

PRESCOTT UNIFIED SCHOOL DISTRICT

District Instructional Guide

Date Revised __June 2, 2015__

Grade Level: 7th	Subject: Math	Time: All Year	Core Text: Glencoe Math CCSS
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Topic	Content (Nouns)	Skills (Verbs)	Standards
Mathematical Practices		<ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and make use of structure. • Look for and express regularity in repeated reasoning. 	7.MP.1 7.MP.2 7.MP.3 7.MP.4 7.MP.5 7.MP.6 7.MP.7 7.MP.8

Grade Level: 7th	Subject: Math	Time: Quarter 1	Core Text: Glencoe Math CCSS
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Time	Topic	Content (Nouns)	Skills (Verbs)	Standards
2.5 weeks	Integers	Absolute value Additive inverse graph integer negative integer opposites positive integer zero pair	-Read and write integers, and find the absolute value of an integer -Add integers -Subtract integers -Multiply integers -Divide integers	7.NS.1 7.NS.1.A 7.NS.1.B 7.NS.1.C 7.NS.1.D 7.NS.2 7.NS.2.A 7.NS.2.B 7.NS.2.C 7.NS.3 7.EE.3

2 weeks	Rational Numbers	Bar notation Common denominator least common denominator like fractions rational numbers repeating decimal terminating decimal unlike fractions	<ul style="list-style-type: none"> -Write fractions as terminating or repeating decimals as fractions -Compare and order rational numbers -Add and subtract like fractions with like denominators -Add and subtract fractions with unlike denominators -Add and subtract mixed numbers -Solve problems by drawing a diagram -Multiply fractions and mixed numbers -Divide fractions and mixed numbers -Convert units of measure between the customary and metric systems - 	7.NS.1 7.NS.1.B 7.NS.1.C 7.NS.1.D 7.NS.2 7.NS.2.A 7.NS.2.B 7.NS.2.C 7.NS.2.D 7.NS.3 7.RP.3 7.EE.3
3 weeks	Ratios and Proportional Reasoning	Complex fractions Constant of proportionality Constant rate of change Constant of variation coordinate plane cross products dimensional analysis Direct variation equivalent ratios nonproportional proportional ordered pair origin quadrants rate rate of change slope unit rate unit ratio x-axis x.coordinate y-axis y-coordinate	<ul style="list-style-type: none"> -use br diagrams to solve problems involving -Determine unit rates -Simplify complex fractions and find unit rates -Convert units of measure between derived units to solve problems -Identify proportional and nonproportional relationships -Solve problems by using the four-step plan -Identify proportional relationships by graphing on the coordinate plane -Compare and contrast proportional and nonproportional linear functions -Use proportions to solve problems -Understand slope as it relates to rate of change -Identify constant rates of change using tables and graphs -Identify slope using tables and graphs -Use direct variation to solve problems 	

Grade Level: 7th	Subject: Math	Time: Quarter 2	Core Text: Glencoe Math CCSS
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Time	Topic	Content (Nouns)	Skills (Verbs)	Standards
2.5 weeks	Percents	Discount Gratuity Markdown Markup Percent equation Percent Error Percent of change Percent of decrease Percent of increase Percent proportion Principal Sales tax Selling price Simple interest Tip	-Find percent of a number -Estimate percents using fractions and decimals -Solve problems involving percents -Use the percent proportion -Use the percent equation -Solve problems by determining reasonable answers -find percent of change and percent error -Solve problems involving sales tax, tips, and markup -Solve problems involving discount -Solve problems involving simple interest	7.RP.2 7.RP.2.C 7.RP.3 7.EE.E 7.EE.3
3 weeks	Expressions	Additive identity property Algebra Algebraic expression Arithmetic sequence Associative property Coefficient Commutative property constat Counterexample Define a variable Distributive property Equivalent expressions Factor Factored form Like terms Linear expression Monomial Multiplicative identity property Multiplicative property of zero Property Sequence Simplest form Term Variable	-Evaluate simple algebraic expressions -Describe the relationships and extend terms in arithmetic sequences -Explore patterns in sequences of geometric figures -Identify and use mathematical properties to simplify algebraic expressions -Apply the distributive property to rewrite algebraic expressions -solve problems by making a table -Simplify algebraic expressions -Add linear expressions -Subtract linear expressions -Use properties of mathematics to factor linear expressions	7.EE.1 7.EE.2 7.NS.3
3 weeks	Equations and Inequalities	Addition property of equality Addition property of inequality coefficient Division property of equality Division property of inequality Equation	-solve addition and subtraction equations -Solve one step multiplication and division equations -solve equations with rational coefficients -Solve two step equations -Solve two-step equations of the form $p(x + q) = r$ -Solve problems by working backwards	7.EE.3 7.EE.4 7.EE.4.A 7.EE.4.B

		Equivalent equation Inequality Multiplication property of equality Multiplication property of inequality Solution Subtraction property of equality Subtraction property of inequality Two step equation Two step inequality	-solve inequalities by using the addition and subtraction property of inequalities -Solve inequalities by using the multiplication and division properties of inequalities -solve and graph two step inequalities in one variable	
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Grade Level: 7th	Subject: Math	Time: Quarter 3	Core Text: Glencoe Math CCSS
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Time	Topic	Content (Nouns)	Skills (Verbs)	Standards
4 weeks	Geometric Figures	Acute angle Acute triangle Adjacent angles Base complementary angles Cone Congruent Congruent segments Coplanar Cross section Cylinder Diagonal Edge Equilateral triangle Face Isosceles triangle Obtuse angle Obtuse triangle Plane Polyhedron Prism Pyramid Right angle Right triangle Scale Scale drawing Scale factor Scale model	-Classify angles and identify vertical and adjacent angles -Identify and use complementary and supplementary angles -Draw triangles using given angles or given side lengths -Identify and classify triangles and find missing angle measures -Solve problems by making a model -Solve problems involving scale drawings -Draw three-dimensional figures given top, side, and front view -Identify and draw three-dimensional figures	7.G.1 7.G.2 7.G.3 7.G.5

		Scalene triangle Straight angle Supplementary angles Triangle Vertex Vertical angles		
4 weeks	Measure Figures	Center Circle Circumference Composite figure Diameter Lateral face Lateral surface area Pi Radius Regular pyramid Semicircle Slant height Surface area Volume	-Find the circumference of circles -Find the area of circles -Find the area of composite figures -Find the volume of prisms -Solve problems by solving a simpler problem -Find the volumes of pyramids -Find the surface area of prisms -Compare surface area and volume of rectangular prisms -Find the surface areas of pyramids -Find the volume and surface area of composite figures	7.G.4 7.G.6

Grade Level: 7th	Subject: Math	Time: Quarter 4	Core Text: Glencoe Math CCSS
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Time	Topic	Content (Nouns)	Skills (Verbs)	Standards
3 weeks	Probability	Complementary events Compound event Dependent event Experimental probability Fair Fundamental counting principle Independent events Outcome Permutation Probability Random Relative frequency Sample space Simple event Simulation Theoretical probability	-Find and interpret the probability of a simple event -Find and compare experimental and theoretical probabilities -Find the probabilities of compound events -Perform probability simulations to model real-world situations involving uncertainty -Solve problems by act them out -Use multiplication to count outcomes and find probabilities -Find the number of permutations of a set of objects and find probabilities -Find the probability of independent and dependent events	7.SP.5 7.SP.6 7.SP.7 7.SP.7.A 7.SP.7.B 7.SP.8 7.SP.8.A 7.SP.8.B 7.SP.8.C

		Tree diagram Uniform probability model Unfair		
3 weeks	Statistics	Biased sample Convenience sample Double box plot Double dot plot Population Sample Simple random sample Statistics Survey Systematic random sample unbiased sample voluntary response sample	-Predict actions of a larger group by using a sample -Determine whether sample methods are valid -Analyze the variation in multiple samples of data -Recognize when statistics and graphs are misleading -solve problems by using a graph -Compare two populations -Select, organize and construct appropriate data displays	7.SP.1 7.SP.2 7.SP.3 7.SP.4