OPERATIONS & ALGEBRAEIC THINKING
Essential Standard: Represents and solves problems involving multiplication

ESSENTIAL KNOWLEDGE OUTCOME:
Students possess an understanding of multiplication and division through modeling and manipulation of objects and apply these skills to solve problems.

STANDARDS ADDRESSED:
3.OA.1 Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. *For example, describe a context in which a total number of objects can be expressed as 5×7.*
3.OA.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.[1]

First Trimester: Benchmarks	
Warning (1)	Unable to interpret products of whole numbers to solve word problems in situations involving equal groups and arrays.
Needs Improvement (2)	Requires teacher prompting and support to interpret products of whole numbers and solve word problems in situations involving equal groups and arrays.
Proficient (3)	Independently interprets products of whole numbers e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. Solve word problems in situations involving equal groups and arrays.
Advanced (4)	Selects multiple strategies to create and solve multiplication word problems and are able to justify strategies.

Second Trimester: Benchmarks	
Warning (1)	Unable to interpret products of whole numbers and use multiplication within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.
Needs Improvement (2)	Requires teacher prompting and support to interpret products of whole numbers and use multiplication within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.
Proficient (3)	Independently interprets products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. Uses multiplication within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.
Advanced (4)	Selects multiple strategies to create and solve multiplication word problems within 100 and are able to justify the strategies.

Third Trimester: Benchmarks	
	Not assessed in this trimester.

[1] See Glossary, Table 2.

OPERATIONS & ALGEBRAIC THINKING
Essential Standard: Represents and solves problems involving division

STANDARDS ADDRESSED:

3.OA.2 Interprets whole number quotients of whole numbers, e.g. interprets 56÷8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each

3.OA.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.[2]

First Trimester: Benchmarks	
	Not assessed in this trimester.

Second Trimester: Benchmarks	
Warning (1)	Unable to interpret whole number quotients of whole numbers using related multiplication facts.
Needs Improvement (2)	Requires teacher prompting and support to interpret whole number quotients using related multiplication facts. Needs teacher assistance to solve word problems in situations involving equal groups.
Proficient (3)	Independently interprets whole number quotients using related multiplication facts e.g., interprets 15÷5 as the number of objects in each share when 15 objects are partitioned equally into 5 shares, or as a number of shares when 15 objects are partitioned into equal shares of 5 objects each. Solve word problems in situations involving equal groups. Independently determines the unknown variable that makes an equation true.
Advanced (4)	Selects multiple strategies to create and solve division word problems using related multiplication facts and are able to justify their strategy.

Third Trimester: Benchmarks	
Warning (1)	Unable to interpret whole number quotients of whole numbers using related multiplication facts with all factors to 100.
Needs Improvement (2)	Requires teacher prompting and support to interpret whole number quotients of whole numbers using related multiplication facts with all factors to 100. Uses all multiples to 100 and related quotients to solve word problems in situations involving equal groups.
Proficient (3)	Independently interprets whole number quotients of whole numbers using related multiplication facts with all factors to 100 e.g., interprets 15÷5 as the number of objects in each share when 15 objects are partitioned equally into 5 shares, or as a number of shares when 15 objects are partitioned into equal shares of 5 objects each. Uses all multiples up to 100 and related quotients to solve word problems in situations involving equal groups.
Advanced (4)	Selects multiple strategies to create and solve division word problems using related multiplication facts of all multiples to 100, and are able to justify their strategy.

[2] See Glossary, Table 2.

OPERATIONS & ALGEBRAEIC THINKING
Essential Standard: Understands properties of multiplications and the relationship between multiplication and division

STANDARDS ADDRESSED:

3.OA.5 Apply properties of operations as strategies to multiply and divide. *Examples: If 6x4=24 is known, then 4x6 =24 is also known. (Commutative property of multiplication.) 3x5x2 can be found by 3x5=15 then 15x2=30, or by 5x2=10 then 3x10=30. (Associative property of multiplication.) Knowing that 8x5=40 and 8x2=16, one can find 8x7 as 8x (5+2)=(8x5) + (8x2)=40+16=56. (Distributive property.)*

3.OA.6 Understand division as an unknown-factor problem. *For example, find 32÷8 by finding the number that makes 32 when multiplied by 8*.

First Trimester: Benchmarks	
Warning (1)	Unable to apply properties of operations as strategies to multiply all multiples through 100.
Needs Improvement (2)	Requires teacher prompting and support to apply properties of operations as strategies to multiply. Uses tactile aids or arrays to multiply all multiples through 100.
Proficient (3)	Independently applies the properties of operations as strategies of multiplication. Uses the Commutative, Associative and Distributive properties of multiplication to solve problems.
Advanced (4)	Uses the Properties of Multiplication as a strategy to solve problems and justify their strategy.

Second Trimester: Benchmarks	
Warning (1)	Unable to apply properties of operations as strategies to multiply and divide.
Needs Improvement (2)	Requires teacher prompting and support to apply properties of operations as strategies to multiply and divide. Uses tactile aids or arrays to multiply and divide.
Proficient (3)	Independently applies the properties of operations as strategies of multiplication. Uses the Commutative, Associative and Distributive properties of multiplication to solve problems and understands division as an unknown –factor problem. Relates multiplication and division fact families.
Advanced (4)	Uses the Properties of Multiplication and related division facts as strategies to solve problems and justify their strategy.

Third Trimester: Benchmarks	
	Not assessed in this trimester.

OPERATIONS & ALGEBRAEIC THINKING
Essential Standard: Fluently multiplies within 100

STANDARDS ADDRESSED:

3.OA.7 Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of grade 3, know from memory all products of two one-digit numbers.

First Trimester: Benchmarks	
Warning (1)	Unable to recall multiplication facts in a timely manner.
Needs Improvement (2)	Requires teacher prompting and support, as well as tactile aids to recall multiplication facts in a timely manner.
Proficient (3)	Independently able to recall basic multiplication facts (within 100) from memory, in a timely manner.
Advanced (4)	

Second Trimester: Benchmarks	
Warning (1)	Unable to recall multiplication facts in a timely manner.
Needs Improvement (2)	Requires teacher prompting and support, as well as tactile aids to recall multiplication facts in a timely manner.

Proficient (3)	Independently able to recall basic multiplication facts (within 100) from memory, in a timely manner.
Advanced (4)	

Third Trimester: Benchmarks	
	Not assessed in this trimester.

OPERATIONS & ALGEBRAEIC THINKING

Essential Standard: Fluently divides within 100

STANDARDS ADDRESSED:

3.OA.7 Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of grade 3, know from memory all products of two one-digit numbers.

First Trimester: Benchmarks	
	Not assessed in this trimester.

Second Trimester: Benchmarks	
Warning (1)	Unable to recall division facts in a timely manner.
Needs Improvement (2)	Requires teacher prompting and support, as well as tactile aids to recall division facts in a timely manner.
Proficient (3)	Independently able to recall basic division facts (within 100) from memory, in a timely manner.
Advanced (4)	

Third Trimester: Benchmarks	
	Not assessed in this trimester.

OPERATIONS & ALGEBRAEIC THINKING

Essential Standard: Constructs and solves problems with variables (3x□=6) (5=?÷3)

STANDARDS ADDRESSED:

3.OA.4 Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8x ?=48, 5=□÷3, 6x6=?.

First Trimester: Benchmarks	
Warning (1)	Unable to determine the unknown whole number in a multiplication equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8x ?=48, 6x6=?.
Needs Improvement (2)	Requires teacher prompting and support to determine the unknown whole number in a multiplication equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8x ?=48, 6x6=?.
Proficient (3)	Determine the unknown whole number in a multiplication equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8x ?=48, 6x6=?.
Advanced (4)	

Second Trimester: Benchmarks	
Warning (1)	Unable to determine the unknown whole number in a multiplication or division equation relating three whole numbers. Unable to recognize equations of different structures for both operations and is unable to apply knowledge of fact families to include inverse

Needs Improvement (2)	Requires teacher prompting and support to determine the unknown whole number in a multiplication or division equation relating three whole numbers. Difficulty recognizing equations of different structures for both operations and has difficulty applying knowledge of fact families to include inverse relationships of multiplication and division.
Proficient (3)	Independently determines the unknown whole number in a multiplication or division equation relating three whole numbers. Recognizes equations of different structures for both operations and applies knowledge of fact families to include inverse relationships of multiplication and division.
Advanced (4)	

Third Trimester: Benchmarks	
	Not assessed in this trimester.

OPERATIONS & ALGEBRAEIC THINKING

Essential Standard: Solves word problems involving the four operations (+, -, x. ÷)

STANDARDS ADDRESSED:

3.OA.8 Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

First Trimester: Benchmarks	
	Not assessed in this trimester

Second Trimester: Benchmarks	
	Not assessed in this trimester

Third Trimester: Benchmarks	
Warning (1)	Unable to solve two-step word problems using the four operations. Unable to represent these problems using equations with a letter standing for the unknown quantity. Unable to assess the reasonableness of answers using mental computation and estimation strategies including rounding.
Needs Improvement (2)	Requires teacher prompting and support to solve two-step word problems using the four operations. Needs teacher assistance to represent these problems using equations with a letter standing for the unknown quantity. Needs teacher help and prompts to assess the reasonableness of answers using mental computation and estimation strategies including rounding.
Proficient (3)	Independently solves two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assesses the reasonableness of answers using mental computation and estimation strategies including rounding.
Advanced (4)	Independently solves multi-step word problems using the four operations. Independently represents these problems using equations with a letter standing for the unknown quantity. Uses multiple strategies to assess the reasonableness of answers using mental computation and multiple estimation strategies.

OPERATIONS & ALGEBRAEIC THINKING
Essential Standard: Identifies and explains mathematical patterns

STANDARDS ADDRESSED:

3.OA.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table) and explain them using properties of operations. *For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.*

First Trimester: Benchmarks	
Warning (1)	Unable to identify patterns in the addition table and explain them using properties of operations. Needs teacher support to Identify patterns with odd and even numbers.
Needs Improvement (2)	Needs teacher support and guidance to identify patterns in the addition table and explain them using properties of operations. Needs teacher support to Identify patterns with odd and even numbers.
Proficient (3)	Independently identifies patterns in the addition table and explain them using properties of operations. Identifies patterns with odd and even numbers.
Advanced (4)	Independently extends addition and subtraction patterns and applies them to solve word problems. Explains reasoning through a table or chart, and is able to construct viable arguments to justify and communicate reasoning.

Second Trimester: Benchmarks	
Warning (1)	Unable to identify patterns in the multiplication table and explain them using properties of operations. Unable to identify patterns with multiples.
Needs Improvement (2)	Requires teacher prompting and support to identify patterns in the multiplication table and explain them using properties of operations. Needs teacher support to identify patterns with multiples.
Proficient (3)	Independently identifies patterns in the multiplication table and explain them using properties of operations. Identifies patterns with multiples.
Advanced (4)	Independently extends multiplication and division patterns and applies them to solve word problems. Explains reasoning through a table or chart, and is able to construct viable arguments to justify and communicate reasoning.

Third Trimester: Benchmarks	
Warning (1)	Unable to identify arithmetic patterns (including patterns in the addition table or multiplication table) and explain them using properties of operations.
Needs Improvement (2)	Requires teacher prompting and support to identify arithmetic patterns (including patterns in the addition table or multiplication table) and explain them using properties of operations.
Proficient (3)	Independently identifies arithmetic patterns (including patterns in the addition table or multiplication table) and explain them using properties of operations.
Advanced (4)	Independently extends patterns and applies arithmetic patterns to solve word problems. Explains reasoning through a table or chart, and is able to construct viable arguments to justify and communicate reasoning.

NUMBER & OPERATIONS IN BASE TEN

Essential Standard: Rounds numbers to the nearest 10, 100

ESSENTIAL KNOWLEDGE OUTCOME:
Students will understand and explain what numbers mean, how they may be represented, and what relationships exist among them to accurately and efficiently perform computations.

STANDARDS ADDRESSED:
3.NBT.1 Use place value understanding to round whole numbers to the nearest 10 or 100.

First Trimester: Benchmarks	
Warning (1)	Unable to round whole numbers to the nearest ten and hundred.
Needs Improvement (2)	Requires teacher prompting and support to round whole numbers to the nearest ten and hundred.
Proficient (3)	Independently uses place value understanding to round whole numbers to the nearest ten and hundred. Independently uses rounding to estimate and determines if an estimate is reasonable.
Advanced (4)	Independently uses place-value understanding to assess the reasonableness of answers in word problems using estimation strategies including rounding, and is able to construct viable arguments to explain answers and critique the reasoning of others.

Second Trimester: Benchmarks	
	Not assessed in this trimester

Third Trimester: Benchmarks	
	Not assessed in this trimester.

NUMBER & OPERATIONS IN BASE TEN

Essential Standard: Fluently adds and subtracts within 1,000

STANDARDS ADDRESSED:
3.NBT.2 Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

First Trimester: Benchmarks	
Warning (1)	Unable to add and subtract within 1000 in a timely manner.
Needs Improvement (2)	Requires teacher prompting and support as well as tactile aids to add and subtract within 1000 in a timely manner.
Proficient (3)	Independently adds and subtracts within 1000 (in a timely manner), using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
Advanced (4)	

Second Trimester: Benchmarks	
	Not assessed in this trimester

Third Trimester: Benchmarks	
	Not assessed in this trimester.

NUMBER & OPERATIONS IN BASE TEN
Essential Standard: Multiplies 1 digit numbers by multiples of 10

STANDARDS ADDRESSED:

3.NBT.3 Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 x 80, 5 x 60) using strategies based on place value and properties of operations

First Trimester: Benchmarks	
Warning (1)	Unable to multiply 1 digit numbers by multiples of 10.
Needs Improvement (2)	Requires teacher prompting and support as well as manipulatives to multiply 1 digit numbers by multiples of 10 using place value and/or properties of operation.
Proficient (3)	Independently multiplies 1 digit numbers by multiplies of 10 using place value and properties of operations.
Advanced (4)	Integrates one or more strategies in tandem based upon place value and properties of operations to multiply 1-digit numbers by any 2-digit number, and can justify the choice of strategy/ies about the product.

Second Trimester: Benchmarks	
	Not assessed in this trimester.

Third Trimester: Benchmarks	
	Not assessed in this trimester.

NUMBER & OPERATIONS - FRACTIONS
Essential Standard: Develops an understanding of fractions as numbers *visual models may include: fraction bars or circles, Cuisenaire rods, dot or grid paper, Geoboards, length or measurement models, area models.

ESSENTIAL KNOWLEDGE OUTCOME:
Students understand what fractions mean, how they may be represented and what relationships exist among them.

STANDARDS ADDRESSED:

3.NF.1 Understand a fraction **1 / b** as the quantity formed by 1 part when a whole is partitioned into **b** equal parts; understand a fraction **a / b** as the quantity formed by **a** parts of size **1 / b**

3.NF.3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

1. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
2. Recognize and generate simple equivalent fractions, e.g., **½ = 2 / 4, 4 / 6 = 2 / 3.** Explain why the fractions are equivalent, *e.g., by using a visual fraction model.*
3. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. (*e.g. Express 3 in the form 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram.*)
4. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, *e.g., by using a visual fraction model.*

First Trimester: Benchmarks	
	Not assessed in this trimester

Second Trimester: Benchmarks	
Warning (1)	Unable to express what fractions mean (e.g. fair sharing, parts of a whole).
Needs Improvement (2)	Requires teacher prompting and support to express what fractions mean (e.g. fair sharing, parts of a whole) by using a variety of visual models to represent them.
Proficient (3)	Independently expresses what fractions mean (e.g. fair sharing, parts of a whole) by using a variety of visual models to represent them.
Advanced (4)	Apply and extend knowledge of fractions to other areas of mathematics (e.g., area of a shape; shape is partitioned into **b** equal parts with equal area; define the area of each part as 1/**b** of the area of the shape) and/or justify the relationship between fractions without aid of visual models.

Third Trimester: Benchmarks	
Warning (1)	Unable to compare fractions with the same numerator or denominator to determine their equivalence, record the comparisons using <, =, or > symbols, and justify the relationships by using visual models.
Needs Improvement (2)	Requires teacher prompting and support to compare fractions with the same numerator or denominator to determine their equivalence, record the comparisons using <, =, or > symbols, and justify the relationships by using visual models.
Proficient (3)	Compares fractions with the same numerator or denominator to determine their equivalence, record the comparisons using <, =, or > symbols, and justify the relationships by using visual models.
Advanced (4)	Applies knowledge of fractions with the same numerator or denominator to determine their equivalence, record the comparisons using <, =, or > symbols, solve problems and justify the relationships by using visual models.

NUMBER & OPERATIONS - FRACTIONS
Essential Standard: Develops an understanding of fractions as numbers *visual models may include: fraction bars or circles, Cuisenaire rods, dot or grid paper, Geoboards, length or measurement models, area models.

ESSENTIAL KNOWLEDGE OUTCOME:
Students understand what fractions mean, how they may be represented and what relationships exist among them.

STANDARDS ADDRESSED:

3.NF.2 Understand a fraction as a number on the number line; represent fractions on a number line diagram.

1. Represent a fraction **1 / b** on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into **b equal parts.** Recognize that each part has size **1 / b** and that the endpoint of the part based at **0** locates the number **1 / b** on the number line.
2. Represent a fraction **a / b** on a number line diagram by marking off **a** lengths **1 / b** from 0. Recognize that the resulting interval has size **a / b** and that its endpoint locates the number **a / b** on the number line.

First Trimester: Benchmarks	
	Not assessed in this trimester

Second Trimester: Benchmarks	
Warning (1)	Unable to Independently represents fractions on a number line diagram by marking off equidistant intervals of **1 / b** starting at "0" to its endpoint locating the fraction **a / b**.
Needs Improvement (2)	Requires teacher prompting and support to represent fractions on a number line diagram by marking off equidistant intervals of **1 / b** starting at "0" to its endpoint locating the fraction **a / b**.
Proficient (3)	Independently represents fractions on a number line diagram by marking off equidistant intervals of **1 / b** starting at "0" to its endpoint locating the fraction **a / b**.
Advanced (4)	Apply and extend the understanding of a fraction as a number on the number line diagram beyond the whole number **1** or **b / b**.

Third Trimester: Benchmarks	
	Not assessed in this trimester

MEASUREMENT & DATA
Essential Standard: Tells time to the minute a.m./p.m.

ESSENTIAL KNOWLEDGE OUTCOME:
Students understand how to collect, represent, analyze, and interpret data gathered using a variety of tools and techniques.

STANDARDS ADDRESSED:
3.MD.1 Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

First Trimester: Benchmarks	
	Not assessed in this trimester.

Second Trimester: Benchmarks	
	Not assessed in this trimester.

Third Trimester: Benchmarks	
Warning (1)	Unable to tell time to the nearest minute and measure time intervals in minutes. Unable to solve word problems involving addition and subtraction of time intervals in minutes. Unable to represent the problem on a number line diagram.
Needs Improvement (2)	Requires teacher prompting and support to tell time to the nearest minute and measure time intervals in minutes. Requires teacher support to solve word problems involving addition and subtraction of time intervals in minutes and representing the problem on a number line diagram.
Proficient (3)	Independently tells time to the nearest minute and measures time intervals in minutes. Independently solves word problems involving addition and subtraction of time intervals in minutes and represent the problem on a number line diagram.
Advanced (4)	Selects multiple strategies to create and solve time interval word problems and justifies the strategy.

MEASUREMENT & DATA
Essential Standard: Solves problems involving measurement (mass, liquid, volume)

STANDARDS ADDRESSED:
3.MD.2 Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent problems.

First Trimester: Benchmarks	
	Not assessed in this trimester.

Second Trimester: Benchmarks	
	Not assessed in this trimester.

Third Trimester: Benchmarks	
Warning (1)	Unable to measure and estimate liquid volumes and masses of objects. Unable to solve one-step word problems involving masses or volumes that are given in the same units.
Needs Improvement (2)	Requires teacher prompting and support to measure and estimate liquid volumes and masses of objects using standard units. Requires teacher support and guidance to solve one-step word problems involving masses or volumes that are given in the same units.
Proficient (3)	Independently measures and estimates liquid volumes and masses of objects using standard units of grams, kilograms, and liters. Independently adds, subtracts, multiplies, or divides to solve one-step word problems involving masses or volumes that are given in the same units.
Advanced (4)	Selects multiple strategies to create and solve word problems involving liquid volumes and masses, and justifies the strategy.

MEASUREMENT & DATA
Essential Standard: Represents and interprets data

STANDARDS ADDRESSED:

3.MD.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. solves one- and two- step "how many more" and "how many less" problems using information presented in scaled bar graphs.

First Trimester: Benchmarks	
	Not assessed during this trimester.

Second Trimester: Benchmarks	
	Not assessed in this trimester.

Third Trimester: Benchmarks	
Warning (1)	Unable to represent data in scaled picture graphs and bar graphs. Unable to use multiplication to create scales on a bar graph and to interpret data. Requires a template and other visual organizers to represent data on a picture graph and bar graph.
Needs Improvement (2)	Requires teacher prompting and support to represent data in scaled picture graphs and bar graphs. Needs assistance to use multiplication to create scales on a bar graph and to interpret data. Needs teacher assistance to interpret data and answer one step questions using the presented data.
Proficient (3)	Independently represents data in scaled picture graphs and bar graphs. Solves one- and two- step "how many more" and "how many less" problems using information presented in scaled bar graphs.
Advanced (4)	Consistently able to represent data in scaled picture and bar graphs. Uses multiplication to create scales on a bar graph and to interpret data on a picture graph. Student analyzes and interprets data to make valid comparisons between graphed data.

MEASUREMENT & DATA
Essential Standard: Measures length

STANDARDS ADDRESSED:

3.MD.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.

First Trimester: Benchmarks	
	Not assessed in this trimester

Second Trimester: Benchmarks	
Warning (1)	Unable to generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Unable to display the data on a line plot, where the horizontal scale is marked off in appropriate units- whole numbers, halves, or quarters.
Needs Improvement (2)	Requires teacher prompting and support to generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Requires support to show the data when making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.
Proficient (3)	Independently generates measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Shows the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.
Advanced (4)	Independently generates measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Shows the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters. Student analyzes and interprets data to make valid comparisons within graphed data.

Third Trimester: Benchmarks

	Not assessed in this trimester

MEASUREMENT & DATA
Essential Standard: Understands concepts of area

STANDARDS ADDRESSED:

3.MD.5 Recognize area as an attribute of plane figures and understand concepts of area measurement.
- a. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.
- b. A plane figure which can be covered without gaps or overlaps by *n* unit squares is said to have an area of *n* square units.

3.MD.6 Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).

3.MD.7 Relate area to the operations of multiplication and addition.
- a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
- b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
- c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.
- d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real-world problems.

First Trimester: Benchmarks	
	Not assessed in this trimester.

Second Trimester: Benchmarks	
	Not assessed in this trimester.

Third Trimester: Benchmarks	
Warning (1)	Unable to recognize area as an attribute of plane figures and understand concepts of area measurement, measure area by counting unit squares, and relate area to the operations of multiplication and addition.
Needs Improvement (2)	Requires teacher support and guidance to recognize area as an attribute of plane figures and understand concepts of area measurement, measure area by counting unit squares, and relate area to the operations of multiplication and addition.
Proficient (3)	Independently recognizes area as an attribute of plane figures and understand concepts of area measurement, measures area by counting unit squares, and relates area to the operations of multiplication and addition.
Advanced (4)	Recognizes area as an attribute of plane figures and understand concepts of area measurement, measures area by counting unit squares, and selects multiple strategies to relate area to the operations of multiplication and addition.

MEASUREMENT & DATA
Essential Standard: Recognizes and finds perimeter

STANDARDS ADDRESSED:

3.MD.8 Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

First Trimester: Benchmarks	
	Not assessed in this trimester

Second Trimester: Benchmarks	
	Not assessed in this trimester.

Third Trimester: Benchmarks	
Warning (1)	Unable to create rectangles with the same perimeter and different areas or with the same areas and different perimeters
Needs Improvement (2)	Requires teacher prompting and support to create rectangles with the same perimeter and different areas or with the same areas and different perimeters
Proficient (3)	Independently able to create rectangles with the same perimeter and different areas or with the same areas and different perimeters and able to organize all the possibilities into an organized list
Advanced (4)	Independently able to create rectangles with the same perimeter and different areas or with the same areas and different perimeters. Able to organize all the possibilities into an organized list, and able to construct viable arguments to explain answers and critique the reasoning of others.

GEOMETRY
Essential Standard: Recognizes, compares, and categorizes shapes by attributes

ESSENTIAL KNOWLEDGE OUTCOME:
Students understand, explain, and apply the properties and relationships among and between geometric figures to appreciate the importance of geometry in our world.

STANDARDS ADDRESSED:

3.G.1 Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.

3.G.2 Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. *For example, partition a shape into 4 parts with equal areas and describe the area of each part as ¼ of the area of the shape.*

First Trimester: Benchmarks	
	Not assessed in this trimester.

Second Trimester: Benchmarks	
Warning (1)	Unable to understand that shapes in different categories may share attributes, and that the shared attributes can define a larger category. Unable to recognize rhombuses, rectangles, and squares as examples of quadrilaterals or partition shapes into parts with equal areas.
Needs Improvement (2)	Requires teacher prompting and support to understand that shapes in different categories may share attributes, and that the shared attributes can define a larger category. Needs prompting to recognize rhombuses, rectangles, and squares as examples of quadrilaterals and partition shapes into parts with equal areas.
Proficient (3)	Independently understands that shapes in different categories may share attributes, and that the shared attributes can define a larger category. Recognizes rhombuses, rectangles, and squares as examples of quadrilaterals, and draws examples of quadrilaterals that do not belong to any of these subcategories. Partitions shapes into parts with equal areas and expresses each part as a unit fraction of the whole.
Advanced (4)	Independently understands that shapes in different categories may share attributes, and that the shared attributes can define a larger category. Recognizes rhombuses, rectangles, and squares as examples of quadrilaterals, and draws examples of quadrilaterals that do not belong to any of these subcategories. Partitions shapes into parts with equal areas and expresses each part as a unit fraction of the whole. Independently able to construct viable arguments to explain answers and critique the reasoning of others.

Third Trimester: Benchmarks	
	Not assessed in this trimester