CURRICULUM UNIT MAP
1ST QUARTER

COURSE TITLE: Mathematics **GRADE:** 7

Unit Title and Objectives	List CLTs for Each Objective	Brief Description of Formative Assessment(s)	End-of-Unit Benchmark or Performance Assessment
Unit 1: Pre-Algebra Basics I **WEEK 1-2—OBJECTIVES** Apply properties for operations to positive rational numbers and integers Write products of like bases in exponential form Identify and use the algebraic properties with math operations	Write powers as products Write powers in standard form Write numbers in exponential form Evaluate expressions using order of operations Evaluate expressions with powers Use addition and multiplication properties to solve problems Write numbers greater than 100 in scientific notation	5-question Clicker Quizzes on each of the following: Powers as Products Powers in Standard Form Exponential Form Order of Operations Expressions with Powers Addition and Multiplication Properties Scientific Notation Review Clicker Quizzes (All CLTs)	Unit 1 Benchmark Assessment (Pre-Algebra Basics I)
Unit 2: Patterns **WEEK 3-4—OBJECTIVES** Evaluate the representations of patterns Analyze patterns represented graphically or numerically with words or symbolic rules Compare and contrast various forms of representations of patterns	Experiment with patterns Set up tables and fill in the nth term Identify arithmetic and geometric patterns Solve word problems involving patterns Make an Eratosthenes Sieve	5-question Clicker Quizzes on each of the following: Number Patterns Table Patterns Arithmetic and Geometric Daily Exit Tickets with 1 Pattern Word Problem Each Eratosthenes Sieve Paper-Pencil Quiz	Unit 2 Benchmark Assessment (Patterns)
Unit 3: Data--Collection & Interpretation **WEEK 5—OBJECTIVES** Interpret the measures of center and spread Collect and display data Make conjectures about findings from collected data Draw conclusions from observed data	Create a survey Interpret the results of a survey Make frequency tables to compare results Illustrate results from a survey with graphs and charts Write a paragraph stating conclusions drawn from a survey	Choosing Non-Biased Questions for a Survey Clicker Quiz Interpretation of Survey Results Clicker Quiz Frequency Tables Clicker Quiz Choosing Correct Charts and Graphs for Surveys Clicker Quiz Write a Paragraph Stating Conclusions Drawn from a Given Survey Exit Ticket	Unit 3 Benchmark Assessment (Project: Create a survey, interpret the results, construct a frequency table, construct an appropriate graph and/or chart of the results, write a paragraph stating the conclusions drawn from the survey, and present to the class.)

CURRICULUM UNIT MAP
1ST QUARTER (Cont'd)

COURSE TITLE: Mathematics **GRADE:** 7

Unit Title and Objectives	List CLTs for Each Objective	Brief Description of Formative Assessment(s)	End-of-Unit Benchmark or Performance Assessment
Unit 4: Data—Representations & Analysis **WEEK 6-7—OBJECTIVES** Recognize and analyze the measures of center and spread Recognize the measures of central tendency Determine appropriate methods for representing data Analyze data	Find mean, median, mode, and range Interpret which measure of central tendency (mean, median, or mode) gives the best picture of the data Construct and make predictions from a scatter plot Construct and analyze the measures of central tendency from line plots Construct stem-and-leaf plots and find the median, range, and quartiles from the displayed data Construct and interpret box-and-whisker plots Use the graphing calculator to determine the measures of central tendency and to construct box-and-whisker plots (Optional)	Mean, Median, Mode, & Range Clicker Quiz Mean, Median, Mode, & Range Exit Ticket (1 Set of Data) Best Representation of Data (Mean, Median, and Mode) Clicker Quiz Scatter Plot Construction and Predictions Exit Ticket (1 Set of Data) Line Plot Construction and Analysis Clicker Quiz Line Plot Construction and Analysis Exit Ticket (1 Set of Data) Stem-and-Leaf Plot Construction and Analysis Clicker Quiz Stem-and-Leaf Plot Construction and Analysis Exit Ticket (1 Set of Data) Box-and-Whisker Plot Construction and Interpretation Clicker Quiz Box-and-Whisker Plot Exit Ticket (1 Set of Data) Review Clicker Quiz (ALL CLTs)	Unit 4 Benchmark Assessment (Data—Representations & Analysis)

CURRICULUM UNIT MAP
2nd QUARTER

COURSE TITLE: Mathematics **GRADE:** 7

Unit Title and Objectives	List CLTs for Each Objective	Brief Description of Formative Assessment(s)	End-of-Unit Benchmark or Performance Assessment
Unit 6: Pre-Algebra Basics II **WEEK 1-3—OBJECTIVES** Define, operate, and apply operations on integers Identify and determine the location of integers on a number line Order rational numbers particularly with integers Apply operations on positive and negative integers including the use of absolute value Apply integer concepts to real-life situations using multi-step problems	Read and write integers Determine the absolute value of an integer Use counters to model the addition of integers Add integers Use counters to model the subtraction of integers Subtract integers Multiply integers Divide integers Apply integers to real-life problems Graph points on a number line	Clicker Quiz and/or Exit Tickets over the following: Reading & Writing Integers Absolute Value Adding Integers Subtracting Integers Multiplying Integers Dividing Integers Ordering Rational Numbers With & Without a Number Line Clicker Quiz and Exit Tickets Real-Life Use of Integers Clicker Quiz Graphing Points on a Number Line Exit Ticket Operations on Integers Review Clicker Quiz	Unit 6 Benchmark Assessment (Pre-Algebra Basics II)
Unit 7: Linear Equations **WEEK 4-6—OBJECTIVES** Solve one-step and two-step linear equations and inequalities with one variable Extend the graph of linear equations to solve real-life problems	Translate verbal phrases and sentences into algebraic expressions and equations Solve equations using models Solve addition and subtraction equations Solve multiplication and division equations Solve 2-Step Equations Solve inequalities Graph linear equations for real-life problems and extend the graph to predict or solve them	Clicker Quiz and/or Exit Tickets over the following: Translating Words into Algebraic Symbols Addition/Subtraction One-Step Equations Multiplication/Division One-Step Equations Addition & Subtraction Two-Step Equations Multiplication/Division Two-Step Equations One- and Two-Step Inequalities Real-Life Problems Linear Equations Exit Tickets (3-5 Days)	Unit 7 Benchmark Assessment (Linear Equations)

CURRICULUM UNIT MAP
2nd QUARTER (Cont'd)

COURSE TITLE: Mathematics **GRADE:** 7

Unit Title and Objectives	List CLTs for Each Objective	Brief Description of Formative Assessment(s)	End-of-Unit Benchmark or Performance Assessment
Unit 8: Linear & Nonlinear Functions **WEEK 6-9—OBJECTIVES** dentify linear and nonlinear functions Graph functions on a scatter plot Graph linear equations Identify the slope of a line	Make a function table Identify a linear function from a table Identify a linear function from a graph Identify a linear function from an equation Graph solutions of linear equations Determine the slope of a line given a graph and ordered pairs Determine positive and negative slope Compare slopes	Making Function Table Exit Ticket (3-5 Days) Identify Linear Functions from Tables Clicker Quiz Identify Linear Functions from Graphs Clicker Quiz and Exit Ticket (3-5 Days) Identify Linear Functions from Equations Clicker Quiz Identify Linear and Nonlinear Functions Clicker Quiz (Table, Graph, and Equation) Graph Solutions of Linear Equations Exit Ticket (3-5 Days) Determine the Slope of a Line Clicker Quiz (Graphs and Ordered Pairs) Determine Positive and Negative Slope Clicker Quiz Write a Paragraph Comparing Slopes of 4 Different Lines Exit Ticket (2-3 Days)	Unit 8 Benchmark Assessment (Linear and Nonlinear Functions)

CURRICULUM UNIT MAP
3rd QUARTER

COURSE TITLE: Mathematics **GRADE:** 7

Unit Title and Objectives	List CLTs for Each Objective	Brief Description of Formative Assessment(s)	End-of-Unit Benchmark or Performance Assessment
Unit 9: Fractions, Decimals, & Percents **WEEK 1-3—OBJECTIVES** Generate equivalent forms of fractions, decimals, and percents Compare and order fractions, decimals, and percents	Convert decimals to fractions and fractions to decimals Convert fractions to percents and percents to fractions Convert decimals to percents and percents to fractions Compare fractions, decimals, and percents Order fractions, decimals, and percents	Converting Decimals to Fractions and Fractions to Decimals clicker quiz Converting Fractions to Percents and Percents to Fractions clicker quiz Converting Decimals to Percents and Percents to Fractions clicker quiz Clicker Quiz to review converting all Comparing and Ordering Fractions, Decimals, and Percent Clicker Quiz and Exit Tickets (5 Days)	Unit 9 Benchmark Assessment (Fractions, Decimals, & Percents)
Unit 10: Rates, Ratios, & Proportions **WEEK 4-6—OBJECTIVES** Solve problems involving unit rates and ratios Solve problems involving proportions such as scaling, finding equivalent ratios, and percent proportion	Identify and calculate unit rates Compare numbers as ratios Calculate the best buy Apply unit rates to real-life problems Identify and equivalent ratios Evaluate proportions when a variable is used Relate proportions to scale drawings and solve problems involving scale drawings Solve problems using the percent proportion	Clicker Quizzes over the following: Identifying and Calculating Unit Rates Comparing Numbers as Ratios Calculating Best Buy (Exit Tickets 5 Days) Applying Unit Rates to Real-Life Problems Exit Tickets (5 Days) Evaluating Proportions with a Variable Solving Scale Problems Using Proportions Clicker Quiz and Exit Tickets (2-3 Days) Solving Problems Using the Percent Proportion	Unit 10 Benchmark Assessment (Rates, Ratios, & Proportions)

CURRICULUM UNIT MAP
3rd QUARTER (Cont'd)

COURSE TITLE: Mathematics **GRADE:** 7

Unit Title and Objectives	List CLTs for Each Objective	Brief Description of Formative Assessment(s)	End-of-Unit Benchmark or Performance Assessment
Unit 11: Probability **WEEK 7—OBJECTIVE** Use models to compute the probability of an event and make conjectures about the results of the experiments	Compare experimental and theoretical probability Compute the probability of an event Experiment and interpret the results	Experimental and Theoretical Probability Clicker Quiz Computing the Probability of an Event Clicker Quiz and Exit Ticket (2 Days) Experimenting with Probability and Interpreting Results Class Activity Exit Ticket	Unit 11 Benchmark Assessment (Probability)
Unit 12: Volume **WEEK 8-9—OBJECTIVES** Investigate volume	Identify and justify the unit of measure for volume (customary and metric) Converting volume measures within a system of measurement Calculate volume of various three-dimensional figures using formulas	Identifying and Justifying the Correct Unit of Measure for Volume Clicker Quiz Converting Volume Measures within a System of Measurement Clicker Quiz and Exit Ticket (3-5 Days) Calculating Volume Clicker Quiz and Exit Ticket (3-5 Days)	Unit 12 Benchmark Assessment (Volume)

CURRICULUM UNIT MAP
4th QUARTER

COURSE TITLE: Mathematics **GRADE:** 7

Unit Title and Objectives	List CLTs for Each Objective	Brief Description of Formative Assessment(s)	End-of-Unit Benchmark or Performance Assessment
Unit 13: Area **WEEK 1-3—OBJECTIVES** Identify, calculate, and compare & contrast area of polygons and circles	Find square of numbers and square roots of perfect squares Find length using the Pythagorean Theorem Find the area of a parallelogram Find the area of triangles and trapezoids Find the area of circles Apply area of circles to real-life problems Find area of complex figures	Perfect Squares, Non-Perfect Square, and Square Roots Clicker Quiz Pythagorean Theorem Clicker Quiz & Exit Ticket (2-3 Days) Area Exit Tickets (5-7 Days) Real-Life Area of Circles Clicker Quiz Complex Area Exit Tickets (2-3 Days) Area Review Clicker Quiz	Unit 13 Benchmark Assessment (Area)
Unit 14: Angles & Angle Measurement **WEEK 4-5—OBJECTIVES** Apply appropriate techniques, tools, and formulas to determine measurements	Use a protractor to determine the measure of angles Identify angles according to their measure (acute, obtuse, right, straight, or reflex) Draw angles using a protractor	Measure Angles with a Protractor Pencil-Paper Quizzes (3 Quizzes) Identification of Angles Clicker Quiz Drawing Angles with a Protractor Pencil-Paper Quizzes (3 Quizzes) Angles & Angle Measurement Review Clicker Quiz	Unit 14 Benchmark Assessment (Angle & Angle Measurement)

CURRICULUM UNIT MAP
4th QUARTER

COURSE TITLE: Mathematics **GRADE:** 7

Unit Title and Objectives	List CLTs for Each Objective	Brief Description of Formative Assessment(s)	End-of-Unit Benchmark or Performance Assessment
Unit 15: Two- and Three-Dimensional Shapes **WEEK 6-9—OBJECTIVES** Specify locations and describe spatial relationships using coordinate geometry Analyze characteristics and properties of two- and three-dimensional geometric shapes Use visualization, spatial reasoning, and geometric modeling to solve problems Apply transformations and use symmetry to analyze mathematical situations	Use coordinate geometry to construct and identify geometric shapes in the coordinate plane Identify two-dimensional shapes according to the number of sides Identify the number of degrees in triangles (180), quadrilaterals (360), and circles (360) and be able to use this information to solve problems Classify triangles according to their sides and their angle measures Classify quadrilaterals according to their sides and their angle measures Classify polygons as regular or irregular Identify common three-dimensional polyhedra: triangular prisms, rectangular prisms, cubes, triangular pyramids, and rectangular pyramids Identify the vertices, edges, and number of faces of three-dimensional shapes Identify the net for a given three-dimensional shape—both polyhedra and non-polyhedra Identify the 2-dimensional cross-section of a 3-dimensional shape (Example: horizontal cross-section of a cylinder is a circle and vertical cross-section of a cylinder is a rectangle) Identify and create two-dimensional views of isometric drawings Identify and describe the relationship between the scale factor and the perimeter of an image using a dilation Determine all lines of symmetry of a polygon	Identifying Geometric Shapes in a Coordinate Plane Clicker Quiz Constructing Geometric Shapes in a Coordinate Plane Exit Ticket Identifying Number of Degree in Various Polygons Clicker Quiz Solving Problems With Missing Angles Degrees Exit Tickets (2-3 Days) Classifying Triangles According to Sides and Angles Clicker Quiz Classifying Quadrilaterals According to Sides and Angles Clicker Quiz Classifying Polygons as Regular or Irregular Exit Ticket Identifying Common Three-Dimensional Polyhedra Clicker Quiz and Exit Tickets (2-3) Identifying Vertices, Edges, and Faces of a Three-Dimensional Shape Exit Tickets (2-3) Identifying the Nets for Given Shapes Clicker Quiz and Exit Tickets (2-3 Days) Cross-Sectional Views Clicker Quiz Identifying and Creating Two-Dimensional Views of Isometric Drawings Class Activity Scale Drawing/Proportion/Dilation Class Activity Determining Lines of Symmetry Clicker Quiz	Unit 15 Benchmark Assessment (Geometry)

		and Exit Tickets (2-3 Days)	