Scope and Sequence: Sixth Grade

What Students Learn in Sixth Grade Mathematics
Sixth grade marks the transition from finishing off elementary math concepts and transitioning into new concepts that will build the foundation for future work. Students begin the year with a focus on number sense. They extend the notion of the number system to include the concept of integers (positive and negative numbers) through the use of horizontal and vertical number lines. Next, grade six students will finish the concepts of operations with whole numbers, decimals, and fractions, including division of fractions. A critical area of instruction in grade six is the concept of expressions. Students will be expected to read, write, and evaluate expressions including both numbers and variables. Another critical area is beginning the study of equations and inequalities. Students will solve one-step linear equations from both mathematical and real-world contexts. The next major area of instruction is the concept of ratios and rates. This will be demonstrated through the use of tape diagrams, double sided number lines, equivalent ratios, and unit rate when given tables and real world contexts. The concept of percent will also develop from rate reasoning. Next, sixth grade students will develop their comprehension of statistical reasoning. Students will build on their knowledge of data analysis to extend a deeper understanding of analyzing data distribution and appropriate measures of center and variability. Finally, in the domain of Geometry, sixth grade students are building on previous grade level understandings of length, area, and volume. The focus this year is developing and using the formulas for area of triangles and parallelograms and volume of rectangular prisms.

Unit Numbers and Titles		By the end of Grade 6, students…
Tri 1	Rational Numbers (Number Sense)	**Should master:** • Division of whole numbers and fractions • All operations with decimals • Represent positive & negative numbers on a number line
	Operations: Whole Numbers, Fractions, and Decimals	
Tri 2	Expressions, Exponents, and Properties with Variables	**Work towards fluency in:** • Plotting points on the coordinate plane • Applying ratios and rates to solve real world problems • Understanding percent as a special rate and solve simple problems • Writing, reading, and evaluating algebraic expressions • Writing and solving 1-step equations representing real world problems and writing and graphing inequalities • Finding the area of quadrilaterals and triangles
	Equations and Inequalities	
	Ratios and their Applications	
Tri 3	Percent	
	Statistics	**Be introduced to**: • Determining the relationship between independent and dependent variables in a graph, table, and equation • Finding the volume of right rectangular prisms with fractional edge lengths • Finding the surface area of simple 3-D figures • Recognizing statistical questions and analyzing their corresponding data
	Area and Length (including on the coordinate plane)	
	Volume and Surface Area	

GARDEN GROVE UNIFIED SCHOOL DISTRICT
Office of Elementary Education
Department of K-6 Instruction