Mathematics I | Alabama Standards for Mathematical Content Correlation to *Eureka Math²®*

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 Math²®*, 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 Math²* 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 Math² 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 Math²* 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 Math²*
MP.1 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 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 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 Model with mathematics.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.5 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 Attend to precision.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.7 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 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.

Number and Quantity

Quantitative reasoning includes, and mathematical modeling requires, attention to units of measurement.

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
GDA.NQ.2 Use units as a way to understand problems and to guide the solution of multi-step problems.	Math 1 M1 Lesson 1: A Powerful Trio Math 1 M3 Lesson 14: Comparing Models for Situations Math 1 M6 Lesson 9: Solar System Models Math 1 M6 Lesson 10: Designing a Fundraiser Math 1 M6 Lesson 11: A Vanishing Sea
GDA.NQ.2.a Choose and interpret units consistently in formulas.	Math 1 M1 Lesson 1: A Powerful Trio Math 1 M3 Lesson 14: Comparing Models for Situations Math 1 M6 Lesson 9: Solar System Models Math 1 M6 Lesson 10: Designing a Fundraiser Math 1 M6 Lesson 11: A Vanishing Sea
GDA.NQ.2.b Choose and interpret the scale and the origin in graphs and data displays.	Math 1 M3 Lesson 14: Comparing Models for Situations Math 1 M6 Lesson 9: Solar System Models Math 1 M6 Lesson 10: Designing a Fundraiser Math 1 M6 Lesson 11: A Vanishing Sea
GDA.NQ.2.c Define appropriate quantities for the purpose of descriptive modeling.	Math 1 M1 Lesson 1: A Powerful Trio 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

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
GDA.NQ.2.d Choose a level of accuracy appropriate to limitations of measurements when reporting quantities.	Math 1 M6 Lesson 9: Solar System Models Math 1 M6 Lesson 11: A Vanishing Sea

Algebra and Functions

Focus 1: Algebra

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
AI.AF.1.4 Interpret linear, quadratic, and exponential expressions in terms of a context by viewing one or more of their parts as a single entity.	Math 1 M1 Lesson 4: Interpreting Linear Expressions Math 1 M5 Lesson 7: Exponential Functions Math 1 M5 Lesson 14: Exponential Growth 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 *Supplemental material is necessary to address quadratic expressions for this standard.*
AI.AF.1.10 Select an appropriate method to solve a system of two linear equations in two variables.	*This standard is fully addressed by the lessons aligned to its subsections.*

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
AI.AF.1.10.a Solve a system of two equations in two variables by using linear combinations; contrast situations in which use of linear combinations is more efficient with those in which substitution is more efficient.	Math 1 M2 Topic B: Systems of Linear Equations in Two Variables
AI.AF.1.10.b Contrast solutions to a system of two linear equations in two variables produced by algebraic methods with graphical and tabular methods.	Math 1 M2 Topic B: Systems of Linear Equations in Two Variables
AI.AF.1.11 Create equations and inequalities in one variable and use them to solve problems in context, either exactly or approximately.	Math 1 M1 Lesson 5: Printing Presses 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 13: Solving and Graphing Compound Inequalities Math 1 M1 Lesson 14: Solving Absolute Value Equations Math 1 M1 Lesson 15: Solving Absolute Value Inequalities Math 1 M1 Lesson 16: Applying Absolute Value

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
AI.AF.1.12 Create equations in two or more variables to represent relationships between quantities in context; graph equations on coordinate axes with labels and scales and use them to make predictions.	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 M2 Lesson 12: Applications of Systems of Equations Math 1 M4 Lesson 5: Proving the Perpendicular Criterion
AI.AF.1.13 Represent constraints by equations and/or inequalities, and solve systems of equations and/or inequalities, interpreting solutions as viable or nonviable options in a modeling context.	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 M2 Lesson 18: Applications of Systems of Linear Inequalities Math 1 M6 Lesson 10: Designing a Fundraiser
GDA.AF.1.4 Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations.	Math 1 M1 Lesson 10: Rearranging Formulas

Algebra and Functions

Focus 2: Connecting Algebra to Functions

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
AI.AF.2.14 Given a relation defined by an equation in two variables, identify the graph of the relation as the set of all its solutions plotted in the coordinate plane.	Math 1 M2 Lesson 1: Solution Sets of Linear Equations in Two Variables Math 1 M2 Lesson 2: Graphing Linear Equations in Two Variables
AI.AF.2.15 Define a function as a mapping from one set (called the domain) to another set (called the range) that assigns to each element of the domain exactly one element of the range.	Math 1 M3 Topic A: Functions and Their Graphs
AI.AF.2.15.a Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.	Math 1 M3 Lesson 2: Interpreting and Using Function Notation 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
AI.AF.2.15.b Relate the domain 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

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
AI.AF.2.16 Compare and contrast relations and functions represented by equations, graphs, or tables that show related values; determine whether a relation is a function. Explain that a function f is a special kind of relation defined by the equation $y = f(x)$.	Math 1 M3 Lesson 1: The Definition of a Function
AI.AF.2.17 Combine different types of standard functions to write, evaluate, and interpret functions in context.	*This standard is addressed by the lesson aligned to its subsection.*
AI.AF.2.17.a Use arithmetic operations to combine different types of standard functions to write and evaluate functions.	Math 1 M6 Lesson 8: The Deal
AI.AF.2.19 Explain why the x-coordinates of the points where the graphs of the equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$.	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

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
AI.AF.2.20 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, using technology where appropriate.	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 and Functions

Focus 3: Functions

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
AI.AF.3.21 Compare properties of two functions, each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).	Math 1 M3 Lesson 11: Comparing Functions
AI.AF.3.22 Define sequences as functions, including recursive definitions, whose domain is a subset of the integers.	Math 1 M5 Topic A: Arithmetic and Geometric Sequences

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
AI.AF.3.22.a Write explicit and recursive formulas for arithmetic and geometric sequences and connect them to linear and exponential 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
AI.AF.3.23 Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k \cdot f(x)$, $f(k \cdot x)$, 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 explain the effects on the graph, using technology as appropriate.	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
AI.AF.3.24 Distinguish between situations that can be modeled with linear functions and those that can be modeled with exponential functions.	Math 1 M5 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 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

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
AI.AF.3.24.a Show that linear functions grow by equal differences over equal intervals, while exponential functions grow by equal factors over equal intervals.	Math 1 M5 Lesson 18: Analyzing Exponential Growth
AI.AF.3.24.b Define linear functions to represent situations in which one quantity changes at a constant 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
AI.AF.3.24.c Define exponential functions to represent 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
AI.AF.3.25 Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).	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

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
AI.AF.3.26 Use graphs and tables to show that a quantity increasing exponentially eventually exceeds a quantity increasing linearly or quadratically.	Math 1 M5 Lesson 19: Comparing Growth of Functions *Supplemental material is necessary to address quadratic functions for this standard.*
AI.AF.3.27 Interpret the parameters of functions in terms of a context.	Math 1 M5 Lesson 16: Modeling Populations Math 1 M5 Lesson 18: Analyzing Exponential Growth Math 1 M5 Lesson 22: Modeling the Temperature of Objects Cooling Over Time Math 1 M5 Lesson 23: Modeling an Invasive Species Population
AI.AF.3.28 For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship.	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
AI.AF.3.29 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 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

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
AI.AF.3.30 Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.	*This standard is addressed by the lessons aligned to its subsections.*
AI.AF.3.30.a Graph linear and quadratic functions and show intercepts, maxima, and minima.	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 *Supplemental material is necessary to address quadratic functions for this standard.*
AI.AF.3.30.c Graph exponential 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)

Algebra

Reasoning with Equations and Inequalities

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
PREC.A.20 Explain each step in solving an equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a clear-cut 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

Data Analysis, Statistics, and Probability

Focus 2: Visualizing and Summarizing Data

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
GDA.DSP.2.9 Represent the distribution of univariate quantitative data with plots on the real number line, choosing a format (dot plot, histogram, or box plot) most appropriate to the data set, and represent the distribution of bivariate quantitative data with a scatter plot.	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 M2 Lesson 22: Relationships Between Quantitative Variables Math 1 M2 Lesson 28: Analyzing Bivariate Quantitative Data Math 1 M6 Lesson 1: Using Data to Edit Digital Photography
GDA.DSP.2.10 Use statistics appropriate to the shape of the data distribution to compare and contrast two or more data sets, utilizing the mean and median for center and the interquartile range and standard deviation for variability.	Math 1 M1 Topic D: Univariate Data Math 1 M6 Lesson 1: Using Data to Edit Digital Photography
GDA.DSP.2.11 Interpret differences in shape, center, and spread in the context of data sets, accounting for possible effects of extreme data points (outliers) on mean and standard deviation.	Math 1 M1 Topic D: Univariate Data
GDA.DSP.2.12 Represent data of two quantitative variables on a scatter plot, and describe how the variables are related.	Math 1 M2 Lesson 22: Relationships Between Quantitative Variables Math 1 M2 Lesson 28: Analyzing Bivariate Quantitative Data

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
GDA.DSP.2.12.a Find a linear function for a scatter plot that suggests a linear association and informally assess its fit by plotting and analyzing residuals, including the squares of the residuals, in order to improve its fit.	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 26: Analyzing Residuals Math 1 M2 Lesson 27: Interpreting Correlation 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
GDA.DSP.2.13 Compute (using technology) and interpret the correlation coefficient of a linear relationship.	Math 1 M2 Lesson 27: Interpreting Correlation Math 1 M2 Lesson 28: Analyzing Bivariate Quantitative Data
GDA.DSP.2.14 Distinguish between correlation and causation.	Math 1 M2 Lesson 27: Interpreting Correlation Math 1 M2 Lesson 28: Analyzing Bivariate Quantitative Data
GDA.DSP.2.15 Evaluate possible solutions to real-life problems by developing linear models of contextual situations and using them to predict unknown values.	*This standard is addressed by the lessons aligned to its subsection.*
GDA.DSP.2.15.b Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the given data.	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 28: Analyzing Bivariate Quantitative Data

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
AI.DSP.2.35 Analyze the possible association between two categorical variables.	*This standard is fully addressed by the lessons aligned to its subsections.*
AI.DSP.2.35.a Summarize categorical data for two categories in two-way frequency tables and represent using segmented bar graphs.	Math 1 M6 Topic B: Modeling with Categorical Data
AI.DSP.2.35.b Interpret relative frequencies in the context of categorical data (including joint, marginal, and conditional relative frequencies).	Math 1 M6 Topic B: Modeling with Categorical Data
AI.DSP.2.35.c Identify possible associations and trends in categorical data.	Math 1 M6 Topic B: Modeling with Categorical Data

Geometry and Measurement

Focus 1: Measurement

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
GDA.GM.1.18 Given the coordinates of the vertices of a polygon, compute its perimeter and area using a variety of methods, including the distance formula and dynamic geometry software, and evaluate the accuracy of the results.	Math 1 M2 Lesson 21: Using Coordinates to Determine Perimeters and Areas of Figures Math 1 M6 Lesson 11: A Vanishing Sea

Geometry and Measurement

Focus 2: Transformations

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
GDA.GM.2.21 Represent transformations and compositions of transformations in the plane (coordinate and otherwise) using tools such as tracing paper and geometry software.	Math 1 M4 Lesson 1: Geometric Transformations Math 1 M4 Lesson 14: Transformations of the Coordinate Plane Math 1 M4 Lesson 15: Designs with Rigid Motions
GDA.GM.2.21.a Describe transformations and compositions of transformations as functions that take points in the plane as inputs and give other points as outputs, using informal and formal notation.	Math 1 M4 Lesson 1: Geometric Transformations 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

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
GDA.GM.2.21.b Compare transformations which preserve distance and angle measure to those that do not.	Math 1 M4 Lesson 1: Geometric Transformations
GDA.GM.2.22 Explore rotations, reflections, and translations using graph paper, tracing paper, and geometry software.	*This standard is addressed by the lessons aligned to its subsections.*
GDA.GM.2.22.a Given a geometric figure and a rotation, reflection, or translation, draw the image of the transformed figure using graph paper, tracing paper, or geometry software.	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
GDA.GM.2.22.b Specify a sequence of rotations, reflections, or translations that will carry a given figure onto another.	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

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
GDA.GM.2.23 Develop definitions of rotation, reflection, and translation 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
GDA.GM.2.24 Define congruence of two figures in terms of rigid motions (a sequence of translations, rotations, and reflections); show that two figures are congruent by finding a sequence of rigid motions that maps one figure to the other.	Math 1 M4 Lesson 16: Congruent Figures
GDA.GM.2.25 Verify criteria for showing triangles are congruent using a sequence of rigid motions that map one triangle to another.	*This standard is addressed by the lessons aligned to its subsections.*
GDA.GM.2.25.a Verify that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.	Math 1 M4 Lesson 17: Congruent Triangles

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
GDA.GM.2.25.b Verify that two triangles are congruent if (but not only if) the following groups of corresponding parts are congruent: angle-side-angle (ASA), side-angle-side (SAS), side-side-side (SSS), and angle-angle-side (AAS).	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 *Supplemental material is necessary to address AAS for this standard.*

Geometry and Measurement

Focus 3: Geometric Arguments, Reasoning, and Proof

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
GDA.GM.3.29 Find patterns and relationships in figures including lines, triangles, quadrilaterals, and circles, using technology and other tools.	*This standard is addressed by the lessons aligned to its subsection.*
GDA.GM.3.29.a Construct figures, using technology and other tools, in order to make and test conjectures about their properties.	Math 1 M4 Topic B: Transformations of the Plane Without Coordinates Math 1 M4 Topic E: Validating Constructions

Alabama Standards for Mathematical Content	Aligned Components of *Eureka Math²*
GDA.GM.3.30 Develop and use precise definitions of figures such as angle, circle, perpendicular lines, parallel lines, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.	Math 1 M4 Lesson 2: Translations of the Coordinate Plane Math 1 M4 Lesson 3: Rotations of the Coordinate Plane Math 1 M4 Lesson 5: Proving the Perpendicular Criterion
GDA.GM.3.32 Use coordinates to prove simple geometric theorems algebraically.	Math 1 M2 Lesson 4: Proving Conditional Statements 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
GDA.GM.3.33 Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems.	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