Number and Operations in Base Ten:Place Value

K Work with numbers 11-19 to gain foundational understanding of place value

1st Count to 120 starting at any number
Understand that 2 digit numbers represent amounts of tens and ones
Compare 2 digit numbers based on the meanings of tens and ones

2nd Count within 1000, skip counting by 2s, 5s, 10s and 100s
Understand that 3 digit numbers represent the amount of hundreds, tens, and ones

3rd Understand that 4 digits numbers represent the amounts of thousands, hundreds, tens, and ones
Use place value understanding to round to the nearest 10 or 100

4th Recognize that in multi-digit numbers, a digit in the one place represents 10 times as much as it represents in the place to its right
Read and write multi-digit whole numbers using base-10, number names, and expanded form. Compare 2 multi-digit numbers
Use place value understanding to round multi-digit numbers to any place

5th Recognize that in multi-digit numbers, a digit in the one place represents 10 times as much as it represents in the place to its right and
1/10 of what it represents in the place to the left
Read, write, and compare decimals to thousandths
Use place value understanding to round decimals to any place
Explain patterns of zero of the product when multiplying a number by powers of 10
Explain patterns of the decimal point when a decimal is multiplied or divided by a power of 10
Use whole number exponents to denote powers of 10

6th Apply and extend previous understandings of numbers to the system of rational numbers.
Apply and extend previous understandings of arithmetic to algebraic expressions.

7th Apply and extend previous understandings of operations with fractions to add, subtract, multiple, and divide rational numbers.
Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

8th Know that there are numbers that are not rational, and approximate them by rational numbers.
Work with radicals and integer exponents.

Algebra I Extend the properties of exponents to rational exponents. (N)
Reason quantitatively and use units to solve problems. (N)
Write expressions in equivalent forms to solve problems. (A)
Analyze functions using different representations. (F)
Construct and compare linear, quadratic, and exponential models and solve problems. (F)

Geometry Use probability to evaluate outcomes of decisions. (S)

Algebra II Write expressions in equivalent forms to solve problems. (A)
Understand the relationship between zeros and factors of polynomials.
Analyze functions using different representations. (F)
Construct and compare linear, quadratic, and exponential models and solve problems. (F)

Number and Operations in Base Ten:Operations

1st	Using place value with addition and subtraction up to 100 with groupings of 10
2nd	Understanding place value up to 1000
	Add and subtract fluently within 100 using place value strategies
3rd	Add and subtract fluently within 1000 using place value strategies
4th	Fluently add and subtract multi-digit whole numbers using standard algorithms
	Multiply whole numbers of up to 4 digits by 1 digit using multiple strategies
	Multiple two two-digit numbers using multiple strategies
	Solve problems involving multiplication of multi-digit by two-digit numbers
	Find whole number quotients and remainders with up to four-digit dividends and 1 digit divisors using multiple strategies
5th	Fluently multiply multi-digit numbers using the standard algorithm
	Find whole number quotients and remainders with up to four-digit dividends and 2 digit divisors using multiple strategies
	Add, subtract, multiply, and divide decimals to hundredths using multiple strategies
6th	Fluently divide multi-digit numbers using standard algorithms
	Fluently add, subtract, multiply, and divide multi-digit decimals using standard algorithms
	Find greatest common factor of 2 whole numbers < or = 100 and least common multiple of 2 whole numbers < or = 12
	Use distributive property to express a sum of 2 whole numbers 1-100 with a common factor as a multiple of the sum of the two whole numbers with no common factor
	Understand +/- numbers; Understand a rational number as a point on the number line
	Understand ordering and absolute value of rational numbers
	Add and subtract rational numbers
7th	Analyze proportional relationships and use them to solve real-world and mathematical problems.
	Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.
	Use properties of operations to generate equivalent expressions.
	Solve real-life and mathematical problems using numerical and algebraic expressions and equations.
8th	Know that there are numbers that are not rational, and approximate them by rational numbers.
	Work with radicals and integer exponents.
Algebra I	Extend the properties of exponents to rational exponents. (N)
	Use properties of rational and irrational numbers (N)
	Interpret the structure of equations. (A)
	Perform arithmetic operations on polynomials. (A)
	Analyze functions using different representations. (F)
	Build a function that models a relationship between two quantities. (F)
	Build new functions from existing functions. (F)
Geometry	Understand independence and conditional probability and use them to interpret data. (S)
	Use the rules of probability to compute probabilities of compound events in a uniform probability model. (S)
Algebra II	Perform arithmetic operations with complex numbers. (N)
	Use complex numbers in polynomial identities and equations. (N)
	Understand the relationship between zeros and factors of polynomials. (A)
	Rewrite rational expressions. (A)
	Build a function that models a relationship between two quantities. (F)
	Build new functions from existing functions. (F)