Elementary Progression of the Critical Areas of Focus

Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
1) represent and compare whole numbers (initially using sets of objects) 2) describing shapes and space *Fluency with addition and subtraction within 5	1) developing understanding of addition and subtraction (strategies for addition/subtraction, adding/subtracting within 20) 2) whole number understanding of place value (regrouping 10s and 1s) 3) measurement – linear (measuring lengths) 4) composing and decomposing geometric shapes *Fluency with addition and subtraction within 10	1) extending base 10 notation 2) building fluency with addition and subtraction 3) using standard units of measure 4) describing and analyzing shapes *work towards fluency with addition/subtraction within 100, know all sums of two 1-digit numbers	1) developing understanding multiplication and division within 100 (strategies for multiply/divide) 2) developing understanding of fractions (especially unit fractions – fraction with numerator of 1) 3) developing understanding of rectangular arrays and of area 4) describing and analyzing 2-dimensional shapes *Fluency with addition and subtraction within 1000, multiply and divide within 100, know all products of two 1-digit numbers	1) developing understanding and fluency with multi-digit multiplication 2) developing understanding of dividing to find quotient involving multi-digit dividends 3) developing understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers 4) understanding that geometric figures can be analyzed and classified based on properties *work towards fluency with addition and subtraction within 1,000,000 using standard algorithm	1) developing fluency with addition and subtraction of fractions, and developing understanding of multiplication of fractions, and division of fractions in limited cases 2) extending division to 2-digit divisor, integrating decimal fractions into the place-value system, and developing understanding of operations with decimals to one hundredths and developing fluency with whole numbers and decimal operations 3) developing understanding of volume *Fluently multiply multi-digit whole number with standard algorithm

Secondary Progression of the Critical Areas of Focus

Common Core Math 6	Common Core Math 7	Intermediate Algebra/Geometry	Common Core Algebra	Common Core Geometry	Common Core Algebra 2
1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems 2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers 3) writing, interpreting, and using expressions, equations and inequalities 4) developing understanding of statistical thinking	1) developing understanding of and applying proportional relationships, including percentages 2) developing understanding of operations with rational numbers and working with expressions and linear equations 3) solving problems including scale drawings and informal geometric constructions and working with 2- and 3-dimensional shapes to solve problems involving area, surface area and volume 4) drawing inferences about populations based on samples	1) formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equation, and solving linear equations and systems of linear equations 2) grasping the concept of a function and using functions to describe quantitative relationships 3) analyzing 2- and 3-dimensional space and figures using distance, angle, similarity, and congruence and understanding and applying the Pythagorean Theorem	1) deepen and extend understanding of linear and exponential relationships 2) contrast linear and exponential relationships with each other and engage in methods for analyzing, solving, and using quadratic functions 3) extend the laws of exponents to square and cube roots 4) apply linear models to data that exhibit a linear trend	1) establish criteria for congruence of triangles based on rigid motions 2) establish criteria for similarity of triangles based on dilations and proportional reasoning 3) informally develop explanations of circumference, area, and volume formulas 4) apply the Pythagorean Theorem to the coordinate plane 5) prove basic geometric theorems 6) extend work with probability	1) relate arithmetic of rational expressions to arithmetic of rational numbers 2) expand understandings of functions and graphing to include trigonometric functions 3) synthesize and generalize functions and extend understanding of exponential functions to logarithmic functions 4) relate data display and summary statistics to probability and explore a variety of data collection methods.