Beatrice Gilmore School Report Card Overview 3rd Grade Mathematics Rubric

What is Standards-Based Instruction and Assessment?

- Focuses on children's progress with specific skills
- Skills align to the New Jersey Student Learning Standards
- Instruction is connected to these standards
- Students are assessed in terms of meeting these standards

What does a 1, 2, 3, and 4 mean?

Not Meeting Expectations	Approaching Grade Level	Meets Grade Level Standards	Exceeds Grade Level Standards
(NM- 1)	Standards (AS-2)	(MS-3)	(ES-4)
The student does not yet demonstrate progress toward initial foundational skills of the topic	The student demonstrates some proficiency in foundational skills of the topic	The student demonstrates proficiency in all grade level skills of the topic	The student demonstrates understanding and performance beyond proficiency and has exceeded the standard.

Operations and Algebraic Thinking

Demonstrates fluency in problem-solving with multiplication facts of whole numbers.

Standards: 3.OA.A1, 3.OA.A2, 3.OA.A3, 3.OA.A4, 3.OA.B5, 3.OA.B6 and 3.OA.C7.

Trimester	Not Meeting Expectations (NM- 1)	Approaching Grade Level Standards (AS-2)	Meets Grade Level Standards (MS-3)	Exceeds Grade Level Standards (ES-4)
1 and 2	 The student is unable to: Interpret models and products of whole numbers. Understand the relationship between multiplication and division. Use multiplication facts within 100 fluently. Use multiplication to solve word problems within 100. Determine the unknown whole number in a multiplication equation. Apply the properties of multiplication as strategies to solve. 	 The student sometimes can: Interpret models and products of whole numbers. Understand the relationship between multiplication and division. Use multiplication facts within 100 fluently. Use multiplication to solve word problems within 100. Determine the unknown whole number in a multiplication equation. Apply properties of operations as strategies to multiply. 	 The student consistently can: Interpret models and products of whole numbers. Understand the relationship between multiplication and division. Use multiplication facts within 100 fluently. Use multiplication to solve word problems within 100. Determine the unknown whole number in a multiplication equation. Apply properties of operations as strategies to multiply. 	 The student exceeds in: Interpret models and products of whole numbers. Understand the relationship between multiplication and division. Use multiplication facts within 100 fluently. Use multiplication to solve word problems within 100. Determine the unknown whole number in a multiplication equation. Apply properties of operations as strategies to multiply.
3	 The student is unable to: Fluently multiply within 100 from memory. Use multiplication to solve word problems. Show an understanding of multiplication properties. 	 The student sometimes can: Fluently multiply within 100 from memory. Use multiplication to solve word problems. Show an understanding of multiplication properties. 	 The student consistently can: Fluently multiply within 100 from memory. Use multiplication to solve word problems. Show an understanding of multiplication properties. 	 The student exceeds in: Fluently multiplying within 100 from memory. Using multiplication to solve word problems. Showing an understanding of multiplication properties.

Demonstrates fluency in problem-solving with division facts of whole numbers.

Standards: 3.OA.A1, 3.OA.A2, 3.OA.A3, 3.OA.A4, 3.OA.B5, 3.OA.B6 and 3.OA.C7.

Trimester	Not Meeting Expectations (NM- 1)	Approaching Grade Level Standards (AS-2)	Meets Grade Level Standards (MS-3)	Exceeds Grade Level Standards (ES-4)
1	Will not be assessed during this the	<u>me</u>		
2 and 3	 The student is unable to: Interpret model whole- number quotients of whole numbers. Use division facts within 100 fluently. Determine the unknown whole number in a division equation relating to 3 or more numbers. Apply properties of operations as strategies to divide. Understand division as an unknown-factor problem. Solve division word problems in situations involving equal groups, arrays, and measurement quantities. 	 The student sometimes can: Interpret model whole- number quotients of whole numbers. Use division facts within 100 fluently. Determine the unknown whole number in a division equation relating to 3 or more numbers. Apply properties of operations as strategies to divide. Understand division as an unknown-factor problem. Solve division word problems in situations involving equal groups, arrays, and measurement quantities. 	 The student consistently can: Interpret model whole- number quotients of whole numbers. Use division facts within 100 fluently. Determine the unknown whole number in a division equation relating to 3 or more numbers. Apply properties of operations as strategies to divide. Understand division as an unknown-factor problem. Solve division word problems in situations involving equal groups, arrays, and measurement quantities. 	 The student exceeds in: Interpret model whole- number quotients of whole numbers. Use division facts within 100 fluently. Determine the unknown whole number in a division equation relating to 3 or more numbers. Apply properties of operations as strategies to divide. Understand division as an unknown-factor problem. Solving division word problems in situations involving equal groups, arrays, and measurement quantities.

Solves multi-step	word proble	ems involving	all four operation	ns.
borves mutu step	word proble		an rour operation	10.

Standards: 3.OA.D8 and 3.OA.D9.

Trimester	Not Meeting Expectations (NM- 1)	Approaching Grade Level Standards (AS-2)	Meets Grade Level Standards (MS-3)	Exceeds Grade Level Standards (ES-4)
1	 The student is unable to: Solve two-step word problems using addition and subtraction operations. Represent these problems using equations with a letter standing for the unknown quantity. Identify arithmetic patterns (including patterns in a table). Assess the reasonableness of their answer with mental computation. 	 Student sometimes can: Solve two-step word problems using addition and subtraction operations. Represent these problems using equations with a letter standing for the unknown quantity. Identify arithmetic patterns (including patterns in a table). Assess the reasonableness of their answer with mental computation. 	 Student consistently can: Solve two-step word problems using addition and subtraction operations. Represent these problems using equations with a letter standing for the unknown quantity. Identify arithmetic patterns (including patterns in a table). Assess the reasonableness of their answer with mental computation. 	 Student exceeds in: Solve two-step word problems using addition and subtraction operations. Represent these problems using equations with a letter standing for the unknown quantity. Identify arithmetic patterns (including patterns in a table). Assess the reasonableness of their answer with mental computation.
2 and 3	 The student is unable to: Solve four operations in a word problem. Represent problems using equations with variables for the unknown quantity. Identify arithmetic patterns (including patterns in a table). Assess the reasonableness of their answer with mental computation. 	 Student sometimes can: Solve four operations in a word problem. Represent problems using equations with variables for the unknown quantity. Identify arithmetic patterns (including patterns in a table). Assess the reasonableness of their answer with mental computation. 	 Student consistently can: Solve four operations in a word problem. Represent problems using equations with variables for the unknown quantity. Identify arithmetic patterns (including patterns in a table). Assess the reasonableness of their answer with mental computation. 	 Student exceeds in: Solving four operations in a word problem. Representing problems using equations with variables for the unknown quantity. Identifying arithmetic patterns (including patterns in a table). Assessing the reasonableness of their answer with mental computation.

Numbers and Operations in Base Ten

Understanding of place value.

Standards: 3.NBT.A1

Trimester	Not Meeting Expectations (NM- 1)	Approaching Grade Level Standards (AS-2)	Meets Grade Level Standards (MS-3)	Exceeds Grade Level Standards (ES-4)
1 and 2	 The student is unable to: Use place value understanding to round whole numbers to the nearest 10 or 100 or even 1,000. Read, write, and represent numbers to 1,000 using base-ten materials and expanded form. Read, write, and represent numbers to 1,000 using base-ten materials, numeral form, and number name form. Compare two four-digit numbers based on hundreds, tens, and ones, using <, >, and =. 	 The student sometimes can: Use place value understanding to round whole numbers to the nearest 10 or 100. Read, write, and represent numbers to 1,000 using base-ten materials and expanded form. Read, write, and represent numbers to 1,000 using base-ten materials, numeral form, and number name form. Compare two four-digit numbers based on hundreds, tens, and ones, using <, >, and =. 	 The student consistently can: Use place value understanding to round whole numbers to the nearest 10 or 100. Read, write, and represent numbers to 1,000 using base-ten materials and expanded form. Read, write, and represent numbers to 1,000 using base-ten materials, numeral form, and number name form. Compare two four-digit numbers based on hundreds, tens, and ones, using <, >, and =. 	 The student exceeds in: Using place value understanding to round whole numbers to the nearest 10 or 100. Reading, writing, and representing numbers to 1,000 using base-ten materials and expanded form. Reading, writing, and representing numbers to 1,000 using base-ten materials, numeral form, and number name form. Comparing two four-digit numbers based on hundreds, tens, and ones, using <, >, and =.
3	Will not be assessed during this t	ime		

Trimester	Not Meeting Expectations (NM- 1)	Approaching Grade Level Standards (AS-2)	Meets Grade Level Standards (MS-3)	Exceeds Grade Level Standards (ES-4)
1 and 2	 The student is unable to: Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or addition and subtraction relationship. Use place value understanding to round whole numbers to the nearest 10 or 100. 	 The student sometimes can: Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or addition and subtraction relationship. Use place value understanding to round whole numbers to the nearest 10 or 100. 	 The student consistently can: Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or addition and subtraction relationship. Use place value understanding to round whole numbers to the nearest 10 or 100. 	 The student exceeds in: Fluently adding and subtracting within 1000 using strategies and algorithms based on place value, properties of operations, and/or addition and subtraction relationship. Use place value understanding to round whole numbers to the nearest 10 or 100.
2 and 3	 The student is unable to: Multiply one-digit whole numbers by multiples of 10 in the range 10-90 using strategies based on place value and properties of operations. 	 The student sometimes can: Multiply one-digit whole numbers by multiples of 10 in the range 10-90 using strategies based on place value and properties of operations. 	 The student consistently can: Multiply one-digit whole numbers by multiples of 10 in the range 10-90 using strategies based on place value and properties of operations. 	 The student exceeds in: Multiplying one-digit whole numbers by multiples of 10 in the range 10-90 using strategies based on place value and properties of operations.

Understanding of place value and properties of operations to perform arithmetic.

Standards: 3.NBT.A2 and 3.NBT.A3

Numbers and Operations: Fractions

The understanding of a fraction as a quantity.

Standards:	3.NF.A1
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Trimester	Not Meeting Expectations (NM- 1)	Approaching Grade Level Standards (AS-2)	Meets Grade Level Standards (MS-3)	Exceeds Grade Level Standards (ES-4)
	Grade 3 expectations	in this domain are lin 2, 3, 4, 6, an	nited to fractions with one of the second seco	denominators
2 and 3 only	 The student is unable to: Understand a fraction is represented as <i>a/b</i>. Show mathematical understanding that a fraction has a numerator representing parts to whole amounts. Show mathematical understanding that a fraction has a denominator representing whole amounts. Show mathematical understand a fraction as a quantity formed by 1 part when a whole is portioned into equal parts. Show analysis understanding of a fraction as a quantity (size-related) formed by equally parts to the whole amount. 	 The student sometimes can: Understand a fraction is represented as <i>a/b</i>. Show mathematical understanding that a fraction has a numerator representing parts to whole amounts. Show mathematical understanding that a fraction has a denominator representing whole amounts. Show mathematical understanding that a fraction has a denominator representing whole amounts. Understand a fraction as a quantity formed by 1 part when a whole is portioned into equal parts. Show analysis understanding of a fraction as a quantity (size-related). 	 The student consistently can: Understand a fraction is represented as <i>a/b</i>. Show mathematical understanding that a fraction has a numerator representing parts to whole amounts. Show mathematical understanding that a fraction has a denominator representing whole amounts. Understand a fraction as a quantity formed by 1 part when a whole is portioned into equal parts. Show analysis understanding of a fraction as a quantity (size-related). 	 The student exceeds in: Understanding a fraction is represented as <i>a/b</i>. Showing mathematical understanding that a fraction has a numerator representing parts to whole amounts. Showing mathematical understanding that a fraction has a denominator representing whole amounts. Understanding a fraction as a quantity formed by 1 part when a whole is portioned into equal parts. Showing analysis understanding of a fraction as a quantity (size-related).

The	understanding of a fraction as a	quantity in a number line.		Standards: 3.NF.A2
Trimester	Not Meeting Expectations (NM- 1)	Approaching Grade Level Standards (AS-2)	Meets Grade Level Standards (MS-3)	Exceeds Grade Level Standards (ES-4)
	Grade 3 expectations in	this domain are limited to fr	actions with denominators 2	2, 3, 4, 6, and 8.
2	 The student is unable to: Understand a fraction is represented as <i>a/b</i>. Understand a fraction as a number on a number line. Represent fractions as numbers on a number line by defining intervals 0 to 1. Diagram fractions as number line. 	 The student sometimes can: Understand a fraction is represented as <i>a/b</i>. Understand a fraction as a number on a number line. Represent fractions as numbers on a number line by defining intervals 0 to 1. Diagram fractions as number line. 	 The student consistently can: Understand a fraction is represented as <i>a/b</i>. Understand a fraction as a number on a number line. Represent fractions as numbers on a number line by defining intervals 0 to 1. Diagram fractions as numbers on a number line. 	 The student exceeds in: Understand a fraction is represented as <i>a/b</i>. Understand a fraction as a number on a number line. Represent fractions as numbers on a number line by defining intervals 0 to 1. Diagram fractions as numbers on a number line.
Recognize	and generate simple equivalent f	actions.		Standards: 3.NF.A3
3	 The student is unable to: Explain equivalence. Understand two fractions as equivalent fractions if they are the same size or point on a number line. Express whole numbers as fractions. Compare two fractions with the same numerator and denominator by reasons based on size. Use visual fraction models. 	 The student sometimes can: Explain equivalence. Understand two fractions as equivalent fractions if they are the same size or point on a number line. Express whole numbers as fractions. Compare two fractions with the same numerator and denominator by reasons based on size. Use visual fraction models. 	 The student consistently can: Explain equivalence. Understand two fractions as equivalent fractions if they are the same size or point on a number line. Express whole numbers as fractions. Compare two fractions with the same numerator and denominator by reasons based on size. Use visual fraction models. 	 The student exceeds in: Explaining equivalence. Understanding two fractions as equivalent fractions if they are the same size or point on a number line. Expressing whole numbers as fractions. Comparing two fractions with the same numerator and denominator by reasons based on size. Using visual fraction models.

Measurement and Data

Standards: 3.MD.A2

Solving problems involving the measurement of volumes and masses of any object.

	Sorving problems involving the measurement of volumes and masses of any object			
Trimester	Not Meeting Expectations (NM- 1)	Approaching Grade Level Standards (AS-2)	Meets Grade Level Standards (MS-3)	Exceeds Grade Level Standards (ES-4)
1	Will not be assessed during this t	ime		
2	Will not be assessed during this t	ime		
3	 The student is unable to: Measure and estimate the liquid volume of masses of objects. Assess the standard units of grams, kilograms, and liters. Use all four operations to solve one-step word problems involving masses or volumes in the same unit of measure. Show an understanding of measurement through visual models such as a drawing or a beaker. 	 The student sometimes can: Measure and estimate the liquid volume of masses of objects. Assess the standard units of grams, kilograms, and liters. Use all four operations to solve one-step word problems involving masses or volumes in the same unit of measure. Show an understanding of measurement through visual models such as a drawing or a beaker. 	 The student consistently can: Measure and estimate the liquid volume of masses of objects. Assess the standard units of grams, kilograms, and liters. Use all four operations to solve one-step word problems involving masses or volumes in the same unit of measure. Show an understanding of measurement through visual models such as a drawing or a beaker. 	 The student exceeds in: Measuring and estimating the liquid volume of masses of objects. Assessing the standard units of grams, kilograms, and liters. Using all four operations to solve one-step word problems involving masses or volumes in the same unit of measure. Showing an understanding of measurement through visual models such as a drawing or a beaker.

Solv	ing problems involving time.			Standards: 3.MD.A1
Trimester	Not Meeting Expectations (NM- 1)	Approaching Grade Level Standards (AS-2)	Meets Grade Level Standards (MS-3)	Exceeds Grade Level Standards (ES-4)
1	Will not be assessed during this t	ime	•	
2	Will not be assessed during this t	ime		
3	 The student is unable to: Tell and write time. Tell and write time to the nearest minute. Measure intervals in minutes. Solve word problems involving the addition of time intervals in minutes. Solve word problems involving the subtraction of time intervals in minutes. Solve word problems of time intervals in minutes. 	 The student sometimes can: Tell and write time. Tell and write time to the nearest minute. Measure intervals in minutes. Solve word problems involving the addition of time intervals in minutes. Solve word problems involving the subtraction of time intervals in minutes. Represent a time problem on a number line diagram. 	 The student consistently can: Tell and write time. Tell and write time to the nearest minute. Measure intervals in minutes. Solve word problems involving the addition of time intervals in minutes. Solve word problems involving the subtraction of time intervals in minutes. Solve word problems of time intervals in minutes. Represent a time problem on a number line diagram. 	 The student exceeds in: Telling and writing time. Telling and writing time to the nearest minute. Measuring intervals in minutes. Solving word problems involving the addition of time intervals in minutes. Solving word problems involving the subtraction of time intervals in minutes. Solving the subtraction of time intervals in minutes. Representing a time problem on a number line diagram.

Represent and interpret data.

Standards: 3.MD.B3 and 3.MD.B4

Trimester	Not Meeting Expectations (NM- 1)	Approaching Grade Level Standards (AS-2)	Meets Grade Level Standards (MS-3)	Exceeds Grade Level Standards (ES-4)		
1	Will not be assessed during this time					
2	Will not be assessed during this time					
3	 The student is unable to: Draw a scaled picture graph to represent a data set with several categories. Draw a scaled bar graph to represent a data set with several categories. Solve multi-step problems using the information presented in scaled graphs. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show data in a line plot. Determine an appropriate interval to mark off units: whole numbers, halves, or quarters. Teacher support required. 	 The student sometimes can: Draw a scaled picture graph to represent a data set with several categories. Draw a scaled bar graph to represent a data set with several categories. Solve multi-step problems using the information presented in scaled graphs. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show data in a line plot. Determine an appropriate interval to mark off units: whole numbers, halves, or quarters. Student may need extra support. 	 The student consistently can: Draw a scaled picture graph to represent a data set with several categories. Draw a scaled bar graph to represent a data set with several categories. Solve multi-step problems using the information presented in scaled graphs. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show data in a line plot. Determine an appropriate interval to mark off units: whole numbers, halves, or quarters. 	 The student exceeds in: Drawing a scaled picture graph to represent a data set with several categories. Drawing a scaled bar graph to represent a data set with several categories. Solving multi-step problems using the information presented in scaled graphs. Generating measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Showing data in a line plot. Determining an appropriate interval to mark off units: whole numbers, halves, or quarters. 		

Problem-solving involving area of a figure. Standards: 3.MD.C5, 3.MD.C6, and 3.MD.C7 Trimester **Not Meeting Expectations Approaching Grade Level Meets Grade Level Standards Exceeds Grade Level Standards (AS-2)** (NM-1) (MS-3)**Standards (ES-4)** Will not be assessed during this time 1 Will not be assessed during this time 2 The student exceeds in: The student is unable to: The student sometimes can: The student consistently can: • Recognize area as an Recognize area as an • Recognize area as an • Recognizing area as an • 3 attribute of plane figures. attribute of plane figures. attribute of plane figures. attribute of plane figures. • Understand the concepts of • Understand the concepts of • Understand the concepts of • Understanding the concepts of area measurement. area measurement. area measurement. area measurement. • Measure areas by counting Measure areas by counting Measure areas by counting Measuring areas by unit squares. unit squares. unit squares. counting unit squares. • Relate area to • Relate area to • Relating area to • Relate area to multiplication and addition. multiplication and addition. multiplication and addition. multiplication and addition. • Say a square with side • Say a square with side • Say a square with side Saying a square with side length "1" is called a square unit. unit. unit. unit. • A plane figure cannot have • A plane figure cannot have • A plane figure cannot have A plane figure cannot have • gaps or overlaps to gaps or overlaps to gaps or overlaps to gaps or overlaps to determine the area. determine the area. determine the area. determine the area. • Use tiling to show in a Use tiling to show in a • Use tiling to show in a Using tiling to show in a concrete case the area of a rectangle. rectangle. rectangle. rectangle. • Recognize area as additive. • Recognize area as additive. • Recognize area as additive. • Recognizing area as • Use area models to Use area models to Use area models to additive. • • represent the distributive represent the distributive represent the distributive • Using area models to represent the distributive property. property. property. property.

Prol	blem-solving involving perimeter	Standards: 3.MD.D8				
Trimester	Not Meeting Expectations (NM- 1)	Approaching Grade Level Standards (AS-2)	Meets Grade Level Standards (MS-3)	Exceeds Grade Level Standards (ES-4)		
1	Will not be assessed during this time					
2	Will not be assessed during this time					
3	 The student is unable to: Solve real-world and mathematical problems involving perimeters of polygons. Find the unknown side length of any figure. Find the perimeter given the side lengths. Create rectangles with the same area and different perimeters and vice versa. 	 The student sometimes can: Solve real-world and mathematical problems involving perimeters of polygons. Find the unknown side length of any figure. Find the perimeter given the side lengths. Create rectangles with the same area and different perimeters and vice versa. 	 The student consistently can: Solve real-world and mathematical problems involving perimeters of polygons. Find the unknown side length of any figure. Find the perimeter given the side lengths. Create rectangles with the same area and different perimeters and vice versa. 	 The student exceeds in: Solving real-world and mathematical problems involving perimeters of polygons. Finding the unknown side length of any figure. Finding the perimeter given the side lengths. Creating rectangles with the same area and different perimeters and vice versa. 		

Geometry

Analyze, compare, and reason with shapes and their attributes.

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Trimester	Not Meeting Expectations (NM- 1)	Approaching Grade Level Standards (AS-2)	Meets Grade Level Standards (MS-3)	Exceeds Grade Level Standards (ES-4)		
1	Will not be assessed during this time					
2	 The student is unable to: Understand that shapes in different categories may share the same attributes. Recognize rhombuses, rectangles, and squares as examples of quadrilaterals. Draw examples of quadrilaterals. Draw examples of the subcategories. Name different quadrilaterals. 	 The student sometimes can: Understand that shapes in different categories may share the same attributes. Recognize rhombuses, rectangles, and squares as examples of quadrilaterals. Draw examples of quadrilaterals. Draw examples of subcategories. Name different quadrilaterals. 	 The student consistently can: Understand that shapes in different categories may share the same attributes. Recognize rhombuses, rectangles, and squares as examples of quadrilaterals. Draw examples of quadrilaterals. Draw examples of subcategories. Name different quadrilaterals. 	 The student exceeds in: Understanding that shapes in different categories may share the same attributes. Recognizing rhombuses, rectangles, and squares as examples of quadrilaterals. Drawing examples of quadrilaterals that do not belong to any of the subcategories. Naming different quadrilaterals. 		
Partition s	hapes into equal areas and expre	ss the area of each part as a fract	tion.	Standards: 3.G.A		
3	 The student is unable to: Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. 	 The student sometimes can: Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. 	 The student consistently can: Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. 	 The student exceeds in: Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. 		

Standards: 3.G.A1