



# Mathematics | | South Carolina College and Career Ready Standards for Mathematics Correlation to Eureka Math<sup>2®</sup>

When the original *Eureka Math*® curriculum was released, it quickly became the most widely used K-5 mathematics curriculum in the country. Now, the Great Minds® teacher-writers have created *Eureka Math*<sup>2®</sup>, a groundbreaking new curriculum that helps teachers deliver exponentially better math instruction while still providing students with the same deep understanding of and fluency in math. *Eureka Math*<sup>2</sup> carefully sequences mathematical content to maximize vertical alignment—a principle tested and proven to be essential in students' mastery of math—from kindergarten through high school.

While this innovative new curriculum includes all the trademark Eureka Math aha moments that have been delighting students and teachers for years, it also boasts these exciting new features:

#### **Teachability**

Eureka Math<sup>2</sup> employs streamlined materials that allow teachers to plan more efficiently and focus their energy on delivering high-quality instruction that meets the individual needs of their students. Differentiation suggestions, slide decks, digital interactives, and multiple forms of assessment are just a few of the resources built right into the teacher materials.

#### **Accessibility**

Eureka Math² incorporates Universal Design for Learning principles so all learners can access the mathematics and take on challenging math concepts. Student supports are built into the instructional design and are clearly identified in the Teach book. Further, the curriculum carries a focus on readability. By eliminating unnecessary words and using simple, clear sentences, the Eureka Math² teacher-writers have created one of the most readable mathematics curricula on the market. The curriculum's readability and accessibility help all students see themselves as mathematical thinkers and doers who are fully capable of owning their mathematics learning.

#### **Digital Engagement**

The digital elements of *Eureka Math*<sup>2</sup> add to students' engagement with the math. The curriculum provides teachers with digital slides for each lesson. In addition, each grade level includes wordless videos that spark students' interest and curiosity. Students at all levels work through mathematical explorations that help lead to their own mathematical discoveries. Digital lessons and videos provide opportunities for students to wonder, explore, and make sense of mathematics, which contributes to the development of a strong, positive mathematical identity.

### **Mathematical Process Standards**

### Aligned Components of Eureka Math<sup>2</sup>

1.  Make sense of problems and persevere in solving them.	Lessons in every module engage students in the mathematical process standards. These are indicated in margin notes included with every lesson.
2. Reason both contextually and abstractly.	Lessons in every module engage students in the mathematical process standards. These are indicated in margin notes included with every lesson.
3. Use critical thinking skills to justify mathematical reasoning and critique the reasoning of others.	Lessons in every module engage students in the mathematical process standards. These are indicated in margin notes included with every lesson.
4.  Connect mathematical ideas and real-world situations through modeling.	Lessons in every module engage students in the mathematical process standards. These are indicated in margin notes included with every lesson.
5. Use a variety of mathematical tools effectively and strategically.	Lessons in every module engage students in the mathematical process standards. These are indicated in margin notes included with every lesson.
6.  Communicate mathematically and approach mathematical situations with precision.	Lessons in every module engage students in the mathematical process standards. These are indicated in margin notes included with every lesson.
7. Identify and utilize structure and patterns.	Lessons in every module engage students in the mathematical process standards. These are indicated in margin notes included with every lesson.

#### **Algebra**

#### **Creating Equations**

### South Carolina College and Career Ready Standards for Mathematics

#### Aligned Components of Eureka Math<sup>2</sup>

#### 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.

Math 1 M1 Lesson 5: Printing Presses

Math 1 M1 Lesson 9: Writing and Solving Equations in One Variable

Math 1 M1 Lesson 11: Solving Linear Inequalities in One Variable

Math 1 M1 Lesson 16: Applying Absolute Value

Math 1 M2 Lesson 1: Solution Sets of Linear Equations in Two Variables

#### 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.

Math 1 M2 Lesson 1: Solution Sets of Linear Equations in Two Variables

Math 1 M2 Lesson 2: Graphing Linear Equations in Two Variables

Math 1 M2 Lesson 3: Creating Linear Equations in Two Variables

Math 1 M2 Lesson 4: Proving Conditional Statements

Math 1 M2 Lesson 5: Proving Biconditional Statements

Math 1 M2 Lesson 8: Low-Flow Showerhead

Math 1 M4 Lesson 5: Proving the Perpendicular Criterion

#### 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 programming. Interpret the solution within the context of the situation.

Math 1 M1 Lesson 9: Writing and Solving Equations in One Variable

Math 1 M1 Lesson 12: Solution Sets of Compound Statements

Math 1 M1 Lesson 13: Solving and Graphing Compound Inequalities

Math 1 M1 Lesson 16: Applying Absolute Value

Math 1 M2 Lesson 1: Solution Sets of Linear Equations in Two Variables

Math 1 M2 Lesson 15: Applications of Linear Inequalities

Math 1 M6 Lesson 10: Designing a Fundraiser

#### Aligned Components of Eureka Math<sup>2</sup>

#### A1.ACE.4

Solve literal equations and formulas for a specified variable including equations and formulas that arise in a variety of disciplines. Math 1 M1 Lesson 10: Rearranging Formulas

#### **Algebra**

#### **Reasoning with Equations and Inequalities**

# South Carolina College and Career Ready Standards for Mathematics

### Aligned Components of Eureka Math<sup>2</sup>

A1.AREI.1	Math 1 M1 Lesson 3: The Commutative, Associative, and Distributive Properties
Understand and justify that the steps	Math 1 M1 Lesson 7: Solving Linear Equations in One Variable
taken when solving simple equations	Math 1 M1 Lesson 8: Some Potential Dangers When Solving Equations
in one variable create new equations that have the same solution as the original.	Math 1 M1 Lesson 9: Writing and Solving Equations in One Variable
A1.AREI.3	Math 1 M1 Lesson 6: Solution Sets of Equations and Inequalities in One Variable
Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	Math 1 M1 Lesson 7: Solving Linear Equations in One Variable
	Math 1 M1 Lesson 8: Some Potential Dangers When Solving Equations
	Math 1 M1 Lesson 9: Writing and Solving Equations in One Variable
	Math 1 M1 Lesson 11: Solving Linear Inequalities in One Variable
	Math 1 M1 Lesson 14: Solving Absolute Value Equations
	Math 1 M1 Lesson 15: Solving Absolute Value Inequalities

### Aligned Components of Eureka Math<sup>2</sup>

Math 1 M2 Lesson 10: A New Way to Solve Systems
Math 1 M2 Lesson 9: Systems of Linear Equations in Two Variables
Math 1 M2 Lesson 10: A New Way to Solve Systems
Math 1 M2 Lesson 11: The Elimination Method
Math 1 M2 Lesson 12: Applications of Systems of Equations
Math 1 M2 Lesson 9: Systems of Linear Equations in Two Variables
Math 1 M2 Lesson 10: A New Way to Solve Systems
Math 1 M2 Lesson 11: The Elimination Method
Math 1 M2 Lesson 12: Applications of Systems of Equations
Math 1 M2 Lesson 9: Systems of Linear Equations in Two Variables
Math 1 M2 Lesson 10: A New Way to Solve Systems
Math 1 M2 Lesson 11: The Elimination Method
Math 1 M2 Lesson 12: Applications of Systems of Equations
Math 1 M2 Lesson 2: Graphing Linear Equations in Two Variables

#### Aligned Components of Eureka Math<sup>2</sup>

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 $y = g(x)$ .	Math 1 M3 Lesson 10: Using Graphs to Solve Equations  Math 1 M5 Lesson 11: Solving Equations Containing Exponential Expressions  Math 1 M5 Lesson 19: Comparing Growth of Functions
A1.AREI.12	Math 1 M2 Lesson 1: Solution Sets of Linear Equations in Two Variables
Graph the solutions to a linear inequality in two variables.	Math 1 M2 Lesson 13: Solution Sets of Linear Inequalities in Two Variables
	Math 1 M2 Lesson 14: Graphing Linear Inequalities in Two Variables
	Math 1 M2 Lesson 16: Solution Sets of Systems of Linear Inequalities
	Math 1 M2 Lesson 17: Graphing Solution Sets of Systems of Linear Inequalities
	Math 1 M2 Lesson 18: Applications of Systems of Linear Inequalities
	Math 1 M6 Lesson 10: Designing a Fundraiser

### **Algebra**

### **Structure and Expressions**

# South Carolina College and Career Ready Standards for Mathematics

### Aligned Components of Eureka Math<sup>2</sup>

A1.ASE.1	Math 1 M1 Lesson 4: Interpreting Linear Expressions
Interpret the meanings of coefficients, factors, terms, and expressions based	Math 1 M5 Lesson 7: Exponential Functions  Math 1 M5 Lesson 14: Exponential Growth
on their real-world contexts. Interpret complicated expressions as being composed of simpler expressions.	Math 1 M5 Lesson 15: Exponential Decay  Math 1 M5 Lesson 16: Modeling Populations  Math 1 M5 Lesson 22: Modeling the Temperature of Objects Cooling Over Time

### **Functions**

### **Building Functions**

# South Carolina College and Career Ready Standards for Mathematics

### Aligned Components of Eureka Math<sup>2</sup>

A2.FBF.1 Write a function that describes a relationship between two quantities.	Math 1 M6 Lesson 3: Analyzing Paint Splatters  Math 1 M6 Lesson 9: Solar System Models
A2.FBF.1.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.	Math 1 M1 Lesson 2: Looking for Patterns  Math 1 M5 Topic A: Arithmetic and Geometric Sequences  Math 1 M5 Lesson 7: Exponential Functions  Math 1 M5 Lesson 13: Calculating Interest  Math 1 M6 Lesson 3: Analyzing Paint Splatters  Math 1 M6 Lesson 8: The Deal  Math 1 M6 Lesson 9: Solar System Models
A2.FBF.1.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.	Math 1 M6 Lesson 8: The Deal
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.	Math 1 M5 Lesson 5: Arithmetic and Geometric Sequences  Math 1 M5 Lesson 6: Representations of Arithmetic and Geometric Sequences

#### Aligned Components of Eureka Math<sup>2</sup>

#### **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.

Math 1 M3 Topic D: Transformations of Functions

Math 1 M5 Lesson 9: Using Transformations to Graph Exponential Functions (Bases Greater Than 1)

Math 1 M5 Lesson 10: Using Transformations to Graph Exponential Functions (Bases Between 0 and 1)

Math 1 M5 Lesson 12: Writing Equations for Exponential Functions from Tables or Graphs

#### **Functions**

#### **Interpreting Functions**

# South Carolina College and Career Ready Standards for Mathematics

### Aligned Components of Eureka Math<sup>2</sup>

# A1.FIF.1 Extend previous knowledge of a function to apply to general behavior and features of a function.

This standard is fully addressed by the lessons aligned to its subsections.

#### A1.FIF.1.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.

Math 1 M3 Topic A: Functions and Their Graphs

### Aligned Components of Eureka Math<sup>2</sup>

A1.FIF.1.b	Math 1 M3 Topic A: Functions and Their Graphs
Represent a function using function notation and explain that $f(x)$ denotes the output of function $f$ that corresponds to the input $x$ .	
A1.FIF.1.c	Math 1 M3 Topic A: Functions and Their Graphs
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.FIF.2	Math 1 M3 Lesson 2: Interpreting and Using Function Notation
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.	Math 1 M3 Lesson 3: Representing, Naming, and Evaluating Functions
	Math 1 M3 Lesson 7: Representations of Functions
	Math 1 M5 Lesson 1: Exploring Patterns
	Math 1 M5 Lesson 2: The Recursive Challenge
	Math 1 M5 Lesson 3: Recursive Formulas for Sequences
	Math 1 M5 Lesson 4: Explicit Formulas for Sequences
A2.FIF.3	Math 1 M5 Topic A: Arithmetic and Geometric Sequences
Define functions recursively and recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers.	

#### Aligned Components of Eureka Math<sup>2</sup>

#### **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.

Math 1 M3 Lesson 8: Exploring Key Features of a Function and Its Graph

Math 1 M3 Lesson 9: Identifying Key Features of a Function and Its Graph

Math 1 M3 Lesson 11: Comparing Functions

Math 1 M3 Lesson 12: Sketching Graphs of Functions from Verbal Descriptions

Math 1 M3 Lesson 13: Modeling Elevation as a Function of Time

Math 1 M3 Lesson 15: Mars Curiosity Rover

#### **A1.FIF.5**

Relate the domain and range of a function to its graph and, where applicable, to the quantitative relationship it describes. Math 1 M3 Lesson 4: The Graph of a Function

Math 1 M3 Lesson 13: Modeling Elevation as a Function of Time

#### **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.

Math 1 M5 Lesson 17: Average Rate of Change

Math 1 M5 Lesson 18: Analyzing Exponential Growth

Math 1 M5 Lesson 19: Comparing Growth of Functions

Math 1 M5 Lesson 23: Modeling an Invasive Species Population

### Aligned Components of Eureka Math<sup>2</sup>

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.	Math 1 M3 Lesson 5: The Graph of the Equation $y = f(x)$ Math 1 M3 Lesson 6: Using Pseudocode to Compare Graphs of Functions and Graphs of Equations Math 1 M3 Lesson 7: Representations of Functions
PC.FIF.7.c  Graph exponential and logarithmic functions, showing intercepts and end behavior.	Math 1 M5 Lesson 8: Graphing Exponential Functions  Math 1 M5 Lesson 9: Using Transformations to Graph Exponential Functions (Bases Greater Than 1)  Math 1 M5 Lesson 10: Using Transformations to Graph Exponential Functions (Bases Between 0 and 1)
A1.FIF.9  Compare properties of two functions given in different representations such as algebraic, graphical, tabular, or verbal.	Math 1 M3 Lesson 11: Comparing Functions

### **Functions**

### Linear, Quadratic, and Exponential

# South Carolina College and Career Ready Standards for Mathematics

### Aligned Components of Eureka Math<sup>2</sup>

A1.FLQE.1	Math 1 M5 Lesson 13: Calculating Interest
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.	Math 1 M5 Lesson 16: Modeling Populations  Math 1 M5 Lesson 20: World Population Prediction  Math 1 M5 Lesson 21: A Closer Look at Populations  Math 1 M5 Lesson 23: Modeling an Invasive Species Population  Math 1 M6 Lesson 2: Using Residual Plots to Select Models for Data  Math 1 M6 Lesson 3: Analyzing Paint Splatters  Math 1 M6 Lesson 11: A Vanishing Sea
A1.FLQE.1.a  Prove that linear functions grow by equal differences over equal intervals and that exponential functions grow by equal factors over equal intervals.	Math 1 M5 Lesson 18: Analyzing Exponential Growth
A2.FLQE.1.b  Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.	Math 1 M5 Lesson 20: World Population Prediction  Math 1 M5 Lesson 21: A Closer Look at Populations

### Aligned Components of Eureka Math<sup>2</sup>

A1.FLQE.2	Math 1 M5 Lesson 7: Exponential Functions
Create symbolic representations of linear and exponential functions, including	Math 1 M5 Lesson 12: Writing Equations for Exponential Functions from Tables or Graphs
	Math 1 M5 Lesson 14: Exponential Growth
arithmetic and geometric sequences, given graphs, verbal descriptions,	Math 1 M5 Lesson 15: Exponential Decay
and tables.	Math 1 M5 Topic D: Comparing Linear and Exponential Models
	Math 1 M6 Lesson 3: Analyzing Paint Splatters
	Math 1 M6 Lesson 8: The Deal
	Math 1 M6 Lesson 9: Solar System Models
A1.FLQE.3	Math 1 M5 Lesson 19: Comparing Growth of Functions
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.FLQE.5	Math 1 M5 Lesson 16: Modeling Populations
Interpret the parameters in a linear or exponential function in terms of the context.	Math 1 M5 Lesson 22: Modeling the Temperature of Objects Cooling Over Time
	Math 1 M5 Lesson 23: Modeling an Invasive Species Population

### **Number and Quantity**

#### **Quantities**

# South Carolina College and Career Ready Standards for Mathematics

### Aligned Components of Eureka Math<sup>2</sup>

A1.NQ.1	Math 1 M1 Lesson 1: A Powerful Trio
Use units of measurement to guide the solution of multi-step tasks. Choose and interpret appropriate labels, units, and	Math 1 M3 Lesson 14: Comparing Models for Situations
	Math 1 M6 Lesson 9: Solar System Models
scales when constructing graphs and	Math 1 M6 Lesson 10: Designing a Fundraiser
other data displays.	Math 1 M6 Lesson 11: A Vanishing Sea
A1.NQ.2	Math 1 M1 Lesson 1: A Powerful Trio
Label and define appropriate quantities in descriptive modeling contexts.	Math 1 M3 Lesson 14: Comparing Models for Situations
	Math 1 M6 Lesson 3: Analyzing Paint Splatters
	Math 1 M6 Lesson 9: Solar System Models
	Math 1 M6 Lesson 10: Designing a Fundraiser
A1.NQ.3	Math 1 M6 Lesson 9: Solar System Models
Choose a level of accuracy appropriate to limitations on measurement when reporting quantities in context.	Math 1 M6 Lesson 11: A Vanishing Sea

### Geometry

### Congruence

# South Carolina College and Career Ready Standards for Mathematics

### Aligned Components of Eureka Math<sup>2</sup>

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.	Math 1 M4 Lesson 2: Translations of the Coordinate Plane  Math 1 M4 Lesson 3: Rotations of the Coordinate Plane
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.	Math 1 M4 Lesson 1: Geometric 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.	Math 1 M4 Lesson 12: Reflective Symmetry and Rotational Symmetry

#### Aligned Components of Eureka Math<sup>2</sup>

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Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.

Math 1 M4 Lesson 2: Translations of the Coordinate Plane

Math 1 M4 Lesson 3: Rotations of the Coordinate Plane

Math 1 M4 Lesson 4: Reflections of the Coordinate Plane

Math 1 M4 Lesson 5: Proving the Perpendicular Criterion

Math 1 M4 Lesson 8: Reflections of the Plane

Math 1 M4 Lesson 9: Rotations of the Plane

Math 1 M4 Lesson 10: Rotations of the Plane with Bisected and Copied Angles

Math 1 M4 Lesson 11: Translations of the Plane

#### 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.

Math 1 M4 Lesson 2: Translations of the Coordinate Plane

Math 1 M4 Lesson 3: Rotations of the Coordinate Plane

Math 1 M4 Lesson 4: Reflections of the Coordinate Plane

Math 1 M4 Lesson 5: Proving the Perpendicular Criterion

Math 1 M4 Lesson 13: Sequences of Basic Rigid Motions

Math 1 M4 Lesson 14: Transformations of the Coordinate Plane

Math 1 M4 Lesson 15: Designs with Rigid Motions

Math 1 M4 Lesson 16: Congruent Figures

#### 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.

Math 1 M4 Lesson 17: Congruent Triangles

#### Aligned Components of Eureka Math<sup>2</sup>

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.	Math 1 M4 Lesson 18: Side-Angle-Side  Math 1 M4 Lesson 19: Angle-Angle and Side-Side-Side  Math 1 M4 Lesson 20: Angle-Side-Angle  Math 1 M4 Lesson 21: Side-Side-Angle and Hypotenuse-Leg
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.	Math 1 M4 Lesson 6: Compass and Straightedge Constructions  Math 1 M4 Lesson 7: Constructing Perpendicular Lines  Math 1 M4 Lesson 8: Reflections of the Plane  Math 1 M4 Lesson 10: Rotations of the Plane with Bisected and Copied Angles  Math 1 M4 Lesson 11: Translations of the Plane  Math 1 M4 Lesson 22: Validating Triangle and Angle Constructions  Math 1 M4 Lesson 23: Validating Perpendicular Line Constructions  Math 1 M4 Lesson 26: Sierpinski Triangle

### **Geometry**

#### **Expressing Geometric Properties with Equations**

# South Carolina College and Career Ready Standards for Mathematics

### Aligned Components of Eureka Math<sup>2</sup>

G.GGPE.4	Math 1 M2 Lesson 4: Proving Conditional Statements	
Use coordinates to prove simple geometric theorems algebraically.	Math 1 M2 Lesson 5: Proving Biconditional Statements	
	Math 1 M2 Lesson 6: Proving the Parallel Criterion	
	Math 1 M2 Lesson 19: The Distance Formula	
	Math 1 M2 Lesson 20: Proving Geometric Theorems Algebraically	

#### Aligned Components of Eureka Math<sup>2</sup>

#### **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.

Math 1 M2 Lesson 6: Proving the Parallel Criterion

Math 1 M2 Lesson 7: Equations of Parallel and Perpendicular Lines

Math 1 M2 Lesson 20: Proving Geometric Theorems Algebraically

Math 1 M4 Lesson 5: Proving the Perpendicular Criterion

#### **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.

Math 1 M2 Lesson 21: Using Coordinates to Determine Perimeters and Areas of Figures

Math 1 M6 Lesson 11: A Vanishing Sea

#### **Statistics and Probability**

#### **Interpreting Data**

# South Carolina College and Career Ready Standards for Mathematics

#### Aligned Components of Eureka Math<sup>2</sup>

#### PS.SPID.1

Select and create an appropriate display, including dot plots, histograms, and box plots, for data that includes only real numbers.

Math 1 M1 Lesson 17: Distributions and Their Shapes

Math 1 M1 Lesson 18: Describing the Center of a Distribution

Math 1 M1 Lesson 19: Using Center to Compare Data Distributions

Math 1 M6 Lesson 1: Using Data to Edit Digital Photography

### Aligned Components of Eureka Math<sup>2</sup>

PS.SPID.2	Math 1 M1 Topic D: Univariate Data
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.	Math 1 M6 Lesson 1: Using Data to Edit Digital Photography
PS.SPID.3	Math 1 M1 Topic D: Univariate Data
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).	
PS.SPID.5	Math 1 M6 Topic B: Modeling with Categorical Data
Analyze bivariate categorical data using two-way tables and identify possible associations between the two categories using marginal, joint, and conditional frequencies.	

#### Aligned Components of Eureka Math<sup>2</sup>

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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.

Math 1 M2 Lesson 22: Relationships Between Quantitative Variables

Math 1 M2 Lesson 23: Using Lines to Model Bivariate Quantitative Data

Math 1 M2 Lesson 24: Modeling Relationships with a Line

Math 1 M2 Lesson 25: Calculating and Analyzing Residuals

Math 1 M2 Lesson 27: Interpreting Correlation

Math 1 M2 Lesson 28: Analyzing Bivariate Quantitative Data

Math 1 M6 Lesson 2: Using Residual Plots to Select Models for Data

Math 1 M6 Lesson 3: Analyzing Paint Splatters

Math 1 M6 Lesson 11: A Vanishing Sea

#### 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.

Math 1 M2 Lesson 24: Modeling Relationships with a Line

Math 1 M2 Lesson 28: Analyzing Bivariate Quantitative Data

#### A1.SPID.8

Using technology, compute and interpret the correlation coefficient of a linear fit.

Math 1 M2 Lesson 27: Interpreting Correlation

Math 1 M2 Lesson 28: Analyzing Bivariate Quantitative Data

#### Aligned Components of Eureka Math<sup>2</sup>

#### PS.SPID.9

Differentiate between correlation and causation when describing the relationship between two variables. Identify potential lurking variables which may explain an association between two variables.

Math 1 M2 Lesson 27: Interpreting Correlation

Math 1 M2 Lesson 28: Analyzing Bivariate Quantitative Data

#### PS.SPID.10

Create residual plots and analyze those plots to compare the fit of linear, quadratic, and exponential models to a given data set. Select the appropriate model and use it for interpolation.

Math 1 M2 Lesson 25: Calculating and Analyzing Residuals

Math 1 M2 Lesson 26: Analyzing Residuals

Math 1 M6 Lesson 2: Using Residual Plots to Select Models for Data

Math 1 M6 Lesson 3: Analyzing Paint Splatters