
Algebra I | Oklahoma Academic Standards for Mathematics Correlation to *Eureka Math*²®

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*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 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 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 Math*² 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.

Mathematical Actions and Processes	Aligned Components of <i>Eureka Math</i>²
Develop a Deep and Flexible Conceptual Understanding	Lessons in every module engage students in mathematical actions and processes.
Develop Accurate and Appropriate Procedural Fluency	Lessons in every module engage students in mathematical actions and processes.
Develop Strategies for Problem Solving	Lessons in every module engage students in mathematical actions and processes.
Develop Mathematical Reasoning	Lessons in every module engage students in mathematical actions and processes.
Develop a Productive Mathematical Disposition	Lessons in every module engage students in mathematical actions and processes.
Develop the Ability to Make Conjectures, Model, and Generalize	Lessons in every module engage students in mathematical actions and processes.
Develop the Ability to Communicate Mathematically	Lessons in every module engage students in mathematical actions and processes.

Numbers & Operations

A1.N.1 Extend the understanding of exponents to include square roots and cube roots.

Oklahoma Academic Standards for Mathematics	Aligned Components of <i>Eureka Math</i> ²
<p>A1.N.1.1</p> <p>Write square roots and cube roots of constants and monomial algebraic expressions in simplest radical form.</p>	<p>A1 M4 Lesson 17: Rewriting Square Roots</p> <p><i>Supplemental material is necessary to fully address this objective.</i></p>
<p>A1.N.1.2</p> <p>Add, subtract, multiply, divide, and simplify square roots of constants, rationalizing the denominator when necessary.</p>	<p>A1 M4 Lesson 17: Rewriting Square Roots</p> <p><i>Supplemental material is necessary to fully address this objective.</i></p>

Algebraic Reasoning & Algebra

A1.A.1 Represent and solve mathematical and real-world problems using linear equations, absolute value equations, and systems of equations; interpret solutions in the original context.

Oklahoma Academic Standards for Mathematics	Aligned Components of <i>Eureka Math</i> ²
<p>A1.A.1.1</p> <p>Use knowledge of solving equations with rational values to represent, use and apply mathematical models (e.g., angle measures, geometric formulas, dimensional analysis, Pythagorean theorem, science, statistics) and interpret the solutions in the original context.</p>	<p>A1 M6 Topic A: Modeling Bivariate Quantitative Data</p> <p>A1 M6 Topic B: Developing Models for Contexts</p>

Oklahoma Academic Standards for Mathematics	Aligned Components of <i>Eureka Math</i> ²
<p>A1.A.1.2</p> <p>Solve absolute value equations and interpret the solutions in the original context.</p>	<p>A1 M1 Lesson 16: Solving Absolute Value Equations</p> <p><i>Supplemental material is necessary to address interpreting solutions in the original context.</i></p>
<p>A1.A.1.3</p> <p>Analyze, use and apply mathematical models to solve problems involving systems of linear equations with a maximum of two variables by graphing, substitution, and elimination. Graphing calculators or other appropriate technology may be utilized. Interpret the solutions in the original context.</p>	<p>A1 M2 Lesson 7: Low-Flow Showerhead</p> <p>A1 M2 Lesson 8: Systems of Linear Equations in Two Variables</p> <p>A1 M2 Lesson 9: A New Way to Solve Systems</p> <p>A1 M2 Lesson 10: The Elimination Method</p> <p>A1 M2 Lesson 11: Applications of Systems of Equations</p>

Algebraic Reasoning & Algebra

A1.A.2 Represent and solve real-world and mathematical problems using linear inequalities and compound inequalities; interpret solutions in the original context.

Oklahoma Academic Standards for Mathematics	Aligned Components of <i>Eureka Math</i> ²
<p>A1.A.2.1</p> <p>Represent relationships using mathematical models with linear inequalities; solve the resulting inequalities, graph on a coordinate plane, and interpret the solutions.</p>	<p>A1 M2 Lesson 4: Solution Sets of Linear Inequalities in Two Variables</p> <p>A1 M2 Lesson 5: Graphing Linear Inequalities in Two Variables</p> <p>A1 M2 Lesson 12: Solution Sets of Systems of Linear Inequalities</p> <p>A1 M2 Lesson 13: Graphing Solution Sets of Systems of Linear Inequalities</p> <p>A1 M2 Lesson 14: Applications of Systems of Linear Inequalities</p>

**Oklahoma Academic Standards
for Mathematics**

Aligned Components of *Eureka Math*²

<p>A1.A.2.2</p> <p>Represent relationships using mathematical models with compound and absolute value inequalities and solve the resulting inequalities by graphing and interpreting the solutions on a number line.</p>	<p>A1 M1 Lesson 14: Solution Sets of Compound Statements</p> <p>A1 M1 Lesson 15: Solving and Graphing Compound Inequalities</p> <p>A1 M1 Lesson 17: Solving Absolute Value Inequalities</p>
---	---

Algebraic Reasoning & Algebra

A1.A.3 Create and evaluate equivalent algebraic expressions and equations using algebraic properties.

**Oklahoma Academic Standards
for Mathematics**

Aligned Components of *Eureka Math*²

<p>A1.A.3.1</p> <p>Solve equations involving several variables for one variable in terms of the others.</p>	<p>A1 M1 Lesson 12: Rearranging Formulas</p>
<p>A1.A.3.2</p> <p>Simplify polynomial expressions by adding, subtracting, or multiplying.</p>	<p>A1 M1 Lesson 3: Polynomial Expressions</p> <p>A1 M1 Lesson 4: Adding and Subtracting Polynomial Expressions</p> <p>A1 M1 Lesson 5: Multiplying Polynomial Expressions</p> <p>A1 M1 Lesson 6: Polynomial Identities</p>
<p>A1.A.3.3</p> <p>Factor common monomial factors from polynomial expressions and factor quadratic expressions with a leading coefficient of 1.</p>	<p>A1 M1 Lesson 2: The Commutative, Associative, and Distributive Properties</p> <p>A1 M1 Lesson 6: Polynomial Identities</p> <p>A1 M4 Topic B: Factoring</p>

**Oklahoma Academic Standards
for Mathematics**

Aligned Components of *Eureka Math*²

<p>A1.A.3.4</p> <p>Evaluate linear, absolute value, rational, and radical expressions. Include applying a nonstandard operation such as $x \odot y = 2x + y$.</p>	<p>A1 M1 Lesson 2: The Commutative, Associative, and Distributive Properties</p> <p>A1 M3 Lesson 2: Representing, Naming, and Evaluating Functions</p> <p>A1 M3 Lesson 3: The Graph of a Function</p> <p>A1 M3 Lesson 4: The Graph of the Equation $y = f(x)$</p> <p>A1 M3 Lesson 15: The Absolute Value Function</p> <p><i>Supplemental material is necessary to address nonstandard operations.</i></p>
---	--

Algebraic Reasoning & Algebra

A1.A.4 Analyze real-world and mathematical problems involving linear equations.

**Oklahoma Academic Standards
for Mathematics**

Aligned Components of *Eureka Math*²

<p>A1.A.4.1</p> <p>Analyze, use and apply mathematical models and other data sets (e.g., graphs, equations, two points, a set of data points) to calculate and interpret slope and the x- and y-intercepts of a line.</p>	<p>8 M4 Lesson 13: The Graph of a Linear Equation in Two Variables</p> <p>8 M4 Topic D: Slope of a Line</p> <p>A1 M2 Lesson 2: Graphing Linear Equations in Two Variables</p>
<p>A1.A.4.2</p> <p>Analyze and interpret mathematical models involving lines that are parallel, perpendicular, horizontal, and vertical.</p>	<p>8 M4 Lesson 14: Lines with Special Characteristics</p> <p>8 M4 Lesson 23: Slope and Parallel Lines</p> <p><i>Supplemental material is necessary to address perpendicular lines.</i></p>

Oklahoma Academic Standards for Mathematics	Aligned Components of <i>Eureka Math</i> ²
<p>A1.A.4.3</p> <p>Write the equation of the line given its slope and y-intercept, slope and one point, two points, x- and y-intercepts, or a set of data points.</p>	<p>A1 M2 Lesson 2: Graphing Linear Equations in Two Variables</p> <p>A1 M2 Lesson 3: Creating Linear Equations in Two Variables</p> <p>A1 M2 Lesson 6: Applications of Linear Equations and Inequalities</p>
<p>A1.A.4.4</p> <p>Express linear equations in slope-intercept, point-slope, and standard forms. Convert between these forms.</p>	<p>8 M4 Topic E: Different Forms of Linear Equations</p> <p>8 M4 Topic F: Graphing and Writing Linear Equations</p> <p>A1 M2 Lesson 1: Solution Sets of Linear Equations in Two Variables</p> <p>A1 M2 Lesson 2: Graphing Linear Equations in Two Variables</p>
<p>A1.A.4.5</p> <p>Analyze and interpret associations between graphical representations and written scenarios.</p>	<p>A1 M3 Lesson 7: Exploring Key Features of a Function and Its Graph</p> <p>A1 M3 Lesson 8: Identifying Key Features of a Function and Its Graph</p>

Functions

A1.F.1 Understand functions as descriptions of covariation (how related quantities vary together) in real-world and mathematical problems.

Oklahoma Academic Standards for Mathematics	Aligned Components of <i>Eureka Math</i> ²
<p>A1.F.1.1</p> <p>Distinguish between relations and functions.</p>	<p>A1 M3 Lesson 1: The Definition of a Function</p>

**Oklahoma Academic Standards
for Mathematics**

Aligned Components of *Eureka Math*²

<p>A1.F.1.2</p> <p>Identify the dependent variable, independent variable, domain and range given a function, equation, or graph. Identify restrictions on the domain and range in mathematical models.</p>	<p>A1 M3 Lesson 1: The Definition of a Function</p> <p>A1 M3 Lesson 2: Representing, Naming, and Evaluating Functions</p> <p>A1 M3 Lesson 3: The Graph of a Function</p> <p>A1 M3 Lesson 13: Modeling Elevation as a Function of Time</p> <p>A1 M3 Lesson 16: Step Functions</p> <p>A1 M4 Lesson 2: Projectile Motion</p> <p>A1 M4 Lesson 3: Analyzing Functions That Model Projectile Motion</p> <p>A1 M4 Lesson 23: Creating Equations of Quadratic Functions to Model Contexts</p> <p><i>Supplemental material is necessary to address identifying the dependent variable and independent variable.</i></p>
<p>A1.F.1.3</p> <p>Write linear functions, using function notation, to represent mathematical models.</p>	<p>A1 M3 Lesson 6: Representations of Functions</p>
<p>A1.F.1.4</p> <p>Read and interpret the linear piecewise function, given a graph modeling a situation.</p>	<p>A1 M3 Lesson 13: Modeling Elevation as a Function of Time</p> <p>A1 M3 Lesson 14: Piecewise Linear Functions</p>
<p>A1.F.1.5</p> <p>Interpret graphs as being discrete or continuous.</p>	<p>A1 M2 Lesson 1: Solution Sets of Linear Equations in Two Variables</p>

Functions

A1.F.2 Recognize and understand that families of functions are defined by their characteristics.

Oklahoma Academic Standards for Mathematics	Aligned Components of <i>Eureka Math</i> ²
<p>A1.F.2.1</p> <p>Distinguish between linear and nonlinear (including exponential) functions. Understand that linear functions grow by equal intervals (arithmetic) and that exponential functions grow by equal factors over equal intervals (geometric).</p>	<p>A1 M5 Lesson 15: Calculating Interest</p> <p>A1 M5 Lesson 18: Modeling Populations</p> <p>A1 M5 Lesson 19: Analyzing Exponential Growth</p> <p>A1 M5 Lesson 21: World Population Prediction</p> <p>A1 M5 Lesson 22: A Closer Look at Populations</p> <p>A1 M5 Lesson 24: Modeling an Invasive Species Population</p> <p>A1 M6 Topic A: Modeling Bivariate Quantitative Data</p>
<p>A1.F.2.2</p> <p>Recognize the parent functions $f(x) = x$ and $f(x) = x$. Predict the effects of vertical and horizontal transformations $f(x + c)$ and $f(x) + c$, algebraically and graphically.</p>	<p>A1 M3 Lesson 15: The Absolute Value Function</p> <p>A1 M3 Lesson 18: Exploring Transformations of the Graphs of Functions</p> <p>A1 M3 Lesson 19: Building New Functions—Translations</p>

Functions

A1.F.3 Represent functions in multiple ways and use the representation to interpret real-world and mathematical problems.

Oklahoma Academic Standards for Mathematics	Aligned Components of <i>Eureka Math</i> ²
<p>A1.F.3.1</p> <p>Identify and generate equivalent representations of linear functions, graphs, tables, and real-world situations.</p>	<p>A1 M2 Lesson 1: Solution Sets of Linear Equations in Two Variables</p> <p>A1 M2 Lesson 2: Graphing Linear Equations in Two Variables</p> <p>A1 M2 Lesson 3: Creating Linear Equations</p>

**Oklahoma Academic Standards
for Mathematics**

Aligned Components of *Eureka Math*²

<p>A1.F.3.2</p> <p>Use function notation; evaluate a function, including nonlinear, at a given point in its domain algebraically and graphically. Interpret the results in terms of the original context.</p>	<p>A1 M3 Lesson 1: The Definition of a Function</p> <p>A1 M3 Lesson 2: Representing, Naming, and Evaluating Functions</p> <p>A1 M3 Lesson 6: Representations of Functions</p> <p>A1 M3 Topic C: Piecewise-Defined Linear Functions</p> <p>A1 M5 Lesson 1: Exploring Patterns</p> <p>A1 M5 Lesson 2: The Recursive Challenge</p> <p>A1 M5 Lesson 3: Recursive Formulas for Sequences</p> <p>A1 M5 Lesson 4: Explicit Formulas for Sequences</p> <p>A1 M5 Lesson 7: Sierpinski Triangle</p> <p>A1 M5 Lesson 11: Graphing Exponential Functions</p>
<p>A1.F.3.3</p> <p>Add, subtract, and multiply functions using function notation.</p>	<p>A1 M4 Lesson 25: Maximizing Area</p> <p>A1 M6 Lesson 4: The Deal</p> <p>A1 M6 Lesson 7: World Record Doughnut</p>

Data & Probability

A1.D.1 Display, describe, and compare data. For linear relationships, make predictions, and assess the reliability of those predictions.

Oklahoma Academic Standards for Mathematics	Aligned Components of <i>Eureka Math</i> ²
<p>A1.D.1.1</p> <p>Display, describe, and compare data sets using summary statistics (central tendency and spread (range)). Utilize technology (e.g., spreadsheets, calculators) to display data and calculate summary statistics.</p>	<p>A1 M1 Topic D: Univariate Data</p>
<p>A1.D.1.2</p> <p>Collect data and analyze scatter plots for patterns, linearity, and outliers.</p>	<p>A1 M2 Lesson 15: Relationships Between Quantitative Variables</p> <p>A1 M2 Lesson 21: Analyzing Bivariate Quantitative Data</p>
<p>A1.D.1.3</p> <p>Make predictions based upon the linear regression, and use the correlation coefficient to assess the reliability of those predictions using graphing technology.</p>	<p>A1 M2 Lesson 17: Modeling Relationships with a Line</p> <p>A1 M2 Lesson 20: Interpreting Correlation</p> <p>A1 M2 Lesson 21: Analyzing Bivariate Quantitative Data</p>

Data & Probability

A1.D.2 Calculate probabilities, and apply probability concepts.

Oklahoma Academic Standards for Mathematics	Aligned Components of <i>Eureka Math</i> ²
<p>A1.D.2.1</p> <p>Apply simple counting procedures (factorials, permutations, combinations, and tree diagrams) to determine sample size, sample space, and calculate probabilities.</p>	<p><i>Supplemental material is necessary to address the standard and all of its objectives.</i></p>
<p>A1.D.2.2</p> <p>Given a Venn diagram, determine the probability of the union of events, the intersection of events, and the complement of an event. Understand the relationships between these concepts and the words “AND,” “OR,” and “NOT.”</p>	<p><i>Supplemental material is necessary to address the standard and all of its objectives.</i></p>
<p>A1.D.2.3</p> <p>Use simulations and experiments to calculate experimental probabilities.</p>	<p><i>Supplemental material is necessary to address the standard and all of its objectives.</i></p>
<p>A1.D.2.4</p> <p>Apply probability concepts to real-world situations to make informed decisions.</p>	<p><i>Supplemental material is necessary to address the standard and all of its objectives.</i></p>