Mathematics Pre-Algebra
Scope and Sequence
Grades 7 – 8
2016 – 2017

Grade	September	October	November	December	January	February	March	April	May	June
7	Integers • Comparing and ordering • Absolute value • All four operations • Evaluating expressions • Order of Operations Whole number/ Equations Review • Order of operations • Evaluating expressions • One and two step equations • Distributive Property	Complete Integers Unit Real Number System • Squares and square roots • Graph and roster number sets • Classifying numbers • Defining number sets Rational Numbers • Conversions • Order and compare • All four operations • Evaluate rational expressions	Complete Rational Numbers Expressions and Equations • Simplifying expressions • Combining Like Terms • Distributive Property • Solving one and two step equations • Multi-step equations	Complete Expressions and Equations	Inequalities • Writing and graphing inequalities • Translating written inequalities to algebraic inequalities • Solving one-step inequalities • Solving two-step inequalities	Ratio and Proportion Unit • Write ratios in all three ways • Simplify ratios • Rates and unit rates • Writing and solving proportions • Proportionality Applications of Proportion • Similar Figures • Scale Drawings	Percent Review • Conversions • Comparing and ordering • Percent proportion and equation Percent Application • Percent of Change • Discount and mark-ups • Simple interest • Commission	Complete Percent Application	Line Geometry • Complementary and supplementary angles • Triangles (classifying and finding missing angle) • Quadrilaterals (classifying and finding the missing angle	Circles and Area • Circumference and perimeter of circles and composite figures • Area of circles and composite figues
8	Complex Number System • Operations with fractions and decimals Evaluate Expressions Solve Equations • One-step • Two-step • Use the Distributive Property	Solve Equations with Variables on Both Sides Congruence Transformations • Translations • Reflections • Rotations • Multiple Transformations Similar Figures (dilations)	Dilations Angle Relationships • Complementary • Supplementary • Vertical Parallel Lines, Perpendicular Lines, Transversals	Triangles • Classify • Triangle inequality Polygons • Sum of measures of interior and exterior angles Similar Figures Word Problems Intro to Slope	Slope Graph Equations in 2-Variables Families of Equations Linear Equations in Two Variables • Slope-intercept form • Standard form Parallel lines on Coordinate Plane Systems of Equations	Systems of Equations • Substitution • Elimination • Special Systems (no solution, infinitely many solutions) • Application problems	Radicals • Evaluate expressions with sq. roots • Approximate sq. roots Compare and Order Rational and Irrational Numbers Convert Repeating Decimals to Fractions	The Pythagorean Theorem • Determine if a triangle is a right triangle Solids	Similar Solids Volume and Surface Area • Rectangular Prisms • Cylinders • Cones • Spheres	Data Analysis Scatterplots • Interpret data • Line of best fit