## Mathematics I | Kansas College \& Career Ready Standards Correlation to Eureka Math ${ }^{\text {®® }}$

When the original Eureka Math ${ }^{\circledR}$ curriculum was released, it quickly became the most widely used $\mathrm{K}-5$ mathematics curriculum in the country. Now, the Great Minds ${ }^{\circledR}$ teacher-writers have created Eureka Math ${ }^{2 ®}$, 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 ${ }^{2}$ 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 ${ }^{2}$ employs streamlined materials that allow teachers to plan more efficiently and focus their energy on delivering highquality 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 Math ${ }^{2}$ 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 ${ }^{2}$ 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.

## Standards for Mathematical Practice

## Aligned Components of Eureka Math ${ }^{2}$

| MP. 1 <br> Make sense of problems and persevere in solving them. | Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson. |
| :---: | :---: |
| MP. 2 <br> Reason abstractly and quantitatively. | Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson. |
| MP. 3 <br> Construct viable arguments and critique the reasoning of others. | Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson. |
| MP. 4 <br> Model with mathematics. | Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson. |
| MP. 5 <br> Use appropriate tools strategically. | Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson. |
| MP. 6 <br> Attend to precision. | Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson. |
| MP. 7 <br> Look for and make use of structure. | Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson. |
| MP. 8 <br> Look for and express regularity in repeated reasoning. | Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson. |

## Quantities

## Reason quantitatively and use units to solve problems.

| Kansas College \& Career Ready Standards | Aligned Components of Eureka Math² |
| :---: | :---: |
| N.Q. 1 <br> Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays. | Math 1 M1 Lesson 1: A Powerful Trio <br> Math 1 M3 Lesson 14: Comparing Models for Situations <br> Math 1 M6 Lesson 9: Solar System Models <br> Math 1 M6 Lesson 10: Designing a Fundraiser <br> Math 1 M6 Lesson 11: A Vanishing Sea |
| N.Q. 2 <br> Define appropriate quantities for the purpose of descriptive modeling. | Math 1 M1 Lesson 1: A Powerful Trio <br> Math 1 M3 Lesson 14: Comparing Models for Situations <br> Math 1 M6 Lesson 3: Analyzing Paint Splatters <br> Math 1 M6 Lesson 9: Solar System Models <br> Math 1 M6 Lesson 10: Designing a Fundraiser |
| N.Q. 3 <br> Choose a level of accuracy appropriate to limitations on measurement when reporting quantities. | Math 1 M6 Lesson 9: Solar System Models Math 1 M6 Lesson 11: A Vanishing Sea |

## Seeing Structure in Expressions

## Interpret the structure of expressions.

## Kansas College \& Career Ready Standards <br> Aligned Components of Eureka Math ${ }^{2}$

| A.SSE. 1 | This standard is fully addressed by the lessons aligned to its subsections. |
| :--- | :--- |
| Interpret expressions that represent |  |
| a quantity in terms of its context. |  |$\quad$| A.SSE.1a <br> Interpret parts of an expression, such <br> as terms, factors, and coefficients. | Math 1 M1 Lesson 4: Interpreting Linear Expressions |
| :--- | :--- |
| A.SSE.1b | Math 1 M5 Lesson 7: Exponential Functions |
| Interpret complicated expressions <br> by viewing one or more of their parts <br> as a single entity. | Math 1 M5 Lesson 14: Exponential Growth <br> Math 1 M5 Lesson 15: Exponential Decay |

## Creating Equations

## Create equations that describe numbers or relationships.

## Kansas College \& Career Ready <br> Standards <br> Aligned Components of Eureka Math ${ }^{2}$

## A.CED. 1

Apply and extend previous understanding to create equations and inequalities in one variable and use them to solve problems.

## 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

## Kansas College \& Career Ready Standards

| A.CED. 2 | Math 1 M2 Lesson 1: Solution Sets of Linear Equations in Two Variables |
| :---: | :---: |
| Apply and extend previous understanding to create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. | 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 |
| A.CED. 3 | Math 1 M1 Lesson 9: Writing and Solving Equations in One Variable |
| Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. | 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 |
| A.CED. 4 | Math 1 M1 Lesson 10: Rearranging Formulas |
| Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. |  |

## Reasoning with Equations and Inequalities

## Understand solving equations as a process of reasoning and explain the reasoning.

## Kansas College \& Career Ready Standards <br> Aligned Components of Eureka Math ${ }^{2}$

## A.REI. 1

Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.

Math 1 M1 Lesson 3: The Commutative, Associative, and Distributive Properties
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

## Reasoning with Equations and Inequalities

## Solve equations and inequalities in one variable.

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## Aligned Components of Eureka Math ${ }^{2}$

## A.REI. 2

Apply and extend previous understanding to solve equations, inequalities, and compound inequalities in one variable, including literal equations and inequalities.

Math 1 M1 Lesson 6: Solution Sets of Equations and Inequalities in One Variable
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

## Reasoning with Equations and Inequalities

## Solve systems of equations.

## Kansas College \& Career Ready Standards <br> Aligned Components of Eureka Math ${ }^{2}$

## A.REI. 6

Analyze and solve pairs of simultaneous linear 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

## Reasoning with Equations and Inequalities

## Represent and solve equations and inequalities graphically.

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Standards
Aligned Components of Eureka Math ${ }^{2}$

| A.REI. 8 | Math 1 M2 Lesson 2: Graphing Linear Equations in Two Variables |
| :--- | :--- |
| Understand that the graph of an |  |
| equation in two variables is the set of all |  |
| its solutions plotted in the coordinate |  |
| plane, often forming a curve (which could |  |
| be a line). |  |
| A.REI.9 |  |
| Solve an equation $f(x)=g(x)$ by graphing <br> $y=f(x)$ and $y=g(x)$ and finding the <br> $x$-value of the intersection point. Include <br> cases where $f(x)$ and/or $g(x)$ are linear, <br> polynomial, rational, absolute value, <br> exponential, and logarithmic functions. | Math 1 M5 Lesson 11: Solving Equations Containing Exponential Expressions 1 M5 Lesson 19: Comparing Growth of Functions |

Kansas College \& Career Ready Standards

## Aligned Components of Eureka Math ${ }^{2}$

## A.REI. 10

Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities
in two variables as the intersection of the corresponding half-planes.

Math 1 M2 Lesson 1: Solution Sets of Linear Equations in Two Variables<br>Math 1 M2 Lesson 13: Solution Sets of Linear Inequalities in Two Variables<br>Math 1 M2 Lesson 14: Graphing Linear Inequalities in Two Variables<br>Math 1 M2 Lesson 16: Solution Sets of Systems of Linear Inequalities<br>Math 1 M2 Lesson 17: Graphing Solution Sets of Systems of Linear Inequalities<br>Math 1 M2 Lesson 18: Applications of Systems of Linear Inequalities<br>Math 1 M6 Lesson 10: Designing a Fundraiser

## Interpreting Functions

## Understand the concept of a function and use function notation.

## Kansas College \& Career Ready Standards

## F.IF. 1

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. If $f$ is a function and $x$ is an element of its domain, then $f(x)$ denotes the output of $f$ corresponding to the input $x$. The graph of $f$ is the graph of the equation $y=f(x)$.

Aligned Components of Eureka Math ${ }^{2}$

## Kansas College \& Career Ready Standards

## Aligned Components of Eureka Math ${ }^{2}$

| F.IF. 2 | Math 1 M3 Lesson 2: Interpreting and Using Function Notation |
| :--- | :--- |
| Use function notation, evaluate functions <br> for inputs in their domains, and interpret <br> statements that use function notation <br> in terms of a context. | Math 1 M3 Lesson 3: Representing, Naming, and Evaluating Functions <br> Math 1 M3 Lesson 7: Representations of Functions <br> Math 1 M5 Lesson 1: Exploring Patterns <br> Math 1 M5 Lesson 2: The Recursive Challenge <br> Math 1 M5 Lesson 3: Recursive Formulas for Sequences <br> Math 1 M5 Lesson 4: Explicit Formulas for Sequences |
| F.IF.3 | Math 1 M5 Topic A: Arithmetic and Geometric Sequences <br> Recognize patterns in order to write <br> functions whose domain is a subset <br> of the integers. |

## Interpreting Functions

Interpret functions that arise in applications in terms of the context.

## Kansas College \& Career Ready Standards

## Aligned Components of Eureka Math²

## F.IF. 4

For a function that models a relationship between two quantities, interpret key features of expressions, graphs and tables in terms of the quantities, and sketch graphs showing key features given a description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.

## F.IF. 5

Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes.

## F.IF. 6

Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.

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

## Math 1 M3 Lesson 4: The Graph of a Function

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

## 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

## Interpreting Functions

## Analyze functions using different representations.

## Kansas College \& Career Ready Standards <br> Aligned Components of Eureka Math ${ }^{2}$

| F.IF. 7 | This standard is fully addressed by the lessons aligned to its subsections. |
| :--- | :--- |
| Graph functions expressed symbolically <br> and show key features of the graph, <br> by hand in simple cases and using <br> technology for more complicated cases. |  |
| F.IF.7a <br> Graph linear, quadratic and absolute <br> value functions and show intercepts, <br> maxima, minima and end behavior. | Math 1 M3 Lesson 6: Using Pseudocode to Compare Graphs of Functions and Graphs of Equations <br> Math 1 M3 Lesson 7: Representations of Functions |
| F.IF.7b <br> Graph square root, cube root, and <br> exponential functions. | Math 1 M5 Lesson 10: Using Transformations to Graph Exponential Functions (Bases Between 0 and 1) <br> Math 1 M5 Lesson 8: Graphing Exponential Functions <br> Math 1 M5 Lesson 9: Using Transformations to Graph Exponential Functions (Bases Greater Than 1) |
| F.IF.9 | Math 1 M3 Lesson 11: Comparing Functions |

Compare properties of two functions using a variety of representations
(algebraically, graphically, numerically in tables, or by verbal descriptions)

## Building Functions

## Build a function that models a relationship between two quantities.

## Kansas College \& Career Ready Standards <br> Aligned Components of Eureka Math²

| F.BF. 1 | Math 1 M6 Lesson 3: Analyzing Paint Splatters |
| :---: | :---: |
| Use functions to model real-world relationships. | Math 1 M6 Lesson 9: Solar System Models |
| F.BF.1a | Math 1 M6 Lesson 8: The Deal |
| Combine multiple functions to model complex relationships. |  |
| F.BF.1b | Math 1 M1 Lesson 2: Looking for Patterns |
| Determine an explicit expression, | Math 1 M5 Topic A: Arithmetic and Geometric Sequences |
| a recursive function, or steps for | 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 |
| F.BF. 2 | Math 1 M5 Lesson 5: Arithmetic and Geometric Sequences |
| Write arithmetic and geometric sequences and series both recursively and with an explicit formula, use them to model situations, and translate between the two forms. | Math 1 M5 Lesson 6: Representations of Arithmetic and Geometric Sequences |

## Building Functions

## Build new functions from existing functions.

## Kansas College \& Career Ready Standards <br> Aligned Components of Eureka Math ${ }^{2}$

## F.BF. 3

Transform parent functions $(f(x)$ ) by replacing $f(x)$ with $f(x)+k, k f(x), f(k x)$, and $f(x+k)$ for specific values of $k$ (both positive and negative); find the value of $k$ given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them.

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

## Linear, Quadratic, and Exponential Models

## Construct and compare linear, quadratic, and exponential models and solve problems.

Kansas College \& Career Ready
Standards
Aligned Components of Eureka Math ${ }^{2}$

## F.LQE. 1

Distinguish between situations that can be modeled with linear functions and with exponential functions.

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Math 1M5 Lesson 13: Calculating Interest
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 1M6 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
```


## Kansas College \& Career Ready Standards

## Aligned Components of Eureka Math²

## F.LQE.1a

Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals.

## F.LQE.1b

Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.

## F.LQE.1c

Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.

## F.LQE. 2

Construct exponential functions, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).

Math 1 M5 Lesson 18: Analyzing Exponential Growth

Math 1 M5 Lesson 20: World Population Prediction
Math 1 M5 Lesson 21: A Closer Look at Populations

## Math 1 M5 Lesson 20: World Population Prediction

Math 1 M5 Lesson 21: A Closer Look at Populations

Math 1 M5 Lesson 7: Exponential Functions
Math 1 M5 Lesson 12: Writing Equations for Exponential Functions from Tables or Graphs
Math 1 M5 Lesson 14: Exponential Growth
Math 1 M5 Lesson 15: Exponential Decay
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

## Congruence

## Experiment with transformations in the plane.

## Kansas College \& Career Ready Standards <br> Aligned Components of Eureka Math ${ }^{2}$

## G.CO. 2

Recognize transformations as functions that take points in the plane as inputs and give other points as outputs and describe the effect of translations, rotations, and reflections on two-dimensional figures.

## Math 1 M4 Lesson 1: Geometric Transformations

## Congruence

## Understand congruence in terms of rigid motions.

## Kansas College \& Career Ready Standards

## Aligned Components of Eureka Math ${ }^{2}$

| G.CO.4 |
| :--- |
| Use the definition of congruence in terms |
| of rigid motions to show that two triangles |
| are congruent if and only if corresponding |
| pairs of sides and corresponding pairs |
| of angles are congruent. |
| G.CO.5 |
| Given two figures, use the definition |
| of congruence in terms of rigid motions |
| to decide if they are congruent. |

## Math 1 M4 Lesson 17: Congruent Triangles

Math 1 M4 Lesson 14: Transformations of the Coordinate Plane
Math 1 M4 Lesson 16: Congruent Figures

## Kansas College \& Career Ready Standards

## Aligned Components of Eureka Math ${ }^{2}$

## G.CO. 6

Demonstrate triangle congruence using rigid motion (ASA, SAS, and SSS).

Math 1 M4 Lesson 18: Side-Angle-Side
Math 1 M4 Lesson 19: Angle-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

## Congruence

## Make geometric constructions.

| Kansas College \& Career Ready Standards | Aligned Components of Eureka Math² |
| :---: | :---: |
| G.CO. 11 <br> Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). Copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line. | Math 1 M4 Lesson 6: Compass and Straightedge Constructions <br> Math 1 M4 Lesson 7: Constructing Perpendicular Lines <br> Math 1 M4 Lesson 8: Reflections of the Plane <br> Math 1 M4 Lesson 10: Rotations of the Plane with Bisected and Copied Angles <br> Math 1 M4 Lesson 11: Translations of the Plane <br> Math 1 M4 Lesson 22: Validating Triangle and Angle Constructions <br> Math 1 M4 Lesson 23: Validating Perpendicular Line Constructions <br> Math 1 M4 Lesson 26: Sierpinski Triangle |
| G.CO. 12 <br> Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle. | Math 1 M4 Lesson 9: Rotations of the Plane <br> Math 1 M4 Lesson 24: Squares Inscribed in Circles <br> Math 1 M4 Lesson 25: Regular Hexagons and Equilateral Triangles Inscribed in Circles |

## Expressing Geometric Properties with Equations

## Use coordinates to prove simple geometric theorems algebraically.

## Kansas College \& Career Ready Standards <br> Aligned Components of Eureka Math ${ }^{2}$

| G.GPE. 6 | Math 1 M2 Lesson 4: Proving Conditional Statements |
| :---: | :---: |
| Use coordinates to prove simple geometric theorems algebraically, including the use of slope, distance, and midpoint formulas. | 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 |
| G.GPE. 7 | Math 1 M2 Lesson 6: Proving the Parallel Criterion |
| Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point). | 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.GPE. 8 | Math 1 M2 Lesson 21: Using Coordinates to Determine Perimeters and Areas of Figures |
| Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, including the use of the distance and midpoint formulas. | Math 1 M6 Lesson 11: A Vanishing Sea |

## Interpreting Categorical and Quantitative Data

## Summarize, represent, and interpret data on a single count or measurement variable.

## Kansas College \& Career Ready Standards <br> Aligned Components of Eureka Math ${ }^{2}$

## S.ID. 1

Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.

## S.ID. 2

Interpret differences in shape, center, and spread in the context of the data sets using dot plots, histograms, and box plots, accounting for possible effects of extreme data points (outliers).

Math 1 M1 Topic D: Univariate Data
Math 1 M6 Lesson 1: Using Data to Edit Digital Photography

Math 1 M1 Topic D: Univariate Data

## Interpreting Categorical and Quantitative Data

## Summarize, represent, and interpret data on two categorical and quantitative variables.

## Kansas College \& Career Ready

Standards
Aligned Components of Eureka Math ${ }^{2}$

## S.ID. 4

Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.

## Kansas College \& Career Ready Standards

## Aligned Components of Eureka Math ${ }^{2}$

| S.ID. 5 | Math 1 M2 Lesson 22: Relationships Between Quantitative Variables |
| :---: | :---: |
| Represent data on two quantitative variables on a scatter plot, and describe how the variables are related. | Math 1 M2 Lesson 28: Analyzing Bivariate Quantitative Data |
| S.ID.5a <br> Use a given linear function to solve problems in the context of data. | Math 1 M2 Lesson 23: Using Lines to Model 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 |
| S.ID.5b <br> Fit a linear function to data and use it to solve problems in the context of the data. | Math 1 M2 Lesson 23: Using Lines to Model Bivariate Quantitative Data <br> Math 1 M2 Lesson 24: Modeling Relationships with a Line <br> Math 1 M2 Lesson 25: Calculating and Analyzing Residuals <br> Math 1 M2 Lesson 27: Interpreting Correlation <br> Math 1 M6 Lesson 2: Using Residual Plots to Select Models for Data <br> Math 1 M6 Lesson 3: Analyzing Paint Splatters <br> Math 1 M6 Lesson 11: A Vanishing Sea |
| S.ID.5c <br> Assess the fit of a function by plotting and analyzing residuals. | Math 1 M2 Lesson 25: Calculating and Analyzing Residuals <br> Math 1 M2 Lesson 26: Analyzing Residuals <br> Math 1 M6 Lesson 2: Using Residual Plots to Select Models for Data <br> Math 1 M6 Lesson 3: Analyzing Paint Splatters |
| S.ID.5d <br> Fit quadratic and exponential functions to the data. Use functions fitted to data to solve problems in the context of the data. | Math 1 M2 Lesson 23: Using Lines to Model 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 |

## Math 1 | Kansas College \& Career Ready Standards Correlation to Eureka Math²

Interpreting Categorical and Quantitative Data Interpret linear models.

## Kansas College \& Career Ready Standards <br> Aligned Components of Eureka Math ${ }^{2}$

| S.ID.6 | Math 1 M2 Lesson 24: Modeling Relationships with a Line |
| :--- | :--- |
| Interpret the slope (rate of change) and <br> the intercept (constant term) of a linear <br> model in the context of the data. | Math 1 M2 Lesson 28: Analyzing Bivariate Quantitative Data |
| S.ID.7 | Math 1 M2 Lesson 27: Interpreting Correlation |
| Compute (using technology) and interpret <br> the correlation coefficient of a linear fit. | Math 1 M2 Lesson 28: Analyzing Bivariate Quantitative Data |
| S.ID.8 <br> Distinguish between correlation and <br> causation. | Math 1 M 2 Lesson 27: Interpreting Correlation |

