STATE OF SOUTH CAROLINA

DEPARTMENT OF EDUCATION

Mathematics Standards Crosswalk
2015 to 2025

Office of Assessment and Standards

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Contents

Overview of Document

The purpose of the crosswalk document is to reveal alignment and differences between the 2015 SCCCR Mathematics Standards and the 2025 SC CCR Mathematics Standards as well as to guide curriculum development at the local school district level.

Background: In 2021, South Carolina began a process of reviewing the 2015 SC College- and Career-Ready Mathematics Standards. The review and revision processes involved classroom teachers, administrators, curriculum specialists, parents, and professors. In the 2025 version of the SC CCR Mathematics Standards, revisions were made to clarify the standards, ensure developmental appropriateness, and ensure clear skills progression across grade levels.

Overview: South Carolina's CCR Mathematics Standards are divided into four strands: Data, Probability, and Statistical Reasoning (DPSR); Measurement, Geometry, and Spatial Reasoning (MGSR); Numerical Reasoning (NR); and Patterns, Algebra, and Functional Reasoning (PAFR). Within each strand are grade-level standards for knowledge and capabilities that students should have upon the completion of the strand. Each standard contains indicators that have been vertically aligned from kindergarten to high school. These standards and indicators represent a balance of conceptual and procedural knowledge and specify the mathematics that students will master in each grade level and in each high school course. In some instances, alignment between the 2025 indicators and the 2015 standards may occur at different grade levels due to shifts in content between the two versions. There may also be multiple 2025 indicators that align with one 2015 standard due to the revisions and movement of standards.

Kindergarten:

Number Sense

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
K.NS.1 Count forward by ones and tens to 100.	**K.NR.2.1** Count forward by ones and tens to 100 and backward from 10 by ones.
K.NS.2 Count forward by ones beginning from any number less than 100.	**K.NR.2.1** Count forward by ones and tens to 100 and backward from 10 by ones.
K.NS.3 Read numbers from 0 – 20 and represent a number of objects 0 – 20 with a written numeral.	**K.NR.1.1** Read, write, and represent the numerals 0 to 20 and represent the written numeral with concrete models.
K.NS.4 Understand the relationship between number and quantity. Connect counting to cardinality by demonstrating an understanding that: a. the last number said tells the number of objects in the set (cardinality); b. the number of objects is the same regardless of their arrangement or the order in which they are counted (conservation of number); c. each successive number name refers to a quantity that is one more and each previous number name refers to a quantity that is one less.	**K.NR.2.3** Given a group of up to 20 objects, count the number of objects in that group and represent the number of objects with a written numeral. State the number of objects in a rearrangement of that group without recounting. **K.NR.2.4** Given a number from 0 to 20, count out that many objects.
K.NS.5 Count a given number of objects from 1 – 20 and connect this sequence in a one-to-one manner.	**K.NR.2.3** Given a group of up to 20 objects, count the number of objects in that group and represent the number of objects with a written numeral. State the number of objects in a rearrangement of that group without recounting.
K.NS.6 Recognize a quantity of up to ten objects in an organized arrangement (subitizing).	**K.NR.2.2** Subitize a quantity of up to 10 objects in an organized arrangement without counting, explaining how one grouped the objects within the set to determine the total quantity.
K.NS.7 Determine whether the number of up to ten objects in one group is more than, less than, or equal to the number of up to ten objects in another group using matching and counting strategies.	**K.NR.3.1** Compare up to 10 objects in one set to another set of up to 10 objects using the phrases *more than, fewer than,* or *the same as.*
K.NS.8 Compare two written numerals up to 10 using more than, less than or equal to.	**No correlating 2025 indicator.**
K.NS.9 Identify first through fifth and last positions in a line of objects.	**No correlating 2025 indicator.**

Number Sense and Base Ten

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
K.NSBT.1 Compose and decompose numbers from 11 – 19 separating ten ones from the remaining ones using objects and drawings.	**K.NR.1.2** Compose and decompose numbers from 11 to 19 into tens and ones by using concrete objects, pictorial models, or drawings to demonstrate understanding that the teen numbers are composed of one set of ten ones and a few more ones.

Algebraic Thinking and Operations

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
K.ATO.1 Model situations that involve addition and subtraction within 10 using objects, fingers, mental images, drawings, acting out situations, verbal explanations, expressions, and equations.	**K.PAFR.1.4** Solve add-to/joining, take-from/separating, part-part-whole (total unknown), part-part-whole (both addends unknown) real-world situations to find sums and differences within 10.
K.ATO.2 Solve real-world/story problems using objects and drawings to find sums up to 10 and differences within 10.	**K.PAFR.1.4** Solve add-to/joining, take-from/separating, part-part-whole (total unknown), part-part-whole (both addends unknown) real-world situations to find sums and differences within 10.
K.ATO.3 Compose and decompose numbers up to 10 using objects, drawings, and equations.	**K.PAFR.1.3** Compose and decompose numbers up to 10 in different ways. Record using objects or drawings.
K.ATO.4 Create a sum of 10 using objects and drawings when given one of two addends 1 – 9.	**K.PAFR.1.2** Create a sum of 10 using objects and drawings when given one of two addends 0–9, to include real-world situations.
K.ATO.5 Add and subtract fluently within 5.	**K.PAFR.1.1** Add and subtract number combinations within 5.
K.ATO.6 Describe simple repeating patterns using AB, AAB, ABB, and ABC type patterns.	**K.PAFR.2.1** Describe, extend, and create (to the next term) simple repeating patterns in the form of AB, AAB, ABB, and ABC.

Geometry

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
K.G.1 Describe positions of objects by appropriately using terms, including below, above, beside, between, inside, outside, in front of, or behind.	**K.MGSR.2.2** Describe relative positions of objects by appropriately using terms including *below*, *above*, *beside*, *between*, *inside*, *outside*, *in front of*, or *behind*.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
K.G.2 Identify and describe a given shape and shapes of objects in everyday situations to include two-dimensional shapes (i.e., triangle, square, rectangle, hexagon, and circle) and three-dimensional shapes (i.e., cone, cube, cylinder, and sphere).	**K.MGSR.2.1** Identify and describe the attributes of triangles, squares, rectangles, circles, cubes, and spheres to include everyday situations. **1.MGSR.2.2** Identify and describe the attributes of two-dimensional shapes and three-dimensional shapes. Limit to triangle, square, rectangle, rhombus, hexagon, circle, cone, cube, cylinder, square pyramid, and sphere. **1.MGSR.2.3** Identify and describe a given shape in everyday situations to include two-dimensional shapes and three-dimensional shapes. Limit to triangle, square, rectangle, rhombus, hexagon, circle, cone, cube, cylinder, square pyramid, and sphere.
K.G.3 Classify shapes as two-dimensional/flat or three-dimensional/solid and explain the reasoning used.	**1.MGSR.2.4** Classify shapes as two-dimensional/flat or three-dimensional/solid and explain the reasoning using formal mathematical language. Limit to triangle, square, rectangle, rhombus, hexagon, circle, cone, cube, cylinder, square pyramid, and sphere.
K.G.4 Analyze and compare two- and three-dimensional shapes of different sizes and orientations using informal language.	**1.MGSR.2.5** Analyze and compare a pair of two-dimensional shapes or a pair of three-dimensional shapes of assorted sizes and orientations using formal mathematical language. Limit to triangle, square, rectangle, rhombus, hexagon, circle, cone, cube, cylinder, square pyramid, and sphere.
K.G.5 Draw two-dimensional shapes (i.e., square, rectangle, triangle, hexagon, and circle) and create models of three-dimensional shapes (i.e., cone, cube, cylinder, and sphere).	**No correlating 2025 indicator.**

Measurement and Data Analysis

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
K.MDA.1 Identify measurable attributes (length, weight) of an object.	**K.MGSR.1.2** Directly compare two objects using words including *shorter*, *longer*, *taller*, *lighter*, and *heavier*.
K.MDA.2 Compare objects using words such as shorter/longer, shorter/taller, and lighter/heavier.	**K.MGSR.1.2** Directly compare two objects using words including *shorter*, *longer*, *taller*, *lighter*, and *heavier*.

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
K.MDA.3 Sort and classify data into 2 or 3 categories with data not to exceed 20 items in each category.	**K.DPSR.1.1** Sort pictures or objects into at least two categories. Count to determine how many are in each category. Limit to 20 pictures or objects.
K.MDA.4 Represent data using object and picture graphs and draw conclusions from the graphs.	**K.DPSR.1.2** Answer questions about data organized in a t-chart, object graph, or picture graph.

Grade 1:

Number Sense and Base Ten

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
1.NSBT.1 Extend the number sequence to: a. count forward by ones to 120 starting at any number; b. count by fives and tens to 100, starting at any number; c. read, write and represent numbers to 100 using concrete models, standard form, and equations in expanded form; d. read and write in word form numbers zero through nineteen, and multiples of ten through ninety.	**1.NR.1.1** Read, write, and represent numbers to 100 using concrete models, drawings, standard form, base ten language, and equations in expanded form. **1.NR.2.1** Count by ones forward or backward starting at any number up to 120 making accurate decade transitions. **1.NR.2.2** Skip count by fives and tens from any multiple of five to 100, identifying place value patterns in the sequence.
1.NSBT.2 Understand place value through 99 by demonstrating that: a. ten ones can be thought of as a bundle (group) called a "ten"; b. the tens digit in a two-digit number represents the number of tens and the ones digit represents the number of ones; c. two-digit numbers can be decomposed in a variety of ways (e.g., 52 can be decomposed as 5 tens and 2 ones or 4 tens and 12 ones, etc.) and record the decomposition as an equation.	**1.NR.1.2** Represent and explain that whole numbers 1 through 99 are organized into groups of tens and ones, and a digit has a different value depending on its placement. **1.NR.1.3** Compose and decompose whole numbers from 1 through 99 in more than one way using tens and ones. Explain and demonstrate each composition or decomposition with the use of concrete models, drawings, and/or equations.
1.NSBT.3 Compare two two-digit numbers based on the meanings of the tens and ones digits, using the words greater than, equal to, or less than.	**1.NR.3.1** Compare representations of two numbers up to 100 using the phrases *is greater than, is less than,* or *is equal to (the same value as)*.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
1.NSBT.4 Add through 99 using concrete models, drawings, and strategies based on place value to: a. add a two-digit number and a one-digit number, understanding that sometimes it is necessary to compose a ten (regroup); b. add a two-digit number and a multiple of 10.	**1.PAFR.1.7** Find the sum of a two-digit number and a one-digit number or a two-digit number and a multiple of 10 (1–99) using concrete models, drawings, and strategies that reflect place value understanding, the inverse relationship of addition and subtraction, and the properties of the operations to justify the sum.
1.NSBT.5 Determine the number that is 10 more or 10 less than a given number through 99 and explain the reasoning verbally and with multiple representations, including concrete models.	**1.NR.1.4** Apply place value reasoning to identify the number that is one more and one less, ten more, and ten less than a given number with up to two digits.
1.NSBT.6 Subtract a multiple of 10 from a larger multiple of 10, both in the range 10 to 90, using concrete models, drawings, and strategies based on place value.	**1.PAFR.1.8** Find the difference between two numbers that are multiples of 10, both in the range 10–90, and write the corresponding equation. Explain the reasoning used.

Algebraic Thinking and Operations

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
1.ATO.1 Solve real-world/story problems using addition (as a joining action and as a part-part-whole action) and subtraction (as a separation action, finding parts of the whole, and as a comparison) through 20 with unknowns in all positions.	**1.PAFR.1.3** Solve add-to, take-from, and part-part-whole real-world situations to find sums and differences within 20. Situations include result or change unknown, both addends unknown, and total or one part unknown.
1.ATO.2 Solve real-world/story problems that include three whole number addends whose sum is less than or equal to 20.	**2.PAFR.1.6** Apply the Associative Property of Addition to find the sum (through 20) of three addends and explain that the value can be found using various grouping strategies.
1.ATO.3 Apply Commutative and Associative Properties of Addition to find the sum (through 20) of two or three addends.	**1.PAFR.1.5** Apply and explain the *Commutative Property of Addition* to find the sum (through 20) of two addends and explain that the value does not change when the order of the two numbers changes.
1.ATO.4 Understand subtraction as an unknown addend problem.	**1.PAFR.1.6** Determine an unknown number in addition and subtraction equations within 10.
1.ATO.5 Recognize how counting relates to addition and subtraction.	**No correlating 2025 indicator.**

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
1.ATO.6 Demonstrate: a. addition and subtraction through 20; b. fluency with addition and related subtraction facts through 10.	**1.PAFR.1.4** Add and subtract number combinations flexibly and accurately within 10.
1.ATO.7 Understand the meaning of the equal sign as a relationship between two quantities (sameness) and determine if equations involving addition and subtraction are true.	**1.PAFR.1.1** Determine and explain if an equation within 10 is true using a variety of equation formats.
1.ATO.8 Determine the missing number in addition and subtraction equations within 20.	**1.PAFR.1.6** Determine an unknown number in addition and subtraction equations within 10.
1.ATO.9 Create, extend and explain using pictures and words for: a. repeating patterns (e.g., AB, AAB, ABB, and ABC type patterns); b. growing patterns (between 2 and 4 terms/figures).	**1.PAFR.2.1** Create, describe, and extend (to the next term) a growing shape pattern. **1.PAFR.2.2** Create, describe, and extend (to three terms within a sequence) repeating patterns using *AB, AAB, ABB,* and *ABC* type patterns.

Geometry

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
1.G.1 Distinguish between a two-dimensional shape's defining (e.g., number of sides) and non-defining attributes (e.g., color).	**No correlating 2025 indicator.**
1.G.2 Combine two-dimensional shapes (i.e., square, rectangle, triangle, hexagon, rhombus, and trapezoid) or three-dimensional shapes (i.e., cube, rectangular prism, cone, and cylinder) in more than one way to form a composite shape.	**No correlating 2025 indicator.**
1.G.3 Partition two-dimensional shapes (i.e., square, rectangle, circle) into two or four equal parts.	**1.NR.4.1** Partition in multiple ways squares, rectangles, and circles into two or four equal-sized parts. Name the pieces as halves and fourths.

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
1.G.4 Identify and name two-dimensional shapes (i.e., square, rectangle, triangle, hexagon, rhombus, trapezoid, and circle).	**1.MGSR.2.2** Identify and describe the attributes of two-dimensional shapes and three-dimensional shapes. Limit to triangle, square, rectangle, rhombus, hexagon, circle, cone, cube, cylinder, square pyramid, and sphere.
	1.MGSR.2.3 Identify and describe a given shape in everyday situations to include two-dimensional shapes and three-dimensional shapes. Limit to triangle, square, rectangle, rhombus, hexagon, circle, cone, cube, cylinder, square pyramid, and sphere.

Measurement and Data Analysis

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
1.MDA.1 Order three objects by length using indirect comparison.	**1.MGSR.1.1** Order three objects by length from shortest to longest and longest to shortest using direct comparison.
1.MDA.2 Use nonstandard physical models to show the length of an object as the number of same size units of length with no gaps or overlaps.	**1.MGSR.1.2** Use nonstandard physical objects to estimate and then measure the length of an item as the number of same size units of length with no gaps or overlaps.
1.MDA.3 Use analog and digital clocks to tell and record time to the hour and half hour.	**1.MGSR.1.3** Use analog and digital clocks to tell and record time to the hour and half hour.
1.MDA.4 Collect, organize, and represent data with up to 3 categories using object graphs, picture graphs, t-charts and tallies.	**1.DPSR.1.1** Sort pictures or objects into at least three categories (not to exceed 10 items in each category).
	1.DPSR.1.2 Create a survey question and collect data with up to three categories. Create charts and graphs with a single unit scale to display the data. Use the graph to draw conclusions. Limit to one-step add-to, take-from, and part-part-whole questions.
1.MDA.5 Draw conclusions from given object graphs, picture graphs, t-charts, tallies, and bar graphs.	**1.DPSR.1.2** Create a survey question and collect data with up to three categories. Create charts and graphs with a single unit scale to display the data. Use the graph to draw conclusions. Limit to one-step add-to, take-from, and part-part-whole questions.

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
1.MDA.6 Identify a penny, nickel, dime and quarter and write the coin values using a ¢ symbol.	**1.MGSR.1.4** Identify and write the values of a coin or a bill using a ¢ symbol for coin values or $ symbol for bills. Limit to penny, nickel, dime, quarter, one-dollar bill, five-dollar bill, and ten-dollar bill.

Grade 2:

Number Sense and Base Ten

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
2.NSBT.1 Understand place value through 999 by demonstrating that: a. 100 can be thought of as a bundle (group) of 10 tens called a "hundred"; b. the hundreds digit in a three-digit number represents the number of hundreds, the tens digit represents the number of tens, and the ones digit represents the number of ones; c. three-digit numbers can be decomposed in multiple ways (e.g., 524 can be decomposed as 5 hundreds, 2 tens and 4 ones or 4 hundreds, 12 tens, and 4 ones, etc.).	**2.NR.1.2** Represent and explain that whole numbers 1 through 999 are organized into groups of hundreds, tens, and ones, and a digit has a different value depending on its placement. **2.NR.1.3** Compose and decompose whole numbers from 1 through 999 in more than one way using hundreds, tens, and ones. Explain and demonstrate each composition or decomposition with the use of concrete models, drawings, and equations.
2.NSBT.2 Count by tens and hundreds to 1,000 starting with any number.	**2.NR.2.1** Count forward and backward by ones, tens, and hundreds from any number within 999 and identify patterns in the sequence.
2.NSBT.3 Read, write and represent numbers through 999 using concrete models, standard form, and equations in expanded form.	**2.NR.1.1** Read, write, and represent numbers up to 999 using concrete models, drawings, standard form, base ten language, and equations in expanded form.
2.NSBT.4 Compare two numbers with up to three digits using words and symbols (i.e., >, =, or <).	**2.NR.3.1** Compare representations of whole numbers up to 999 and write a comparison statement using words and symbols. Limit to *is equal to (=), is less than (<),* and/or *is greater than (>).*
2.NSBT.5 Add and subtract fluently through 99 using knowledge of place value and properties of operations.	**2.PAFR.1.1** Use a strategy to accurately find sums and differences of two-digit numbers within 100 and justify the sum or difference.

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
2.NSBT.6 Add up to four two-digit numbers using strategies based on knowledge of place value and properties of operations.	**No correlating 2025 indicator.**
2.NSBT.7 Add and subtract through 999 using concrete models, drawings, and symbols which convey strategies connected to place value understanding.	**No correlating 2025 indicator.**
2.NSBT.8 Determine the number that is 10 or 100 more or less than a given number through 1,000 and explain the reasoning verbally and in writing.	**2.NR.1.4** Apply place value reasoning to identify the number that is 10 more, 10 less, 100 more, and 100 less than a given three-digit number through 999.

Algebraic Thinking and Operations

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
2.ATO.1 Solve one- and two-step real-world/story problems using addition (as a joining action and as a part-part-whole action) and subtraction (as a separation action, finding parts of the whole, and as a comparison) through 99 with unknowns in all positions.	**2.PAFR.1.3** Solve one-step add-to, take-from, part-part-whole, and additive comparison real-world situations through 99 with the unknown in any position.
2.ATO.2 Demonstrate fluency with addition and related subtraction facts through 20.	**2.PAFR.1.5** Add and subtract number combinations flexibly and accurately within 20.
2.ATO.3 Determine whether a number through 20 is odd or even using pairings of objects, counting by twos, or finding two equal addends to represent the number (e.g., 3 + 3 = 6).	**2.PAFR.1.8** Sort a collection of 20 or fewer objects into two groups to determine if the number of objects is even or odd.
2.ATO.4 Use repeated addition to find the total number of objects arranged in a rectangular array with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.	**2.PAFR.1.9** Find the total number of objects arranged in equal groups or in a rectangular array and write an addition equation to express the total as a sum (up to 25) of equal addends.

Geometry

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
2.G.1 Identify triangles, quadrilaterals, hexagons, and cubes. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.	**2.MGSR.2.1** Identify and describe a given shape in everyday situations to include two-dimensional shapes and three-dimensional shapes. Limit to triangle, quadrilateral, pentagon, hexagon, octagon, circle, cone, cube, cylinder, rectangular prism, square pyramid, and sphere.
2.G.2 Partition a rectangle into rows and columns of same-size squares to form an array and count to find the total number of parts.	**No correlating 2025 indicator.**
2.G.3 Partition squares, rectangles and circles into two or four equal parts, and describe the parts using the words halves, fourths, a half of, and a fourth of. Understand that when partitioning a square, rectangle or circle into two or four equal parts, the parts become smaller as the number of parts increases.	**2.NR.4.1** Partition in multiple ways squares, rectangles, and circles into two or four equal sized parts, and describe the parts using the words halves, fourths, a half of, and a fourth of (not quarters). **2.NR.4.2** Explain that when partitioning a square, rectangle, or circle into two or four equal parts, the parts become smaller as the number of parts increases.

Measurement and Data Analysis

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
2.MDA.1 Select and use appropriate tools (e.g., rulers, yardsticks, meter sticks, measuring tapes) to measure the length of an object.	**2.MGSR.1.1** Select and use appropriate tools to estimate and measure length of an object or distance to the nearest customary unit. Limit to inches, feet, and yards.
2.MDA.2 Measure the same object or distance using a standard unit of one length and then a standard unit of a different length and explain verbally and in writing how and why the measurements differ.	**No correlating 2025 indicator.**
2.MDA.3 Estimate and measure length/distance in customary units (i.e., inch, foot, yard) and metric units (i.e., centimeter, meter).	**2.MGSR.1.1** Select and use appropriate tools to estimate and measure length of an object or distance to the nearest customary unit. Limit to inches, feet, and yards. **3.MGSR.2.4** Estimate and measure length/distance to the nearest half inch and nearest whole centimeter.
2.MDA.4 Measure to determine how much longer one object is than another, using standard length units.	**No correlating 2025 indicator.**

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
2.MDA.5 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, …, and represent whole-number sums and differences through 99 on a number line diagram.	**2.PAFR.1.1** Use a strategy to accurately find sums and differences of two-digit numbers within 100 and justify the sum or difference.
2.MDA.6 Use analog and digital clocks to tell and record time to the nearest five-minute interval using a.m. and p.m.	**2.MGSR.1.2** Use analog and digital clocks to tell and record time in five-minute intervals, identifying AM and PM.
2.MDA.7 Solve real-world/story problems involving dollar bills using the $ symbol or involving quarters, dimes, nickels, and pennies using the ¢ symbol.	**2.MGSR.1.3** Determine the value of mixed sets of coins or bills in mathematical and real-world situations and record the value using a ¢ or $ symbol. Limit to pennies, nickels, dimes, and quarters up to a dollar; one-dollar bills, five-dollar bills, ten-dollar bills, and twenty-dollar bills up to $100, and add-to or take-from problem types.
2.MDA.8 Generate data by measuring objects in whole unit lengths and organize the data in a line plot using a horizontal scale marked in whole number units.	**2.DPSR.1.1** Create a survey question and collect data with up to four categories. Create tally charts, picture graphs, dot plots, and bar graphs with a single-unit scale to read the graph, answer questions, and draw conclusions. Limit to one-step add-to, take-from, part-part-whole, and comparison questions.
2.MDA.9 Collect, organize, and represent data with up to four categories using picture graphs and bar graphs with a single-unit scale.	**2.DPSR.1.1** Create a survey question and collect data with up to four categories. Create tally charts, picture graphs, dot plots, and bar graphs with a single-unit scale to read the graph, answer questions, and draw conclusions. Limit to one-step add-to, take-from, part-part-whole, and comparison questions.
2.MDA.10 Draw conclusions from t-charts, object graphs, picture graphs, and bar graphs.	**2.DPSR.1.1** Create a survey question and collect data with up to four categories. Create tally charts, picture graphs, dot plots, and bar graphs with a single-unit scale to read the graph, answer questions, and draw conclusions. Limit to one-step add-to, take-from, part-part-whole, and comparison questions.

Grade 3:

Number Sense and Base Ten

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
3.NSBT.1 Use place value understanding to round whole numbers to the nearest 10 or 100.	**3.NR.1.4** Round whole numbers from 0 to 1,000 to the nearest 10 or 100.
3.NSBT.2 Add and subtract whole numbers fluently to 1,000 using knowledge of place value and properties of operations.	**3.PAFR.1.1** Use a strategy to compute sums and differences up to 1,000. **3.PAFR.2.2** Solve one- and two-step real-world situations using addition and subtraction up to 1,000.
3.NSBT.3 Multiply one-digit whole numbers by multiples of 10 in the range 10 – 90, using knowledge of place value and properties of operations.	**3.PAFR.2.4** Recognize that a whole number is a multiple of each of its factors 1–10. **4.PAFR.1.2** Compute the product of a one-digit whole number times a multiple of 10 (from 10 to 90) and 100 (from 100 to 900) based on place value and properties of operations.
3.NSBT.4 Read and write numbers through 999,999 in standard form and equations in expanded form.	**3.NR.1.1** Read, write, and represent whole numbers through the thousands period (0 to 999,999) on a number line and in standard, base ten language, word, and equations in expanded form.
3.NSBT.5 Compare and order numbers through 999,999 and represent the comparison using the symbols >, =, or <.	**3.NR.1.3** Compare two whole numbers up to 999,999 based on the place value of the digits using the symbols for is equal to (=), is less than (<), or is greater than (>). **4.NR.1.3** Order whole numbers within 999,999 (no more than 3) in ascending or descending order and record the comparison(s) using symbols for *is less than* (<) and/or *is greater than* (>).

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
3.NSF.1 Develop an understanding of fractions (i.e., denominators 2, 3, 4, 6, 8, 10) as numbers. a. A fraction $\frac{1}{b}$ (called a unit fraction) is the quantity formed by one part when a whole is partitioned into b equal parts; b. A fraction $\frac{a}{b}$ is the quantity formed by a parts of size $\frac{1}{b}$; c. A fraction is a number that can be represented on a number line based on counts of a unit fraction; d. A fraction can be represented using set, area, and linear models.	**3.NR.2.1** Identify unit fractions as the quantity formed by one part when a whole is partitioned into 2, 3, 4, 6, or 8 equal-sized parts. Express each part as a unit fraction of the whole. **3.NR.2.2** Represent fractions from 0 to 1 using concrete, set, area, and linear models, and write them in standard form and word form. Limit denominators to 2, 3, 4, 6, and 8. **3.NR.2.4** Compose fractions between the whole numbers 0 and 5 using unit fractions. Record the composition as a mixed number or fraction greater than 1. Limit denominators to 2, 3, 4, 6, and 8. **4.NR.2.1** Represent fractions with denominators of 10 and 100 in words, models, and decimal notations.
3.NSF.2 Explain fraction equivalence (i.e., denominators 2, 3, 4, 6, 8, 10) by demonstrating an understanding that: a. two fractions are equal if they are the same size, based on the same whole, or at the same point on a number line; b. fraction equivalence can be represented using set, area, and linear models; c. whole numbers can be written as fractions (e.g., 4 = $\frac{4}{1}$ and 1 = $\frac{4}{4}$); d. fractions with the same numerator or same denominator can be compared by reasoning about their size based on the same whole.	**3.NR.2.3** Express whole numbers as fractions and identify fractions that are equivalent to whole numbers. Limit denominators to 1, 2, 3, 4, 6, and 8. **3.NR.2.5** Recognize two fractions are equivalent based on the same size whole. Limit denominators to 2, 3, 4, 6, and 8, and fractions should be limited to fractions between 0 and 1. **3.NR.2.6** Compare two fractions with the same numerator or same denominator based on the same size whole by reasoning about their size. Use the symbols for *is equal to* (=), *is less than* (<), or *is greater than* (>). Limit denominators to 2, 3, 4, 6, and 8, and fractions should be limited to fractions between 0 and 1. **4.NR.2.6** Compare fractions and mixed numbers with like and unlike denominators applying benchmark fractions such as 0, $\frac{1}{2}$, and 1 using the symbols for *is equal to* (=), *is less than* (<), or *is greater than* (>). Limit fractions to denominators of 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, 50, and 100.

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
3.NSF.3 Develop an understanding of mixed numbers (i.e., denominators 2, 3, 4, 6, 8, 10) as iterations of unit fractions on a number line.	**3.NR.2.4** Compose fractions between the whole numbers 0 and 5 using unit fractions. Record the composition as a mixed number or fraction greater than 1. Limit denominators to 2, 3, 4, 6, and 8. **4.NR.2.5** Explain and demonstrate how a mixed number is equivalent to a fraction greater than 1 and how a fraction greater than 1 is equivalent to a mixed number. Limit fractions to denominators of 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, 50, and 100.

Algebraic Thinking and Operations

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
3.ATO.1 Use concrete objects, drawings and symbols to represent multiplication facts of two single-digit whole numbers and explain the relationship between the factors (i.e., 0 – 10) and the product.	**3.PAFR.1.2** Multiply whole numbers (factors 0–10) and divide whole numbers (divisors 1–10) using a model and write a corresponding equation.
3.ATO.2 Use concrete objects, drawings and symbols to represent division without remainders and explain the relationship among the whole number quotient (i.e., 0 – 10), divisor (i.e., 0 – 10), and dividend.	**3.PAFR.1.2** Multiply whole numbers (factors 0–10) and divide whole numbers (divisors 1–10) using a model and write a corresponding equation. **3.PAFR.2.1** Determine the unknown whole number in a multiplication or division real-world situation relating three whole numbers when the unknown is a missing factor, product, dividend, divisor, or quotient.
3.ATO.3 Solve real-world problems involving equal groups, area/array, and number line models using basic multiplication and related division facts. Represent the problem situation using an equation with a symbol for the unknown.	**3.PAFR.1.2** Multiply whole numbers (factors 0–10) and divide whole numbers (divisors 1–10) using a model and write a corresponding equation. **3.PAFR.2.1** Determine the unknown whole number in a multiplication or division real-world situation relating three whole numbers when the unknown is a missing factor, product, dividend, divisor, or quotient.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
3.ATO.4 Determine the unknown whole number in a multiplication or division equation relating three whole numbers when the unknown is a missing factor, product, dividend, divisor, or quotient.	**3.PAFR.1.2** Multiply whole numbers (factors 0–10) and divide whole numbers (divisors 1–10) using a model and write a corresponding equation. **3.PAFR.2.1** Determine the unknown whole number in a multiplication or division real-world situation relating three whole numbers when the unknown is a missing factor, product, dividend, divisor, or quotient.
3.ATO.5 Apply properties of operations (i.e., Commutative Property of Multiplication, Associative Property of Multiplication, Distributive Property) as strategies to multiply and divide and explain the reasoning.	**3.PAFR.1.2** Multiply whole numbers (factors 0–10) and divide whole numbers (divisors 1–10) using a model and write a corresponding equation. **6.PAFR.3.4** Apply the properties of operations to create equivalent algebraic expressions and justify the properties used. Limit properties to the Identity, Inverse, Commutative, Associative, and Distributive Properties.
3.ATO.6 Understand division as a missing factor problem.	**3.PAFR.1.2** Multiply whole numbers (factors 0–10) and divide whole numbers (divisors 1–10) using a model and write a corresponding equation. **3.PAFR.1.3** Multiply two whole numbers from 0 to 10 and divide using related facts flexibly and accurately. **3.PAFR.2.1** Determine the unknown whole number in a multiplication or division real-world situation relating three whole numbers when the unknown is a missing factor, product, dividend, divisor, or quotient.
3.ATO.7 Demonstrate fluency with basic multiplication and related division facts of products and dividends through 100.	**3.PAFR.1.3** Multiply two whole numbers from 0 to 10 and divide using related facts flexibly and accurately.
3.ATO.8 Solve two-step real-world problems using addition, subtraction, multiplication and division of whole numbers and having whole number answers. Represent these problems using equations with a letter for the unknown quantity.	**3.PAFR.2.2** Solve one- and two-step real-world situations using addition and subtraction up to 1,000. **4.PAFR.3.4** Solve two-step, real-world situations using the four operations involving whole number answers. Represent the problem using an equation with a variable as the unknown in any position.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
3.ATO.9 Identify a rule for an arithmetic pattern (e.g., patterns in the addition table or multiplication table).	**3.PAFR.2.3** Identify, create, and extend numerical patterns to determine the next three terms in an addition or subtraction sequence. **4.PAFR.3.2** Describe and extend a numerical pattern that follows a rule using function tables and real-world situations.

Geometry

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
3.G.1 Understand that shapes in different categories (e.g., rhombus, rectangle, square, and other 4-sided shapes) may share attributes (e.g., 4-sided figures) and the shared attributes can define a larger category (e.g., quadrilateral). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.	**4.MGSR.3.2** Classify quadrilaterals in a hierarchy based on their shared attributes.
3.G.2 Partition two-dimensional shapes into 2, 3, 4, 6, or 8 parts with equal areas and express the area of each part using the same unit fraction. Recognize that equal parts of identical wholes need not have the same shape.	**3.NR.2.1** Identify unit fractions as the quantity formed by one part when a whole is partitioned into 2, 3, 4, 6, or 8 equal sized parts. Express each part as a unit fraction of the whole. **3.NR.2.2** Represent fractions from 0 to 1 using concrete, set, area, and linear models, and write them in standard form and word form. Limit denominators to 2, 3, 4, 6, and 8. **3.NR.2.5** Recognize two fractions are equivalent based on the same size whole. Limit denominators to 2, 3, 4, 6, and 8, and fractions should be limited to fractions between 0 and 1.
3.G.3 Use a right angle as a benchmark to identify and sketch acute and obtuse angles.	**3.MGSR.3.1** Describe and draw right, acute, obtuse, and straight angles. Identify these angle types in two-dimensional figures including triangles and quadrilaterals.
3.G.4 Identify a three-dimensional shape (i.e., right rectangular prism, right triangular prism, pyramid) based on a given two-dimensional net and explain the relationship between the shape and the net.	**No correlating 2025 indicator.**

Measurement and Data Analysis

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
3.MDA.1 Use analog and digital clocks to determine and record time to the nearest minute, using a.m. and p.m.; measure time intervals in minutes; and solve problems involving addition and subtraction of time intervals within 60 minutes.	**3.MGSR.2.2** Use analog and digital clocks to tell and record time to 1-minute intervals, identifying AM and PM. **3.MGSR.2.3** Solve problems involving addition and subtraction of time intervals to determine elapsed time to the nearest half hour. **4.MGSR.2.2** Solve real-world situations involving addition and subtraction of time intervals within 60 minutes to find elapsed time, start time, or end time.
3.MDA.2 Estimate and measure liquid volumes (capacity) in customary units (i.e., c., pt., qt., gal.) and metric units (i.e., mL, L) to the nearest whole unit.	**3.MGSR.2.5** Determine which unit of liquid volume is most appropriate to measure in real-world situations. Limit to fluid ounces, cups, pints, quarts, gallons, milliliters, and liters.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
3.MDA.3 Collect, organize, classify, and interpret data with multiple categories and draw a scaled picture graph and a scaled bar graph to represent the data.	**3.DPSR.1.1** Collect and organize categorical and numerical data based on observations, surveys, experiments, and investigations with whole number values using tables, scaled picture graphs, scaled bar graphs, or dot plots. Use titles and labels. Limit scales to multiples of 1, 2, 5, and 10.
	3.DPSR.1.2 Solve one-step, real-world situations using whole number data represented in tables, scaled picture graphs, scaled bar graphs, or dot plots. Limit scales to multiples of 1, 2, 5, and 10.
	4.DPSR.1.1 Collect and organize numerical and categorical data based on observations, investigations, surveys, and experiments using tables, scaled bar graphs, or dot plots. Use titles and labels. Scales to include whole numbers, halves, and fourths.
	5.DPSR.1.2 Solve two-step, real-world situations using whole number and fractional data represented in tables, line graphs, scaled bar graphs, or dot plots. Limit fractions to denominators of 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, 50, and 100.
	5.DPSR.1.3 Analyze categorical and numerical data in graphical displays to make predictions or draw conclusions. Limit displays to tables, bar graphs, dot plots, line graphs, and circle graphs with scales of whole numbers, halves, fourths, and eighths.
3.MDA.4 Generate data by measuring length to the nearest inch, half-inch and quarter-inch and organize the data in a line plot using a horizontal scale marked off in appropriate units.	**3.MGSR.2.4** Estimate and measure length/distance to the nearest half inch and nearest whole centimeter.
	4.DPSR.1.1 Collect and organize numerical and categorical data based on observations, investigations, surveys, and experiments using tables, scaled bar graphs, or dot plots. Use titles and labels. Scales to include whole numbers, halves, and fourths.
	4.MGSR.2.3 Measure length to the nearest quarter inch.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
3.MDA.5 Understand the concept of area measurement. a. Recognize area as an attribute of plane figures; b. Measure area by building arrays and counting standard unit squares; c. Determine the area of a rectilinear polygon and relate to multiplication and addition.	**3.MGSR.1.1** Determine the area of squares and rectangles presented in relevant problems by covering the space with square units and counting the total number of units needed. **3.MGSR.1.3** Determine if a real-world situation is an example of the need for finding the area or the perimeter of a figure. **4.MGSR.1.2** Apply area formulas for rectangles to solve real-world situations. Use square units to label area measurements. **5.MGSR.1.1** Solve problems involving area and perimeter of composite figures by decomposing with rectangles.
3.MDA.6 Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.	**3.MGSR.1.2** Determine the perimeter of regular and irregular triangles and quadrilaterals with known side lengths. **4.MGSR.1.1** Apply perimeter formulas for rectangles to solve real-world situations including finding the perimeter, given the side lengths, and finding an unknown side length. **5.MGSR.1.1** Solve problems involving area and perimeter of composite figures by decomposing with rectangles.

Grade 4:

Number Sense and Base Ten

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
4.NSBT.1 Understand that, in a multi-digit whole number, a digit represents ten times what the same digit represents in the place to its right.	**5.NR.1.2** Explain how the value of a digit in a multi-digit number changes if the digit moves one or more places to the left or right in the base ten system. Include decimals to the thousandths place.
4.NSBT.2 Recognize math periods and number patterns within each period to read and write in standard form large numbers through 999,999,999.	**4.NR.1.1** Read and write whole numbers through the millions period (0 to 999,999,999) in word, standard, and equations in expanded form.

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
4.NSBT.3 Use rounding as one form of estimation and round whole numbers to any given place value.	**3.NR.1.4** Round whole numbers from 0 to 1,000 to the nearest 10 or 100. **4.NR.1.2** Estimate sums, differences, products, and quotients of multi-digit whole numbers, using rounding and place value to determine the reasonableness of real-world problem solutions. Write an equation for the estimate.
4.NSBT.4 Fluently add and subtract multi-digit whole numbers using strategies to include a standard algorithm.	**4.PAFR.1.1** Use a strategy to accurately compute sums and differences of whole numbers up to 100,000 and justify the sum or difference.
4.NSBT.5 Multiply up to a four-digit number by a one-digit number and multiply a two-digit number by a two-digit number using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using rectangular arrays, area models and/or equations.	**4.PAFR.1.3** Decompose numbers by the value of each digit to multiply whole numbers up to four digits by a one-digit number and two 2-digit whole numbers. **5.PAFR.1.1** Use a strategy to compute the product of a two- or three-digit factor times a two-digit factor to include real-world situations.
4.NSBT.6 Divide up to a four-digit dividend by a one-digit divisor using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division.	**4.PAFR.1.4** Use a strategy to divide up to a four-digit dividend by a one-digit divisor, with and without remainders. Justify the calculation.

Number Sense and Operations—Fractions

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
4.NSF.1 Explain why a fraction (i.e., denominators 2, 3, 4, 5, 6, 8, 10, 12, 25, 100), $\frac{a}{b}$, is equivalent to a fraction, $\frac{n \times a}{n \times b}$, by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.	**4.NR.2.3** Generate equivalent fractions, including fractions greater than 1, using multiple representations. Limit fractions to denominators of 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, 50, and 100.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
4.NSF.2 Compare two given fractions (i.e., denominators 2, 3, 4, 5, 6, 8, 10, 12, 25, 100) by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$ and represent the comparison using the symbols >, =, or	**4.NR.2.6** Compare fractions and mixed numbers with like and unlike denominators applying benchmark fractions such as 0, $\frac{1}{2}$, and 1 using the symbols for *is equal to* (=), *is less than* (<), or *is greater than* (>). Limit fractions to denominators of 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, 50, and 100. **5.NR.2.1** Compare fractions and mixed numbers with like and unlike denominators of 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, and 100 using equivalence to create a common denominator. Use the symbols for *is less than* (<), *is more than* (>), or *is equal to* (=) to record the comparison.
4.NSF.3 Develop an understanding of addition and subtraction of fractions (i.e., denominators 2, 3, 4, 5, 6, 8, 10, 12, 25, 100) based on unit fractions. a. Compose and decompose a fraction in more than one way, recording each composition and decomposition as an addition or subtraction equation; b. Add and subtract mixed numbers with like denominators; c. Solve real-world problems involving addition and subtraction of fractions referring to the same whole and having like denominators.	**4.NR.2.4** Represent the composition and decomposition of fractions with the same denominator, including mixed numbers and fractions greater than 1, using multiple representations. Limit fractions to denominators of 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, 50, and 100. **4.PAFR.2.1** Use a strategy to accurately compute sums and differences of fractions with like denominators and justify the reasonableness of the answer. Limit denominators to 2, 3, 4, 5, 6, 8, 10, 12, 25, and 100.
4.NSF.4 Apply and extend an understanding of multiplication by multiplying a whole number and a fraction (i.e., denominators 2, 3, 4, 5, 6, 8, 10, 12, 25, 100). a. Understand a fraction $\frac{a}{b}$ as a multiple of $\frac{1}{b}$; b. Understand a multiple of $\frac{a}{b}$ as a multiple of $\frac{1}{b}$, and use this understanding to multiply a fraction by a whole number; c. Solve real-world problems involving multiplication of a fraction by a whole number (i.e., use visual fraction models and equations to represent the problem).	**4.PAFR.2.3** Represent and compute the product of a whole number times a unit fraction. Limit denominators to 2, 3, 4, 5, 6, 8, 10, 12, 25, and 100. **5.PAFR.2.2** Use a strategy to multiply a fraction by a fraction or a fraction by a whole to include real-world situations. Limit denominators to 2, 3, 4, 5, 6, 8, 10, and 12.

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
4.NSF.5 Express a fraction with a denominator of 10 as an equivalent fraction with a denominator of 100 and use this technique to add two fractions with respective denominators of 10 and 100.	**4.NR.2.1** Represent fractions with denominators of 10 and 100 in words, models, and decimal notations. **4.NR.2.3** Generate equivalent fractions, including fractions greater than 1, using multiple representations. Limit fractions to denominators of 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, 50, and 100. **4.PAFR.2.2** Use fraction and decimal equivalencies to add and subtract tenths and hundredths, to include mixed numbers and fractions greater than 1.
4.NSF.6 Write a fraction with a denominator of 10 or 100 using decimal notation, and read and write a decimal number as a fraction.	**4.NR.2.1** Write a fraction with a denominator of 10 or 100 using decimal notation, and read and write a decimal number as a fraction. **4.PAFR.2.2** Use fraction and decimal equivalencies to add and subtract tenths and hundredths, to include mixed numbers and fractions greater than 1.
4.NSF.7 Compare and order decimal numbers to hundredths, and justify using concrete and visual models.	**4.NR.2.2** Compare decimal numbers to the hundredths using the benchmarks 0, 0.5, and 1.0, concrete area, and linear models. Use the symbols for is equal to (=), is less than (<), and/or is greater than (>).

Algebraic Thinking and Operations

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
4.ATO.1 Interpret a multiplication equation as a comparison (e.g. interpret 35 = 5 x 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5.) Represent verbal statements of multiplicative comparisons as multiplication equations.	**4.PAFR.3.3** Solve real-world situations involving multiplicative comparison situations and write equations to represent the problem using a variable for the unknown.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
4.ATO.2 Solve real-world problems using multiplication (product unknown) and division (group size unknown, number of groups unknown).	**3.PAFR.2.1** Determine the unknown whole number in a multiplication or division real-world situation relating three whole numbers when the unknown is a missing factor, product, dividend, divisor, or quotient. **4.PAFR.1.4** Use a strategy to divide up to a four-digit dividend by a one-digit divisor, with and without remainders. Justify the calculation. **4.PAFR.3.4** Solve two-step, real-world problems using the four operations involving whole number answers. Represent the problem using an equation with a variable as the unknown in any position. **5.PAFR.1.1** Use a strategy to compute the product of a two- or three-digit factor times a two-digit factor to include real-world situations.
4.ATO.3 Solve multi-step, real-world problems using the four operations. Represent the problem using an equation with a variable as the unknown quantity.	**4.PAFR.3.4** Solve two-step, real-world situations using the four operations involving whole number answers. Represent the problem using an equation with a variable as the unknown in any position.
4.ATO.4 Recognize that a whole number is a multiple of each of its factors. Find all factors for a whole number in the range 1 – 100 and determine whether the whole number is prime or composite.	**3.PAFR.2.4** Recognize that a whole number is a multiple of each of its factors 1–10. **4.PAFR.3.1** Find all factor pairs for a whole number in the range 1–50. Determine whether the whole number is prime or composite.
4.ATO.5 Generate a number or shape pattern that follows a given rule and determine a term that appears later in the sequence.	**3.PAFR.2.3** Identify, create, and extend numerical patterns to determine the next three terms in an addition or subtraction sequence. **4.PAFR.3.2** Describe and extend a numerical pattern that follows a rule using function tables and real-world situations.

Geometry

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
4.G.1 Draw points, lines, line segments, rays, angles (i.e., right, acute, obtuse), and parallel and perpendicular lines. Identify these in two-dimensional figures.	**3.MGSR.3.1** Describe and draw right, acute, obtuse, and straight angles. Identify these angle types in two-dimensional figures including triangles and quadrilaterals. **3.MGSR.3.2** Identify, describe, and draw points, lines, line segments, rays, intersecting lines, perpendicular lines, and parallel lines. Identify these in two-dimensional figures.
4.G.2 Classify quadrilaterals based on the presence or absence of parallel or perpendicular lines.	**4.MGSR.3.2** Classify quadrilaterals in a hierarchy based on their shared attributes.
4.G.3 Recognize right triangles as a category, and identify right triangles.	**4.MGSR.3.1** Classify triangles according to side length (isosceles, equilateral, scalene) and angle measure (acute, obtuse, right, equiangular).
4.G.4 Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.	**No correlating 2025 indicator.**

Measurement and Data Analysis

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
4.MDA.1 Convert measurements within a single system of measurement, customary (i.e., in., ft., yd., oz., lb., sec., min., hr.) or metric (i.e., cm, m, km, g, kg, mL, L) from a larger to a smaller unit.	**4.MGSR.2.5** Convert customary units of length, weight, and liquid volume from a larger unit to a smaller unit, given direct comparisons of the two measurements and/or the unit equivalencies within a single system of measurement. Limit to inches, feet, yards, ounces, pounds, fluid ounces, cups, pints, quarts, and gallons when given unit equivalencies. **5.MGSR.2.1** Given the unit equivalencies, convert within a single system of measurement from larger units to smaller units and smaller units to larger units for length, weight, liquid volume, and time. Use these conversions in solving real-world situations. Limit units to inches, feet, yards, ounces, pounds, fluid ounces, cups, pints, quarts, gallons, seconds, minutes, hours, milli-, centi-, kilo-, and base units (grams, liters, meters).

2015 SCCCR Math Standard	*202 SC CCR Math Indicator Alignment*
4.MDA.2 Solve real-world problems involving distance/length, intervals of time within 12 hours, liquid volume, mass, and money using the four operations.	**4.MGSR.2.2** Solve real-world situations involving addition and subtraction of time intervals within 60 minutes to find elapsed time, start time, or end time. **4.MGSR.2.4** Measure weight in customary units and metric units to the nearest whole unit. Limit to ounces, pounds, grams, and kilograms.
4.MDA.3 Apply the area and perimeter formulas for rectangles.	**4.MGSR.1.1** Apply perimeter formulas for rectangles to solve real-world situations including finding the perimeter, given the side lengths, and finding an unknown side length. **4.MGSR.1.2** Apply area formulas for rectangles to solve real-world situations. Use square units to label area measurements.
4.MDA.4 Create a line plot to display a data set (i.e., generated by measuring length to the nearest quarter-inch and eighth-inch) and interpret the line plot.	**4.DPSR.1.1** Collect and organize numerical and categorical data based on observations, investigations, surveys, and experiments using tables, scaled bar graphs, or dot plots. Use titles and labels. Scales to include whole numbers, halves, and fourths. **4.DPSR.1.2** Solve one-step, real-world situations using whole number and fractional data represented in tables, scaled picture graphs, scaled bar graphs, or dot plots. Limit to like denominators of 2, 3, 4, 5, 6, 8, and 10. **4.MGSR.2.3** Measure length to the nearest quarter inch. **5.MGSR.2.2** Estimate and measure lengths to the nearest eighth of an inch or nearest millimeter.
4.MDA.5 Understand the relationship of an angle measurement to a circle.	**No correlating 2025 indicator.**
4.MDA.6 Measure and draw angles in whole number degrees using a protractor.	**6.MGSR.2.2** Determine the measure of angles using a protractor.

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
4.MDA.7 Solve addition and subtraction problems to find unknown angles in real-world and mathematical problems.	**7.MGSR.2.3** Identify the relationships and measures among angles formed by two intersecting lines, given the measure of one angle. Relationships are limited to supplementary, complementary, vertical, and adjacent.
	7.MGSR.2.4 Write and solve equations to solve mathematical and real-world situations involving the relationships among angles formed by two intersecting lines. Relationships are limited to supplementary, complementary, vertical, and adjacent.
4.MDA.8 Determine the value of a collection of coins and bills greater than $1.00.	**3.MGSR.2.1** Determine the value of any collection of coins, not to exceed $5. Write the amount in the form of dollars and cents using the decimal notation. Limit to penny, nickel, dime, and quarter.
	4.MGSR.2.1 Calculate the value of a collection of coins and bills in real-world situations to determine whether there is enough money to make a purchase. Justify based on comparison of money amounts.

Grade 5:

Number Sense and Base Ten

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
5.NSBT.1 Understand that, in a multi-digit whole number, a digit in one place represents 10 times what the same digit represents in the place to its right, and represents $\frac{1}{10}$ times what the same digit represents in the place to its left.	**5.NR.1.2** Explain how the value of a digit in a multi-digit number changes if the digit moves one or more places to the left or right in the base ten system. Include decimals to the thousandths place.
5.NSBT.2 Use whole number exponents to explain: a. patterns in the number of zeroes of the product when multiplying a number by powers of 10; b. patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10.	**5.NR.1.4** Use patterns to explain the exponents when multiplying and dividing by powers of 10, not to exceed the thousandths place.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
5.NSBT.3 Read and write decimals in standard and expanded form. Compare two decimal numbers to the thousandths using the symbols >, =, or >.	**5.NR.1.1** Read, write, and represent multi-digit numbers from 0 to 999 with decimals to the thousandths place. Use pictorial, word, standard, or expanded form with fraction or decimal notation. **6.NR.2.1** Compare two positive rational numbers and write statements using the symbols for *is equal to* (=), *is not equal to* (≠), *is less than* (<), and/or *is greater than* (>) in mathematical and real-world situations. Limit fractions to denominators of 2, 4, 5, 8, 10, 20, 25, 50, 100, and 200.
5.NSBT.4 Round decimals to any given place value within thousandths.	**5.NR.1.3** Round decimal numbers up to 999 with decimals to the thousandths place to the nearest hundredth, tenth, or whole number.
5.NSBT.5 Fluently multiply multi-digit whole numbers using strategies to include a standard algorithm.	**5.PAFR.1.1** Use a strategy to compute the product of a two- or three-digit factor times a two-digit factor to include real-world situations.
5.NSBT.6 Divide up to a four-digit dividend by a two-digit divisor, using strategies based on place value, the properties of operations, and the relationship between multiplication and division.	**5.PAFR.1.2** Use a strategy to compute the quotient of a multi-digit whole number dividend divided by a two-digit whole number divisor, with and without remainders, to include real-world situations. Limit the dividend to four digits.
5.NSBT.7 Add, subtract, multiply, and divide decimal numbers to hundredths using concrete area models and drawings.	**5.PAFR.1.3** Use a strategy to compute sums and differences of decimal numbers to the hundredths. **5.PAFR.1.4** Use a strategy to multiply a one-digit whole number by a decimal to the hundredths and divide a decimal to the hundredths (dividend) by a one-digit whole number (divisor). Justify the calculation.

Number Sense and Operations—Fractions

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
5.NSF.1 Add and subtract fractions with unlike denominators (including mixed numbers) using a variety of models, including an area model and number line.	**5.PAFR.2.1** Use a strategy to compute sums and differences of fractions and mixed numbers with unlike denominators and justify the sum or difference to include real-world situations. Limit denominators to 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, 50, and 100. **6.PAFR.3.6** Add, subtract, multiply, and divide positive fractions, including mixed numbers in mathematical and real-world situations.
5.NSF.2 Solve real-world problems involving addition and subtraction of fractions with unlike denominators.	**5.PAFR.2.1** Use a strategy to compute sums and differences of fractions and mixed numbers with unlike denominators and justify the sum or difference to include real-world situations. Limit denominators to 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, 50, and 100.
5.NSF.3 Understand the relationship between fractions and division of whole numbers by interpreting a fraction as the numerator divided by the denominator (i.e., $\frac{a}{b} = a \div b$).	**4.PAFR.2.4** Interpret a fraction as an equal sharing division situation, where a quantity (the numerator) is divided into equal parts (the denominator) to include real-world situations.
5.NSF.4 Extend the concept of multiplication to multiply a fraction or whole number by a fraction. a. Recognize the relationship between multiplying fractions and finding the areas of rectangles with fractional side lengths; b. Interpret multiplication of a fraction by a whole number and a whole number by a fraction and compute the product; c. Interpret multiplication in which both factors are fractions less than one and compute the product.	**5.PAFR.2.2** Use a strategy to multiply a fraction by a fraction or a fraction by a whole to include real-world situations. Limit denominators to 2, 3, 4, 5, 6, 8, 10, and 12. **6.PAFR.3.6** Add, subtract, multiply, and divide positive fractions, including mixed numbers in mathematical and real-world situations.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
5.NSF.5 Justify the reasonableness of a product when multiplying with fractions. a. Estimate the size of the product based on the size of the two factors; b. Explain why multiplying a given number by a number greater than 1 (e.g., improper fractions, mixed numbers, whole numbers) results in a product larger than the given number; c. Explain why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; d. Explain why multiplying the numerator and denominator by the same number has the same effect as multiplying the fraction by 1.	**5.PAFR.2.2** Use a strategy to multiply a fraction by a fraction or a fraction by a whole to include real-world situations. Limit denominators to 2, 3, 4, 5, 6, 8, 10, and 12.
5.NSF.6 Solve real-world problems involving multiplication of a fraction by a fraction, improper fraction and a mixed number.	**5.PAFR.2.2** Use a strategy to multiply a fraction by a fraction or a fraction by a whole to include real-world situations. Limit denominators to 2, 3, 4, 5, 6, 8, 10, and 12.
5.NSF.7 Extend the concept of division to divide unit fractions and whole numbers by using visual fraction models and equations. a. Interpret division of a unit fraction by a non-zero whole number and compute the quotient; b. Interpret division of a whole number by a unit fraction and compute the quotient.	**5.PAFR.2.3** Interpret and represent division of a whole number dividend by a unit fraction divisor and a unit fraction dividend by a whole number divisor and apply to real-world situations. Limit denominators to 2, 3, 4, 5, 6, 8, 10, and 12.
5.NSF.8 Solve real-world problems involving division of unit fractions and whole numbers, using visual fraction models and equations.	**5.PAFR.2.3** Interpret and represent division of a whole number dividend by a unit fraction divisor and a unit fraction dividend by a whole number divisor and apply to real-world situations. Limit denominators to 2, 3, 4, 5, 6, 8, 10, and 12.

Algebraic Thinking and Operations

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
5.ATO.1 Evaluate numerical expressions involving grouping symbols (i.e., parentheses, brackets, braces).	**5.PAFR.3.4** Translate a two-step real-world situation into a numerical expression using parentheses as grouping symbols and evaluate the expression. **6.PAFR.2.3** Evaluate numerical expressions with positive whole number bases and positive whole number exponents using the Order of Operations.
5.ATO.2 Translate verbal phrases into numerical expressions and interpret numerical expressions as verbal phrases.	**5.PAFR.3.4** Translate a two-step real-world situation into a numerical expression using parentheses as grouping symbols and evaluate the expression.
5.ATO.3 Investigate the relationship between two numerical patterns. a. Generate two numerical patterns given two rules and organize in tables; b. Translate the two numerical patterns into two sets of ordered pairs; c. Graph the two sets of ordered pairs on the same coordinate plane; d. Identify the relationship between the two numerical patterns.	**5.MGSR.3.1** Identify the origin, *x*-axis, and *y*-axis in the coordinate system. Write, plot, and label ordered pairs, including values in a function table, in the first quadrant of the coordinate plane. **5.PAFR.3.3** Identify a rule that can describe the pattern from the data of a function table and write it as an expression.

Geometry

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
5.G.1 Define a coordinate system. a. The x- and y- axes are perpendicular number lines that intersect at 0 (the origin); b. Any point on the coordinate plane can be represented by its coordinates; c. The first number in an ordered pair is the x-coordinate and represents the horizontal distance from the origin; d. The second number in an ordered pair is the y-coordinate and represents the vertical distance from the origin.	**5.MGSR.3.1** Identify the origin, *x*-axis, and *y*-axis in the coordinate system. Write, plot, and label ordered pairs, including values in a function table, in the first quadrant of the coordinate plane. **5.MGSR.3.2** Represent mathematical and real-world situations by graphing, labeling, and interpreting points in the first quadrant of the coordinate plane.

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
5.G.2 Plot and interpret points in the first quadrant of the coordinate plane to represent real-world and mathematical situations.	**5.MGSR.3.1** Identify the origin, *x*-axis, and *y*-axis in the coordinate system. Write, plot, and label ordered pairs, including values in a function table, in the first quadrant of the coordinate plane. **5.MGSR.3.2** Represent mathematical and real-world situations by graphing, labeling, and interpreting points in the first quadrant of the coordinate plane.
5.G.3 Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.	**4.MGSR.3.2** Classify quadrilaterals in a hierarchy based on their shared attributes.
5.G.4 Classify two-dimensional figures in a hierarchy based on their attributes.	**4.MGSR.3.2** Classify quadrilaterals in a hierarchy based on their shared attributes.

Measurement and Data Analysis

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
5.MDA.1 Convert measurements within a single system of measurement: customary (i.e., in., ft., yd., oz., lb., sec., min., hr.) or metric (i.e., mm, cm, m, km, g, kg, mL, L) from a larger to a smaller unit and a smaller to a larger unit.	**5.MGSR.2.1** Given the unit equivalencies, convert within a single system of measurement from larger units to smaller units and smaller units to larger units for length, weight, liquid volume, and time. Use these conversions in solving real-world situations. Limit units to inches, feet, yards, ounces, pounds, fluid ounces, cups, pints, quarts, gallons, seconds, minutes, hours, milli-, centi-, kilo-, and base units (grams, liters, meters).
5.MDA.2 Create a line plot consisting of unit fractions and use operations on fractions to solve problems related to the line plot.	**5.DPSR.1.2** Solve two-step, real-world situations using whole number and fractional data represented in tables, line graphs, scaled bar graphs, or dot plots. Limit fractions to denominators of 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, 50, and 100. **5.DPSR.1.3** Analyze categorical and numerical data in graphical displays to make predictions or draw conclusions. Limit displays to tables, bar graphs, dot plots, line graphs, and circle graphs with scales of whole numbers, halves, fourths, and eighths.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
5.MDA.3 Understand the concept of volume measurement. a. Recognize volume as an attribute of right rectangular prisms; b. Relate volume measurement to the operations of multiplication and addition by packing right rectangular prisms and then counting the layers of standard unit cubes; c. Determine the volume of right rectangular prisms using the formula derived from packing right rectangular prisms and counting the layers of standard unit cubes.	**5.MGSR.1.2** Estimate and measure the volume of a right rectangular prism with whole-number side lengths by filling it with unit cubes.
5.MDA.4 Differentiate among perimeter, area and volume and identify which application is appropriate for a given situation.	**3.MGSR.1.3** Determine if a real-world situation is an example of the need for finding the area or the perimeter of a figure. **5.MGSR.1.1** Solve problems involving area and perimeter of composite figures by decomposing with rectangles.

Grade 6:

The Number System

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
6.NS.1 Compute and represent quotients of positive fractions using a variety of procedures (e.g., visual models, equations, and real-world situations).	**6.PAFR.3.6** Add, subtract, multiply, and divide positive fractions, including mixed numbers in mathematical and real-world situations.
6.NS.2 Fluently divide multi-digit whole numbers using a standard algorithmic approach.	**6.PAFR.3.5** Add, subtract, multiply, and divide integers in mathematical and real-world situations.
6.NS.3 Fluently add, subtract, multiply and divide multi-digit decimal numbers using a standard algorithmic approach.	**6.PAFR.3.7** Add, subtract, multiply, and divide multi-digit positive decimals, up to the thousandths place, to solve problems in mathematical and real-world situations.
6.NS.4 Find common factors and multiples using two whole numbers. a. Compute the greatest common factor (GCF) of two numbers both less than or equal to 100. b. Compute the least common multiple (LCM) of two numbers both less than or equal to 12. c. Express sums of two whole numbers, each less than or equal to 100, using the distributive property to factor out a common factor of the original addends.	**5.PAFR.3.1** Determine the least common multiple (LCM) to find a common denominator. Limit denominators to 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, 50, and 100. **5.PAFR.3.2** Determine the greatest common factor (GCF) of two numbers both less than or equal to 50 to simplify a fraction into its standard form.
6.NS.5 Understand that the positive and negative representations of a number are opposites in direction and value. Use integers to represent quantities in real-world situations and explain the meaning of zero in each situation.	**6.NR.2.3** Represent quantities with integers in real-world situations and explain the meaning of zero.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
6.NS.6 Extend the understanding of the number line to include all rational numbers and apply this concept to the coordinate plane. a. Understand the concept of opposite numbers, including zero, and their relative locations on the number line. b. Understand that the signs of the coordinates in ordered pairs indicate their location on an axis or in a quadrant on the coordinate plane. c. Recognize when ordered pairs are reflections of each other on the coordinate plane across one axis, both axes, or the origin. d. Plot rational numbers on number lines and ordered pairs on coordinate planes.	**6.MGSR.3.1** Plot ordered pairs in all four quadrants and identify points on a graph by writing ordered pairs. **6.NR.2.4** Identify and compare the opposite value and absolute value of positive and negative rational numbers.
6.NS.7 Understand and apply the concepts of comparing, ordering, and finding absolute value to rational numbers. a. Interpret statements using equal to (=) and not equal to (≠). b. Interpret statements using less than (<), greater than (>), and equal to (=) as relative locations on the number line. c. Use concepts of equality and inequality to write and to explain real-world and mathematical situations. d. Understand that absolute value represents a number's distance from zero on the number line and use the absolute value of a rational number to represent real-world situations. e. Recognize the difference between comparing absolute values and ordering rational numbers. For negative rational numbers, understand that as the absolute value increases, the value of the negative number decreases.	**6.NR.2.1** Compare two positive rational numbers and write statements using the symbols for is equal to (=), is not equal to (≠), is less than (<), and/or is greater than (>) in mathematical and real-world situations. Limit fractions to denominators of 2, 4, 5, 8, 10, 20, 25, 50, 100, and 200. **6.NR.2.2** Sort a set of positive rational numbers in ascending and/or descending order in mathematical and real-world situations. Limit sets to no more than 5 numbers. Limit fractions to denominators of 2, 4, 5, 8, 10, 20, 25, 50, 100, and 200. **6.NR.2.4** Identify and compare the opposite value and absolute value of positive and negative rational numbers. **6.PAFR.2.5** Write and solve one-step equations and inequalities with one variable involving positive rational numbers in mathematical and real-world situations.
6.NS.8 Extend knowledge of the coordinate plane to solve real-world and mathematical problems involving rational numbers. a. Plot points in all four quadrants to represent the problem. b. Find the distance between two points when ordered pairs have the same x-coordinates or same y-coordinates. c. Relate finding the distance between two points in a coordinate plane to absolute value using a number line.	**6.MGSR.3.1** Plot ordered pairs in all four quadrants and identify points on a graph by writing ordered pairs. **7.MGSR.3.1** Find distances between ordered pairs on the coordinate plane, limited to the same *x*-coordinate or the same *y*-coordinate.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
6.NS.9 Investigate and translate among multiple representations of rational numbers (fractions, decimal numbers, percentages). Fractions should be limited to those with denominators of 2, 3, 4, 5, 8, 10, and 100.	**6.NR.1.1** Convert positive rational numbers into equivalent forms among terminating decimals, fractions (including mixed numbers), and percentages. Limit fractions to denominators of 2, 4, 5, 8, 10, 20, 25, 50, 100, and 200.

Ratios and Proportional Relationships

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
6.RP.1 Interpret the concept of a ratio as the relationship between two quantities, including part to part and part to whole.	**6.PAFR.2.6** Interpret the concept of a ratio as the relationship between two quantities, including part-to-part and part-to-whole.
6.RP.2 Investigate relationships between ratios and rates. a. Translate between multiple representations of ratios (i.e., $\frac{a}{b}$, a:b,a to b, visual models). b. Recognize that a rate is a type of ratio involving two different units. c. Convert from rates to unit rates.	**6.PAFR.2.7** Explain the relationship between ratios and rates, including unit rates.
6.RP.3 Apply the concepts of ratios and rates to solve real-world and mathematical problems. a. Create a table consisting of equivalent ratios and plot the results on the coordinate plane. b. Use multiple representations, including tape diagrams, tables, double number lines, and equations, to find missing values of equivalent ratios. c. Use two tables to compare related ratios. d. Apply concepts of unit rate to solve problems, including unit pricing and constant speed. e. Understand that a percentage is a rate per 100 and use this to solve problems involving wholes, parts, and percentages. f. Solve one-step problems involving ratios and unit rates (e.g., dimensional analysis).	**6.PAFR.2.8** Solve ratio and rate problems in real-world situations. **6.PAFR.2.9** Use one-step dimensional analysis to convert units within the metric or customary systems. **7.PAFR.2.4** Use dimensional analysis to convert units between metric and customary systems.

Expressions, Equations, and Inequalities

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
6.EEI.1 Write and evaluate numerical expressions involving whole-number exponents and positive rational number bases using the Order of Operations.	**6.PAFR.2.2** Write and evaluate numerical expressions containing powers. Limit to positive whole number bases and positive whole number exponents. **6.PAFR.2.3** Evaluate numerical expressions with positive whole number bases and positive whole number exponents using the Order of Operations.
6.EEI.2 Extend the concepts of numerical expressions to algebraic expressions involving positive rational numbers. a. Translate between algebraic expressions and verbal phrases that include variables. b. Investigate and identify parts of algebraic expressions using mathematical terminology, including term, coefficient, constant, and factor. c. Evaluate real-world and algebraic expressions for specific values using the Order of Operations. Grouping symbols should be limited to parentheses, braces, and brackets. Exponents should be limited to whole-numbers.	**6.PAFR.2.1** Identify parts of an algebraic expression using the mathematical terms *sum*, *difference*, *term*, *variable*, *product*, *factor*, *quotient*, *coefficient*, and *constant*. **6.PAFR.2.4** Write and evaluate expressions using variables to represent quantities in mathematical and real-world situations.
6.EEI.3 Apply mathematical properties (e.g., commutative, associative, distributive) to generate equivalent expressions.	**6.PAFR.3.4** Apply the properties of operations to create equivalent algebraic expressions and justify the properties used. Limit properties to the *Identity, Inverse, Commutative, Associative,* and *Distributive Properties*.
6.EEI.4 Apply mathematical properties (e.g., commutative, associative, distributive) to justify that two expressions are equivalent.	**6.PAFR.3.4** Apply the properties of operations to create equivalent algebraic expressions and justify the properties used. Limit properties to the *Identity, Inverse, Commutative, Associative,* and *Distributive Properties*.
6.EEI.5 Understand that if any solutions exist, the solution set for an equation or inequality consists of values that make the equation or inequality true.	**No correlating 2025 indicator.**
6.EEI.6 Write expressions using variables to represent quantities in real-world and mathematical situations. Understand the meaning of the variable in the context of the situation.	**6.PAFR.2.4** Write and evaluate expressions using variables to represent quantities in mathematical and real-world situations.

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
6.EEI.7 Write and solve one-step linear equations in one variable involving nonnegative rational numbers for real-world and mathematical situations.	**6.PAFR.2.5** Write and solve one-step equations and inequalities with one variable involving positive rational numbers in mathematical and real-world situations.
6.EEI.8 Extend knowledge of inequalities used to compare numerical expressions to include algebraic expressions in real-world and mathematical situations.	**6.PAFR.2.5** Write and solve one-step equations and inequalities with one variable involving positive rational numbers in mathematical and real-world situations.
a. Write an inequality of the form $x>c$ or $x<c$ and graph the solution set on a number line.	**6.PAFR.3.1** Represent the solutions of inequalities on a number line and explain that the solution set may contain an infinite number of solutions. Limited to the symbols for *is less than* (<) and *is greater than* (>).
b. Recognize that inequalities have infinitely many solutions.	
6.EEI.9 Investigate multiple representations of relationships in real-world and mathematical situations.	**6.PAFR.1.1** Use tables, graphs, verbal descriptions, and equations to represent the relationship between independent and dependent variables of functions.
a. Write an equation that models a relationship between independent and dependent variables.	**6.PAFR.1.2** Identify the independent and dependent variable of a function in mathematical and real-world situations.
b. Analyze the relationship between independent and dependent variables using graphs and tables.	
c. Translate among graphs, tables, and equations.	

Geometry and Measurement

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
6.GM.1 Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.	**6.MGSR.1.1** Find the area of a triangle, square, rectangle, parallelogram, and trapezoid.
	6.MGSR.1.4 Find the area of composite figures by decomposing them into triangles and rectangles to solve mathematical and real-world situations.
6.GM.2 Use visual models (e.g., model by packing) to discover that the formulas for the volume of a right rectangular prism ($V=lwh$, $V=Bh$) are the same for whole or fractional edge lengths. Apply these formulas to solve real-world and mathematical problems.	**6.MGSR.1.5** Calculate the volume of a right rectangular prism using the formula (V = Bh) in mathematical and real-world situations.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
6.GM.3 Apply the concepts of polygons and the coordinate plane to real-world and mathematical situations. a. Given coordinates of the vertices, draw a polygon in the coordinate plane. b. Find the length of an edge if the vertices have the same x-coordinates or same y-coordinates.	**6.MGSR.3.2** Graph a polygon on a coordinate plane given the coordinates of the vertices. **7.MGSR.3.1** Find distances between ordered pairs on the coordinate plane, limited to the same *x*-coordinate or the same *y*-coordinate.
6.GM.4 Unfold three-dimensional figures into two-dimensional rectangles and triangles (nets) to find the surface area and to solve real-world and mathematical problems.	**6.MGSR.1.2** Create nets to represent three-dimensional shapes. **6.MGSR.1.3** Calculate the surface area of rectangular prisms, right triangular prisms, rectangular pyramids, and right triangular pyramids using two-dimensional nets.

Data Analysis and Statistics

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
6.DS.1 Differentiate between statistical and non-statistical questions.	**GS.DPSR.1.3** Conduct an investigation for a statistical question, interpret statistical significance in the context of a situation, and answer investigative questions appropriately.
6.DS.2 Use center (mean, median, mode), spread (range, interquartile range, mean absolute value), and shape (symmetrical, skewed left, skewed right) to describe the distribution of a set of data collected to answer a statistical question.	**5.DPSR.1.1** Describe data by determining the range and mode, including whole numbers, fractional data, and decimal data. Limit fractions to denominators of 2, 3, 4, 5, 6, 8, and 10, and limit decimals to decimals through the thousandths place. **6.DPSR.1.3** Use the shape of the graph to determine whether median or mode best describes the data set. **6.DPSR.1.4** Calculate and interpret the median, mode, range, interquartile range in mathematical and real-world situations. **7.DPSR.1.3** Calculate and interpret the measures of center (*mean, median, mode*) and spread (*mean absolute deviation, interquartile range, range*) in mathematical and real-world situations.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
6.DS.3 Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.	**No correlating 2025 indicator.**
6.DS.4 Select and create an appropriate display for numerical data, including dot plots, histograms, and box plots.	**6.DPSR.1.2** Create box plots to represent numerical data sets in mathematical and real-world situations. **7.DPSR.1.4** Create histograms to represent data sets and interpret histograms to answer questions or draw conclusions about data sets.
6.DS.5 Describe numerical data sets in relation to their real-world context. a. State the sample size. b. Describe the qualitative aspects of the data (e.g., how it was measured, units of measurement). c. Give measures of center (median, mean). d. Find measures of variability (interquartile range, mean absolute deviation) using a number line. e. Describe the overall pattern (shape) of the distribution. f. Justify the choices for measure of center and measure of variability based on the shape of the distribution. g. Describe the impact that inserting or deleting a data point has on the measures of center (median, mean) for a data set.	**6.DPSR.1.1** Identify the sample size for a numerical set of data in mathematical and real-world situations. **6.DPSR.1.3** Use the shape of the graph to determine whether median or mode best describes the data set. **6.DPSR.1.4** Calculate and interpret the median, mode, range, interquartile range in mathematical and real-world situations. **7.DPSR.1.2** Use the shape of the graph to select the measure of center (mean, median, or mode) that best describes the data set. **7.DPSR.1.3** Calculate and interpret the measures of center (*mean, median, mode*) and spread (*mean absolute deviation, interquartile range, range*) in mathematical and real-world situations. **8.DPSR.1.3** Describe how adding and deleting data throughout the data set can affect the mean, median, mode, and distribution of the data set.

Grade 7:

The Number System

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
7.NS.1 Extend prior knowledge of operations with positive rational numbers to add and to subtract all rational numbers and represent the sum or difference on a number line. a. Understand that the additive inverse of a number is its opposite and their sum is equal to zero. b. Understand that the sum of two rational numbers ($p + q$) represents a distance from p on the number line equal to |q| where the direction is indicated by the sign of q. c. Translate between the subtraction of rational numbers and addition using the additive inverse, $p-q=p+(-q)$. d. Demonstrate that the distance between two rational numbers on the number line is the absolute value of their difference. e. Apply mathematical properties (e.g., commutative, associative, distributive, or the properties of identity and inverse elements) to add and subtract rational numbers.	**6.PAFR.3.3** Identify the additive inverse of a number and add additive inverses to find their sum is equal to zero. **6.PAFR.3.5** Add, subtract, multiply, and divide integers in mathematical and real-world situations. **7.PAFR.3.5** Apply all operations with rational numbers to solve problems in mathematical and real-world situations.
7.NS.2 Extend prior knowledge of operations with positive rational numbers to multiply and to divide all rational numbers. a. Understand that the multiplicative inverse of a number is its reciprocal and their product is equal to one. b. Understand sign rules for multiplying rational numbers. c. Understand sign rules for dividing rational numbers and that a quotient of integers (with a non-zero divisor) is a rational number. d. Apply mathematical properties (e.g., commutative, associative, distributive, or the properties of identity and inverse elements) to multiply and divide rational numbers. e. Understand that some rational numbers can be written as integers and all rational numbers can be written as fractions or decimal numbers that terminate or repeat.	**6.PAFR.3.2** Identify the multiplicative inverse of a number and multiply multiplicative inverses to find their product is equal to 1. **6.PAFR.3.5** Add, subtract, multiply, and divide integers in mathematical and real-world situations. **7.PAFR.3.5** Apply all operations with rational numbers to solve problems in mathematical and real-world situations.
7.NS.3 Apply the concepts of all four operations with rational numbers to solve real-world and mathematical problems.	**7.PAFR.3.5** Apply all operations with rational numbers to solve problems in mathematical and real-world situations.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
7.NS.4 Understand and apply the concepts of comparing and ordering to rational numbers. a. Interpret statements using less than (<), greater than (>), less than or equal to (≤), greater than or equal to (≥), and equal to (=) as relative locations on the number line. b. Use concepts of equality and inequality to write and explain real-world and mathematical situations.	**7.NR.2.1** Compare two rational numbers and write statements using *is equal to* (=), *is not equal to* (≠), *is less than* (<), *is greater than* (>), *is greater than or equal to* (≥), and/or *is less than or equal to* (≤) in mathematical and real-world situations.
7.NS.5 Extend prior knowledge to translate among multiple representations of rational numbers (fractions, decimal numbers, percentages). Exclude the conversion of repeating decimal numbers to fractions.	**7.NR.1.1** Convert rational numbers into equivalent forms among fractions (including mixed numbers), decimals, and percentages. Exclude the conversion of repeating decimals to fractions.

Ratios and Proportional Relationships

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
7.RP.1 Compute unit rates, including those involving complex fractions, with like or different units.	**7.PAFR.2.3** Compute unit rates, including those involving complex fractions with like or different units.
7.RP.2 Identify and model proportional relationships given multiple representations, including tables, graphs, equations, diagrams, verbal descriptions, and real-world situations. a. Determine when two quantities are in a proportional relationship. b. Recognize or compute the constant of proportionality. c. Understand that the constant of proportionality is the unit rate. d. Use equations to model proportional relationships. e. Investigate the graph of a proportional relationship and explain the meaning of specific points (e.g., origin, unit rate) in the context of the situation.	**7.PAFR.1.2** Create a model with functions that address a proportional relationship in real-world situations. **7.PAFR.1.3** Identify the constant of proportionality within proportional relationships.
7.RP.3 Solve real-world and mathematical problems involving ratios and percentages using proportional reasoning (e.g., multi-step dimensional analysis, percent increase/decrease, tax).	**7.PAFR.1.1** Apply proportional reasoning to solve problems in mathematical and real-world situations involving ratios and percentages.

Expressions, Equations, and Inequalities

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
7.EEI.1 Apply mathematical properties (e.g., commutative, associative, distributive) to simplify and to factor linear algebraic expressions with rational coefficients.	**6.PAFR.3.4** Apply the properties of operations to create equivalent algebraic expressions and justify the properties used. Limit properties to the *Identity, Inverse, Commutative, Associative,* and *Distributive Properties*. **7.PAFR.3.2** Identify linear expressions that are equivalent. **7.PAFR.3.4** Factor linear expressions with integer coefficients using the greatest common factor (GCF).
7.EEI.2 Recognize that algebraic expressions may have a variety of equivalent forms and determine an appropriate form for a given real-world situation.	**7.PAFR.2.2** Write and evaluate expressions in one variable that model mathematical and real-world situations. **7.PAFR.3.3** Recognize that algebraic expressions may have a variety of equivalent forms and determine an appropriate form for a given real-world situation.
7.EEI.3 Extend previous understanding of Order of Operations to solve multi-step real-world and mathematical problems involving rational numbers. Include fraction bars as a grouping symbol.	**7.PAFR.3.5** Apply all operations with rational numbers to solve problems in mathematical and real-world situations.
7.EEI.4 Apply the concepts of linear equations and inequalities in one variable to real-world and mathematical situations. a. Write and fluently solve linear equations of the form $ax + b = c$ and $a(x + b) = c$ where a, b, and c are rational numbers. b. Write and solve multi-step linear equations that include the use of the distributive property and combining like terms. Exclude equations that contain variables on both sides. c. Write and solve two-step linear inequalities. Graph the solution set on a number line and interpret its meaning. d. Identify and justify the steps for solving multi-step linear equations and two-step linear inequalities.	**7.PAFR.2.1** Write and solve multi-step equations and inequalities in one variable involving rational numbers in mathematical and real-world situations. **7.PAFR.3.2** Identify linear expressions that are equivalent.
7.EEI.5 Understand and apply the laws of exponents (i.e., product rule, quotient rule, power to a power, product to a power, quotient to a power, zero power property) to simplify numerical expressions that include whole-number exponents.	**7.PAFR.3.1** Simplify numerical expressions that include integer exponents using the laws of exponents: the Product of Powers, Quotient of Powers, Power of a Power, Power of a Product, Power of a Quotient, Zero Power, and Negative Exponent.

Geometry and Measurement

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
7.GM.1 Determine the scale factor and translate between scale models and actual measurements (e.g., lengths, area) of real-world objects and geometric figures using proportional reasoning.	**7.MGSR.2.2** Solve mathematical and real-world situations involving dimensions and areas of geometric figures including scale drawings and scale factors.
7.GM.2 Construct triangles and special quadrilaterals using a variety of tools (e.g., freehand, ruler and protractor, technology). a. Construct triangles given all measurements of either angles or sides. b. Decide if the measurements determine a unique triangle, more than one triangle, or no triangle. c. Construct special quadrilaterals (i.e., kite, trapezoid, isosceles trapezoid, rhombus, parallelogram, rectangle) given specific parameters about angles or sides.	**7.MGSR.1.4** Determine if three given side lengths can form a triangle using the *Triangle Inequality Theorem.*
7.GM.3 Describe two-dimensional cross-sections of three-dimensional figures, specifically right rectangular prisms and right rectangular pyramids.	**GS.MGSR.1.2** Identify the shape of a two-dimensional cross-section of a three-dimensional figure.
7.GM.4 Investigate the concept of circles. a. Demonstrate an understanding of the proportional relationships between diameter, radius, and circumference of a circle. b. Understand that the constant of proportionality between the circumference and diameter is equivalent to π. c. Explore the relationship between circumference and area using a visual model. d. Use the formulas for circumference and area of circles appropriately to solve real-world and mathematical problems.	**7.MGSR.1.2** Describe the relationship between the *radius, diameter*, and *circumference* of a circle. **7.MGSR.1.3** Solve mathematical and real-world situations involving circumference or area of circles.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
7.GM.5 Write equations to solve problems involving the relationships between angles formed by two intersecting lines, including supplementary, complementary, vertical, and adjacent.	**6.MGSR.2.1** Determine if two angles are complementary or supplementary. **7.MGSR.2.3** Identify the relationships and measures among angles formed by two intersecting lines, given the measure of one angle. Relationships are limited to supplementary, complementary, vertical, and adjacent. **7.MGSR.2.4** Write and solve equations to solve mathematical and real-world situations involving the relationships among angles formed by two intersecting lines. Relationships are limited to supplementary, complementary, vertical, and adjacent.
7.GM.6 Apply the concepts of two- and three-dimensional figures to real-world and mathematical situations. a. Understand that the concept of area is applied to two-dimensional figures such as triangles, quadrilaterals, and polygons. b. Understand that the concepts of volume and surface area are applied to three-dimensional figures such as cubes, right rectangular prisms, and right triangular prisms. c. Decompose cubes, right rectangular prisms, and right triangular prisms into rectangles and triangles to derive the formulas for volume and surface area. d. Use the formulas for area, volume, and surface area appropriately.	**7.MGSR.1.5** In mathematical and real-world situations, find the volume of right prisms and right pyramids having triangular or quadrilateral bases. **7.MGSR.1.6** In mathematical and real-world situations, find the surface area of right prisms and right pyramids having triangular or quadrilateral bases.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
7.DSP.1* Investigate concepts of random sampling. a. Understand that a sample is a subset of a population and both possess the same characteristics. b. Differentiate between random and non-random sampling. c. Understand that generalizations from a sample are valid only if the sample is representative of the population. d. Understand that random sampling is used to gather a representative sample and supports valid inferences about the population.	**SM.DPSR.3.1** Apply an appropriate data-collection plan when collecting data for the investigative statistical question of interest.
7.DSP.2* Draw inferences about a population by collecting multiple random samples of the same size to investigate variability in estimates of the characteristic of interest.	**7.DPSR.1.3** Calculate and interpret the measures of center (mean, median, mode) and spread (mean absolute deviation, interquartile range, range) in mathematical and real-world situations.
7.DSP.3 Visually compare the centers, spreads, and overlap of two displays of data (i.e., dot plots, histograms, box plots) that are graphed on the same scale and draw inferences about this data.	**8.DPSR.1.2** Draw inferences about data sets from two populations using the shape of the distribution, measures of center, and measures of variability. Limit Measures to *mean, median, mode, range, mean absolute deviation, and interquartile range*. **8.DPSR.1.4** For two data sets (numerical or graphical), compare and interpret the centers, spreads, and overlap of data to draw inferences about data in mathematical and real-world situations. Limit displays to double line graphs, back-to-back stem-and-leaf plots, and double box plots.
7.DSP.4* Compare the numerical measures of center (mean, median, mode) and variability (range, interquartile range, mean absolute deviation) from two random samples to draw inferences about the populations.	**8.DPSR.1.2** Draw inferences about data sets from two populations using the shape of the distribution, measures of center, and measures of variability. Limit Measures to *mean, median, mode, range, mean absolute deviation, and interquartile range*. **8.DPSR.1.4** For two data sets (numerical or graphical), compare and interpret the centers, spreads, and overlap of data to draw inferences about data in mathematical and real-world situations. Limit displays to double line graphs, back-to-back stem-and-leaf plots, and double box plots.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
7.DSP.5 Investigate the concept of probability of chance events. a. Determine probabilities of simple events. b. Understand that probability measures likelihood of a chance event occurring. c. Understand that the probability of a chance event is a number between 0 and 1. d. Understand that a probability closer to 1 indicates a likely chance event. e. Understand that a probability close to 1 2 indicates that a chance event is neither likely nor unlikely. f. Understand that a probability closer to 0 indicates an unlikely chance event.	**4.DPSR.2.1** Determine the possible outcomes of a simple event and record the probability as certain, possible, or impossible. **5.DPSR.2.1** Represent the probability of a simple event as 0, a fraction, or 1. Limit fractions to denominators of 2, 3, 4, 5, 6, 8, 10, 20, and 25. **6.DPSR.2.1** Given the probability of a random event, expressed as a number from 0 to 1, state the likelihood of the event occurring. **6.DPSR.2.2** Find the probability of simple events in mathematical and real-world situations. Fractions limited to denominators of 2, 4, 5, 8, 10, 25, 50, and 100. **7.DPSR.2.1** Identify the sample space for a simple event. **7.DPSR.2.2** Calculate and interpret the theoretical probability of a simple random event.
7.DSP.6* Investigate the relationship between theoretical and experimental probabilities for simple events. a. Determine approximate outcomes using theoretical probability. b. Perform experiments that model theoretical probability. c. Compare theoretical and experimental probabilities.	**3.DPSR.2.1** Identify the possible outcomes of a simple event. **6.DPSR.2.2** Find the probability of simple events in mathematical and real-world situations. Fractions limited to denominators of 2, 4, 5, 8, 10, 25, 50, and 100. **7.DPSR.2.1** Identify the sample space for a simple event. **7.DPSR.2.2** Calculate and interpret the theoretical probability of a simple random event. **7.DPSR.2.3** Calculate and interpret the experimental probability of a random event related to a simple experiment. **7.DPSR.2.4** Compare and contrast the experimental and theoretical probabilities for a simple experiment.
7.DSP.7* Apply the concepts of theoretical and experimental probabilities for simple events. a. Differentiate between uniform and non-uniform probability models (distributions). b. Develop both uniform and non-uniform probability models. c. Perform experiments to test the validity of probability models.	**7.DPSR.2.3** Calculate and interpret the experimental probability of a random event related to a simple experiment. **7.DPSR.2.4** Compare and contrast the experimental and theoretical probabilities for a simple experiment.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
7.DSP.8* Extend the concepts of simple events to investigate compound events. a. Understand that the probability of a compound event is between 0 and 1. b. Identify the outcomes in a sample space using organized lists, tables, and tree diagrams. c. Determine probabilities of compound events using organized lists, tables, and tree diagrams. d. Design and use simulations to collect data and determine probabilities. e. Compare theoretical and experimental probabilities for compound events.	**7.DPSR.2.1** Identify the sample space for a simple event. **8.DPSR.2.1** Determine the sample space for a compound event. **8.DPSR.2.2** Calculate and interpret the probability of compound independent and dependent events.

Grade 8:

The Number System

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
8.NS.1 Explore the real number system and its appropriate usage in real-world situations. a. Recognize the differences between rational and irrational numbers. b. Understand that all real numbers have a decimal expansion. c. Model the hierarchy of the real number system, including natural, whole, integer, rational, and irrational numbers.	**8.NR.2.2** Classify and order the subsets of real numbers in the number system including natural, whole, integer, rational, and irrational numbers. **GS.NR.1.1** Rewrite numerical expressions of irrational and rational numbers involving radicals, including addition, subtraction, multiplication, and division, to recognize geometric patterns.
8.NS.2 Estimate and compare the value of irrational numbers by plotting them on a number line.	**8.NR.2.1** Compare real numbers and write statements using *is equal to* (=), *is not equal to* (≠), *is less than* (<), *is greater than* (>), *is greater than or equal to* (≥), or is *less than or equal to* (≤).
8.NS.3 Extend prior knowledge to translate among multiple representations of rational numbers (fractions, decimal numbers, percentages). Include the conversion of repeating decimal numbers to fractions.	**8.NR.1.1** Convert any form of a rational number to any other form including fractions (mixed numbers), decimals, and percentages.

Functions

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
8.F.1 Explore the concept of functions. a. Understand that a function assigns to each input exactly one output. b. Relate inputs (x-values or domain) and outputs (y-values or range) to independent and dependent variables. c. Translate among the multiple representations of a function, including mappings, tables, graphs, equations, and verbal descriptions. d. Determine if a relation is a function using multiple representations, including mappings, tables, graphs, equations, and verbal descriptions. e. Graph a function from a table of values. Understand that the graph and table both represent a set of ordered pairs of that function.	**6.PAFR.1.1** Use tables, graphs, verbal descriptions, and equations to represent the relationship between independent and dependent variables of functions. **6.PAFR.1.2** Identify the independent and dependent variable of a function in mathematical and real-world situations. **8.PAFR.1.3** Determine if a graph, table, mapping, or verbal description is a function (linear or nonlinear) or not a function. **8.PAFR.1.6** Translate among the multiple representations, including mappings, tables, graphs, verbal description, and equations (only when linear) of a function.
8.F.2 Compare multiple representations of two functions, including mappings, tables, graphs, equations, and verbal descriptions, in order to draw conclusions.	**8.PAFR.1.5** Use multiple representations including mappings, tables, graphs, verbal description, and equations (only when linear) of two functions to compare the functions and draw conclusions.
8.F.3 Investigate the differences between linear and nonlinear functions using multiple representations (i.e., tables, graphs, equations, and verbal descriptions). a. Define an equation in slope-intercept form ($y=mx+b$) as being a linear function. b. Recognize that the graph of a linear function has a constant rate of change. c. Provide examples of nonlinear functions.	**8.PAFR.1.1** Define an equation in slope-intercept form ($y = mx + b$) as being a linear function. **8.PAFR.1.2** Identify and describe the constant rate of change and the *y*-intercept of a linear function. **8.PAFR.1.3** Determine if a graph, table, mapping, or verbal description is a function (linear or nonlinear) or not a function. **8.PAFR.2.3** Identify the rate of change for a linear function as the slope of the line.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
8.F.4 Apply the concepts of linear functions to real-world and mathematical situations. a. Understand that the slope is the constant rate of change and the y-intercept is the point where $x = 0$. b. Determine the slope and the y-intercept of a linear function given multiple representations, including two points, tables, graphs, equations, and verbal descriptions. c. Construct a function in slope-intercept form that models a linear relationship between two quantities. d. Interpret the meaning of the slope and the y-intercept of a linear function in the context of the situation. e. Explore the relationship between linear functions and arithmetic sequences.	**8.PAFR.1.2** Identify and describe the constant rate of change and the *y*-intercept of a linear function. **8.PAFR.1.6** Translate among the multiple representations, including mappings, tables, graphs, verbal description, and equations (only when linear) of a function. **8.PAFR.2.3** Identify the rate of change for a linear function as the slope of the line. **8.PAFR.2.5** Given a table or a graph, identify the slope and the *y*-intercept of a line and write a linear equation to express that line.
8.F.5 Apply the concepts of linear and nonlinear functions to graphs in real-world and mathematical situations. a. Analyze and describe attributes of graphs of functions (e.g., constant, increasing/decreasing, linear/nonlinear, maximum/minimum, discrete/continuous). b. Sketch the graph of a function from a verbal description. c. Write a verbal description from the graph of a function with and without scales.	**8.PAFR.1.4** Describe the key features of given functions, including *domain, range, intervals of increasing or decreasing, constant, discrete, continuous,* and *intercepts*. **8.PAFR.1.6** Translate among the multiple representations, including mappings, tables, graphs, verbal description, and equations (only when linear) of a function.

Expressions, Equations, and Inequalities

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
8.EEI.1 Understand and apply the laws of exponents (i.e., product rule, quotient rule, power to a power, product to a power, quotient to a power, zero power property, negative exponents) to simplify numerical expressions that include integer exponents.	**8.PAFR.3.3** Apply laws of exponents to simplify algebraic expressions involving no more than three variables and integer exponents.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
8.EEI.2 Investigate concepts of square and cube roots. a. Find the exact and approximate solutions to equations of the form $x^2 = p$ and $x^3 = p$ where p is a positive rational number. b. Evaluate square roots of perfect squares. c. Evaluate cube roots of perfect cubes. d. Recognize that square roots of non-perfect squares are irrational.	**8.PAFR.3.1** Analyze patterns of perfect squares and perfect cubes to evaluate square roots and cube roots. Limit to square roots less than or equal to 400 and cube roots less than or equal to 1,000. **8.PAFR.3.2** Approximate non-perfect square roots and cube roots to nearest tenth. Limit to square roots less than or equal to 400 and cube roots less than or equal to 1,000.
8.EEI.3 Explore the relationship between quantities in decimal and scientific notation. a. Express very large and very small quantities in scientific notation in the form $a \times 10^b = p$ where $1 \leq a < 10$ and b is an integer. b. Translate between decimal notation and scientific notation. c. Estimate and compare the relative size of two quantities in scientific notation.	**No correlating 2025 indicator.**
8.EEI.4 Apply the concepts of decimal and scientific notation to solve real-world and mathematical problems. a. Multiply and divide numbers expressed in both decimal and scientific notation. b. Select appropriate units of measure when representing answers in scientific notation. c. Translate how different technological devices display numbers in scientific notation.	**No correlating 2025 indicator.**
8.EEI.5 Apply concepts of proportional relationships to real-world and mathematical situations. a. Graph proportional relationships. b. Interpret unit rate as the slope of the graph. c. Compare two different proportional relationships given multiple representations, including tables, graphs, equations, diagrams, and verbal descriptions.	**7.PAFR.1.2** Create a model with functions that address a proportional relationship in real-world situations. **8.PAFR.1.5** Use multiple representations including mappings, tables, graphs, verbal description, and equations (only when linear) of two functions to compare the functions and draw conclusions. **8.PAFR.2.3** Identify the rate of change for a linear function as the slope of the line.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
8.EEI.6 Apply concepts of slope and y-intercept to graphs, equations, and proportional relationships. a. Explain why the slope, m, is the same between any two distinct points on a nonvertical line using similar triangles. b. Derive the slope-intercept form ($y = mx + b$) for a non-vertical line. c. Relate equations for proportional relationships ($y = kx$) with the slope-intercept form ($y = mx + b$) where $b = 0$.	**8.PAFR.1.2** Identify and describe the constant rate of change and the *y*-intercept of a linear function. **8.PAFR.2.4** Explain why the slope, *m*, is the same between any two distinct points on a linear graph. **8.PAFR.2.5** Given a table or a graph, identify the slope and the *y*-intercept of a line and write a linear equation to express that line.
8.EEI.7 Extend concepts of linear equations and inequalities in one variable to more complex multi-step equations and inequalities in real-world and mathematical situations. a. Solve linear equations and inequalities with rational number coefficients that include the use of the distributive property, combining like terms, and variables on both sides. b. Recognize the three types of solutions to linear equations: one solution ($x = a$), infinitely many solutions ($a = a$), or no solutions ($a = b$). c. Generate linear equations with the three types of solutions. d. Justify why linear equations have a specific type of solution.	**8.PAFR.2.1** Solve multi-step one-variable equations and inequalities with variables on both sides with rational coefficients. **8.PAFR.2.2** Describe single-variable equations as having one solution, no solution, or an infinite number of solutions.
8.EEI.8 Investigate and solve real-world and mathematical problems involving systems of linear equations in two variables with integer coefficients and solutions. a. Graph systems of linear equations and estimate their point of intersection. b. Understand and verify that a solution to a system of linear equations is represented on a graph as the point of intersection of the two lines. c. Solve systems of linear equations algebraically, including methods of substitution and elimination, or through inspection. d. Understand that systems of linear equations can have one solution, no solution, or infinitely many solutions.	**A1.PAFR.2.7** Use graphs to obtain exact and/or approximate solutions of equations, inequalities, and systems of linear equations in two variables (given or obtained by using technology). **A1.PAFR.2.9** Solve systems of linear equations algebraically and graphically. **A2P.PAFR.6.3** Use linear programming to solve systems of equations and inequalities by addressing the constraints that arise in real-world situations. **PC.PAFR.7.1** Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. Understand that such systems may have zero, one, or two solutions.

Geometry and Measurement

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
8.GM.1 Investigate the properties of rigid transformations (rotations, reflections, translations) using a variety of tools (e.g., grid paper, reflective devices, graphing paper, technology). a. Verify that lines are mapped to lines, including parallel lines. b. Verify that corresponding angles are congruent. c. Verify that corresponding line segments are congruent.	**8.MGSR.3.2** Identify congruent angles and congruent line segments of a preimage and its image. **8.MGSR.3.4** Reflect geometric figures with respect to the *x*-axis and/or *y*-axis.
8.GM.2 Apply the properties of rigid transformations (rotations, reflections, translations). a. Rotate geometric figures 90, 180, and 270 degrees, both clockwise and counterclockwise, about the origin. b. Reflect geometric figures with respect to the x-axis and/or y-axis. c. Translate geometric figures vertically and/or horizontally. d. Recognize that two-dimensional figures are only congruent if a series of rigid transformations can be performed to map the pre-image to the image. e. Given two congruent figures, describe the series of rigid transformations that justifies this congruence.	**8.MGSR.2.2** Determine if two-dimensional figures are congruent or similar. **8.MGSR.3.1** Identify the transformation as a rotation, reflection, and/or translation. Rotations should be limited to multiples of 90 degrees centered on the origin. **8.MGSR.3.3** Translate geometric figures vertically and/or horizontally. **8.MGSR.3.4** Reflect geometric figures with respect to the *x*-axis and/or *y*-axis. **8.MGSR.3.5** Rotate geometric figures 90, 180, and 270 degrees, both clockwise and counterclockwise, about the origin in a coordinate plane. **8.MGSR.3.7** Describe the effect of a series of transformations, including *dilations, translations, rotations, and reflections*, on two-dimensional figures using coordinates on the coordinate plane. **GS.MGSR.2.2** Describe and apply a sequence of transformations that maps a preimage onto its image.
8.GM.3 Investigate the properties of transformations (rotations, reflections, translations, dilations) using a variety of tools (e.g., grid paper, reflective devices, graphing paper, dynamic software). a. Use coordinate geometry to describe the effect of transformations on two-dimensional figures. b. Relate scale drawings to dilations of geometric figures.	**8.MGSR.3.3** Translate geometric figures vertically and/or horizontally. **8.MGSR.3.6** Create a dilation using a given scale factor and describe the effect of a dilation. **8.MGSR.3.7** Describe the effect of a series of transformations, including *dilations, translations, rotations, and reflections*, on two-dimensional figures using coordinates on the coordinate plane.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
8.GM.4 Apply the properties of transformations (rotations, reflections, translations, dilations). a. Dilate geometric figures using scale factors that are positive rational numbers. b. Recognize that two-dimensional figures are only similar if a series of transformations can be performed to map the pre-image to the image. c. Given two similar figures, describe the series of transformations that justifies this similarity. d. Use proportional reasoning to find the missing side lengths of two similar figures.	**8.MGSR.2.2** Determine if two-dimensional figures are congruent or similar. **8.MGSR.2.5** Apply proportional reasoning to find the missing side lengths of two similar figures. **8.MGSR.3.6** Create a dilation using a given scale factor and describe the effect of a dilation. **8.MGSR.3.7** Describe the effect of a series of transformations, including *dilations, translations, rotations, and reflections*, on two-dimensional figures using coordinates on the coordinate plane.
8.GM.5 Extend and apply previous knowledge of angles to properties of triangles, similar figures, and parallel lines cut by a transversal. a. Discover that the sum of the three angles in a triangle is 180 degrees. b. Discover and use the relationship between interior and exterior angles of a triangle. c. Identify congruent and supplementary pairs of angles when two parallel lines are cut by a transversal. d. Recognize that two similar figures have congruent corresponding angles.	**7.MGSR.2.1** Determine the measure of the third angle given the measure of the other two angles of a triangle using the *Triangle Sum Theorem*. **7.MGSR.2.3** Identify the relationships and measures among angles formed by two intersecting lines, given the measure of one angle. Relationships are limited to supplementary, complementary, vertical, and adjacent. **8.MGSR.2.1** Determine missing angle measurements created when parallel lines are cut by a transversal. **8.MGSR.2.3** Identify the congruent corresponding angles of similar polygons. **8.MGSR.2.4** Discover and apply the *Exterior Angle Theorem* of triangles to find a missing angle.
8.GM.6 Use models to demonstrate a proof of the Pythagorean Theorem and its converse.	**GS.MGSR.6.1** Discover and apply the converse of the *Pythagorean Theorem*.
8.GM.7 Apply the Pythagorean Theorem to model and solve real-world and mathematical problems in two and three dimensions involving right triangles.	**8.MGSR.1.3** Given the *Pythagorean Theorem*, determine unknown side lengths in right triangles in mathematical and real-world situations. **8.MGSR.1.4** Determine if a given set of sides forms a right triangle. **GS.MGSR.6.1** Discover and apply the converse of the *Pythagorean Theorem*.
8.GM.8 Find the distance between any two points in the coordinate plane using the Pythagorean Theorem.	**8.MGSR.1.2** Find the distance between any two points in the coordinate plane using the Pythagorean Theorem.

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
8.GM.9 Solve real-world and mathematical problems involving volumes of cones, cylinders, and spheres and the surface area of cylinders.	**8.MGSR.1.1** Given the geometric formulas, find the volume of cones, cylinders, and spheres in mathematical and real-world situations. **GS.PAFR.2.1** Apply surface area and volume formulas for prisms, cylinders, pyramids, cones, spheres, and/or compositions of figures to solve problems and justify results.

Data Analysis, Statistics, and Probability

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
8.DSP.1 Investigate bivariate data. a. Collect bivariate data. b. Graph the bivariate data on a scatter plot. c. Describe patterns observed on a scatter plot, including clustering, outliers, and association (positive, negative, no correlation, linear, nonlinear).	**8.DPSR.1.1** Create and analyze scatter plots to represent numerical data sets in mathematical and real-world situations. **A1.DPSR.1.2** Summarize quantitative data in a table and on a scatter plot and describe how the variables are associated. Limit to linear data.
8.DSP.2 Draw an approximate line of best fit on a scatter plot that appears to have a linear association and informally assess the fit of the line to the data points.	**A1.DPSR.1.3** Find a linear function for a scatter plot that suggests a linear association. **GS.DPSR.1.2** Use two representative points from the data to find an approximate line of fit and compare it to the line of best fit.
8.DSP.3 Apply concepts of an approximate line of best fit in real-world situations. a. Find an approximate equation for the line of best fit using two appropriate data points. b. Interpret the slope and intercept. c. Solve problems using the equation.	**GS.DPSR.1.2** Use two representative points from the data to find an approximate line of fit and compare it to the line of best fit. **A1.DPSR.2.2** Interpret the slope and the intercept of a linear model in the context of the data. **A1.DPSR.2.3** Use a linear model to interpolate and extrapolate unknown values close to the data set.
8.DSP.4* Investigate bivariate categorical data in two-way tables. a. Organize bivariate categorical data in a two-way table. b. Interpret data in two-way tables using relative frequencies. c. Explore patterns of possible association between the two categorical variables.	**A1.DPSR.1.1** Summarize categorical data in two-way frequency tables, interpret relative frequencies in real-world situations, and informally determine possible associations and trends in the data. **A1.DPSR.2.1** Use two-way frequency tables to make inferences and interpret the data in terms of real-world or mathematical situations.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
8.DSP.5* Organize data in matrices with rational numbers and apply to real-world and mathematical situations. a. Understand that a matrix is a way to organize data. b. Recognize that a $m \times n$ matrix has m rows and n columns. c. Add and subtract matrices of the same size. d. Multiply a matrix by a scalar.	**A2P.NR.2.1** Perform operations with matrices including addition, subtraction, and scalar multiplication. **RM.MGSR.1.1** Use matrices to organize information and identify matrices that can be used to describe geometric transformations.

Algebra 1:

Arithmetic with Polynomials and Rational Expressions

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
A1.AAPR.1* Add, subtract, and multiply polynomials and understand that polynomials are closed under these operations. (Limit to linear; quadratic.)	**A1.PAFR.1.4** Add, subtract, and multiply polynomials with initial terms up to a degree of 2.

Creating Equations

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
A1.ACE.1* Create and solve equations and inequalities in one variable that model real-world problems involving linear, quadratic, simple rational, and exponential relationships. Interpret the solutions and determine whether they are reasonable. (Limit to linear; quadratic; exponential with integer exponents.)	**A1.PAFR.1.3** Solve mathematical and real-world situations using linear, quadratic, exponential (same bases), and linear absolute value equations in one variable. **A2P.PAFR.1.2** Solve quadratic inequalities that model mathematical and real-world situations. **A2P.PAFR.5.2** Solve linear absolute value inequalities.

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
A1.ACE.2* Create equations in two or more variables to represent relationships between quantities. Graph the equations on coordinate axes using appropriate labels, units, and scales. (Limit to linear; quadratic; exponential with integer exponents; direct and indirect variation.)	**A1.PAFR.2.3** Solve and graph linear, quadratic, exponential, and linear absolute value equations given in tabular, symbolic, and/or verbal forms using intercepts, domain and range, intervals of increasing and decreasing, vertex (maximum and minimum), end-behavior, and symmetry, and interpret these in terms of mathematical and real-world situations.
	A1.PAFR.2.6 Create symbolic representations of linear and exponential functions, including arithmetic and geometric sequences, given graphs, verbal descriptions, and tables.
	A1.PAFR.2.7 Use graphs to obtain exact and/or approximate solutions of equations, inequalities, and systems of linear equations in two variables (given or obtained by using technology).
A1.ACE.4* Solve literal equations and formulas for a specified variable including equations and formulas that arise in a variety of disciplines.	**A1.PAFR.1.2** Solve literal equations and formulas for a specified variable including equations and formulas that arise in a variety of disciplines.

Reasoning with Equations and Inequalities

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
A1.AREI.1* Understand and justify that the steps taken when solving simple equations in one variable create new equations that have the same solution as the original.	**A1.PAFR.1.1** Transform an equation in one variable to create new equations that have the same solution as the original and justify the steps taken.
A1.AREI.3* Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	**A1.PAFR.1.3** Solve mathematical and real-world situations using linear, quadratic, exponential (same bases), and linear absolute value equations in one variable.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
A1.AREI.4* Solve mathematical and real-world problems involving quadratic equations in one variable. (Note: A1.AREI.4a and 4b are not Graduation Standards.) a. Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x-h)2 = k$ that has the same solutions. Derive the quadratic formula from this form. b. Solve quadratic equations by inspection, taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a + bi$ for real numbers a and b. (Limit to noncomplex roots.)	**A1.PAFR.1.1** Transform an equation in one variable to create new equations that have the same solution as the original and justify the steps taken. **A1.PAFR.1.3** Solve mathematical and real-world situations using linear, quadratic, exponential (same bases), and linear absolute value equations in one variable. **A1.PAFR.2.2** Solve quadratic equations by completing the square, factoring, and the quadratic formula, explaining the connection between the zeros of the function derived from the equation, its linear factors (if it factors), the x-intercepts of its graph (if they exist), and the solutions (if any) to the corresponding quadratic equation.
A1.AREI.5 Justify that the solution to a system of linear equations is not changed when one of the equations is replaced by a linear combination of the other equation.	**No correlating 2025 indicator.**
A1.AREI.6* Solve systems of linear equations algebraically and graphically focusing on pairs of linear equations in two variables. (Note: A1.AREI.6a and 6b are not Graduation Standards.) a. Solve systems of linear equations using the substitution method. b. Solve systems of linear equations using linear combination.	**A1.PAFR.2.7** Use graphs to obtain exact and/or approximate solutions of equations, inequalities, and systems of linear equations in two variables (given or obtained by using technology). **A1.PAFR.2.9** Solve systems of linear equations algebraically and graphically.
A1.AREI.10* Explain that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane.	**A1.PAFR.3.1** Recognize that $f(x)$ denotes the output of function f that corresponds to the input x, and this corresponds to the set of all the ordered pairs (x, y) that satisfy the equation $y = f(x)$ both tabularly and graphically.
A1.AREI.11* Solve an equation of the form $f(x) = g(x)$ graphically by identifying the $x$coordinate(s) of the point(s) of intersection of the graphs of $y = f(x)$ and $y = g(x)$. (Limit to linear; quadratic; exponential.)	**A1.PAFR.2.8** Solve an equation of the form $f(x) = g(x)$ graphically by identifying the x-coordinate(s) of the point(s) of intersection of the graphs of $y = f(x)$ and $y = g(x)$.
A1.AREI.12* Graph the solutions to a linear inequality in two variables.	**A1.PAFR.2.4** Create, solve, and graph linear inequalities in two variables.

Structure and Expressions

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
A1.ASE.1* Interpret the meanings of coefficients, factors, terms, and expressions based on their real-world contexts. Interpret complicated expressions as being composed of simpler expressions. (Limit to linear; quadratic; exponential.)	**No correlating 2025 indicator.**
A1.ASE.2* Analyze the structure of binomials, trinomials, and other polynomials in order to rewrite equivalent expressions.	**A1.PAFR.2.1** Transform linear, quadratic, exponential, and linear absolute value functions to equivalent forms to identify slope and y-intercept for linear, vertex, and roots (if any) for quadratic and linear absolute value, and y-intercept for exponential. **A1.PAFR.3.3** Translate among graphical, tabular, verbal, and symbolic representations in function notation, to identify intercepts, intervals where the function is increasing, decreasing, constant, maximums and minimums, and symmetries and explain their meanings in real-world and mathematical situations. **A2P.PAFR.1.5** Recognize perfect squares and perfect cubes and use them to describe the structure of polynomials.
A1.ASE.3* Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. a. Find the zeros of a quadratic function by rewriting it in equivalent factored form and explain the connection between the zeros of the function, its linear factors, the x-intercepts of its graph, and the solutions to the corresponding quadratic equation.	**A1.PAFR.2.1** Transform linear, quadratic, exponential, and linear absolute value functions to equivalent forms to identify slope and *y*-intercept for linear, vertex, and roots (if any) for quadratic and linear absolute value, and *y*-intercept for exponential. **A1.PAFR.2.2** Solve quadratic equations by completing the square, factoring, and the quadratic formula, explaining the connection between the zeros of the function derived from the equation, its linear factors (if it factors), the *x*-intercepts of its graph (if they exist), and the solutions (if any) to the corresponding quadratic equation.

Building Functions

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
A1.FBF.3* Describe the effect of the transformations $kf(x)$, $f(x) + k$, $f(x + k)$, and combinations of such transformations on the graph of $y = f(x)$ for any real number k. Find the value of k given the graphs and write the equation of a transformed parent function given its graph. (Limit to linear; quadratic; exponential with integer exponents; vertical shift and vertical stretch.)	**A1.PAFR.3.4** Interpret how lead coefficients impact the shape of a function's graph**.** **A1.PAFR.4.1** Describe the effect of the transformations $kf(x)$, $f(x)+k$, $f(x+k)$, $f(x)-k$,$f(x- k)$, and combinations of such transformations on the graph of parent function $y = f(x)$ for any real number k; find the value of k given the graphs; and write the equation of a transformed parent function given its graph. **A2P.PAFR.4.1** Identify the effect on the graph of replacing $f(x)$ by $kf(x)$, $f(x)+k$, $f(x+k)$, $f(kx)$ for any real number *k* including multiple transformations; write an equation of a transformed parent function given its graph. Extend to equations involving rational, polynomial, radical, exponential, and piecewise.

Interpreting Functions

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
A1.FIF.1* Extend previous knowledge of a function to apply to general behavior and features of a function. a. Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. b. Represent a function using function notation and explain that $f(x)$ denotes the output of function f that corresponds to the input x. c. Understand that the graph of a function labeled as f is the set of all ordered pairs (x,y) that satisfy the equation $y=f(x)$.	**A1.PAFR.2.10** Analyze the growth/decay rate between linear and exponential functions specifically between consecutive integers. **A1.PAFR.3.1** Recognize that $f(x)$ denotes the output of function f that corresponds to the input x, and this corresponds to the set of all the ordered pairs (x, y) that satisfy the equation y = f(x) both tabularly and graphically. **A1.PAFR.3.2** Use the definition of a function to analyze the domain and range of a function in relation to its graph, mapping, table, verbal, and/or symbolic description and, where applicable, using interval and set notation.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
A1.FIF.2* Evaluate functions and interpret the meaning of expressions involving function notation from a mathematical perspective and in terms of the context when the function describes a real-world situation.	**No correlating 2025 indicator.**
A1.FIF.4* Interpret key features of a function that models the relationship between two quantities when given in graphical or tabular form. Sketch the graph of a function from a verbal description showing key features. Key features include intercepts; intervals where the function is increasing, decreasing, constant, positive, or negative; relative maximums and minimums; symmetries; end behavior and periodicity. (Limit to linear; quadratic; exponential.)	**8.PAFR.1.4** Describe the key features of given functions, including *domain, range, intervals of increasing or decreasing, constant, discrete, continuous,* and *intercepts*. **A1.PAFR.2.3** Solve and graph linear, quadratic, exponential, and linear absolute value equations given in tabular, symbolic, and/or verbal forms using intercepts, domain and range, intervals of increasing and decreasing, vertex (maximum and minimum), end-behavior, and symmetry, and interpret these in terms of mathematical and real-world situations. **A1.PAFR.3.3** Translate among graphical, tabular, verbal, and symbolic representations in function notation, to identify intercepts, intervals where the function is increasing, decreasing, constant, maximums and minimums, and symmetries and explain their meanings in real-world and mathematical situations.
A1.FIF.5* Relate the domain and range of a function to its graph and, where applicable, to the quantitative relationship it describes. (Limit to linear; quadratic; exponential.)	**A1.PAFR.3.2** Use the definition of a function to analyze the domain and range of a function in relation to its graph, mapping, table, verbal, and/or symbolic description and, where applicable, using interval and set notation.
A1.FIF.6* Given a function in graphical, symbolic, or tabular form, determine the average rate of change of the function over a specified interval. Interpret the meaning of the average rate of change in a given context. (Limit to linear; quadratic; exponential.)	**A1.PAFR.4.3** Given different representations of two different functions, compare key features including intercepts, domain and range, intervals of increasing and decreasing, constant, average rate of change, and maximum and minimum values.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
A1.FIF.7* Graph functions from their symbolic representations. Indicate key features including intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior and periodicity. Graph simple cases by hand and use technology for complicated cases. (Limit to linear; quadratic; exponential only in the form $y = ax + k$.)	**A1.PAFR.2.1** Transform linear, quadratic, exponential, and linear absolute value functions to equivalent forms to identify slope and y-intercept for linear, vertex, and roots (if any) for quadratic and linear absolute value, and y-intercept for exponential. **A1.PAFR.2.3** Solve and graph linear, quadratic, exponential, and linear absolute value equations given in tabular, symbolic, and/or verbal forms using intercepts, domain and range, intervals of increasing and decreasing, vertex (maximum and minimum), end-behavior, and symmetry, and interpret these in terms of mathematical and real-world situations.
A1.FIF.8* Translate between different but equivalent forms of a function equation to reveal and explain different properties of the function. (Limit to linear; quadratic; exponential.) (Note: A1.FIF.8a is not a Graduation Standard.) a. Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context.	**A1.PAFR.2.1** Transform linear, quadratic, exponential, and linear absolute value functions to equivalent forms to identify slope and y-intercept for linear, vertex, and roots (if any) for quadratic and linear absolute value, and y-intercept for exponential. **A1.PAFR.2.2** Solve quadratic equations by completing the square, factoring, and the quadratic formula, explaining the connection between the zeros of the function derived from the equation, its linear factors (if it factors), the x-intercepts of its graph (if they exist), and the solutions (if any) to the corresponding quadratic equation. **A1.PAFR.3.3** Translate among graphical, tabular, verbal, and symbolic representations in function notation, to identify intercepts, intervals where the function is increasing, decreasing, constant, maximums and minimums, and symmetries and explain their meanings in real-world and mathematical situations.
A1.FIF.9* Compare properties of two functions given in different representations such as algebraic, graphical, tabular, or verbal. (Limit to linear; quadratic; exponential.)	**A1.PAFR.4.3** Given different representations of two different functions, compare key features including intercepts, domain and range, intervals of increasing and decreasing, constant, average rate of change, and maximum and minimum values.

Linear, Quadratic, and Exponential

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
A1.FLQE.1* Distinguish between situations that can be modeled with linear functions or exponential functions by recognizing situations in which one quantity changes at a constant rate per unit interval as opposed to those in which a quantity changes by a constant percent rate per unit interval. (Note: A1.FLQE.1a is not a Graduation Standard.) a. Prove that linear functions grow by equal differences over equal intervals and that exponential functions grow by equal factors over equal intervals.	**A1.PAFR.2.10** Analyze the growth/decay rate between linear and exponential functions specifically between consecutive integers. **A1.PAFR.4.2** Given a real-world or mathematical situation, determine the parent graph that best models the situation.
A1.FLQE.2* Create symbolic representations of linear and exponential functions, including arithmetic and geometric sequences, given graphs, verbal descriptions, and tables. (Limit to linear; exponential.)	**A1.PAFR.2.5** Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms. **A1.PAFR.2.6** Create symbolic representations of linear and exponential functions, including arithmetic and geometric sequences, given graphs, verbal descriptions, and tables. **A2P.PAFR.3.1** Create, solve, and graph exponential functions, including those that model real-life situations.
A1.FLQE.3* Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or more generally as a polynomial function.	**A1.PAFR.2.10** Analyze the growth/decay rate between linear and exponential functions specifically between consecutive integers.
A1.FLQE.5* Interpret the parameters in a linear or exponential function in terms of the context. (Limit to linear.)	**A1.MGSR.1.1** Identify any limitations specific to a real-world situation. **A1.PAFR.2.3** Solve and graph linear, quadratic, exponential, and linear absolute value equations given in tabular, symbolic, and/or verbal forms using intercepts, domain and range, intervals of increasing and decreasing, vertex (maximum and minimum), end-behavior, and symmetry, and interpret these in terms of mathematical and real-world situations.

Quantities

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
A1.NQ.1* Use units of measurement to guide the solution of multi-step tasks. Choose and interpret appropriate labels, units, and scales when constructing graphs and other data displays.	**A1.MGSR.1.1** Identify any limitations specific to a real-world situation.
A1.NQ.2* Label and define appropriate quantities in descriptive modeling contexts.	**No correlating 2025 indicators.**
A1.NQ.3* Choose a level of accuracy appropriate to limitations on measurement when reporting quantities in context.	**A1.MGSR.1.1** Identify any limitations specific to a real-world situation.

Real Number System

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
A1.NRNS.1* Rewrite expressions involving simple radicals and rational exponents in different forms.	**A1.NR.1.1** Rewrite numerical and algebraic expressions of irrational and rational numbers involving radicals, including addition, subtraction, multiplication, and division. Limit to square and cube roots. **A1.NR.2.1** Translate between rational exponents and radical expressions of irrational and rational numbers. Use properties of addition, subtraction, multiplication, and division to simplify radical and rational expressions. Limit to square and cube roots.
A1.NRNS.2* Use the definition of the meaning of rational exponents to translate between rational exponent and radical forms.	**A1.NR.2.1** Translate between rational exponents and radical expressions of irrational and rational numbers. Use properties of addition, subtraction, multiplication, and division to simplify radical and rational expressions. Limit to square and cube roots.
A1.NRNS.3 Explain why the sum or product of rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational.	**No correlating 2025 indicators.**

Interpreting Data

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
A1.SPID.6* Using technology, create scatterplots and analyze those plots to compare the fit of linear, quadratic, or exponential models to a given data set. Select the appropriate model, fit a function to the data set, and use the function to solve problems in the context of the data.	**GS.DPSR.1.1** Represent data for two quantitative variables on a scatter plot and describe how the variables are related. **A1.DPSR.1.2** Summarize quantitative data in a table and on a scatter plot and describe how the variables are associated. Limit to linear data. **A1.DPSR.1.3** Find a linear function for a scatter plot that suggests a linear association. **A1.DPSR.1.4** For linear associations, use technology to determine the correlation coefficient, evaluate the strength of the association, and find the line of best fit. **A1.DPSR.2.3** Use a linear model to interpolate and extrapolate unknown values close to the data set.
A1.SPID.7* Create a linear function to graphically model data from a real-world problem and interpret the meaning of the slope and intercept(s) in the context of the given problem.	**A1.DPSR.1.3** Find a linear function for a scatter plot that suggests a linear association. **A1.DPSR.2.2** Interpret the slope and the intercept of a linear model in the context of the data.
A1.SPID.8* Using technology, compute and interpret the correlation coefficient of a linear fit.	**A1.DPSR.1.4** For linear associations, use technology to determine the correlation coefficient, evaluate the strength of the association, and find the line of best fit.

Geometry:

Circles

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
G.GCI.1 Prove that all circles are similar.	**No correlating 2025 indicator.**
G.GCI.2* Identify and describe relationships among inscribed angles, radii, and chords; among inscribed angles, central angles, and circumscribed angles; and between radii and tangents to circles. Use those relationships to solve mathematical and real-world problems.	**GS.MGSR.7.1** Use angle and segment relationships in circles to solve mathematical and real-world situations. **GS.MGSR.7.2** Investigate and apply relationships in circles, inscribed angles, radii, secants, and chords; among inscribed angles, central angles, and circumscribed angles; and between radii and tangents to circles.
G.GCI.3 Construct the inscribed and circumscribed circles of a triangle using a variety of tools, including a compass, a straightedge, and dynamic geometry software, and prove properties of angles for a quadrilateral inscribed in a circle.	**No correlating 2025 indicator.**
G.GCI.4 Construct a tangent line to a circle through a point on the circle and construct a tangent line from a point outside a given circle to the circle; justify the process used for each construction.	**No correlating 2025 indicator.**
G.GCI.5* Derive the formulas for the length of an arc and the area of a sector in a circle and apply these formulas to solve mathematical and real-world problems.	**GS.PAFR.1.1** Discover and apply the formulas for the length of an arc and the area of a sector in a circle to develop mathematical models and solve mathematical and real-world situations.

Congruence

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
G.GCO.1* Define angle, perpendicular line, parallel line, line segment, ray, circle, and skew in terms of the undefined notions of point, line, and plane. Use geometric figures to represent and describe real-world objects.	**GS.MGSR.5.1** Justify and apply the attributes of angle relationships/lines in mathematical and real-world situations.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
G.GCO.2* Represent translations, reflections, rotations, and dilations of objects in the plane by using paper folding, sketches, coordinates, function notation, and dynamic geometry software, and use various representations to help understand the effects of simple transformations and their compositions.	**8.MGSR.3.7** Describe the effect of a series of transformations, including dilations, translations, rotations, and reflections, on two-dimensional figures using coordinates on the coordinate plane. **GS.MGSR.2.1** Describe the results of transformations on a given figure using geometric terminology from the definitions of the transformations.
G.GCO.3* Describe rotations and reflections that carry a regular polygon onto itself and identify types of symmetry of polygons, including line, point, rotational, and self-congruence, and use symmetry to analyze mathematical situations.	**8.MGSR.3.7** Describe the effect of a series of transformations, including dilations, translations, rotations, and reflections, on two-dimensional figures using coordinates on the coordinate plane. **GS.MGSR.2.2** Describe and apply a sequence of transformations that maps a preimage onto its image. **GS.MGSR.3.1** Identify types of symmetry of polygons, including line, point, rotational, and self-congruence, and use symmetry to analyze mathematical situations.
G.GCO.4* Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.	**No correlating 2025 indicator.**
G.GCO.5* Predict and describe the results of transformations on a given figure using geometric terminology from the definitions of the transformations, and describe a sequence of transformations that maps a figure onto its image.	**GS.MGSR.2.1** Describe the results of transformations on a given figure using geometric terminology from the definitions of the transformations.
G.GCO.6* Demonstrate that triangles and quadrilaterals are congruent by identifying a combination of translations, rotations, and reflections in various representations that move one figure onto the other.	**GS.MGSR.3.2** Demonstrate that triangles and quadrilaterals are congruent by a combination of translations, rotations, and reflections.
G.GCO.7* Prove two triangles are congruent by applying the Side-Angle-Side, Angle-Side-Angle, Angle-Angle-Side, and Hypotenuse-Leg congruence conditions.	**GS.MGSR.3.3** Recognize the criteria for showing triangles are congruent using a sequence of rigid motions that map one triangle to another and justify that the two triangles are congruent by applying the Side-Side-Side, Side-Angle-Side, Angle-Side-Angle, Angle-Angle-Side, and Hypotenuse-Leg congruence conditions.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
G.GCO.8* Prove, and apply in mathematical and real-world contexts, theorems about lines and angles, including the following: a. vertical angles are congruent; b. when a transversal crosses parallel lines, alternate interior angles are congruent, alternate exterior angles are congruent, and consecutive interior angles are supplementary; c. any point on a perpendicular bisector of a line segment is equidistant from the endpoints of the segment; d. perpendicular lines form four right angles.	**GS.MGSR.5.1** Justify and apply the attributes of angle relationships/lines in mathematical and real-world situations.
G.GCO.9* Prove, and apply in mathematical and real-world contexts, theorems about the relationships within and among triangles, including the following: a. measures of interior angles of a triangle sum to 180°; b. base angles of isosceles triangles are congruent; c. the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; d. the medians of a triangle meet at a point.	**GS.MGSR.5.2** Apply the attributes of triangles in mathematical and real-world situations.
G.GCO.10* Prove, and apply in mathematical and real-world contexts, theorems about parallelograms, including the following: a. opposite sides of a parallelogram are congruent; b. opposite angles of a parallelogram are congruent; c. diagonals of a parallelogram bisect each other; d. rectangles are parallelograms with congruent diagonals; e. a parallelograms is a rhombus if and only if the diagonals are perpendicular.	**GS.MGSR.5.3** Apply the attributes of quadrilaterals, including diagonals, sides, and angles, to prove that a given quadrilateral is a parallelogram in mathematical and real world situations.
G.GCO.11* Construct geometric figures using a variety of tools, including a compass, a straightedge, dynamic geometry software, and paper folding, and use these constructions to make conjectures about geometric relationships.	**No correlating 2025 indicator.**

Geometric Measurement and Dimension

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
G.GGMD.1* Explain the derivations of the formulas for the circumference of a circle, area of a circle, and volume of a cylinder, pyramid, and cone. Apply these formulas to solve mathematical and real-world problems.	**GS.PAFR.1.2** Analyze and apply the derivations of the formulas for the circumference of a circle, area of a circle, and volume of a cylinder, pyramid, and cone to model real phenomena and solve mathematical and real-world situations.
G.GGMD.2 Explain the derivation of the formulas for the volume of a sphere and other solid figures using Cavalieri's principle.	**GS.PAFR.1.2** Analyze and apply the derivations of the formulas for the circumference of a circle, area of a circle, and volume of a cylinder, pyramid, and cone to model real phenomena and solve mathematical and real-world situations.
G.GGMD.3 Apply surface area and volume formulas for prisms, cylinders, pyramids, cones, and spheres to solve problems and justify results. Include problems that involve algebraic expressions, composite figures, geometric probability, and real-world applications.	**GS.MGSR.1.1** Apply area and volume formulas of two- and three-dimensional figures to solve real-world situations. **GS.PAFR.2.1** Apply surface area and volume formulas for prisms, cylinders, pyramids, cones, spheres, and/or compositions of figures to solve problems and justify results.
G.GGMD.4 Describe the shapes of two-dimensional cross-sections of three-dimensional objects and use those cross-sections to solve mathematical and real-world problems.	**GS.MGSR.1.2** Identify the shape of a two-dimensional cross-section of a three-dimensional figure. **GS.MGSR.1.3** Use cross-sections of three-dimensional figures to model and solve mathematical and real-world situations.

Expressing Geometric Properties with Equations

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
G.GGPE.1* Understand that the standard equation of a circle is derived from the definition of a circle and the distance formula.	**No correlating 2025 indicator.**
G.GGPE.4* Use coordinates to prove simple geometric theorems algebraically.	**GS.PAFR.3.1** Use coordinates to prove simple geometric theorems algebraically.
G.GGPE.5* Analyze slopes of lines to determine whether lines are parallel, perpendicular, or neither. Write the equation of a line passing through a given point that is parallel or perpendicular to a given line. Solve geometric and real-world problems involving lines and slope.	**GS.PAFR.2.2** Analyze slopes of lines to determine whether lines are parallel, perpendicular, or neither. **GS.PAFR.2.3** Determine the equation of a line passing through a given point that is parallel or perpendicular to a given line.

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
G.GGPE.6 Given two points, find the point on the line segment between the two points that divides the segment into a given ratio.	**No correlating 2025 indicator.**
G.GGPE.7* Use the distance and midpoint formulas to determine distance and midpoint in a coordinate plane, as well as areas of triangles and rectangles, when given coordinates.	**GS.PAFR.3.2** Determine distance and midpoint of segments in a coordinate plane to find areas of triangles and quadrilaterals, when given coordinates.

Modeling

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
G.GM.1* Use geometric shapes, their measures, and their properties to describe real-world objects.	**No correlating 2025 indicator.**
G.GM.2 Use geometry concepts and methods to model real-world situations and solve problems using a model.	**A1.MGSR.1.** Use geometric concepts and measurement opportunities to model mathematical and real-world situations.

Similarity, Right Triangles, and Trigonometry

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
G.GSRT.1 Understand a dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged. Verify experimentally the properties of dilations given by a center and scale factor. Understand the dilation of a line segment is longer or shorter in the ratio given by the scale factor.	**GS.MGSR.4.1** Demonstrate experimentally the properties of dilations given by a center and a scale factor. **GS.MGSR.4.2** Justify experimentally that a dilation of a line segment is longer or shorter, given the ratio.
G.GSRT.2 Use the definition of similarity to decide if figures are similar and justify decision. Demonstrate that two figures are similar by identifying a combination of translations, rotations, reflections, and dilations in various representations that move one figure onto the other.	**8.MGSR.2.2** Determine if two-dimensional figures are congruent or similar. **8.MGSR.3.7** Describe the effect of a series of transformations, including dilations, translations, rotations, and reflections, on two-dimensional figures using coordinates on the coordinate plane. **GS.MGSR.4.3** Recognize that the criteria for showing triangles are similar using a similarity transformation that maps one figure to the other and justify the two triangles are similar by applying the *Angle-Angle, Side-Side-Side, and Side-Angle-Side* similarity conditions.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
G.GSRT.3* Prove that two triangles are similar using the Angle-Angle criterion and apply the proportionality of corresponding sides to solve problems and justify results.	**GS.MGSR.4.3** Recognize that the criteria for showing triangles are similar using a similarity transformation that maps one figure to the other and justify the two triangles are similar by applying the Angle-Angle, Side-Side-Side, and Side-Angle-Side similarity conditions.
G.GSRT.4* Prove, and apply in mathematical and real-world contexts, theorems involving similarity about triangles, including the following: a. A line drawn parallel to one side of a triangle divides the other two sides into parts of equal proportion. b. If a line divides two sides of a triangle proportionally, then it is parallel to the third side. c. The square of the hypotenuse of a right triangle is equal to the sum of squares of the other two sides.	**GS.MGSR.6.1** Discover and apply the converse of the *Pythagorean Theorem*.
G.GSRT.5* Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.	**8.MGSR.2.2** Determine if two-dimensional figures are congruent or similar. **8.MGSR.2.3** Identify the congruent corresponding angles of similar polygons. **8.MGSR.2.5** Apply proportional reasoning to find the missing side lengths of two similar figures. **GS.MGSR.6.2** Demonstrate that triangles and quadrilaterals are congruent by a combination of translations, rotations, and reflections.
G.GSRT.6* Understand how the properties of similar right triangles allow the trigonometric ratios to be defined and determine the sine, cosine, and tangent of an acute angle in a right triangle.	**GS.MGSR.6.3** Define the trigonometric ratios using the properties of similar right triangles. **GS.MGSR.6.4** Determine the sine, cosine, and tangent of an acute angle in a right triangle in the context of mathematical and real-world situations.
G.GSRT.7 Explain and use the relationship between the sine and cosine of complementary angles.	**No correlating 2025 indicator.**

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
G.GSRT.8* Solve right triangles in applied problems using trigonometric ratios and the Pythagorean Theorem.	**GS.MGSR.6.1** Discover and apply the converse of the *Pythagorean Theorem*. **GS.MGSR.6.5** Apply trigonometric ratios (sine, cosine, tangent) and the Pythagorean Theorem to solve right triangle problems in real-life situations.

Interpreting Data

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
G.SPID.1* Select and create an appropriate display, including dot plots, histograms, and box plots, for data that includes only real numbers.	**6.DPSR.1.2** Create box plots to represent numerical data sets in mathematical and real-world situations. **7.DPSR.1.4** Create histograms to represent data sets and interpret histograms to answer questions or draw conclusions about data sets.
G.SPID.2* Use statistics appropriate to the shape of the data distribution to compare center and spread of two or more different data sets that include all real numbers.	**8.DPSR.1.2** Draw inferences about data sets from two populations using the shape of the distribution, measures of center, and measures of variability. Limit Measures to mean, median, mode, range, mean absolute deviation, and interquartile range. **8.DPSR.1.4** For two data sets (numerical or graphical), compare and interpret the centers, spreads, and overlap of data to draw inferences about data in mathematical and real-world situations. Limit displays to double line graphs, back-to-back stem-and-leaf plots, and double box plots.
G.SPID.3* Summarize and represent data from a single data set. Interpret differences in shape, center, and spread in the context of the data set, accounting for possible effects of extreme data points (outliers).	**8.DPSR.1.3** Describe how adding and deleting data throughout the data set can affect the mean, median, mode, and distribution of the data set. **GS.DPSR.1.1** Summarize, represent, and interpret data on two categorical and quantitative variables.

Algebra 2:

Arithmetic with Polynomials and Rational Expressions

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
A2.AAPR.1* Add, subtract, and multiply polynomials and understand that polynomials are closed under these operations.	**A1.PAFR.1.4** Add, subtract, and multiply polynomials with initial terms up to a degree of 2.
A2.AAPR.3 Graph polynomials identifying zeros when suitable factorizations are available and indicating end behavior. Write a polynomial function of least degree corresponding to a given graph. (Limit to polynomials with degrees 3 or less.)	**A2P.PAFR.1.3** Graph and analyze polynomial functions in mathematical and real-world situations.

Creating Equations

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
A2.ACE.1* Create and solve equations and inequalities in one variable that model real-world problems involving linear, quadratic, simple rational, and exponential relationships. Interpret the solutions and determine whether they are reasonable.	**A1.PAFR.2.1** Transform linear, quadratic, exponential, and linear absolute value functions to equivalent forms to identify slope and y intercept for linear, vertex, and roots (if any) for quadratic and linear absolute value, and y-intercept for exponential. **A1.PAFR.2.4** Create, solve, and graph linear inequalities in two variables. **A2P.PAFR.2.3** Create and solve rational and radical equations in one variable, including those that model real-life situations, and verify solutions to identify extraneous solutions if they appear.
A2.ACE.2* Create equations in two or more variables to represent relationships between quantities. Graph the equations on coordinate axes using appropriate labels, units, and scales.	**A1.PAFR.2.4** Create, solve, and graph linear inequalities in two variables.
A2.ACE.3 Use systems of equations and inequalities to represent constraints arising in real-world situations. Solve such systems using graphical and analytical methods, including linear programing. Interpret the solution within the context of the situation. (Limit to linear programming.)	**A2P.PAFR.6.3** Use linear programming to solve systems of equations and inequalities by addressing the constraints that arise in real-world situations.

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
A2.ACE.4* Solve literal equations and formulas for a specified variable including equations and formulas that arise in a variety of disciplines.	**A1.PAFR.1.2** Solve literal equations and formulas for a specified variable including equations and formulas that arise in a variety of disciplines.

Reasoning with Equations and Inequalities

2015 SCCCR Math Standard	2025 SC CCR Math Indicator Alignment
A2.AREI.2* Solve simple rational and radical equations in one variable and understand how extraneous solutions may arise.	**A2P.PAFR.2.3** Create and solve rational and radical equations in one variable, including those that model real-life situations, and verify solutions to identify extraneous solutions if they appear.
A2.AREI.4* Solve mathematical and real-world problems involving quadratic equations in one variable. b. Solve quadratic equations by inspection, taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as a+bi for real numbers a and b. (Note: A2.AREI.4b is not a Graduation Standard.)	**A1.PAFR.2.2** Solve quadratic equations by completing the square, factoring, and the quadratic formula, explaining the connection between the zeros of the function derived from the equation, its linear factors (if it factors), the x-intercepts of its graph (if they exist), and the solutions (if any) to the corresponding quadratic equation.
A2.AREI.7 Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. Understand that such systems may have zero, one, two, or infinitely many solutions. (Limit to linear equations and quadratic functions.)	**A2P.PAFR.1.1** Graph, identify roots, and analyze quadratic functions in mathematical and real-world situations. **PC.PAFR.7.1** Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. Understand that such systems may have zero, one, or two solutions.
A2.AREI.11* Solve an equation of the form $f(x)$=$g(x)$ graphically by identifying the x coordinate(s) of the point(s) of intersection of the graphs of y=$f(x)$ and y= $g(x)$.	**No correlating 2025 indicator.**

Structure and Expressions

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
A2.ASE.1* Interpret the meanings of coefficients, factors, terms, and expressions based on their real-world contexts. Interpret complicated expressions as being composed of simpler expressions.	**No correlating 2025 indicator.**
A2.ASE.2* Analyze the structure of binomials, trinomials, and other polynomials in order to rewrite equivalent expressions.	**A2P.PAFR.1.3** Graph and analyze polynomial functions in mathematical and real-world situations. **A2P.PAFR.1.5** Recognize perfect squares and perfect cubes and use them to describe the structure of polynomials.
A2.ASE.3* Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. (Note: A2.ASE.3b and 3c are not Graduation Standards.) b. Determine the maximum or minimum value of a quadratic function by completing the square. c. Use the properties of exponents to transform expressions for exponential functions.	**No correlating 2025 indicator.**

Building Functions

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
A2.FBF.1* Write a function that describes a relationship between two quantities. (Note: IA.FBF.1a is not a Graduation Standard.) a. Write a function that models a relationship between two quantities using both explicit expressions and a recursive process and by combining standard forms using addition, subtraction, multiplication and division to build new functions. b. Combine functions using the operations addition, subtraction, multiplication, and division to build new functions that describe the relationship between two quantities in mathematical and real-world situations.	**PC.PAFR.1.1** Combine and compose functions algebraically, tabularly, and graphically.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
A2.FBF.2* Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.	**A1.PAFR.2.5** Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms. **A2P.PAFR.2.2** Perform arithmetic operations on rational expressions, including problems in context, and express rational expressions in irreducible form.
A2.FBF.3* Describe the effect of the transformations $kf(x)$, $f(x) + k$, $f(x+k)$, and combinations of such transformations on the graph of $y=f(x)$ for any real number k. Find the value of k given the graphs and write the equation of a transformed parent function given its graph.	**A1.PAFR.4.1** Describe the effect of the transformations $kf(x)$, $f(x)+k$, $f(x+k)$, $f(x)-k$, $f(x-k)$, and combinations of such transformations on the graph of parent function $y = f(x)$ for any real number k; find the value of k given the graphs; and write the equation of a transformed parent function given its graph.

Interpreting Functions

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
A2.FIF.3* Define functions recursively and recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers.	**RM.PAFR.1.2** Analyze data that follow a linear pattern using recursively defined rules and compare those rules to explicit function rules.
A2.FIF.4* Interpret key features of a function that models the relationship between two quantities when given in graphical or tabular form. Sketch the graph of a function from a verbal description showing key features. Key features include intercepts; intervals where the function is increasing, decreasing, constant, positive, or negative; relative maximums and minimums; symmetries; end behavior and periodicity.	**A1.PAFR.4.3** Given different representations of two different functions, compare key features including intercepts, domain and range, intervals of increasing and decreasing, constant, average rate of change, and maximum and minimum values. **A2P.PAFR.1.3** Graph and analyze polynomial functions in mathematical and real-world situations.
A2.FIF.5* Relate the domain and range of a function to its graph and, where applicable, to the quantitative relationship it describes.	**A1.PAFR.3.2** Use the definition of a function to analyze the domain and range of a function in relation to its graph, mapping, table, verbal, and/or symbolic description and, where applicable, using interval and set notation. **A2P.PAFR.1.3** Graph and analyze polynomial functions in mathematical and real-world situations.

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
A2.FIF.6* Given a function in graphical, symbolic, or tabular form, determine the average rate of change of the function over a specified interval. Interpret the meaning of the average rate of change in a given context.	**A2P.PAFR.6.2** Calculate and interpret the average rate of change of the function over a specified interval, given a function in graphical, symbolic, or numerical form.
A2.FIF.7* Graph functions from their symbolic representations. Indicate key features including intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior and periodicity. Graph simple cases by hand and use technology for complicated cases.	**A2P.PAFR.1.3** Graph and analyze polynomial functions in mathematical and real-world situations. **A2P.PAFR.5.1** Graph piecewise functions and describe their key features. **PC.PAFR.2.1** Graph rational functions and describe their key features. **PC.PAFR.2.4** Graph piecewise-defined functions, including step functions and absolute value functions, and describe their key features. **PC.PAFR.4.1** Graph logarithmic functions and describe their key features. **PC.PAFR.5.1** Graph trigonometric functions and their inverses and describe their key features.
A2.FIF.8* Translate between different but equivalent forms of a function equation to reveal and explain different properties of the function. (Note: A2.FIF.8b is not a Graduation Standard.) b. Interpret expressions for exponential functions by using the properties of exponents.	**A1.PAFR.2.1** Transform linear, quadratic, exponential, and linear absolute value functions to equivalent forms to identify slope and y-intercept for linear, vertex, and roots (if any) for quadratic and linear absolute value, and y-intercept for exponential.
A2.FIF.9* Compare properties of two functions given in different representations such as algebraic, graphical, tabular, or verbal.	**8.PAFR.1.5** Use multiple representations including mappings, tables, graphs, verbal description, and equations (only when linear) of two functions to compare the functions and draw conclusions.

Linear, Quadratic, and Exponential

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
A2.FLQE.1* Distinguish between situations that can be modeled with linear functions or exponential functions by recognizing situations in which one quantity changes at a constant rate per unit interval as opposed to those in which a quantity changes by a constant percent rate per unit interval. (Note: A2.FLQE.1b is not a Graduation Standard.) b. Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.	**No correlating 2025 indicator.**
A2.FLQE.2* Create symbolic representations of linear and exponential functions, including arithmetic and geometric sequences, given graphs, verbal descriptions, and tables.	**A1.PAFR.2.6** Create symbolic representations of linear and exponential functions, including arithmetic and geometric sequences, given graphs, verbal descriptions, and tables.
A2.FLQE.5* Interpret the parameters in a linear or exponential function in terms of the context.	**No correlating 2025 indicator.**

Complex Number Systems

2015 SCCCR Math Standard	*2025 SC CCR Math Indicator Alignment*
A2.NCNS.1* Know there is a complex number i such that $i2=-1$, and every complex number has the form $a+bi$ with a and b real.	**A2P.NR.1.1** Understand that there is an imaginary unit i such that i2 = -1 and explain the structure of a complex number as a + bi, where a and b are real.
A2.NCNS.7* Solve quadratic equations in one variable that have complex solutions.	**A2P.PAFR.1.1** Graph, identify roots, and analyze quadratic functions in mathematical and real-world situations.