/b. ● Use multiple strategies to multiply a fraction by a whole number. ● Write a multiplication equation with a letter standing for the unknown to represent a number story involving multiplication of a fraction by a whole number. ● Add and subtract mixed numbers using manipulatives and visual fraction models. ● Add and subtract number stories. ● Multiply a fraction by a whole number, using manipulatives and visual fraction models.	manipulatives and visual fraction models. ● Add and subtract fractions in number stories using manipulatives and visual fraction models. ● Find a multiple of 1/b. ● Use multiple strategies to multiply a fraction by a whole number. ● Write a multiplication equation with a letter standing for the unknown to represent a number story involving multiplication of a fraction by a whole number. ● Add and subtract mixed numbers using manipulatives and visual fraction models. ● Add and subtract number stories. ● Multiply a fraction by a whole number, using manipulatives and visual fraction models.

3) Understand decimal notation for fractions, and compare decimals. (NF5-7)

	1 **Area of Concern**	**2** **Emerging**	**3** **Progressing**	**4** **Secure**
Tri 1				
Tri 2	Exhibits little understanding of how to: ● Represent decimals to hundredths using a model. ● Represent decimals to hundredths with base-ten numerals. ● Translate between decimal notation and fractions with denominators of 10 or 100 using a model. ● Compare decimals using a model. ● Attempt to translate between decimal notation and fractions with denominators 10 or 100 w/out a model. ● Add two fractions with denominators 10 and 100 using a model.	Requires considerable support: ● Represent decimals to hundredths using a model. ● Represent decimals to hundredths with base-ten numerals. ● Translate between decimal notation and fractions with denominators of 10 or 100 using a model. ● Compare decimals using a model. ● Attempt to translate between decimal notation and fractions with denominators 10 or 100 w/out a model. ● Add two fractions with denominators 10 and 100 using a model.	With minimal support can: ● Represent decimals to hundredths using a model. ● Represent decimals to hundredths with base-ten numerals. ● Translate between decimal notation and fractions with denominators of 10 or 100 using a model. ● Compare decimals using a model. ● Attempt to translate between decimal notation and fractions with denominators 10 or 100 w/out a model. ● Add two fractions with denominators 10 and 100 using a model.	Can consistently and independently: ● Represent decimals to hundredths using a model. ● Represent decimals to hundredths with base-ten numerals. ● Translate between decimal notation and fractions with denominators of 10 or 100 using a model. ● Compare decimals using a model. ● Attempt to translate between decimal notation and fractions with denominators 10 or 100 w/out a model. ● Add two fractions with denominators 10 and 100 using a model.

Tri 3	Exhibits little understanding of how to: ● Add two fractions with denominators 10 and 100. ● Use decimal notation for fractions with denominators 10 or 100.	Requires considerable support: ● Add two fractions with denominators 10 and 100. ● Use decimal notation for fractions with denominators 10 or 100.	With minimal support can: ● Add two fractions with denominators 10 and 100. ● Use decimal notation for fractions with denominators 10 or 100.	Can consistently and independently: ● Add two fractions with denominators 10 and 100. ● Use decimal notation for fractions with denominators 10 or 100.

Measurement and Data

1) Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit. (MD1-3)

	1 **Area of Concern**	**2** **Emerging**	**3** **Progressing**	**4** **Secure**
Tri 1	Exhibits little understanding of how to: ● Explain the relationships and convert between yards, feet, and inches. ● Find the perimeter using a strategy.	Requires considerable support to: ● Explain the relationships and convert between yards, feet, and inches. ● Find the perimeter using a strategy.	With minimal support can: ● Explain the relationships and convert between yards, feet, and inches. ● Find the perimeter using a strategy.	Can consistently and independently: ● Explain the relationships and convert between yards, feet, and inches. ● Find the perimeter using a strategy.
Tri 2	Exhibits little understanding of how to:	Requires considerable support to:	With minimal support can:	Can consistently and independently:

	● Solve number stories involving customary units of length; units of time, money; and metric units of length, capacity, and mass. ● Use a formula to find the perimeters and areas of rectangles.	● Solve number stories involving customary units of length; units of time, money; and metric units of length, capacity, and mass. ● Use a formula to find the perimeters and areas of rectangles.	● Solve number stories involving customary units of length; units of time, money; and metric units of length, capacity, and mass. ● Use a formula to find the perimeters and areas of rectangles.	● Solve number stories involving customary units of length; units of time, money; and metric units of length, capacity, and mass. ● Use a formula to find the perimeters and areas of rectangles.
Tri 3	Exhibits little understanding of how to: ● Express units of capacity conversions in a 2-column table. ● Use the four operations to solve number stories involving whole numbers of measured quantities.	Requires considerable support to: ● Express units of capacity conversions in a 2-column table. ● Use the four operations to solve number stories involving whole numbers of measured quantities.	With minimal support can: ● Express units of capacity conversions in a 2-column table. ● Use the four operations to solve number stories involving whole numbers of measured quantities.	Can consistently and independently: ● Express units of capacity conversions in a 2-column table. ● Use the four operations to solve number stories involving whole numbers of measured quantities.

2) Represent and interpret data. (MD4)

	1 **Area of Concern**	**2** **Emerging**	**3** **Progressing**	**4** **Secure**
Tri 1				
Tri 2	Exhibits little understanding of how to: ● Organize and represent data in ½ and ¼ units on line plots. ● Solve addition and subtraction problems about line plots in ½ and ¼ units.	Requires considerable support to: ● Organize and represent data in ½ and ¼ units on line plots. ● Solve addition and subtraction problems about line plots in ½ and ¼ units.	With minimal support can: ● Organize and represent data in ½ and ¼ units on line plots. ● Solve addition and subtraction problems about line plots in ½ and ¼ units.	Can consistently and independently: ● Organize and represent data in ½ and ¼ units on line plots. ● Solve addition and subtraction problems about line plots in ½ and ¼ units.
Tri 3	Exhibits little understanding of how to: ● Organize and represent data in ⅛ units on line plots. ● Solve addition and subtraction problems about line plot data in ⅛ units.	Requires considerable support to: ● Organize and represent data in ⅛ units on line plots. ● Solve addition and subtraction problems about line plot data in ⅛ units.	With minimal support can: ● Organize and represent data in ⅛ units on line plots. ● Solve addition and subtraction problems about line plot data in ⅛ units.	Can consistently and independently: ● Organize and represent data in ⅛ units on line plots. ● Solve addition and subtraction problems about line plot data in ⅛ units.

3) Understand concepts of angles and measures angles. (MD5-7)

	1 Area of Concern	2 Emerging	3 Progressing	4 Secure
Tri 1				
Tri 2	Exhibits little understanding of how to: ● Identify rotations such a ¼, ½ , ¾ , and full turns. ● Recognize that the degree is the standard unit of measure for angles. ● Recognize that angles are measured in iterations of one-degree angles.	Requires considerable support to: ● Identify rotations such a ¼, ½ , ¾ , and full turns. ● Recognize that the degree is the standard unit of measure for angles. ● Recognize that angles are measured in iterations of one-degree angles.	With minimal support can: ● Identify rotations such a ¼, ½ , ¾ , and full turns. ● Recognize that the degree is the standard unit of measure for angles. ● Recognize that angles are measured in iterations of one-degree angles.	Can consistently and independently: ● Identify rotations such a ¼, ½ , ¾ , and full turns. ● Recognize that the degree is the standard unit of measure for angles. ● Recognize that angles are measured in iterations of one-degree angles.
Tri 3	Exhibits little understanding of how to: ● Correctly identify the type of angle and obtain measurements within the correct range for acute and obtuse angles. ● Recognize angle measures as additive within 90 and 180 degrees. ● Add and subtract to find unknown angle measures	Requires considerable support to: ● Correctly identify the type of angle and obtain measurements within the correct range for acute and obtuse angles. ● Recognize angle measures as additive within 90 and 180 degrees. ● Add and subtract to find unknown angle measures	With minimal support can: ● Correctly identify the type of angle and obtain measurements within the correct range for acute and obtuse angles. ● Recognize angle measures as additive within 90 and 180 degrees. ● Add and subtract to find unknown angle measures	Can consistently and independently: ● Correctly identify the type of angle and obtain measurements within the correct range for acute and obtuse angles. ● Recognize angle measures as additive within 90 and 180 degrees. ● Add and subtract to find unknown angle measures

	within 90 and 180 degree angles. ● Solve add/subt problems to find unknown angle measures on a diagram in real world and mathematical problems.	within 90 and 180 degree angles. ● Solve add/subt problems to find unknown angle measures on a diagram in real world and mathematical problems.	within 90 and 180 degree angles. ● Solve add/subt problems to find unknown angle measures on a diagram in real world and mathematical problems.	within 90 and 180 degree angles. ● Solve add/subt problems to find unknown angle measures on a diagram in real world and mathematical problems.

Geometry

1) Draw and identify lines and angles, and classify shapes by properties of their lines and angles. (G1-3)

	1 **Area of Concern**	**2** **Emerging**	**3** **Progressing**	**4** **Secure**
Tri 1	Exhibits little understanding of how to: ● Draw and label points, lines, line segments, and rays using resources. ● Correctly identify right angles. ● Identify properties of line segments and angles within quadrilaterals. ● Identify right angles within triangles.	Requires considerable support to: ● Draw and label points, lines, line segments, and rays using resources. ● Correctly identify right angles. ● Identify properties of line segments and angles within quadrilaterals. ● Identify right angles within triangles.	With minimal support can: ● Draw and label points, lines, line segments, and rays using resources. ● Correctly identify right angles. ● Identify properties of line segments and angles within quadrilaterals. ● Identify right angles within triangles.	Can consistently and independently: ● Draw and label points, lines, line segments, and rays using resources. ● Correctly identify right angles. ● Identify properties of line segments and angles within quadrilaterals. ● Identify right angles within triangles.
Tri 2				
Tri 3				