Jefferson County Pacing Guide									
7th Grade Mathematics									
Instructional Period	Dates Taught	Content Standard / GLE		Checks for Understanding		Student Performance Indicator		Building Blocks for the New Standards	Common Assessment item
all year		GLE 0706.1.1	Use mathematical language, symbols, and definitions while developing mathematical reasoning.						
all year		GLE 0706.1.2	Apply and adapt a variety of appropriate strategies to problem solving, including estimation, and reasonableness of the solution.						
all year		GLE 0706.1.3	Develop independent reasoning to communicate mathematical ideas and develop algorithms and/or formulas.						
all year		GLE 0706.1.4	Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.						
all year		GLE 0706.1.5	Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.	√ 0706.1.3	Check answers both by estimation and by appropriate independent calculatios, using calculators or computers judiciously.				
all year		GLE 0706.1.6	Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.	√ 0706.1.9	Use age-appropriate books, stories, and videos to convey ideas of mathematics.				

all year		GLE 0706.1.7	Recognize the historical development of mathematics, mathematics in context, and the connections between mathematics and the real world.						
all year		GLE 0706.1.8	Use technologies/manipulatives appropriately to develop understanding of mathematical algorithms, to facilitate problem solving, and to create accurate and reliable models of mathematical concepts.						
First Nine Weeks Vocabulary:cube, cube roots, exponent, exponential form, hypotenuse, irrational number, leg, perfect squares, powers, Pythagorean Theorem, radical signs, rational number, scientific notation, squares, square roots, standard form, algebra, algebraic expression, base, coefficient, common denominator, constant, evaluate, factors, Greatest Common Factor, least common denominator, least common multiple, multiple, numerical expression, order of operations, precision, precision unit, properties, significant digits, term, variable, cross-product, equivalent ratios, indirect measurement, proportions, rate, ratios, scale, scale drawing, scale factor, scale model, unit rate, bar notation, discount, percent, percent of change, percent of decrease, percent of increase, principal, repeating decimals, sales tax, simple interest, terminating decimals .								
1		GLE 0706.2.2	Understand and work with the properties of and operations on the system of rational numbers.					**SPI 0606.2.2** Solve problems involving the addition, subtraction, multiplication, and division of mixed numbers. **SPI 0606.2.3** Solve problems involving the addition, subtraction, multiplication, and division of decimals. **SPI 0606.2.4** Solve multi-step arithmetic problems using fractions, mixed numbers, and decimals.	
1				√ 0706.1.1	Recognize common abbreviations (such as gcd/gcf and lcm).				
1				√ 0706.1.2	Recognize round-off error and the inaccuracies it introduces.				

1				√ 0706.2.3	Recognize that rational numbers satisfy the commutative and associative laws of addition and multiplication and the distributive law.	SPI 0706.2.1	Simplify numerical expressions involving rational numbers.	√ **0606.3.5 Use the commutative, associative and distributive properties to show that two expressions are equivalent.**	
1				√ 0706.2.15	Report results of calculations appropriately in a given context (i.e. using rules of rounding, degree of accuracy, and/or significant digits.)				
1				√ 0706.3.1	Perform basic operations on linear expressions (including grouping, order of operations, exponents, simplifying and expanding.)			**SPI 0606.3.2** Use order of operations and parentheses to simplify expressions and solve problems.	
1		GLE 0706.2.2	Understand and work with the properties of and operations on the system of rational numbers.	√ 0706.2.1	Understand that the set of rational numbers uncludes any number that can be written as a ratio of two integers in which the denominator is not zero.			√ **0606.2.8 Recognize that a terminating decimal equals a fraction with a denominator that is a power of ten.** √ **0606.2.9 Recognize that the decimal form of a rational number either terminates or**	
1		GLE 0706.2.5	Understand and work with squares, cubes, square roots, and cube roots.	√ 0706.2.9	Efficiently compare and order rational numbers and roots of perfect squares/cubes; determine their approximate locations on a number line.	SPI 0706.2.2	Compare rational numbers using appropriate inequality symbols.	**SPI 0606.2.7 Locate positive rational numbers on the number line.** √ **0606.2.1 Efficiently compare and order fractions, decimals and percents; determine their approximate locations on a number line.** √ **0506.3.6 Recognize there are many numbers between any two whole numbers in the number line.**	
1						SPI 0706.2.3	Use rational numbers and roots of perfect squares/cubes to solve contextual problems.		

1						SPI 0706.2.4	Determine the approximate location of square/cube roots on a number line.		
1				√ 0706.2.10	Recognize that when a whole number is not a perfect square, then its square root is not rational and cannot be written as the ratio of two integers				
1				√ 0706.2.11	Estimate square/cube roots and use calculators to find approximations.				
1				√ 0706.2.12	Recognize √mn = (√m) · (√n) and (√m)2 = m				
1		GLE 0706.2.6	Introduce the concept of negative exponents.	√ 0706.3.1	Perform basic operations on linear expressions (including grouping, order of operations, exponents, simplifying and expanding.)				
1				√ 0706.2.13	Use the meaning of negative exponents to represent small numbers; translate bewteen standard and scientific notation.				
1		GLE 0706.2.7	Understand and use scientific notation.	√ 0706.1.11	Translate from calculator notation to scientific/standard notation.				
1				√ 0706.2.13	Use the meaning of negative exponents to represent small numbers; translate bewteen standard and scientific notation.				
1				√ 0706.2.14	Express numbers in scientific notation and recognize its importance in representing the magnitude of a number.				

1		GLE 0706.2.2	Understand and work with the properties of and operations on the system of rational numbers.	√ 0706.2.9	Efficiently compare and order rational numbers and roots of perfect squares/cubes; determine their approximate locations on a number line.			**SPI 0606.2.5** Transform numbers from one form to another (fractions, decimals, percents, and mixed numbers).	
1		GLE 0706.2.3	Develop an understanding of and apply proportionality.			SPI 0706.2.7	Use ratios and proportions to solve problems.	**SPI 0606.2.6** Solve problems involving ratios, rates and percents.	
1						SPI 0706.1.1	Use proportional reasoning to solve mixture/concentration problems.		
1		GLE 0706.2.4	Use ratios, rates, and percents to solve single-and multi-step problems in various contexts.	√ 0706.2.7	Write number sentences to solve contextual problems involving ratio and percent.	SPI 0706.2.6	Express the ratio between two quantities as a percent, and a percent as a ratio or fraction.	√ 0606.2.4 Understand ratio as a fraction used to compare two quantities by division. √ 0606.2.5 Recognize a:b, a/b, and “a to b” as notations for ratios. √ 0606.2.6 Recognize common percentages as ratios based on fractions whose denominators are 2, 3, 4, 5, or 10. √ 0606.2.7 Connect ratio and rate to multiplication and division.	
1				√ 0706.2.8	Apply ratios, rate, proportions and percents (such as discounts, interest, taxes, tips, distance/rate/time, and percent of increase or decrease.				
1				√ 0706.3.10	Solve problems involving unit rates (e.g. miles per hour, words per minute.)				

1				√ 0706.4.5	Solve problems using ratio quantities: velocity (Measured in units such as miles per hour), density (measured in units such as kilograms per liter), pressure (measured in units such as pounds per square foot), and population density (measured in units such as persons per square mile).				
1		GLE 0706.4.2	Apply proportionality to converting different units of measurements to solve problems involving rates such as motion at a a constant speed.						
1		GLE 0706.4.4	Understand and use ratios, derived quantities and indirect measurements.	√ 0706.1.7	Explain and demonstrate how scale in maps and drawings shows relative size and distance.	SPI 0706.1.4	Use scales to read maps.		
1				√ 0706.1.8	Recognize the applications of scale factor to exploring blueprints, shadow measuring, and scale models.				
1				√ 0706.4.1	Solve problems involving indirect measurement such as finding the height of a building by comparing its shadow with the height and shadow of a known object.				

Glencoe Resources

Section # Course 2	Section Title	Section # Course 3	Section Title

Sec. 1.3	Order of Operations	Sec. 1-2	Variables, Expressions, & Properties (Includes Order of Operations)
Sec. 1.4	Variables & Expressions		
Sec. 1.6	Properties		
p. 557	Rounding	Supp.	Rounding
Sec. 12.6	Significant Digits	Sec. 7.9	Precision & Significant Digits
Supp.	The Real Number System	Sec. 3-3	The Real Number System
Sec. 1.2	Powers & Exponents	Sec. 2.8	Powers & Exponents (Includes Negative Exponents)
Sec. 1.9	Scientific Notation	Sec. 2.9	Scientific Notation (Includes Negative Exponents)
Sec. 11.1	Squares & Square Roots	Sec. 3.1	Squares & Square Roots
Sec. 11.2	Estimating Square Roots	Sec. 3.2√√√	Estimating Square Roots
Supp.	Recognize √mn = (√m) · (√n) and (√m)2 = m	Supp.	Recognize √mn = (√m) · (√n) and (√m)2 = m
Sec. 11.3	The Pythagorean Theorem	Sec. 3.4	The Pythagorean Theorem
		Sec. 3.5	Using the Pythagorean Theorem
Supp.	Distance on a Coordinate Plane	Sec. 3.6	Distance on a Coordinate Plane
Supp.	Cubes & Cube Roots	Supp.	Cubes & Cube Roots
Sec. 7.1	Ratios	Sec. 4.1	Ratios and Rates
Sec. 7.2	Rates		
Sec. 7.3	Solving Proportions	Sec. 4.4	Solving Proportions
Sec. 7.4	Scale Drawings	Sec. 4.6	Scale Drawings
Supp.	Maps & Scales	Supp.	Maps & Scales
Supp.	Indirect Measurement	Sec. 4.7	Indirect Measurement
Supp.	Mixture and Concentration Problems	Supp.	Mixture and Concentration Problems
Sec. 5.4	Fractions & Decimals	Sec. 2.1	Fractions & Decimals
Sec. 5.8	Comparing & Ordering Rational Numbers	Sec. 2-2	Comparing & Ordering Rational Numbers

Sec. 5.5		Fractions & Percents			Supp., Sec. 5.1			Fractions & Percents		
Sec. 5.6		Percents & Decimals			Supp.			Percents & Decimals		
Sec. 7.5		Fractions, Decimals, and Percents			Sec. 5.2			Fractions, Decimals, and Percents		
Sec. 7.6		% Greater than 100% and less than 1%			Supp.			% Greater than 100% and less than 1%		
Sec. 7.7		Percent of a Number			Supp.			Percent of a Number		
Sec. 7.8		The Percent Proportion			Sec. 5.3			The Percent Proportion		
Sec. 8.4		Percent of Change			Sec. 5.7			Percent of Change		
Sec. 8.5		Sales Tax & Discount			Supp.			Sales Tax & Discount		
Sec. 8.6		Simple Interest			Sec. 5.8			Simple Interest		
			Brain Pop Resources: Data Analysis: Rounding, Using a Calculator , Number Operations: Square Roots; Exponents, Standard and Scientific Notation , Data Analysis: Compare Prices; Algebra: Distance, Rate, & Time; Ratios, Proportions, & Percents: Percents, Proportions, Ratios, Taxes,		**Learn 360** Resources:Basic Math Module, Ratios & Percents			**PowerPoint Resources**: Exponents and Large Numbers, Exponents, Squares, Cubes 1-10, Order of Operations, Order of Operations Drill, Rounding Decimals,		
Second Nine Weeks										
Second Nine Weeks Vocabulary: absolute value, additive inverse, graph, integers, negative integer, opposites, positive integer, defining a variable, inequality, inverse operations, solution, solve, two-step equation , coordinate grid, coordinate plane, dependent variable, directly proportional, domain, function, function notation, function table, independent variable,inversely proportional, linear equation, linear function, origin, quadrant, range,rate of change, rise, run, slope, slope formula, slope-intercept form, x-axis, x-coordinate, x-intercept, vertical line test, y-axis, y-coordinate, y-intercept.										
2		GLE 0706.2 .1	Extend understandings of addition, multiplication and division to integers.	√ 0706. 2.2	Develop and analyze algorithms and compute efficiently with integers and rational numbers.	SPI 0706.2.5	Solve contextual problems that involve operations with integers.			

2				√ 0706.2.4	Understand that a and -a are additive inverses and are located the same distance from zero on the number line; relate distance from zero to absolute value.			√ **0606.2.10 Explore contexts that can be described with negative numbers (such as money, elevation, and temperature).**	
2				√ 0706.2.5	Understand that -(-a) = a for any number a.				
2				√ 0706.2.6	Use the number line to demonstrate addition and subtraction with integers.				
2				√ 0706.2.9	Efficiently compare and order rational numbers and roots of perfect squares/cubes; determine their approximate locations on a number line.			**SPI 0606.2.8** Locate integers on the number line.	
2		GLE 0706.3.1	Recognize and generate equivalent forms for simple algebraic expressions.	√ 0706.3.2	Represent and analyze mathematical situations using algebraic symbols	SPI 0706.3.1	Evaluate algebraic expressions involving rational values for coefficients and/or variables.	**SPI 0606.3.4 Rewrite expressions to represent quantities in different ways.** √ **0606.3.3 Recognize the use of juxtaposition (such as 3x, ab) to stand for multiplication, and the convention in these cases of writing numbers before letters.** **SPI 0606.3.5 Translate between verbal expressions/sentences and algebraic expressions or equations.** √ **0606.3.7 Move fluently between different representations (such as verbal, tabular, numerical, algebraic, and graphical) of equations and expressions.**	

2		GLE 0706.3.7	Use mathematical models involving linear equations to analyze real-world problems.			SPI 0706.3.7	Translate between verbal and symbolic repesentations of real-world phenomena involving linear equations.	**SPI 0606.3.3 Write equations that correspond to given situations or represent a given mathematical relationship.**	
2						SPI 0706.3.8	Solve contextual problens involving two-step linear equations.	**SPI 0606.3.6 Solve two-step linear equations using number sense, properties, and inverse operations.** **√ 0606.3.1 Write and solve two-step linear equations corresponding to given situations (non-negative numbers only).**	
2		GLE 0706.3.8	Use a variety of strategies to eficiently solve linear equations and inequalities.	√ 0706.1.10	Model algebraic equations with manipulatives, technology, and pencil and paper.	SPI 0706.3.6	Solve linear equations with rational coefficients symbolically or graphically.		
2				√ 0706.3.14	Understand that when solving linear inequalities, multiplication or division by a negative reverses the inequality symbol.	SPI 0706.3.9	Solve linear inequalties in one variable with rational coefficients symbolically or graphically.	**SPI 0606.3.1 Represent on a number line the solution of a linear inequality.** **√ 0606.3.2 Write and solve onestep inequalities corresponding to given situations (nonnegative numbers only).**	
2		GLE 0706.3.2	Understand and compare various representations of relations and functions.			SPI 0706.3.2	Determine whether a relation (represented in various ways) is a function.		

2		GLE 0706.3.3	Understand the concept of function as a rule that assigns to a given input one and only one number (the output)	√ 0706.3.3	Identify a function from a written description, table, graph, rule, set of ordered pairs, and/or mapping.	SPI 0706.1.2	Generalize a variety of patterns to a symbolic rule from tables, graphs, or words.		
2						SPI 0706.3.3	Given a table of inputs "x" and outputs f(x), identify the function rule and continue the pattern.	**√ 0606.3.6 Use equations to describe simple relationships shown in a table or graph.** **SPI 0606.3.7 Use algebraic expressions and properties to analyze numeric and geometric patterns.** **√ 0606.3.8 Represent patterns using words, graphs, and simple symbolic notation.**	
2		GLE 0706.3.4	Use function notation where f(x) represents the output that the function "f" assigns to the input "x".	√ 0706.3.4	Make tables of inputs "x" and outputs f(x) for a variety of rules that include rational numbers (including negative numbers) as inputs.				
2		GLE 0706.3.5	Understand and graph proportional relationships.	√ 0706.1.4	Recognize quantities that are inversely proportional (such as the relationship between the lengths of the base and the size of a rectangle with fixed area.				
2				√ 0706.1.5	Understand that a linear relationship in which f(0) = 0 is called a directly proportional relationship.				
2				√ 0706.1.6	Develop meaning of intecept and rate of change in contextual problems.				

2				√ 0706.3.5	Plot points to represent tables of linear function values.			**SPI 0606.3.9 Graph ordered pairs of integers in all four quadrants of the Cartesian coordinate system.** **√ 0606.3.11 Identify the quadrant of the coordinate system in which a point lies.** **√ 0606.3.10 Understand that in an ordered pair (x, y), the x represents horizontal location and y represents vertical location.**	
2				√ 0706.3.6	Understand that the graph of a linear function "f" is the set of points on a line representing the ordered pairs (x, f(x)).				
2				√ 0706.3.7	Distinguish proportional relationships (y/x = k, or y = kx) from other relationships, including inverse proportionality (xy = k, or y = k/x).	SPI 0706.1.3	Recognize whether information given in a table, graph, or formula suggests a directly proportional, linear, inversely proportional, or other nonlinear relationship.		

2						SPI 0706.3.5	Represent proportional relationships with equations, tables and graphs.	**√ 0606.3.4 Generate data and graph relationships concerning measurement of length, area, volume, weight, time, temperature, money, and information.** **SPI 0606.3.8 Select the qualitative graph that models a contextual situation (e.g., water filling then draining from a bathtub).** **√ 0606.3.9 Write a contextual story modeled by a given graph**	
2				√ 0706.3.11	Relate the features of a linear equation to a table and/or graph of the equation.				
2		GLE 0706.3.6	Conceptualize the meanings of slope using various interpretations, representations, and contexts.	√ 0706.3.8	Understand slope as the ratio of vertical change to horizontal change.				
2				√ 0706.3.9	Identify a function exhibiting a constant rate of change as a linear function and identify the slope as a unit rate.	SPI 0706.3.4	Interpret the slope of a ine as a unit rate given the graph of a proportional relationship.		
2				√ 0706.3.12	Use linear equations to solve problems and interpret the meaning of slope, "m", and the y-intercept, b, in f(x)= mx + b in terms of the context.				
2				√ 0706.3.13	Given a graph that exhibits the intersection of a line and the y-axis, write a linear function in slope-intercept form: y = mx + b.				

2				√ 0706.3.12	Use linear equations to solve problems and interpret the meaning of slope, "m", and the y-intercept, b, in f(x)= mx + b in terms of the context.				
2				√ 0706.3.13	Given a graph that exhibits the intersection of a line and the y-axis, write a linear function in slope-intercept form: y = mx + b.				
2		GLE 0706.3.8	Use a variety of strategies to efficiently solve linear equations and inequalities.			SPI 0706.3.6	Solve linear equations with tational coefficients symbollically or graphically.		

Glencoe Resources

Section # Course 2	Section Title	Section # Course 3	Section Title
Sec. 3.1	Integers & Absolute Value	Sec 1.3	Integers and Absolute Value (includes comparing and ordering integers)
Sec. 3.2	Comparing & Ordering Integers		
Sec. 3.4	Adding Integers	Sec. 1.4	Adding Integers
Sec. 3.5	Subtracting Integers	Sec. 1.5	Subtracting Integers
Sec. 3.6	Multiplying Integers	Sec 1.6	Multiplying and Dividing Integers
Sec. 3.7	Dividing Integers		
Sec. 4.1	Writing Expressions & Equations	Sec. 1.7	Writing Expressions & Equations
Sec. 4.2	Solving Addition & Subtraction Equations (1-Step)	Sec. 1.8	Solving Addition & Subtraction Equations (1-Step)
Sec. 4.3	Solving Multiplication Equations (1-Step)	Sec. 1.9	Solving Multiplication& Division Equations (1-Step)
Sec. 6.5	Solving Division Equations (1-Step)		

Sec. 4.4	Solving 2-Step Equations	Sec. 10.1	Simplifying Algebriac Expressions
		Sec. 10.2	Solving 2-Step Equations
Supp.	Writing 2-Step Equations	Sec. 10.3	Writing 2-Step Equations
Supp.	Solving Equations With Variables on Both Sides	Sec. 10.4	Solving Equations With Variables on Both Sides
Sec. 4.5	Inequalities	Sec. 10.5	Inequalities
Supp.	Solving Inequalities by Addition & Subtraction	Sec. 10.6	Solving Inequalities by Addition & Subtraction
Supp.	Solving Inequalities by Multiplication & Division	Sec. 10.7	Solving Inequalities by Multiplication & Division
Sec. 1.7	Sequences	Sec. 11.1	Sequences
Sec. 4.6	Functions & Linear Equations	Sec. 11.2	Functions
Supp.	Direct Variation	Supp.	Direct Variation
Supp.	Indirect Variation	Supp.	Indirect Variation
Sec. 3.3	The Coodinate Plane	p. 614	Plotting Points on a Coordinate Plane
Supp.	Graphing Linear Equations	Sec. 11.3	Graphing Linear Equations
Supp.	Rates of Change	Sec. 4.2	Rates of Change
Sec. 4.7	Lines & Slope	Sec. 4.3	Slope
Supp.	The Slope Formula	Sec. 11.4	The Slope Formula
Supp.	Slope-Intercept Form of a Line	Sec. 11.5	Slope-Intercept Form of a Line
Supp.	Scatter Plots	Sec. 11.6	Scatter Plots
Supplemental Resources			

			Brain Pop: Number Operations: Positive & Negative Integers, Absolute Value, Number Operations: Order of Operations; Algebra: Two-Step equations; Data Analysis: Inequalities, Data Analysis: Coodinate Plane.		**Learn 360:"Calculated Shopping Spree", "Reversing a Negative Score.",**			**PowerPoint: Integers, Pos/Neg Numbers, Integers Intro., Adding Integer Review, Adding Integers, Adding Integers 2, Subtracting Integers, Inverse Operations, Multiplying Integers,**	

Third Nine Weeks

Third Nine Weeks Vocabulary: acute angle, acute triangle, adjacent angles, alternate exterior angles, alternate interior angles,altitude, angle, base, center, circle, circumference, complementary angles, congruent, corresponding angles, corresponding parts, cylinder, diameter, equilateral triangle, isoceles triangle, obtuse angle, obtuse triangle, parallel lines, parallelogram, perimeter, perpendicular lines, pi, polygon, quadrilateral, radius, rectangle, rhombus, right triangle, scale factor, scalene triangle, similar, square, straight angle, supplementary angles,transversal, trapezoid, triangle, vertical angles, volume, bar graph, box-and-whisker plot, cluster, data, frequency table, histogram, interquartile range, interval, leaf, line graph, line plot, lower extreme, lower quartile, mean, measures of central tendency, median, mode, outlier, range, scale, scatter plot, statistics, stem, stem-and-leaf plot, upper extreme, upper quartile, Combination, complementary events, compund event, dependent events, experimental probability, factorial, fair game, Fundamental Counting Principle, independent events, outcome, permutation, probability, random, sample space, simple event, theoretical probability, tree diagram.

3		GLE 0706.4.1	Understand the application of proportionality with similar triangles.	√ 0706.4.2	Use similar triangles and proportionaility to find the lengths of unknown line segments in a triangle.	SPI 0706.4.1	Solve contextual problems involving similar triangles.	√ **0606.4.9 Analyze the differences between congruence and similarity.**	
3						SPI 0706.4.2	Use SSS, SAS, and AA to determine if two angles are similar.		

3				√ 0706.4.4	Compare angles, side lengths, perimeters, and areas of similar shapes.			SPI 0606.4.1 Identify, define or describe geometric shapes given a visual representation or a written description of its properties. √ 0606.4.3 Verify the basic properties of triangles and quadrilaterals using a protractor and ruler. √ 0606.4.4 Classify triangles by side lengths (scalene, isosceles, and equilateral) and angle measure (acute, right, obtuse, isosceles and equiangular). SPI 0606.4.2 Find a missing angle measure in problems involving interior/exterior angles and/or their sums. √ 0606.4.1 Investigate the sum of the angles in a triangle and a quadrilateral using various methods. √ 0606.4.2 Relate the sum of the angles in a triangle to the sum of the angles in polygons. √ 606.4.6 Use the properties of interior and exterior angles of polygons to solve problems. SPI 0606.4.3 Solve problems using the Triangle Inequality Theorem. √ 0606.4.5 Model and use the Triangle Inequality Theorem.	

3		GLE 0706.4.3	Understand and use scale factor to describe the relationships between length, area, and volume.	√ 0706.4.3	Understand that if a scale factor describes how corresponding lengths in two similar objects are related, then the square of the scale factor describes how corresponding areas are related, and the cube of the scale factor describes how corresponding volumes are related.	SPI 0706.4.3	Apply scale factor to solve problems invoving area and volume.	SPI 0606.4.4 Calculate with circumferences and areas of circles. √ 0606.4.12 Derive the meaning of Pi using concrete models and/or appropriate technology. √ 0606.4.11 Relate the circumference of a circle with the perimeter of a polygonal figure. √ 0606.4.13 Understand the relationships among the radius, diameter, circumference and area of a circle, and that the ratio of the circumference to the diameter is the same as the ratio of the area to the square of the radius, and that this ratio is called Pi. SPI 0606.4.5 Determine the surface area and volume of prisms, pyramids and cylinders. □ 0606.4.14 Relate the area of a trapezoid to the area of a parallelogram. SPI 0606.4.6 Given the volume of a cone/pyramid, find the volume of the related cylinder/prism or vice versa. √ 0606.4.17 Use manipulatives to discover the volume of a pyramid is one-third the volume of the related prism (the heights and base areas are equal).	

3								√ 0606.4.15 Find lengths given areas or volumes, and vice versa. √ 0606.4.16 Solve contextual problems involving area and circumference of circles, surface areas and volumes of prisms, pyramids, cones, and cylinders. 0606.4.7 Work with transformations in a plane and explore their meanings through drawings and manipulatives. 0606.4.18 Use manipulatives to discover the volume of a cone is one-third the volume of the related cylinder (the heights and base areas are equal).	
3				CFU 0706.1.12	Use dynamic geometry software to expore scale factor and similarity.			√ 0606.4.10 Describe the effect of a transformation on a 2-dimensional figure and the resulting symmetry. CFU: 0606.4.8 Understand scaling, dilation and their relation to similarity. 0606.4.9 Analyze the differences between congruence and similarity.	
3		GLE 0706.5.1	Collect, organize, and analyze both single-and two-variable data.	CFU 0706.5.4	Use proportional reasoning to make predictions about results of experiments and simulations.				
3				CFU 0706.5.5	Evaluate the design of an experiment.				
3		GLE 0706.5.2	Select, create, and use appropriate graphical representations of data	CFU 0706.5.1	Create and interpret box-and-whisker plots and stem-and-leaf plots.				

3				CFU 0706.5.2	Interpret and solve problems using information presented in various visual forms.			SPI 0606.5.2 Identify features of graphs that may be misleading. √ 0606.5.8 Connect data sets and their graphical representations (e.g.,bar graphs, circle, graphs, and stem-and-leaf plots). SPI 0606.5.3 Determine whether or not a sample is biased.	
3				CFU 0706.5.6	Apply percentages to make and interpret histograms and circle graphs.	SPI 0706.5.1	Interpret and employ various graphs and charts to represent data.		
3						SPI 0706.5.2	Select suitable graph types (such as bar graphs, histograms, line graphs, circle graphs, box-and-whisker plots, and stem-and-leaf plots) and use them to create accurate representations of given data.		
3		GLE 0706.5.3	Formulate questions and design studies to collect data about a characteristic shared by two populations, or different characteristics within one population.	CFU 0706.5.3	Predict and compare the characteristics of two populations based on the analysis of sample data.			√ **0606.5.10** Distinguish between a random and nonrandom sample. √ **0606.5.12** Predict the characteristics of a population based on the analysis of sample data. **CFU 0606.5.9** Determine the sample space for a given situation.	

3		GLE 0706.5.4	Use descriptive statistics to summarize and compare data.			SPI 0706.5.3	Calculate and interpret the mean, median, upper-quartile, lower-quartile, and interquartile range of a set of data.	√ **0606.5.11** Select the appropriate measure of center to describe a data set.	
3		GLE 0706.5.5	Understand and apply basic concepts of probability.			SPI 0706.5.4	Use theoretical probability to make predictions.	**SPI 0606.5.1** Determine the theoretical probability of simple and compound events in familiar contexts. √ **0606.5.1** Understand that the probability of an event is a number between zero and one that expresses the likelihood of its occurrence. √ **0606.5.2** Identify the probability of an event as the ratio of the number of its actual occurrences to the total number of its possible occurrences. √ **0606.5.3** Express probabilities in different ways. √ **0606.5.4** Understand the difference between probability and odds. √ **0606.5.5** Analyze a situation that involves probability of an independent event. √ **0606.5.6** Estimate the probability of simple and compound events through experimentation or simulation. √ **0606.5.**7 Apply procedures to calculate the probability of complementary events.	
3				CFU 0706.5.6	Use a tree diagram or organized list to determine all possible outcomes of a simple experiment.				

Glencoe Resources

Section # Course 2	Section Title	Section # Course 3	Section Title
Sec. 10.1	Angles	Sec. 6.1	Line and Angle Relationships
Sec. 10.3	Angle Reationships		
Sec. 10.4	Triangles	Sec. 6.2	Triangles & Angles
Sec. 10.5	Quadriaterals	Sec. 6.4	Classifying Quadrilaterals
Sec. 10.6	Similar Figures	Sec. 4.5	Similar Polygons
Supp.	Characteristics of Polygons	Supp.	Characteristics of Polygons
Supp.	Congruent Polygons	Sec. 6.5	Congruent Polygons
Sec. 6.8	Perimeter & Area of Rectangles	p. 613	Perimeter & Area of Rectangles
Sec. 11.4	Area of Parallelograms	Sec. 7.1	Area of Parallelograms, Triangles, & Trapezoids
Sec.11.5	Area of Triangles & Trapezoids		
Sec. 6.9	Circumference of Circles	Sec. 7.2	Circumference and Area of Circles
Sec. 11.6	Area of Circles		
Sec. 12.2	Voume of Rectangular Prisms	Sec. 7.5	Volume of Rectangular Prisms & Cylinders
Sec. 12.3	Volume of Cylinders		
Supp.	Scale Factor and Area and Volume	Supp.	Scale Factor and Area and Volume
Sec.2.1	Frequency Tables		Frequency Tables
Sec 2.3	Line Plots		Line Plots
Sec. 2.5	Stem and Leaf Plots	p. 602-603, supp.	Stem and Leaf Plots
Sec. 2.7	Bar Graphs & Histograms	Sec. 9.1	Bar Graphs & Histograms
Supp.	Line Graphs, Pictographs	p. 602-603, supp.	Line Graphs, Pictographs
Sec. 10.2	Circle Graphs	Sec. 9.2	Circle Graphs
Sec. 2.4	Mean, Median, & Mode	Sec. 9.4	Measures of Central Tendency
Supp.	Measures of Variation	Sec. 9.5	Measures of Variation
Sec. 2.6	Box-and-Whisker Plots	Sec. 9.6	Box-and-Whisker Plots
Sec. 2.2	Making Predictions From Graphs	Supp.	Making Predictions From Graphs
Sec. 8.3	Using Statistics to Predict	Sec. 8.7	Using Sampling to Predict

Sec. 2.8	Misleading Statistics				Sec. 9.7	Misleading Graphs & Statistics			
Sec. 9.1	Simple Events				Sec. 8.1	Probability of Simple Events			
Sec. 9.2	Tree Diagrams				Sec. 8.2	Counting Outcomes			
Sec. 9.3	The Fundamental Counting Principle								
Sec. 9.4	Permutations				Sec. 8.3	Permutations			
Sec. 9.5	Combinations				Sec. 8.4	Combinations			
Sec. 9.6	Theoretical & Experimental Probability				Sec. 8.6	Experimental Probability			
Sec. 9.7	Independent & Dependent Events				Sec. 8.5	Probability of Compound Events			
Supplemental Resources									
			Brain Pops:Geometry: Types of Triangles, Similar Figures and Angles, Probability: Mean, Median, Mode, and Range, Probability: Basic Probability, Compound Events, Independent/Dependent Events,		Learn 360: Cyber Chase- "A Day at the Spa"			PowerPoint: Geometery Classifying, Types of Triangles, Triangle Classification, World of Triangles, Formulas for Geometry, Geometry Vocabuary, Lines & Angles, Lines & Angles 2, Mean, Median and Mode, Probability and Choice, Probability Review, Probability, Probability II.	

4TH NINE WEEKS

1. TCAP REVIEW
2. OTHER TOPICS AT EACH TEACHER'S DISCRETION