
Algebra I | Indiana Academic Standards for Mathematics (2023) Correlation to *Eureka Math*²® (2027)

*Eureka Math*² is a research-proven math curriculum that empowers teachers to center instructional techniques on student success. Teachers can foster more “aha!” learning moments by providing the support needed for all learners to build a more confident math mindset.

This *Eureka Math*² edition builds on a strong foundation of effective instruction. It provides teachers with guidance on delivering rigorous instruction that honors student choice and encourages confident problem-solving.

*Eureka Math*² carefully sequences mathematical content to maximize vertical alignment from kindergarten through high school. This kind of sequencing has proven to be essential in students’ mastery of math.

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 into the teacher materials.

Accessibility

*Eureka Math*² incorporates Universal Design for Learning (UDL) principles so all learners can access the mathematics and take on challenging math concepts. UDL, Differentiation, and Multilingual Learner supports are built into the instructional design and are clearly identified in the *Teach* book.

The curriculum also carries a focus on readability. By eliminating unnecessary words and using 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.

Math Confidence

*Eureka Math*² fosters a classroom culture of learning by encouraging student-led discourse and cognitive engagement that results in confident learners. By leveraging consistent models, routines, and progressions, teachers can remove barriers and allow all students an avenue to success. Within the digital platform, each grade includes wordless videos and digital interactives that spark students’ curiosity and help them make conceptual connections. Using the *Learn* books, students wonder, explore, and make sense of mathematics, which helps them develop a strong, positive mathematical identity.

Mathematical Process Standards

Aligned Components of *Eureka Math*²

<p>PS.1</p> <p>Make sense of problems and persevere in solving them.</p>	<p>A1 M1 Lesson 7: Printing Presses</p> <p>A1 M1 Lesson 11: Writing and Solving Equations in One Variable</p> <p>A1 M1 Lesson 15: Solving and Graphing Compound Inequalities</p> <p>A1 M1 Lesson 20: Describing the Center of a Distribution</p> <p>A1 M1 Lesson 24: Comparing Distributions of Univariate Data</p> <p>A1 M2 Lesson 6: Applications of Linear Equations and Inequalities</p> <p>A1 M2 Lesson 8: Systems of Linear Equations in Two Variables</p> <p>A1 M2 Lesson 21: Analyzing Bivariate Quantitative Data</p> <p>A1 M3 Lesson 3: The Graph of a Function</p> <p>A1 M3 Lesson 5: Using Pseudocode to Compare Graphs of Functions and Graphs of Equations</p> <p>A1 M4 Lesson 7: Solving Quadratic Equations by Factoring: Splitting the Linear Term</p> <p>A1 M4 Lesson 9: Creating and Solving Quadratic Equations in One Variable</p> <p>A1 M4 Lesson 16: Solving Quadratic Equations</p> <p>A1 M4 Lesson 23: Creating Equations of Quadratic Functions to Model Contexts</p> <p>A1 M5 Lesson 2: The Recursive Challenge</p> <p>A1 M6 Lesson 1: Analyzing Paint Splatters</p>
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Mathematical Process Standards

Aligned Components of *Eureka Math*²

<p>PS.2 Reason abstractly and quantitatively.</p>	<p>A1 M2 Lesson 1: Solution Sets of Linear Equations in Two Variables A1 M2 Lesson 11: Applications of Systems of Equations A1 M2 Lesson 14: Applications of Systems of Linear Inequalities A1 M2 Lesson 18: Calculating and Analyzing Residuals A1 M2 Lesson 20: Interpreting Correlation A1 M3 Lesson 6: Representations of Functions A1 M3 Lesson 8: Exploring Key Features of a Function and Its Graph A1 M3 Lesson 10: Representing Functions from Verbal Descriptions A1 M4 Lesson 1: Falling Objects A1 M4 Lesson 3: Analyzing Functions That Model Projectile Motion A1 M4 Lesson 11: Graphing Quadratic Functions from Factored Form A1 M5 Lesson 8: Exponential Functions A1 M5 Lesson 15: Calculating Interest A1 M5 Lesson 17: Exponential Decay A1 M5 Lesson 19: Analyzing Exponential Growth A1 M5 Lesson 23: Modeling the Temperature of Objects Cooling Over Time A1 M6 Lesson 3: Populations of US Cities</p>
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Mathematical Process Standards

Aligned Components of *Eureka Math*²

<p>PS.3</p> <p>Construct viable arguments and critique the reasoning of others.</p>	<p>A1 M1 Lesson 9: Solving Linear Equations in One Variable</p> <p>A1 M1 Lesson 21: Using Center to Compare Data Distributions</p> <p>A1 M2 Lesson 16: Using Lines to Model Bivariate Quantitative Data</p> <p>A1 M3 Lesson 19: Exploring Transformations of the Graphs of Functions</p> <p>A1 M4 Lesson 15: Deriving the Quadratic Formula</p> <p>A1 M5 Lesson 1: Exploring Patterns</p> <p>A1 M5 Lesson 5: Arithmetic and Geometric Sequences</p> <p>A1 M5 Lesson 13: Using Transformations to Graph Exponential Functions (Bases Between 0 and 1)</p> <p>A1 M6 Lesson 3: Populations of US Cities</p>
<p>PS.4</p> <p>Model with mathematics.</p>	<p>A1 M1 Lesson 19: Distributions and Their Shapes</p> <p>A1 M2 Lesson 7: Low-Flow Showerhead</p> <p>A1 M3 Lesson 13: Mars Curiosity Rover</p> <p>A1 M4 Lesson 25: Maximizing Area</p> <p>A1 M4 Lesson 27: Search and Rescue Helicopter</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 Lesson 6: Designing a Fundraiser</p> <p>A1 M6 Lesson 7: World Record Doughnut</p>

Mathematical Process Standards

Aligned Components of *Eureka Math*²

<p>PS.5 Use appropriate tools strategically.</p>	<p>A1 M1 Lesson 22: Describing Variability in a Univariate Distribution with Standard Deviation A1 M2 Lesson 10: The Elimination Method A1 M3 Lesson 12: Comparing Functions A1 M4 Lesson 4: Graphs of Quadratic Functions A1 M4 Lesson 22: A Summary of Graphing Quadratic Functions A1 M6 Lesson 7: World Record Doughnut</p>
<p>PS.6 Attend to precision.</p>	<p>A1 M1 Lesson 8: Solution Sets for Equations and Inequalities in One Variable A1 M2 Lesson 2: Graphing Linear Equations in Two Variables A1 M2 Lesson 5: Graphing Linear Inequalities in Two Variables A1 M2 Lesson 12: Solution Sets of Systems of Linear Inequalities A1 M2 Lesson 17: Modeling Relationships with a Line A1 M3 Lesson 1: The Definition of a Function A1 M3 Lesson 2: Representing, Naming, and Evaluating Functions A1 M4 Lesson 14: Solving Quadratic Equations by Completing the Square A1 M4 Lesson 21: Completing the Square to Graph Quadratic Functions A1 M5 Lesson 11: Graphing Exponential Functions A1 M5 Lesson 12: Using Transformations to Graph Exponential Functions (Bases Greater Than 1) A1 M5 Lesson 14: Writing Equations for Exponential Functions from Tables or Graphs A1 M5 Lesson 18: Modeling Populations A1 M6 Lesson 5: Solar System Models</p>

Mathematical Process Standards

Aligned Components of *Eureka Math*²

<p>PS.7</p> <p>Look for and make use of structure.</p>	<p>A1 M1 Lesson 12: Rearranging Formulas</p> <p>A1 M1 Lesson 13: Solving Linear Inequalities in One Variable</p> <p>A1 M1 Lesson 16: Solving Absolute Value Equations</p> <p>A1 M2 Lesson 3: Creating Linear Equations in Two Variables</p> <p>A1 M2 Lesson 4: Solution Sets of Linear Inequalities in Two Variables</p> <p>A1 M2 Lesson 9: A New Way to Solve Systems</p> <p>A1 M2 Lesson 13: Graphing Solution Sets of Systems of Linear Inequalities</p> <p>A1 M2 Lesson 15: Relationships Between Quantitative Variables</p> <p>A1 M3 Lesson 9: Identifying Key Features of a Function and Its Graph</p> <p>A1 M3 Lesson 11: Using Graphs to Solve Equations</p> <p>A1 M4 Lesson 2: Projectile Motion</p> <p>A1 M4 Lesson 5: Solving Equations That Contain Factored Expressions</p> <p>A1 M4 Lesson 6: Solving Quadratic Equations by Factoring: Identities and Guess and Check</p> <p>A1 M4 Lesson 8: A Summary of Solving Quadratic Equations by Factoring</p> <p>A1 M4 Lesson 10: Zeros of Functions</p> <p>A1 M4 Lesson 12: Using Symmetry to Graph Quadratic Functions from Standard Form</p> <p>A1 M4 Lesson 13: Using Square Roots to Solve Quadratic Equations</p> <p>A1 M4 Lesson 18: The Quadratic Formula and Zeros of a Function</p> <p>A1 M4 Lesson 19: Transforming the Graphs of Quadratic Functions</p> <p>A1 M4 Lesson 24: Another Look at Systems of Equations</p> <p>A1 M4 Lesson 26: Modeling Data with Quadratic Functions</p> <p>A1 M5 Lesson 3: Recursive Formulas for Sequences</p> <p>A1 M5 Lesson 9: Unit Fraction Exponents</p> <p>A1 M5 Lesson 16: Exponential Growth</p> <p>A1 M6 Lesson 2: Using Residual Plots to Select Models for Data</p> <p>A1 M6 Lesson 6: Designing a Fundraiser</p>
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Mathematical Process Standards

Aligned Components of *Eureka Math*²

<p>PS.8</p> <p>Look for and express regularity in repeated reasoning.</p>	<p>A1 M1 Lesson 17: Solving Absolute Value Inequalities</p> <p>A1 M5 Lesson 4: Explicit Formulas for Sequences</p> <p>A1 M5 Lesson 7: Sierpinski Triangle</p> <p>A1 M5 Lesson 20: Comparing Growth of Functions</p> <p>A1 M6 Lesson 5: Solar System Models</p>
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Number Systems, Expressions, and Functions

Students simplify and manipulate algebraic expressions, equations, and functions in a variety of forms.

Indiana Academic Standards for Mathematics

Aligned Components of *Eureka Math*²

<p>AI.NF.1</p> <p>Simplify square roots of monomial algebraic expressions, including non-perfect squares.</p>	<p><i>Supplemental material is necessary to address this standard.</i></p>
<p>AI.NF.2</p> <p>Add, subtract, and multiply polynomials. Divide polynomials by monomials. Use these operations to rewrite algebraic expressions in equivalent forms, and justify them with algebraic properties.</p>	<p>A1 M1 Lesson 1: The Growing Pattern of Ducks</p> <p>A1 M1 Lesson 2: The Commutative, Associative, and Distributive Properties</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 M4 Lesson 3: Analyzing Functions That Model Projectile Motion</p> <p>A1 M4 Lesson 5: Solving Equations That Contain Factored Expressions</p> <p>A1 M4 Lesson 6: Solving Quadratic Equations by Factoring: Identities and Guess and Check</p> <p>A1 M4 Lesson 7: Solving Quadratic Equations by Factoring: Splitting the Linear Term</p>

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Aligned Components of *Eureka Math*²

<p>AI.NF.2 <i>continued</i></p>	<p>A1 M4 Lesson 8: A Summary of Solving Quadratic Equations by Factoring A1 M4 Lesson 9: Creating and Solving Quadratic Equations in One Variable A1 M4 Lesson 10: Zeros of Functions A1 M4 Lesson 11: Graphing Quadratic Functions from Factored Form A1 M4 Lesson 12: Using Symmetry to Graph Quadratic Functions from Standard Form A1 M4 Lesson 14: Solving Quadratic Equations by Completing the Square A1 M4 Lesson 15: Deriving the Quadratic Formula A1 M5 Lesson 11: Graphing Exponential Functions A1 M5 Lesson 12: Using Transformations to Graph Exponential Functions (Bases Greater Than 1) A1 M5 Lesson 18: Modeling Populations</p>
<p>AI.NF.3</p> <p>Extend understanding of independent/dependent variables to encompass domain/range, as applied to relations using tables, graphs, verbal descriptions, and equations.</p>	<p>A1 M3 Lesson 1: The Definition of a Function A1 M3 Lesson 2: Representing, Naming, and Evaluating Functions A1 M3 Lesson 3: The Graph of a Function A1 M3 Lesson 4: The Graph of the Equation $y = f(x)$ A1 M3 Lesson 5: Using Pseudocode to Compare Graphs of Functions and Graphs of Equations A1 M3 Lesson 6: Representations of Functions A1 M3 Lesson 14: Modeling Elevation as a Function of Time A1 M3 Lesson 16: The Absolute Value Function A1 M4 Lesson 2: Projectile Motion A1 M4 Lesson 3: Analyzing Functions That Model Projectile Motion A1 M4 Lesson 23: Creating Equations of Quadratic Functions to Model Contexts</p>

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<p>AI.NF.4</p> <p>Evaluate functions for given elements of the domain, and interpret statements in function notation in terms of a 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 Lesson 17: Step 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>AI.NF.5</p> <p>Describe, qualitatively, the functional relationship between two quantities by analyzing key features of a graph. Sketch a graph that exhibits given key features of a function that has been verbally described, including intercepts, where the function is increasing or decreasing, where the function is positive or negative, and any relative maximum or minimum values. Identify the independent and dependent variables.</p>	<p>8 M6 Lesson 9: Increasing and Decreasing Functions</p> <p>8 M6 Lesson 10: Graphs of Nonlinear Functions</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 M3 Lesson 4: The Graph of the Equation $y = f(x)$</p> <p>A1 M3 Lesson 5: Using Pseudocode to Compare Graphs of Functions and Graphs of Equations</p> <p>A1 M3 Lesson 6: Representations of Functions</p> <p>A1 M3 Lesson 8: Exploring Key Features of a Function and Its Graph</p> <p>A1 M3 Lesson 9: Identifying Key Features of a Function and Its Graph</p> <p>A1 M3 Lesson 10: Representing Functions from Verbal Descriptions</p> <p>A1 M3 Lesson 12: Comparing Functions</p> <p>A1 M3 Lesson 13: Mars Curiosity Rover</p> <p>A1 M3 Lesson 14: Modeling Elevation as a Function of Time</p> <p>A1 M3 Lesson 15: Piecewise Linear Functions</p>

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<p>AI.NF.5 <i>continued</i></p>	<p>A1 M3 Lesson 16: The Absolute Value Function A1 M3 Lesson 17: Step Functions A1 M3 Lesson 18: Piecewise Linear Functions in Context A1 M3 Lesson 20: Building New Functions—Translations A1 M3 Lesson 24: A Summary of Transforming the Graph of a Function A1 M4 Lesson 1: Falling Objects A1 M4 Lesson 2: Projectile Motion A1 M4 Lesson 3: Analyzing Functions That Model Projectile Motion A1 M4 Lesson 4: Graphs of Quadratic Functions A1 M4 Lesson 11: Graphing Quadratic Functions from Factored Form A1 M4 Lesson 12: Using Symmetry to Graph Quadratic Functions from Standard Form A1 M4 Lesson 19: Transforming the Graphs of Quadratic Functions A1 M4 Lesson 21: Completing the Square to Graph Quadratic Functions A1 M4 Lesson 23: Creating Equations of Quadratic Functions to Model Contexts A1 M4 Lesson 24: Another Look at Systems of Equations A1 M4 Lesson 25: Maximizing Area</p>
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Linear Equations, Inequalities, and Functions

Students represent real-world situations with linear functions and use these equations to solve problems.

Indiana Academic Standards for Mathematics	Aligned Components of <i>Eureka Math</i> ²
<p>AI.L.1</p> <p>Represent real-world problems using linear equations and inequalities in one variable, including those with rational number coefficients and variables on both sides of the equal sign. Solve them fluently, explaining the process used and justify the choice of a solution method.</p>	<p>A1 M1 Lesson 7: Printing Presses</p> <p>A1 M1 Lesson 8: Solution Sets for Equations and Inequalities in One Variable</p> <p>A1 M1 Lesson 9: Solving Linear Equations in One Variable</p> <p>A1 M1 Lesson 10: Some Potential Dangers When Solving Equations</p> <p>A1 M1 Lesson 11: Writing and Solving Equations in One Variable</p> <p>A1 M1 Lesson 13: Solving Linear Inequalities in One Variable</p> <p>A1 M1 Lesson 15: Solving and Graphing Compound Inequalities</p> <p>A1 M1 Lesson 16: Solving Absolute Value Equations</p> <p>A1 M1 Lesson 17: Solving Absolute Value Inequalities</p> <p>A1 M4 Lesson 9: Creating and Solving Quadratic Equations in One Variable</p>
<p>AI.L.2</p> <p>Represent linear functions as graphs from equations (with emphasis on technology), equations from graphs, and equations from tables and other given information (e.g., from a given point on a line and the slope of the line). Find the equations of a line in a slope-intercept, point-slope, and standard forms. Reveal more or less information about a given situation based on the form used.</p>	<p>8 M6 Lesson 6: Linear Functions and Rate of Change</p> <p>8 M6 Lesson 7: Interpreting Rate of Change and Initial Value</p> <p>8 M6 Lesson 25: Applications of Volume</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 M3 Lesson 4: The Graph of the Equation $y = f(x)$</p> <p>A1 M3 Lesson 5: Using Pseudocode to Compare Graphs of Functions and Graphs of Equations</p> <p>A1 M3 Lesson 6: Representations of Functions</p> <p>A1 M4 Lesson 4: Graphs of Quadratic Functions</p> <p>A1 M4 Lesson 11: Graphing Quadratic Functions from Factored Form</p> <p>A1 M4 Lesson 12: Using Symmetry to Graph Quadratic Functions from Standard Form</p>

**Indiana Academic Standards
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Aligned Components of *Eureka Math*²

<p>AI.L.2 <i>continued</i></p>	<p>A1 M4 Lesson 19: Transforming the Graphs of Quadratic Functions</p> <p>A1 M4 Lesson 23: Creating Equations of Quadratic Functions to Model Contexts</p> <p>A1 M4 Lesson 24: Another Look at Systems of Equations</p> <p>A1 M5 Lesson 8: Exponential Functions</p> <p>A1 M5 Lesson 14: Writing Equations for Exponential Functions from Tables or Graphs</p> <p>A1 M5 Lesson 16: Exponential Growth</p> <p>A1 M5 Lesson 17: Exponential Decay</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 23: Modeling the Temperature of Objects Cooling Over Time</p> <p>A1 M5 Lesson 24: Modeling an Invasive Species Population</p> <p>A1 M6 Lesson 4: The Deal</p> <p>A1 M6 Lesson 7: World Record Doughnut</p>
<p>AI.L.3</p> <p>Represent real-world problems that can be modeled with a linear function using equations, graphs, and tables, including with technology. Translate fluently among these representations and interpret the slope and intercepts.</p>	<p>A1 M1 Lesson 11: Writing and Solving Equations in One Variable</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 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 6: Applications of Linear Equations and Inequalities</p> <p>A1 M3 Lesson 12: Comparing Functions</p> <p>A1 M4 Lesson 12: Using Symmetry to Graph Quadratic Functions from Standard Form</p> <p>A1 M4 Lesson 21: Completing the Square to Graph Quadratic Functions</p> <p>A1 M5 Lesson 5: Arithmetic and Geometric Sequences</p>

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<p>AI.L.3 <i>continued</i></p>	<p>A1 M5 Lesson 6: Representations of Arithmetic and Geometric Sequences A1 M5 Lesson 7: Sierpinski Triangle A1 M6 Lesson 5: Solar System Models A1 M6 Lesson 6: Designing a Fundraiser</p>
<p>AI.L.4 Solve linear and quadratic equations and formulas for a specified variable to highlight a quantity of interest, using the same reasoning as in solving equations.</p>	<p>A1 M1 Lesson 12: Rearranging Formulas A1 M4 Lesson 13: Using Square Roots to Solve Quadratic Equations A1 M5 Lesson 8: Exponential Functions A1 M5 Lesson 16: Exponential Growth A1 M5 Lesson 17: Exponential Decay A1 M5 Lesson 18: Modeling Populations A1 M5 Lesson 23: Modeling the Temperature of Objects Cooling Over Time</p>

Systems of Linear Equations and Inequalities

Students represent real-world situations as systems of linear equations and inequalities, using those systems to solve problems.

Indiana Academic Standards for Mathematics

Aligned Components of *Eureka Math*²

<p>AI.SEI.1</p> <p>Represent real-world problems using linear inequalities in two variables and solve such problems; interpret the solution set, and determine whether it is reasonable. Graph the solutions to a linear inequality in two variables as a half-plane.</p>	<p>A1 M1 Lesson 11: Writing and Solving Equations in One Variable</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 M2 Lesson 1: Solution Sets of Linear Equations in Two Variables</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 6: Applications of Linear Equations and Inequalities</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> <p>A1 M6 Lesson 5: Solar System Models</p> <p>A1 M6 Lesson 6: Designing a Fundraiser</p>
<p>AI.SEI.2</p> <p>Write and graph a system of two linear equations in two variables that represents a real-world problem and solve the problem graphically and algebraically with and without technology. Interpret the solution, and determine whether the solution is reasonable.</p>	<p>A1 M1 Lesson 11: Writing and Solving Equations in One Variable</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 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 in Two Variables</p> <p>A1 M2 Lesson 6: Applications of Linear Equations and Inequalities</p> <p>A1 M2 Lesson 7: Low-Flow Showerhead</p> <p>A1 M2 Lesson 8: Systems of Linear Equations in Two Variables</p>

**Indiana Academic Standards
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Aligned Components of *Eureka Math*²

Indiana Academic Standards for Mathematics	Aligned Components of <i>Eureka Math</i> ²
AI.SEI.2 <i>continued</i>	<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> <p>A1 M3 Lesson 11: Using Graphs to Solve Equations</p> <p>A1 M3 Lesson 16: The Absolute Value Function</p> <p>A1 M4 Lesson 11: Graphing Quadratic Functions from Factored Form</p> <p>A1 M4 Lesson 12: Using Symmetry to Graph Quadratic Functions from Standard Form</p> <p>A1 M4 Lesson 23: Creating Equations of Quadratic Functions to Model Contexts</p> <p>A1 M4 Lesson 24: Another Look at Systems of Equations</p> <p>A1 M4 Lesson 25: Maximizing Area</p> <p>A1 M4 Lesson 26: Modeling Data with Quadratic Functions</p> <p>A1 M4 Lesson 27: Search and Rescue Helicopter</p> <p>A1 M5 Lesson 13: Using Transformations to Graph Exponential Functions (Bases Between 0 and 1)</p> <p>A1 M5 Lesson 20: Comparing Growth of Functions</p> <p>A1 M6 Lesson 5: Solar System Models</p> <p>A1 M6 Lesson 6: Designing a Fundraiser</p>

**Indiana Academic Standards
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<p>AI.SEI.3</p> <p>Represent real-world problems using a system of two linear inequalities in two variables. Graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes with and without technology. Interpret the solution set, and determine whether it is reasonable.</p>	<p>A1 M1 Lesson 11: Writing and Solving Equations in One Variable</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 M2 Lesson 1: Solution Sets of Linear Equations in Two Variables</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 6: Applications of Linear Equations and Inequalities</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> <p>A1 M6 Lesson 5: Solar System Models</p> <p>A1 M6 Lesson 6: Designing a Fundraiser</p>
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Quadratic and Exponential Equations and Functions

Students represent real-world situations using quadratic and exponential equations and use these equations to solve problems.

Indiana Academic Standards for Mathematics

Aligned Components of *Eureka Math*²

Indiana Academic Standards for Mathematics	Aligned Components of <i>Eureka Math</i> ²
<p>AI.QE.1</p> <p>Distinguish between situations that can be modeled with linear functions and exponential functions. Understand that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals. Compare linear functions and exponential functions that model real-world situations using tables, graphs, and equations. (E)</p>	<p>A1 M3 Lesson 12: Comparing Functions</p> <p>A1 M4 Lesson 12: Using Symmetry to Graph Quadratic Functions from Standard Form</p> <p>A1 M4 Lesson 21: Completing the Square to Graph Quadratic Functions</p> <p>A1 M5 Lesson 8: Exponential Functions</p> <p>A1 M5 Lesson 14: Writing Equations for Exponential Functions from Tables or Graphs</p> <p>A1 M5 Lesson 15: Calculating Interest</p> <p>A1 M5 Lesson 16: Exponential Growth</p> <p>A1 M5 Lesson 17: Exponential Decay</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 23: Modeling the Temperature of Objects Cooling Over Time</p> <p>A1 M5 Lesson 24: Modeling an Invasive Species Population</p> <p>A1 M6 Lesson 1: Analyzing Paint Splatters</p> <p>A1 M6 Lesson 2: Using Residual Plots to Select Models for Data</p> <p>A1 M6 Lesson 3: Populations of US Cities</p> <p>A1 M6 Lesson 4: The Deal</p> <p>A1 M6 Lesson 7: World Record Doughnut</p>

**Indiana Academic Standards
for Mathematics**

Aligned Components of *Eureka Math*²

<p>AI.QE.2</p> <p>Represent real-world and other mathematical problems that can be modeled with simple exponential functions using tables, graphs, and equations of the form $y = ab^x$ (for integer values of $x > 1$, rational values of $b > 0$ and $b \neq 1$) with and without technology; interpret the values of a and b.</p>	<p>A1 M5 Lesson 8: Exponential Functions</p> <p>A1 M5 Lesson 11: Graphing Exponential Functions</p> <p>A1 M5 Lesson 12: Using Transformations to Graph Exponential Functions (Bases Greater Than 1)</p> <p>A1 M5 Lesson 13: Using Transformations to Graph Exponential Functions (Bases Between 0 and 1)</p> <p>A1 M5 Lesson 14: Writing Equations for Exponential Functions from Tables or Graphs</p> <p>A1 M5 Lesson 16: Exponential Growth</p> <p>A1 M5 Lesson 17: Exponential Decay</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 23: Modeling the Temperature of Objects Cooling Over Time</p> <p>A1 M5 Lesson 24: Modeling an Invasive Species Population</p> <p>A1 M6 Lesson 4: The Deal</p> <p>A1 M6 Lesson 7: World Record Doughnut</p>
<p>AI.QE.3</p> <p>Solve quadratic equations in one variable by inspection (e.g., for $x^2 = 49$), finding square roots, using the quadratic formula, and factoring, as appropriate to the initial form of the equation.</p>	<p>A1 M4 Lesson 5: Solving Equations That Contain Factored Expressions</p> <p>A1 M4 Lesson 6: Solving Quadratic Equations by Factoring: Identities and Guess and Check</p> <p>A1 M4 Lesson 7: Solving Quadratic Equations by Factoring: Splitting the Linear Term</p> <p>A1 M4 Lesson 8: A Summary of Solving Quadratic Equations by Factoring</p> <p>A1 M4 Lesson 9: Creating and Solving Quadratic Equations in One Variable</p> <p>A1 M4 Lesson 13: Using Square Roots to Solve Quadratic Equations</p> <p>A1 M4 Lesson 14: Solving Quadratic Equations by Completing the Square</p> <p>A1 M4 Lesson 15: Deriving the Quadratic Formula</p> <p>A1 M4 Lesson 16: Solving Quadratic Equations</p> <p>A1 M4 Lesson 18: The Quadratic Formula and Zeros of a Function</p>

**Indiana Academic Standards
for Mathematics**

Aligned Components of *Eureka Math*²

<p>AI.QE.4</p> <p>Represent real-world problems using quadratic equations in one or two variables and solve such problems with technology. Interpret the solution(s), and determine whether they are reasonable.</p>	<p>A1 M1 Lesson 7: Printing Presses</p> <p>A1 M1 Lesson 11: Writing and Solving Equations in One Variable</p> <p>A1 M1 Lesson 13: Solving Linear Inequalities in One Variable</p> <p>A1 M1 Lesson 15: Solving and Graphing Compound Inequalities</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 in Two Variables</p> <p>A1 M2 Lesson 6: Applications of Linear Equations and Inequalities</p> <p>A1 M3 Lesson 4: The Graph of the Equation $y = f(x)$</p> <p>A1 M3 Lesson 5: Using Pseudocode to Compare Graphs of Functions and Graphs of Equations</p> <p>A1 M3 Lesson 6: Representations of Functions</p> <p>A1 M4 Lesson 1: Falling Objects</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 4: Graphs of Quadratic Functions</p> <p>A1 M4 Lesson 9: Creating and Solving Quadratic Equations in One Variable</p> <p>A1 M4 Lesson 10: Zeros of Functions</p> <p>A1 M4 Lesson 11: Graphing Quadratic Functions from Factored Form</p> <p>A1 M4 Lesson 12: Using Symmetry to Graph Quadratic Functions from Standard Form</p> <p>A1 M4 Lesson 19: Transforming the Graphs of Quadratic Functions</p> <p>A1 M4 Lesson 22: A Summary of Graphing Quadratic Functions</p> <p>A1 M4 Lesson 23: Creating Equations of Quadratic Functions to Model Contexts</p> <p>A1 M4 Lesson 24: Another Look at Systems of Equations</p> <p>A1 M4 Lesson 25: Maximizing Area</p> <p>A1 M4 Lesson 26: Modeling Data with Quadratic Functions</p> <p>A1 M4 Lesson 27: Search and Rescue Helicopter</p>
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**Indiana Academic Standards
for Mathematics**

Aligned Components of *Eureka Math*²

<p>AI.QE.5</p> <p>Graph exponential and quadratic functions with and without technology. Identify and describe key features, such as zeros, lines of symmetry, and extreme values in real-world and other mathematical problems involving quadratic functions with and without technology; interpret the results in the real-world contexts.</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 M3 Lesson 4: The Graph of the Equation $y = f(x)$</p> <p>A1 M3 Lesson 5: Using Pseudocode to Compare Graphs of Functions and Graphs of Equations</p> <p>A1 M3 Lesson 6: Representations of Functions</p> <p>A1 M3 Lesson 8: Exploring Key Features of a Function and Its Graph</p> <p>A1 M3 Lesson 9: Identifying Key Features of a Function and Its Graph</p> <p>A1 M3 Lesson 10: Representing Functions from Verbal Descriptions</p> <p>A1 M3 Lesson 12: Comparing Functions</p> <p>A1 M3 Lesson 13: Mars Curiosity Rover</p> <p>A1 M3 Lesson 14: Modeling Elevation as a Function of Time</p> <p>A1 M4 Lesson 1: Falling Objects</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 4: Graphs of Quadratic Functions</p> <p>A1 M4 Lesson 10: Zeros of Functions</p> <p>A1 M4 Lesson 11: Graphing Quadratic Functions from Factored Form</p> <p>A1 M4 Lesson 12: Using Symmetry to Graph Quadratic Functions from Standard Form</p> <p>A1 M4 Lesson 19: Transforming the Graphs of Quadratic Functions</p> <p>A1 M4 Lesson 21: Completing the Square to Graph Quadratic Functions</p> <p>A1 M4 Lesson 22: A Summary of Graphing Quadratic Functions</p> <p>A1 M4 Lesson 23: Creating Equations of Quadratic Functions to Model Contexts</p> <p>A1 M4 Lesson 24: Another Look at Systems of Equations</p>
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Indiana Academic Standards for Mathematics	Aligned Components of <i>Eureka Math</i> ²
<p>AI.QE.5 <i>continued</i></p>	<p>A1 M4 Lesson 25: Maximizing Area</p> <p>A1 M5 Lesson 11: Graphing Exponential Functions</p> <p>A1 M5 Lesson 12: Using Transformations to Graph Exponential Functions (Bases Greater Than 1)</p> <p>A1 M5 Lesson 13: Using Transformations to Graph Exponential Functions (Bases Between 0 and 1)</p>
<p>AI.QE.6</p> <p>Describe the relationships among a solution of a quadratic equation, a zero of the function, an x-intercept of the graph, and the factors of the expression. Explain that every quadratic has two complex solutions, which may or may not be real solutions.</p>	<p>A1 M3 Lesson 12: Comparing Functions</p> <p>A1 M4 Lesson 10: Zeros of Functions</p> <p>A1 M4 Lesson 11: Graphing Quadratic Functions from Factored Form</p> <p>A1 M4 Lesson 12: Using Symmetry to Graph Quadratic Functions from Standard Form</p> <p>A1 M4 Lesson 21: Completing the Square to Graph Quadratic Functions</p> <p>A1 M4 Lesson 22: A Summary of Graphing Quadratic Functions</p>

Data Analysis & Statistics

Students utilize and interpret statistical claims.

Indiana Academic Standards for Mathematics	Aligned Components of <i>Eureka Math</i> ²
<p>AI.DS.1</p> <p>Interpret statistics as a process for making inferences about a population based on a random sample from that population. Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each. (E)</p>	<p>A1 Data Investigation: Driving Dangers</p> <p>A1 Data Investigation: Carbon in Trees</p> <p>A1 Data Investigation: Organ Donation</p> <p><i>Supplemental material is needed to fully address this standard.</i></p>

**Indiana Academic Standards
for Mathematics**

Aligned Components of *Eureka Math*²

<p>AI.DS.2</p> <p>Understand that statistics and data are non-neutral and designed to serve a particular interest. Analyze the possibilities for whose interest might be served and how the representations might be misleading. (E)</p>	<p>A1 Data Talk: Organ Transplants in the US</p> <p>A1 Data Talk: Energy in Earthquakes and Lightning</p> <p>A1 Data Talk: The Carbon in Our Trees</p> <p>A1 Data Talk: Change in Forest Area</p> <p>A1 Data Talk: Growth in Renewable Energy</p> <p>A1 Data Talk: Disappearing Sea Ice</p> <p>A1 Data Talk: Daylight at the Extremes</p> <p>A1 Data Talk: Life Expectancy at Birth</p> <p>A1 Data Talk: License to Drive</p> <p>A1 Data Talk: Venomous Snake Bites</p> <p>A1 Data Talk: Time to Vote</p> <p>A1 Data Talk: Disaster Relief</p> <p>A1 Data Talk: US House Tenure</p> <p>A1 Data Talk: Hot and Cold Park Days</p> <p><i>Supplemental material is needed to analyze the possibilities for whose interest might be served and how the representations might be misleading.</i></p>
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**Indiana Academic Standards
for Mathematics**

Aligned Components of *Eureka Math*²

<p>AI.DS.3</p> <p>Use technology to find a linear function that models a relationship between two quantitative variables to make predictions and interpret the slope and y-intercept. Using technology, compute and interpret the correlation coefficient.</p>	<p>A1 M2 Lesson 15: Relationships Between Quantitative Variables</p> <p>A1 M2 Lesson 16: Using Lines to Model Bivariate Quantitative Data</p> <p>A1 M2 Lesson 17: Modeling Relationships with a Line</p> <p>A1 M2 Lesson 18: Calculating and Analyzing Residuals</p> <p>A1 M2 Lesson 20: Interpreting Correlation</p> <p>A1 M2 Lesson 21: Analyzing Bivariate Quantitative Data</p> <p>A1 M4 Lesson 1: Falling Objects</p> <p>A1 M4 Lesson 3: Analyzing Functions That Model Projectile Motion</p> <p>A1 M4 Lesson 12: Using Symmetry to Graph Quadratic Functions from Standard Form</p> <p>A1 M4 Lesson 23: Creating Equations of Quadratic Functions to Model Contexts</p> <p>A1 M4 Lesson 26: Modeling Data with Quadratic Functions</p> <p>A1 M4 Lesson 27: Search and Rescue Helicopter</p> <p>A1 M5 Lesson 19: Analyzing Exponential Growth</p> <p>A1 M5 Lesson 20: Comparing Growth of Functions</p> <p>A1 M5 Lesson 24: Modeling an Invasive Species Population</p> <p>A1 M6 Lesson 1: Analyzing Paint Splatters</p> <p>A1 M6 Lesson 2: Using Residual Plots to Select Models for Data</p> <p>A1 M6 Lesson 3: Populations of US Cities</p>
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**Indiana Academic Standards
for Mathematics**

Aligned Components of *Eureka Math*²

<p>AI.DS.4</p> <p>Summarize bivariate categorical data in two-way frequency tables. Interpret relative frequencies in the contexts of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in data.</p>	<p>A1 M2 Lesson 22: Summarizing Bivariate Categorical Data with Two-Way Tables</p> <p>A1 M2 Lesson 23: Bivariate Categorical Data and Conditional Relative Frequency Tables</p> <p>A1 M2 Lesson 24: Conditional Relative Frequencies and Association</p>
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Integrated STEM

Communication and Collaboration

Indiana Academic Standards: Integrated STEM

Aligned Components of *Eureka Math*²

Indiana Academic Standards: Integrated STEM	Aligned Components of <i>Eureka Math</i> ²
<p>HS.CC.1</p> <p>Communicate evidence, investigations, analyses, and the solution(s) of a problem in multiple media forms appropriate for the audience.</p>	<p>A1 M1 Lesson 5: Multiplying Polynomial Expressions</p> <p>A1 M1 Lesson 11: Writing and Solving Equations in One Variable</p> <p>A1 M1 Lesson 15: Solving and Graphing Compound Inequalities</p> <p>A1 M1 Lesson 19: Distributions and Their Shapes</p> <p>A1 M2 Lesson 1: Solution Sets of Linear Equations in Two Variables</p> <p>A1 M2 Lesson 4: Solution Sets of Linear Inequalities in Two Variables</p> <p>A1 M2 Lesson 15: Relationships Between Quantitative Variables</p> <p>A1 M2 Lesson 16: Using Lines to Model Bivariate Quantitative Data</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> <p>A1 M2 Lesson 22: Summarizing Bivariate Categorical Data with Two-Way Tables</p> <p>A1 M3 Lesson 3: The Graph of a Function</p> <p>A1 M3 Lesson 8: Exploring Key Features of a Function and Its Graph</p> <p>A1 M3 Lesson 14: Modeling Elevation as a Function of Time</p> <p>A1 M3 Lesson 19: Exploring Transformations of the Graphs of Functions</p> <p>A1 M4 Lesson 3: Analyzing Functions That Model Projectile Motion</p> <p>A1 M4 Lesson 11: Graphing Quadratic Functions from Factored Form</p> <p>A1 M4 Lesson 20: Art with Transformations</p> <p>A1 M4 Lesson 23: Creating Equations of Quadratic functions to Model Contexts</p> <p>A1 M5 Lesson 1: Exploring Patterns</p>

**Indiana Academic Standards:
Integrated STEM**

Aligned Components of *Eureka Math*²

<p>HS.CC.1 <i>continued</i></p>	<p>A1 M5 Lesson 8: Exponential Functions A1 M5 Lesson 16: Exponential Growth A1 M6 Lesson 1: Analyzing Paint Splatters</p>
<p>HS.CC.2 Implement roles and responsibilities to collaborate, contribute, and/or lead within and across various group settings (i.e., online, onsite and/or hybrid) and situations.</p>	<p>A1 M2 Lesson 7: Low-Flow Showerhead A1 M3 Lesson 18: Piecewise Linear Functions in Context A1 M4 Lesson 9: Creating and Solving Quadratic Equations in One Variable A1 M5 Lesson 6: Representations of Arithmetic and Geometric Sequences A1 M6 Lesson 3: Populations of US Cities</p>
<p>HS.CC.3 Evaluate competing solutions or arguments in a systematic way based on qualitative and/or quantitative evidence.</p>	<p>A1 M1 Lesson 24: Comparing Distributions of Univariate Data A1 M2 Lesson 2: Graphing Linear Equations in Two Variable A1 M4 Lesson 21: Completing the Square to Graph Quadratic Functions A1 M5 Lesson 13: Using Transformations to Graph Exponential Functions (Bases Between 0 and 1) A1 M5 Lesson 18: Modeling Populations</p>

Integrated STEM

Data Analysis and Measurement

Indiana Academic Standards: Integrated STEM

Aligned Components of *Eureka Math*²

<p>HS.DM.1</p> <p>Use multiple systems of measurement (i.e., standard and metric) and data sets (e.g., plots, tables, graphs, charts) defined in course-level content standards to analyze real-world scenarios and the mathematical relationships represented by the data.</p>	<p>A1 M1 Lesson 14: Solution Sets of Compound Statements</p> <p>A1 M1 Lesson 17: Solving Absolute Value Inequalities</p> <p>A1 M2 Lesson 1: Solution Sets of Linear Equations in Two Variables</p> <p>A1 M2 Lesson 21: Analyzing Bivariate Quantitative Data</p> <p>A1 M3 Lesson 13: Mars Curiosity Rover</p>
<p>HS.DM.2</p> <p>Construct visual representations or conduct statistical analyses defined in course-level content standards.</p>	<p>A1 M1 Lesson 20: Describing the Center of a Distribution</p> <p>A1 M1 Lesson 21: Using Center to Compare Data Distributions</p> <p>A1 M1 Lesson 22: Describing Variability in a Univariate Distribution with Standard Deviation</p> <p>A1 M2 Lesson 22: Summarizing Bivariate Categorical Data with Two-Way Tables</p> <p>A1 M2 Lesson 23: Bivariate Categorical Data and Conditional Relative Frequency Tables</p>
<p>HS.DM.3</p> <p>Use approximations and evaluate reasonableness of observations, results, and solutions throughout processes.</p>	<p>A1 M1 Lesson 20: Describing the Center of a Distribution</p> <p>A1 M2 Lesson 16: Using Lines to Model Bivariate Quantitative Data</p> <p>A1 M3 Lesson 14: Modeling Elevation as a Function of Time</p> <p>A1 M5 Lesson 9: Unit Fraction Exponents</p> <p>A1 M5 Lesson 21: World Population Prediction</p>

Integrated STEM

Inquiry-Based Approaches and Problem Solving

Indiana Academic Standards: Integrated STEM	Aligned Components of <i>Eureka Math</i> ²
<p>HS.IPS.1</p> <p>Conduct or extend an original investigation, analyze results, iterate, and revise to improve the design.</p>	<p>A1 M1 Lesson 7: Printing Presses</p> <p>A1 M2 Lesson 7: Low-Flow Showerhead</p> <p>A1 M3 Lesson 13: Mars Curiosity Rover</p> <p>A1 M4 Lesson 25: Maximizing Area</p> <p>A1 M4 Lesson 27: Search and Rescue Helicopter</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 23: Modeling the Temperature of Objects Cooling Over Time</p> <p>A1 M5 Lesson 24: Modeling an Invasive Species Population</p> <p>A1 M6 Lesson 1: Analyzing Paint Splatters</p> <p>A1 M6 Lesson 3: Populations of US Cities</p> <p>A1 M6 Lesson 4: The Deal</p> <p>A1 M6 Lesson 5: Solar System Models</p> <p>A1 M6 Lesson 6: Designing a Fundraiser</p> <p>A1 M6 Lesson 7: World-Record Doughnut</p>

**Indiana Academic Standards:
Integrated STEM**

Aligned Components of *Eureka Math*²

<p>HS.IPS.2</p> <p>Determine one or more viable solutions using data and information to resolve a scenario given criteria and constraints.</p>	<p>A1 M1 Lesson 7: Printing Presses</p> <p>A1 M2 Lesson 7: Low-Flow Showerhead</p> <p>A1 M3 Lesson 13: Mars Curiosity Rover</p> <p>A1 M4 Lesson 25: Maximizing Area</p> <p>A1 M4 Lesson 27: Search and Rescue Helicopter</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 23: Modeling the Temperature of Objects Cooling Over Time</p> <p>A1 M5 Lesson 24: Modeling an Invasive Species Population</p> <p>A1 M6 Lesson 1: Analyzing Paint Splatters</p> <p>A1 M6 Lesson 3: Populations of US Cities</p> <p>A1 M6 Lesson 4: The Deal</p> <p>A1 M6 Lesson 5: Solar System Models</p> <p>A1 M6 Lesson 6: Designing a Fundraiser</p> <p>A1 M6 Lesson 7: World-Record Doughnut</p>
<p>HS.IPS.3</p> <p>Integrate processes and methodologies across disciplines based on content specific standards to incorporate multiple sources of evidence to support defining a solution.</p>	<p><i>Supplemental material is necessary to address this standard.</i></p>

Indiana Academic Standards: Integrated STEM	Aligned Components of <i>Eureka Math</i> ²
<p>HS.IPS.4</p> <p>Evaluate data analysis to determine alignment to the construct, validity and/or reliability concerns.</p>	<p>A1 M2 Lesson 20: Interpreting Correlation</p> <p>A1 M2 Lesson 21: Analyzing Bivariate Quantitative Data</p> <p>A1 M2 Lesson 24: Conditional Relative Frequencies and Association</p>
<p>HS.IPS.5</p> <p>Design and conduct surveys or experiments minimizing bias and defining limitations of the data set used for analysis (e.g., measurement error, sample selection).</p>	<p>8 Data Investigation: Crash Impact</p> <p>A1 Data Investigation: Driving Dangers</p> <p>A1 Data Investigation: Carbon in Trees</p> <p>A1 Data Investigation: Organ Donation</p> <p><i>Supplemental material is needed to address minimizing bias.</i></p>

Integrated STEM
Applications and Modeling

Indiana Academic Standards: Integrated STEM	Aligned Components of <i>Eureka Math</i> ²
<p>HS.AM.1</p> <p>Interpret and evaluate relationships among data sets.</p>	<p>A1 M2 Lesson 1: Solution Sets of Linear Equations in Two Variables</p> <p>A1 M2 Lesson 11: Applications of Systems of Equations</p> <p>A1 M2 Lesson 16: Using Lines to Model Bivariate Quantitative Data</p> <p>A1 M2 Lesson 21: Analyzing Bivariate Quantitative Data</p> <p>A1 M2 Lesson 22: Summarizing Bivariate Categorical Data with Two-Way Tables</p> <p>A1 M2 Lesson 23: Bivariate Categorical Data and Conditional Relative Frequency Tables</p>

**Indiana Academic Standards:
Integrated STEM**

Aligned Components of *Eureka Math*²

<p>HS.AM.2</p> <p>Create advanced models (e.g., mathematical models, computer simulations) to represent and explain natural and designed systems, defined in course-level content standards.</p>	<p>A1 M3 Lesson 13: Mars Curiosity Rover</p> <p>A1 M6 Lesson 3: Populations of US Cities</p> <p>A1 M6 Lesson 6: Designing a Fundraiser</p> <p>A1 M6 Lesson 7: World Record Doughnut</p>
<p>HS.AM.3</p> <p>Use evidence-based models to describe relationships between systems or between components of a single system.</p>	<p>A1 M2 Lesson 15: Relationships Between Quantitative Variables</p> <p>A1 M2 Lesson 17: Modeling Relationships with a Line</p> <p>A1 M2 Lesson 19: Analyzing Residuals</p> <p>A1 M5 Lesson 24: Modeling an Invasive Species Population</p> <p>A1 M6 Lesson 1: Analyzing Paint Splatters</p>
<p>HS.AM.4</p> <p>Demonstrate the use of computational, graphical, virtual, mathematical, and/or physical modeling to identify conflicting considerations before the entire system or solution is developed.</p>	<p>A1 M6 Lesson 5: Solar System Models</p> <p>A1 M6 Lesson 6: Designing a Fundraiser</p> <p>A1 M6 Lesson 7: World Record Doughnut</p>

Integrated STEM

Information and Digital Literacy

Indiana Academic Standards: Integrated STEM

Aligned Components of *Eureka Math*²

<p>HS.IDL.1</p> <p>Analyze tradeoffs of using a variety of tools to solve a given problem including technology.</p>	<p><i>Supplemental material is necessary to address this standard.</i></p>
<p>HS.IDL.2</p> <p>Review and compile information from multiple sources, including sources generated by the student, to solve a problem.</p>	<p>A1 Data Investigation: Driving Dangers A1 Data Investigation: Carbon in Trees A1 Data Investigation: Organ Donation</p> <p><i>Supplemental material is necessary to fully address this standard.</i></p>
<p>HS.IDL.3</p> <p>Evaluate the potential impact (short and/or long-term) of different technology solutions on society and the environment.</p>	<p><i>Supplemental material is necessary to address this standard.</i></p>