Jefferson County School
Math Curriculum Guide
Fifth Grade

Instructional period	dates taught	Tennessee Dept. of Education Content Standard/ GLE	Checks for Understanding	Building Blocks for New Standards	Essential Vocabulary Teacher Word	Math Bench Mark Assessment Item	Materials/ Resources
State Performance Indicator: **SPI 0506.2.1 Read and write numbers from millions to millionths in various contexts.** **SPI 0506.2.2 Write the prime factorization of numbers through 50 using both exponential and standard notation.** **SPI 0506.2.9 Compare whole numbers, decimals, and fractions using the symbols <, > and =.**							
Content Strand Numbers and Operations							
First Nine Weeks							
August	August 12 -21	**GLE 0506.2.1** Extend the understanding of place value through millions and millionths in various contexts and representations.		√ **0406.2.1** Compose and decompose quantities according to place value. √ **0406.2.12** Understand and use decimal numbers up to hundredths and write them as fractions.	**Exponential Notation – A number written with a base and an exponent.** **Greatest Common Factor – The largest number that can be divided evenly into each number in a set.** **Lease common multiple – the smallest number that each number in a set divides into evenly (the smallest multiple of every number in a set)** **Millions- the seventh place value.** **Millionths – the sixth place value position after the decimal point** **Significant digits – digits that express a quantity to a**	Benchmark Assessment Questions 1- 13,1-14, & 1-15	Saxon Math Book 6/5 Lessons: 1, 2, 3, 4, 5, 7, 25 52, 67, 68, 69, 70 and 106

August	August 24 -28	**GLE 0506.2.2** Write natural numbers (0 to 50) as a product of prime factors and understand that this is unique (apart from order).	√**0506.2.1** Identify prime numbers up to 50. √**0506.2.2** Use the prime factorization of two whole numbers to determine the greatest common factor and least common multiple. √**0506.2.4** Use divisibility rules to factor numbers. √**0506.2.10** Use exponential notation to represent repeated multiplication of whole numbers.	√ **0406.2.7** Identify factors of whole numbers and model factors and products beyond basic multiplication facts using arrays and area models.	**specified degree of accuracy.**	Benchmark Assessment Questions 1- 16, 1-17, & 1-18 Benchmark Assessment Questions 1-1,1-2, & 1-3	
August	August 31 – September 4	**GLE 0506.2.5** Develop fluency in solving multi-step problems using whole number, fractions, mixed number and decimals.	√**0506.2.9** Explore numbers less than 0 by extending the number line through familiar applications (e.g., temperatures below zero, owing money, measuring elevation below sea level.)	√**0406.1.8** Match the spoken, written concrete (including base ten blocks), and pictorial representations of decimals. √**0406.2.2** Understand decimals notation as an extension of the base-ten number system. √**0406.2.9** Compare equivalent forms whole numbers, fractions, and decimals to each other to a benchmark numbers. √**0406.2.11** Use models, benchmarks, and equivalent forms to compare fractions/decimals and locate them on the number line.		Benchmark Assessment Questions 1-20, 1-21, & 1-22	

Instructional period	dates taught	Tennessee Dept. of Education Content Standard/GLE	Checks for Understanding	Building Blocks for New Standards	Essential Vocabulary Teacher Word	Math Bench Mark Assessment Item	Materials/ Resources
State Performance Indicator: **0506.1.2 Estimate fraction and decimal sums or differences.** **0506.2.5 Solve addition and subtraction problems involving both fractions and decimals.**							
Content Strands: Mathematical Processes and Number and Operations							
First Nine Weeks							
September	September 8 introduce and use through our the year	**GLE0506.1.2.** Apply and adapt a variety of appropriate strategies to problems solving, including estimations and reasonableness of the solution.	√ **0506.1.2** Make reasonable estimates of fractions and decimal sums or differences using models. √**0506.1.3** Explore different methods of estimation including rounding and truncating.		Numerator, denominator, , **Mixed number – a number containing both a whole number and a fraction** **Proper fraction – a fraction whose numerator is less that its denominator.** **Improper fraction – a fraction that is greater than or equal to its denominator.**		Saxon Math Book 6/5 Lessons: 23, Investigation 2, 30, Investigation 3, 37, 38, 39,41, 46, 59, 60,67, 68, 69, 70, 71, 81, 90, 99, 102, 116,
September	September 8 -11	**GLE 0506.2.4** Develop fluency with addition fractions and mixed numbers; explain and model the algorithm	√**0506.2.3** Use visual models, benchmarks, and equivalent forms to add and subtract commonly used fractions and decimals. √**0506.2.5** Make reasonable estimates of fraction and decimals sums and differences.	**SPI 0406.2.8** Add and subtract proper fractions with like and unlike denominators and simplify the answers. **SPI 0406.2.9** Add and subtract decimals through hundredths. **SPI 0406.1.3** Determine the correct change from a transaction.		Benchmark assessment questions 1-16, 1-17, 1-18, 1-19	***List of Websites in notebook

Instructional period	dates taught	Tennessee Dept. Of Education	Checks for Understanding	Building Blocks for New Standards	Essential Vocabulary Teacher Word	Math Bench Mark Assessment Item	Materials/ Resources
State Performance Indicator: 0506.1.4 Identify missing information and/or too much information in contextual problems. **.**							
Content Strand: Mathematical Processes							
First Nine Weeks							
August	August 12 Introduce and use throughout the year.	**GLE 0506.1.1** Use mathematical language, symbols, and definitions while developing mathematical reasoning.	√**0506.1.6** Communicate answers in correct verbal and numerical form; including use of mixed numbers or fractions and use of units.	√**0406.2.13** solve multi-step problems of various types using whole numbers, fractions and decimals. √**0406.1.7** Translate the details of contextual problems into diagrams and /or express answers using appropriate units. √**0406.1.9** Develop a story problem that illustrates a given multiplications or division number sentence. √ **0406.1.1** Understand the relationship			
August	August 12 Introduce and use throughout the year	**GLE 0506.1.2.** Apply and adapt a variety of appropriate strategies to problems solving, including estimations and reasonableness of the solution.	√**0506.1.3** Explore different methods of estimation including rounding and truncating.				

August	August 12 Introduce and use throughout the year	**GLE 0506.1.7** Recognize the historical development of mathematics, and use written/oral communication to express mathematical ideas precisely.	√ **0506.1.9** Use age-appropriate books, stories, and videos to convey ideas of mathematics.	between the use of answers and the accuracy of the number. √ **0406.1.2** Identify the range of the appropriate estimate, including over-estimate and under estimate. √**0406.1.3** Connect operations with decimals to money and make estimates.			
August	August 12 Introduce and use throughout the year	**GLE 0506.1.8** Use technologies/ manipulatives appropriately to develop understanding of mathematical algorithms, to facilitate problem solving and to create accurate and reliable models of mathematical concepts.					
August	August 12 Introduce and use throughout the year	**GLE 0506.1.4** Move flexibly between concrete and abstract representation of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solutions.	√**0506.1.7** Organize and consolidate verbal statements involving fractions and mixed numbers into diagrams, symbols, and numerical expressions. √**0506.1.8** Use patterns, models, and relationships as contexts for writing inequalities and simple equations.				

Instructional period	dates taught	Tennessee Dept. Of Education Content Standard/GLE	Checks for Understanding	Building Blocks for New Standards	Essential Vocabulary Teacher Word	Math Bench Mark Assessment Item	Materials/ Resources
State Performance Indicators **0506.1.3 Recognize the unit associate with the remainder in a division problems of the meaning of the fractional part of a whole given in either in decimal of fraction form.** **0506.2.3 Select a reasonable solution to a real-world division problem in which the remainder must be considered.** **0506.2.4 Solve problems involving the division of two- and three- digit whole numbers by one- and two- digit whole numbers.** **0506.2.8 Write terminating decimals in the form of fractions or mixed numbers**							
Content Strands: Mathematical Processes **Number and Operations**							
First Nine Weeks							
September	September 8 and use Throughout the year	**GLE 0506.1.6** Read and interpret the language of mathematic and use written /oral communication to express mathematic ideas precisely.	√ **0506.1.4** Explore problems in different context to interpret the meaning of remainders as discrete values or not. √**0506.1.6** Communicate answers in correct verbal from: including the use of mixed numbers or use of units.	**SPI 0406.2.2** Locate and place mixed numbers on the number line. **SPI 0406.2.5** Generate equivalent late forms of common fractions and decimals and use them to compare size. **SPI 0406.2.7** convert improper fractions into mixed numbers and/or decimals. √ **0406.2.8** Generate equivalent forms of whole numbers, decimals, and common fractions (e.g. 1/10, ¼ ½, ¾).	Divisor, dividend , quotient, , estimation **Divisibility rules – rules that determine whether a number is divisible by a certain number** **Terminating decimals – a decimal number that contains a finite number of digits.**	Benchmark Assessment Questions 1-16, 1-17, 1-18, & 1-19	Saxon Math book 6/5 Lessons 16, 19, 20, 22, 26, 34, 43,54,92,
September	September 14 -18	**GLE 0506.2.3** Develop fluency with division of whole number. Understand the relationship of divisor, dividend, and quotient in terms of multiplication and division.	√ **0506.2.7** Understand the placement of the decimal point in calculations of multiplication and long division, including the placement in the estimation of the answer. √**0506.2.8** Understand the division by zero is undefined.		**Repeating decimals – a decimal number in which one or more decimals repeat.**	I	***List of website in notebook

Instructional period	dates taught	Tennessee Dept. of Education Content Standard/GLE	Check for Understanding	Building Blocks for New Standards	Essential Vocabulary Teacher Word	Math Bench Mark Assessment Item	Materials/ Resources
State Performance Indicator: **0506.3.1 Evaluate algebraic expression involving decimals and fractions using order of operations.** **0506.3.4 Given a set of values, identify those that make an inequality a true statement.**							
Content Strand – Algebra							
First Nine Weeks							
September	September 21 -28	**GLE 0506.3.1** Understand and use order of operations.		√ **0406.1.4** Use commutative, associate, and distributive properties of numbers including oral descriptions of mathematical reasoning. √**0406.3.1** Find an unknown quantity in simple equations using whole numbers, fractions, decimals and mixed numbers. √**0406.3.2** Translate between symbols and words to represent quantities in expressions or equations. √**0406.1.7** Translate the details of contextual	**Variable – a letter or symbol used to represent a number** **Inverse operation – an operation that reverses another operation.** **Linear equations/ Inequalities - an equation or inequality containing variables of degree one or constants.** **Order of operation – rules that tell in what order to perform operations in arithmetic and algebra.**		Saxon Math book 6/5 Lessons 18, 24,

September and October	September 28 - October 9	**GLE 0506.3.4** Solve single- step linear equations and inequalities.	√**05063.3** Solve single step linear equation using inverse operations. √**0506.3.4** Solve single-step linear inequalities and graph solutions on a number line. √**0506.3.5** Determine if a given value is a solution to a linear equation /inequality.	problem into diagrams and/or numerical expressions, and express answers using appropriate units.	**Substitution property – A rule that states that if two quantities are equal one of the quantities can be substituted for the other.**	Benchmark Assessment questions 1-7,1- 8, & 1-9 Benchmark Assessment Questions 1-10, 1-11,& 1-12	

Instructional period	dates taught	Tennessee Dept. of Education Content Standard/GLE	Check for Understanding	Building Blocks for New Standards	Essential Vocabulary Teacher Word	Math Bench Mark Assessment Item	Materials/ Resources
State Performance Indicator: 0506.1.2 Estimate fraction and decimal sums or differences. **0506.2.5 Solve addition and subtraction problems involving both fractions and decimals.** **0506.2.6 Add and subtract proper and improper fractions as well as mixed numbers.** **0506.2.7 Recognize equivalent representations for the same number.**							
Content Strand: Mathematical Processes **Content Strand: Number and Operations**							
Second Nine Weeks							
October	October 21 - 23	**GLE0506.1.2.** Apply and adapt a variety of appropriate strategies to problems solving, including estimations and reasonableness of the solution.	√ **0506.1.2** Make reasonable estimates of fractions and decimal sums or differences using models. √**0506.1.3** Explore different methods of estimation including rounding and truncating. √**0506.1.5** Solve problems in more than one way and explain why one process may be more effective than another.	**SPI 0406.2.2** Locate and place mixed number on the number line. **SPI 0406.2.5** Generate equivalent forms of common fractions and decimals and use them to compare size. √**0406.2.8** Generate equivalent forms of whole numbers, decimals, and common fractions (e.g. 1/10, ¼, ½, ¾).	Numerator, denominator, **Mixed number – a number containing both a whole number and a fraction** **Proper fraction – a fraction whose numerator is less that its denominator.** **Improper fraction – a fraction whose greater than or equal to its denominator.**		Saxon Math Book 6/5 Lessons: 23, Investigation 2, 30, Investigation 3, 37, 38, 39,41, 46, 59, 60,67, 68, 69, 70, 71, 81, 90, 99, 102, 116,

October	October 26 -30	**GLE 0506.2.4** Develop Fluency with addition and subtraction of proper and improper fractions and mixed numbers: explains and model the algorithm.	√**0506.2.3** Use visual models, benchmarks, and equivalent forms to add and subtract commonly used fractions and decimals. √**0506.2.5** Make reasonable estimates of fraction and decimals sums and differences. √ **0506.2.6** Add and subtract mixed numbers.	**SPI 0406.2.8** Add and subtract proper fractions with like and unlike denominators and simplify the answers. **SPI 0406.2.9** Add and subtract decimals through hundredths. **SPI 0406.1.3** Determine the correct change from a transaction.			
October	October 26 – 30	**GLE 0506.2.5** Develop fluency in solving multi-step problems using whole number, fractions, mixed number and decimals.	√**0506.2.9** Explore numbers less than 0 by extending the number line through familiar applications (e.g., temperatures below zero, owing money, measuring elevation below sea level.)				

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State Performance Indicator: 0506.3.1 Evaluate algebraic expression involving decimals and fractions using order of operations. 0506.3.2 Evaluate multi-step numerical expressional involving fractions using order of operations. 0506.3.3 Find the unknown in single –step equations involving fractions and mixed numbers. 0506.3.4 Given a set of values, identify those that make an inequality a true statement.							
Content Strand: Algebra							
Second Nine Weeks							
November	November 2 - 6	**GLE 0506.3.1** Understand and use order of operations.		√**0406.1.4** Use commutative, associate, and distributive properties of numbers including oral descriptions of mathematical reasoning. √**0406.3.1** find an unknown quantity in simple equations using whole numbers, fractions, decimals and mixed numbers. √**0406.3.2** Translate between symbols and words to represent quantities in expressions or equations. √**0406.1.7** Translate the details of contextual problem into diagrams and/or numerical expressions, and express answers using appropriate units.	**Equation – a mathematical sentence that shows that two quantities are equal.** **Inverse operation – an operation that reverses another operation.** **Linear equations/ Inequalities - an equation or inequality containing variables of degree one or constants.**		Saxon Math Book 6/5 Lessons: 23, 24 Investigation 2, 30, Investigation 3, 37, 38, 39,41, 46, 59, 60,67, 68, 69, 70, 71, 81, 90, 99, 102, 116,
November	November 9 -13	**GLE 0506.3.2** Develop and apply the concept of a variable.	√**0506.3.2** Use variables appropriately to represent numbers whose values are not yet known. √**0506.3.6** Recognize there are many numbers between any two whole numbers on the number line.				
November	Nov 9 – 13	**GLE 05063.3** Understand and apply the substitution property.	√**0506.3.1** Evaluate an expression by substituting non-negative rational number values for letter variables in the expression.				
Novem ber	Nov. 16 -20	**GLE 0506.3.4** Solve single- step linear equations and inequalities.	√**05063.3** Solve single step linear equation using inverse operations.				

			√**0506.3.4** solve single-step linear inequalities and graph solutions on a number line. √**0506.3.5** Determine if a given value is a solution to a linear equation /inequality.				

Instructional period	dates taught	Tennessee Dept. of Education Content Standard/GLE	Check for Understanding	Building Blocks for New Standards	Essential Vocabulary Teac her Word	Math Bench Mark Assessment Item	Materials/ Resources
State Performance Indicator: 0506.4.3 Identify a three dimensional objects from two dimensional representations of that object and vice versa. 0506.4.6 Record measurements in context to reasonable degree of accuracy using decimals or fractions.							
Content Strand: Geometry							
Second Nine Weeks							
November	November 23 – 24 & 30 and December 1	**GLE 0506.4.2** Describe polyhedral solids and analyze their properties, including volume and surface area.	√**0506.4.3** Build, draw, and work, with prisms by means of orthogonal views, projective views and nets. √**0506.4.4 D**escribe and identify the five regular (Platonic) solids and their properties with respect to faces, shapes of faces, edges, and vertices.	√ **0406.4.1** Identify the basic parts of a circle. √**0406.4.5** Determine if a figure is a polygon. √**0406.4.21** Recognize tow-dimensional faces of three dimensional shapes. √**0406.4.12** Estimate the size of an object with respect to a given measurement attribute (length, perimeter, area, or capacity). √ **0406.1.6** Identify geometric or physical attributes that are appropriate to measure in a given situation. √ **0406.1.5** Measure using a ruler, meter stick,	**Compose/ decompose – to put shapes together or to take shapes apart**. **convex polygon – a polygon in which all vertices are pushed outward.** prism, precision of measurement, area **edge – where two faces meet .** **Face – a flat surface on a three dimensional shape,** **Surface area – the sums of the areas of the faces of a solid figure.**		Saxon Math 6/5 Lesson 27,28, 32, 36, Investigation 4 44, 74, 77, 83, 85,

December	December 2 - 4	**GLE 0506.4.4** Solve problems that require attention to both approximation and precision of measurement.	√**0506.4.7** Understand, select and use unties of appropriate size and type to measure angles, lengths/distances, area, surface area and volume. √ **0506.4.9** Correctly interpret significant digits in the accuracy of measurement and associated calculations. √ **05064.10** Recognize that measurements are never exact. √**0506.4.11** Understand the usefulness of approximations. √**0506.4.12** Develop strategies for choosing correct tools of measurement. √ **0506.4.13** Recognize and use measure of weight and temperature.	clock, thermometer, or other scaled instruments. √ **0406.4.13** Compare objects with respect to a given attribute such as length, area, and capacity.	**Orthogonal view – views of an object from the top /a flat view.** **Projective view - picture view / a 3 dimensional view.** **Polygon – a closed 2-dimensional figure that is made of straight lines. A regular polygon has all line the same equal length.** **Polyhedral solids – a geometric solid with polygons as faces.** **Precision measurement – precision of measurement depends on the smallest unit of measurement being used.**		

Instructional period	dates taught	Tennessee Dept. of Education Content Standard/GLE	Check for Understanding	Building Blocks for New Standards	Essential Vocabulary Teacher Word	Math Bench Mark Assessment Item	Materials/ Resources
State Performance Indicator: 0506.5.1 Depict data using various presentation including double bar and line graphs. 0506.5.2 Make predications based on various data representations including double bar and line graphs.							
Content Strand : Probability and Statistics							
Second Nine Weeks							
December	December 7 - 11	**GLE 0506.5.1** Make, record, display, and interpret data and graphs that include whole numbers, decimals, and fractions.	√ **0506.5.1** Construct and analyze double bar and line graphs. √ **0506.5.2** Represent data using ordered pairs in the first quadrant of the coordinate system. √**0506.5.3** Design investigations to address a question and consider how data collection methods affect the nature of the data set. √**0506.5.4** Recognize the differences in representing the categorical and numerical data.	√ **0406.5.1** Create and label appropriate scales for graphs. √ **0406.5.3** Interpret and prepare pie charts using appropriate measurements of angles. √ **0406.5.4** Develop and use stem-and leaf-plots. √**0406.5.2** Evaluate how well various representations show the collected data. **SPI 0406.5.2** Solve problems using estimations and comparison within a single set of data.	**Categorical data – data with no established arrangement or numerical order.** **Outliers – a number which is far removed from the other numbers in a data set.**		Saxon Math 6/5 Lesson 50, investigation 8 & 9 Lessons 84, 93,

instructional period	dates taught	Tennessee Dept. of Education Content Standard/GLE	Check for Understanding	Building Blocks for New Standards	Essential Vocabulary Teacher Word	Math Bench Mark Assessment Item	Materials/ Resources
State Performance Indicator: 0506.5.1 Depict data using various presentation including double bar and line graphs. 0506.5.2 Make predications based on various data representations including double bar and line graphs. 0506.5.3 Calculate measures of central tendency to analyze data.							
Content Strand : Probability and Statistics							
Third Nine Weeks							
January	January 5 -22	**GLE 0506.5.1** Make, record, display, and interpret data and graphs that include whole numbers, decimals, and fractions. **GLE 0506.1.5** Use mathematical ideas and processes in different setting to formulate patterns, analyze graphs, set up and solve problems, model mathematical idea, and communicate solution strategies.	√ **0506.5.1** Construct and analyze double bar and line graphs. √ **0506.5.2** Represent data using ordered pairs in the first quadrant of the coordinate system. √**0506.5.3** Design investigations to address a question and consider how data collection methods affect the nature of the data set. √**0506.5.4** Recognize the differences in representing the categorical and numerical data.	√ **0406.5.1** Create and label appropriate scales for graphs. √ **0406.5.3** Interpret and prepare pie charts using appropriate measurements of angles. √ **0406.5.4** Develop and use stem-and leaf-plots. √**0406.5.2** Evaluate how well various representations show the collected data. **SPI 0406.5.2** Solve problems using estimations and comparison within a single set of data.	**Mean – the average value a set of data** Median: The middle value in a set of data when the data are listed in order from smallest to largest. Mode: The value or values that occur most often in a set of data. Range: The difference between the greatest number and the least number in a set of data.		Saxon Math 6/5 Lesson 50, investigation 8 & 9 Lessons 84, 93,

January	January 5 -22	**GLE 0506.5.2** Describe the shape and important features of a set a data using the measures of central tendency.	√**0506.5.5** Evaluate how difference measures of central tendency describe data. √**0506.5.6** Identify outliers and determine their effect on mean, median, mode and range.	√**0406.5.5** Use measure of central tendency to compare two sets of related data.			

instructional period	dates taught	Tennessee Dept. of Education Content Standard/GLE	Check for Understanding	Building Blocks for New Standards	Essential Vocabulary Teacher Word	Math Bench Mark Assessment Item	Materials/ Resources
State Performance Indicator: 0506.1.1 Given a series of geometric statements draw a conclusion about the figure.							
Content Strand: Mathematical Processes							
Third Nine Weeks							
January	January 25 – 26	**GLE 0506.1.3** Develop independent reasoning to communicate mathematical ideas and derive algorithms and/ or formulas.	√**0506.1.1** Make and test conjectures about geometric properties and develop logical arguments to justify conclusions.				

instructional period	dates taught	Tennessee Dept. of Education Content Standard/GLE	Check for Understanding	Building Blocks for New Standards	Essential Vocabulary Teacher Word	Math Bench Mark Assessment Item	Materials/ Resources
State Performance Indicator: 0506.4.1 Solve contextual problems that require calculating the area of triangles and parallelograms. 0506.4.2 Decompose irregular shapes to find perimeter and area. 0506.4.4 Solve problems involving surface and volume of rectangular prisms and polyhedral solids. 0506.4.5 Find the length of vertical and horizontal line segments in the first quadrant of a coordinate system, including problems that require the use of fractions and decimals.							
Content Strand: Geometry							
Third Nine Weeks							
January	January 27 – February 5	**GLE 0506.4.1** Use basic formulas and visualizations to find the area of geometric figures	√**0506.4.1** Develop the formula for the area of a triangle as it relates to the area of a parallelogram/rectangle. √**0506.4.2** Find the area of a convex polygon by decomposing it into triangles/rectangles.	√**0406.4.8** Recognize that a measure of area represents the total number of same-sized units that cover the shape without gaps or overlaps. √**0406.4.9** Recognize that area does not change when 2-dimensional figures are cut apart and rearranged. √**0406.4.10** Connect area measure to multiplication using a rectangular model. √**0406.4.11** Estimate areas of rectangles in square inches and square centimeters.	**Prism – a solid with two congruent parallel faces; other faces are all parallelograms.** **Net – 2-dimensional Representation for constructing 3-dimensional shapes.** **Polyhedral solids – a geometric solid with polygons as faces.**		Saxon Math 6/5 Lesson 27,28, 32, 36, Investigation 4 44, 74, 77, 83, 85,

February	February 8 - 11	**GLE 0506.5.2** Describe polyhedral solids and analyze their properties, including volumes and surface area.	√**0506.4.3** Build, draw, and work, with prisms by means of orthogonal views, projective views and nets. √**0506.4.4 D**escribe and identify the five regular (Platonic) solids and their properties with respect to faces, shapes of faces, edges, and vertices. √**0506.4.5** Quantify total volume as filling space with same-sized units of volume without gaps or overlap. √**0506.4.6** Decompose prisms to calculate surface areas and volume.	√**0406.4.15 Explore** properties of paths between points.			
February	February 17 – 27	**GLE 0506.5.3** Describe the length/distance relationships using the first quadrant of the coordinate system.	√**0506.4.8** Identify characteristics of the set of points that define vertical and horizontal line segments.				

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State Performance Indicator: 0506.2.1 Read and write numbers from millions to millionths in various contexts. 0506.2.2 Write the prime factorization of numbers through 50 using both exponential and standard notation. 0506.2.4 Solve problems involving the division of two- and three- digit whole numbers by one- and two- digit whole numbers. 0506.2.8 Write terminating decimals in the form of fractions or mixed numbers.							
Content Strand Numbers and Operations							
# Third Nine Weeks							
March	March 1 - 5	**GLE 0506.2.1** Extend the understanding of place value through millions and millionths in various contexts and representations.		√ **0406.2.1** Compose and decompose quantities according to place value. √ **0406.2.12** Understand and use decimal numbers up to hundredths and write them as fractions.	**Exponential Notation – A number written with a base and an exponent.** **Greatest Common Factor – The largest number that can be divided evenly into each number in a set.** **Least common multiple – the smallest number that each number in a set divides into evenly (the smallest multiple of every number in a set)** **Millions- the seventh place value.** **Millionths – the sixth place value position after the decimal point**		Saxon Math Book 6/5 Lessons: 1, 2, 3, 4, 5, 7, 25 52, 67, 68, 69, 70 and 106

March	March 1 – 5	**GLE 0506.2.2** Write natural numbers (0 to 50) as a product of prime factors and understand that this is unique (apart from order).	√**0506.2.1** Identify prime numbers up to 50. √**0506.2.2** Use the prime factorization of two whole numbers to determine the greatest common factor and least common multiple. √**0506.2.4** Use divisibility rules to factor numbers. √**0506.2.10** Use exponential notation to represent repeated multiplication of whole numbers.	√ **0406.2.7** Identify factors of whole numbers and model factors and products beyond basic multiplication facts using arrays and area models.			
March	March 1 -5	**GLE 0506.2.3** Develop fluency with division of whole number. Understand the relationship of divisor, dividend, and quotient in terms of multiplication and division.	√ **0506.2.7** Understand the placement of the decimal point in calculations of multiplication and long division, including the placement in the estimation of the answer. √**0506.2.8** Understand the division by zero is undefined.	√**0406.2.2** Understand decimals notation as an extension of the base-ten number system. √**0406.2.9** Compare equivalent forms whole numbers, fractions, and decimals to each other to a benchmark numbers. √**0406.2.11** Use models, benchmarks, and equivalent forms to compare fractions/decimals and locate them on the number line.	Divisor, dividend , quotient, , estimation **Divisibility rules – rules that determine whether a number is divisible by a certain number Terminating decimals – a decimal number that contains a finite number of digits.**		
March	March 1 – 5	**GLE 0506.2.5** Develop fluency in solving multi-step problems using whole numbers, fractions, mixed numbers and decimals.	√**0506.2.8** Understand the division by zero is undefined.		**Repeating decimals – a decimal number in which one or more decimals repeat.**		

instructional period	dates taught	Tennessee Dept. of Education Content Standard/GLE	Check for Understanding	Building Blocks for New Standards	Essential Vocabulary Teacher Word	Math Bench Mark Assessment Item	Materials/ Resources
State Performance Indicator: 0506.2.2 Write the prime factorization of numbers through 50 using both exponential and standard notation. 0506.2.3 Select a reasonable solution to a real-world division problem in which the remainder must be considered. 0506.2.4 Solve problems involving the division of two- and three- digit whole numbers by one- and two- digit whole numbers.							
Content Strand: Numbers and Operations							
Fourth Nine Weeks							

March	March 22 - April 2	**GLE 0506.2.2** Write natural numbers (0 to 50) as a product of prime factors and understand that this is unique (apart from order).	√**0506.2.1** Identify prime numbers up to 50. √**0506.2.2** Use the prime factorization of two whole numbers to determine the greatest common factor and least common multiple. √**0506.2.4** Use divisibility rules to factor numbers. √**0506.2.10** Use exponential notation to represent repeated multiplication of whole numbers.	√ **0406.2.7** Identify factors of whole numbers and model factors and products beyond basic multiplication facts using arrays and area models.	**Exponential Notation – A number written with a base and an exponent.** **Greatest Common Factor – The largest number that can be divided evenly into each number in a set.** **Least common multiple – the smallest number that each number in a set divides into evenly (the smallest multiple of every number in a set)** **Millions- the seventh place value.** **Millionths – the sixth place value position after the decimal point**		
March	March 22 - April 2	**GLE 0506.2.3** Develop fluency with division of whole number. Understand the relationship of divisor, dividend, and quotient in terms of multiplication and division.	√ **0506.2.7** Understand the placement of the decimal point in calculations of multiplication and long division, including the placement in the estimation of the answer. √**0506.2.8** Understand the division by zero is undefined.				

instructional period	dates taught	Tennessee Dept. of Education Content Standard/GLE	Check for Understanding	Building Blocks for New Standards	Essential Vocabulary Teacher Word	Math Bench Mark Assessment Item	Materials/ Resources
State Performance Indicator: 0506.2.5 Solve addition and subtraction problems involving both fractions and decimals. 0506.2.7 Recognize equivalent representations for the same number.							
Content Strand: Number and Operations							
April	April 12 - 16	**GLE 0506.2.4** Develop Fluency with addition and subtraction of proper and improper fractions and mixed numbers: explains and model the algorithm.	√**0506.2.3** Use visual models, benchmarks, and equivalent forms to add and subtract commonly used fractions and decimals. √**0506.2.5** Make reasonable estimates of fraction and decimals sums and differences. √ **0506.2.6** Add and subtract mixed numbers.	**SPI 0406.2.8** Add and subtract proper fractions with like and unlike denominators and simplify the answers. **SPI 0406.2.9** Add and subtract decimals through hundredths. **SPI 0406.1.3** Determine the correct change from a transaction. **SPI 0406.2.2** Locate and place mixed number on the number line. **SPI 0406.2.5** Generate equivalent forms of common fractions and decimals and use them to compare size. √**0406.2.8** Generate equivalent forms of whole numbers, decimals, and common fractions (e.g. 1/10, ¼, ½, ¾).	Numerator, denominator, , **Mixed number – a number containing both a whole number and a fraction** **Proper fraction – a fraction whose numerator is less that its denominator.** **Improper fraction – a fraction whose greater than or equal to its denominator.**		
April	April 12 - 16	**GLE 0506.2.5** Develop fluency in solving multi-step problems using whole numbers, fractions, mixed numbers and decimals.					

instructional period	dates taught	Tennessee Dept. of Education Content Standard/GLE	Check for Understanding	Building Blocks for New Standards	Essential Vocabulary Teacher Word	Math Bench Mark Assessment Item	Materials/ Resources
State Performance Indicator: 0506.3.1 Evaluate algebraic expression involving decimals and fractions using order of operations. 0506.3.2 Evaluate multi-step numerical expressional involving fractions using order of operations. 0506.3.3 Find the unknown in single –step equations involving fractions and mixed numbers. 0506.3.4 Given a set of values, identify those that make an inequality a true statement.							
Content Strand – Algebra							
Fourth Nine Weeks							
April	April 26 – 30	**GLE 0506.3.1** Understand and use order of operations.		√**0406.1.4** Use commutative, associate, and distributive properties of numbers including oral descriptions of mathematical reasoning. √**0406.3.1** find an unknown quantity in simple equations using whole numbers, fractions, decimals and mixed numbers. √**0406.3.2** Translate between symbols and words to represent quantities in expressions or equations. √**0406.1.7** Translate the details of contextual problem into diagrams and/or numerical expressions, and express answers using appropriate units.	Numerator, denominator, **Mixed number – a number containing both a whole number and a fraction** **Proper fraction – a fraction whose numerator is less that its denominator.** **Improper fraction – a fraction whose greater than or equal to its denominator.**		
April	April 26 – 30	**GLE 0506.3.2** Develop and apply the concept of a variable.	√**0506.3.2** Use variables appropriately to represent numbers whose values are not yet known. √**0506.3.6** Recognize there are many numbers between any two whole numbers on the number line.				

May	May 3-7	**GLE 05063.3** Understand and apply the substitution property.	√**0506.3.1** Evaluate an expression by substituting non-negative rational number values for letter variables in the expression.		**Variable – a letter or symbol used to represent a number** **Inverse operation – an operation that reverses another operation.** **Linear equations/ Inequalities - an equation or inequality containing variables of degree one or constants.** **Order of operation – rules that tell in what order to perform operations in arithmetic and algebra.** **Substitution property – A rule that states that if two quantities are equal one of the quantities can be substituted for the other.**		
May	May 3-7	**GLE 0506.3.4** Solve single- step linear equations and inequalities.	√**05063.3** Solve single step linear equation using inverse operations. √**0506.3.4** solve single-step linear inequalities and graph solutions on a number line. √**0506.3.5** Determine if a given value is a solution to a linear equation /inequality.				

instructional period	dates taught	Tennessee Dept. of Education Content Standard/GLE	Check for Understanding	Building Blocks for New Standards	Essential Vocabulary Teacher Word	Common Assessment Item	Materials/ Resources
State Performance Indicator: 0506.4.1 Solve contextual problems that require calculating the area of triangles and parallelograms. 0506.4.2 Decompose irregular shapes to find perimeter and area. 0506.4.3 Identify a three dimensional objects from two dimensional representations of that object and vice versa. 0506.4.4 Solve problems involving surface and volume of rectangular prisms and polyhedral solids							
Content Strand: Geometry							
Fourth Nine Weeks							
May	May 10 - 15	**GLE 0506.4.1** Use basic formulas and visualizations to find the area of geometric figures	√ **0506.4.1** Develop the formula for the area of a triangle as it relates to the area of a parallelogram/rectangle. √ **0506.4.2** Find the area of a convex polygon by decomposing it into triangles/rectangles.	√**0406.4.8** Recognize that a measure of area represents the total number of same-sized units that cover the shape without gaps or overlaps. √**0406.4.9** Recognize that area does not change when 2-dimensional figures are cut apart and rearranged. √**0406.4.10** Connect area measure to multiplication using a rectangular model. √**0406.4.11** Estimate areas of rectangles in square inches and square centimeters. √**0406.4.15** Explore properties of paths between points.	**Polyhedral solids – a geometric solid with polygons as faces.** **Prism – a solid with two congruent parallel faces; other faces are all parallelograms.**		
May	May 10 - 15	**GLE 0506.4.2** Describe polyhedral solids and analyze their properties, including volume and surface area.	√**0506.4.3** Build, draw, and work, with prisms by means of orthogonal views, projective views and nets. √**0506.4.4 D**escribe and identify the five regular (Platonic) solids and their properties with respect to faces, shapes of faces, edges, and vertices.		**Convex polygon – a polygon in which all vertices are pushed outward.** **Polygon – a closed 2-dimensional figure that is made of straight lines. A regular polygon has all line the same equal length.**		