Algebra I | Wisconsin Standards for Mathematics (2021) Correlation to *Eureka Math²® (2027)*

Eureka Math² 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 Math²* 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 Math² 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 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 into the teacher materials.

Accessibility

Eureka Math² 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 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.

Math Confidence

Eureka Math² 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.

Standards for Mathematical Practice	Aligned Components of *Eureka Math²*
Math Practice 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.
Math Practice 2: Reason abstractly and quantitatively.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
Math Practice 3: Construct viable arguments, and appreciate 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.
Math Practice 4: Model with mathematics.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
Math Practice 5: Use appropriate tools strategically.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
Math Practice 6: Attend to precision.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
Math Practice 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.
Math Practice 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.

The Real Number System

A. Extend the properties of exponents to rational exponents.

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.N.RN.A.1 Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents.	A1 M5 Lesson 9: Unit Fraction Exponents A1 M5 Lesson 10: Rational Exponents
M.N.RN.A.2 Rewrite expressions involving radicals and rational exponents using the properties of exponents.	A1 M5 Lesson 9: Unit Fraction Exponents A1 M5 Lesson 10: Rational Exponents

The Real Number System

B. Use properties of rational and irrational numbers.

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.N.RN.B.3 Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational.	A1 M4 Lesson 13: Using Square Roots to Solve Quadratic Equations A1 M4 Lesson 17: Rewriting Square Roots

Quantities

A. Reason quantitatively and use units to solve problems.

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.N.Q.A.1 Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.	A1 M6 Lesson 5: Solar System Models
M.N.Q.A.2 Define appropriate quantities for the purpose of descriptive modeling.	A1 M4 Lesson 25: Maximizing Area A1 M6 Lesson 5: Solar System Models
M.N.Q.A.3 Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.	A1 M6 Lesson 5: Solar System Models A1 M6 Lesson 6: Polynomial Identities

Seeing Structure in Expressions

A. Interpret the structure of expressions.

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.A.SSE.A.1 Interpret expressions that represent a quantity in terms of its context.	*This standard is fully addressed by the lessons aligned to its subsections.*
M.A.SSE.A.1.a Interpret parts of an expression, such as terms, factors, and coefficients.	A1 M4 Lesson 3: Analyzing Functions That Model Projectile Motion
M.A.SSE.A.1.b Interpret complicated expressions by viewing one or more of their parts as a single entity.	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

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.A.SSE.A.2 Use the structure of an expression to identify ways to rewrite it.	A1 M1 Lesson 1: The Growing Pattern of Ducks A1 M1 Lesson 2: The Commutative, Associative, and Distributive Properties A1 M1 Lesson 3: Polynomial Expressions A1 M4 Lesson 3: Analyzing Functions That Model Projectile Motion A1 M4 Lesson 5: Solving Equations That Contain Factored Expressions A1 M4 Lesson 6: Solving Quadratic Equations by Factoring: Identities and Guess and Check A1 M4 Lesson 7: Solving Quadratic Equations by Factoring: Splitting the Linear Term 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

Seeing Structure in Expressions

B. Write expressions in equivalent forms to solve problems.

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.A.SSE.B.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.	*This standard is fully addressed by the lessons aligned to its subsections.*
M.A.SSE.B.3.a Factor a quadratic expression to reveal the zeros of the function it defines.	A1 M4 Lesson 10: Zeros of Functions A1 M4 Lesson 11: Graphing Quadratic Functions from Factored Form A1 M4 Lesson 22: A Summary of Graphing Quadratic Functions
M.A.SSE.B.3.b Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines.	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 12: Using Symmetry to Graph Quadratic functions from Standard Form A1 M4 Lesson 21: Completing the Square to Graph Quadratic Functions A1 M4 Lesson 22: A Summary of Graphing Quadratic Functions
M.A.SSE.B.3.c Use the properties of exponents to transform expressions for exponential 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 18: Modeling Populations

Arithmetic with Polynomials and Rational Expressions

A. Perform arithmetic operations on polynomials.

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.A.APR.A.1 Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.	A1 M1 Lesson 3: Polynomial Expressions A1 M1 Lesson 4: Adding and Subtracting Polynomial Expressions A1 M1 Lesson 5: Multiplying Polynomial Expressions A1 M1 Lesson 6: Polynomial Identities

Creating Equations

A. Create equations that describe numbers or relationships.

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.A.CED.A.1 Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions. (F2Y)	A1 M1 Lesson 7: Printing Presses A1 M1 Lesson 11: Writing and Solving Equations in One Variable A1 M1 Lesson 13: Solving Linear Inequalities in One Variable A1 M1 Lesson 14: Solution Sets of Compound Statements A1 M1 Lesson 15: Solving and Graphing Compound Inequalities A1 M1 Lesson 16: Solving Absolute Value Equations A1 M1 Lesson 17: Absolute Value Inequalities A1 M1 Lesson 18: Applying Absolute Value A1 M4 Lesson 9: Creating and Solving Quadratic Equations in One Variable

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.A.CED.A.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.	A1 M2 Lesson 1: Solution Sets of Linear Equations in Two Variables A1 M2 Lesson 2: Graphing Linear Equations in Two Variables A1 M2 Lesson 3: Creating Linear Equations in Two Variables A1 M2 Lesson 6: Applications of Linear Equations and Inequalities 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 23: Creating Equations of Quadratic Functions to Model Contexts A1 M4 Lesson 25: Maximizing Area A1 M4 Lesson 26: Modeling Data with Quadratic Functions A1 M4 Lesson 27: Search and Rescue Helicopter
M.A.CED.A.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context.	A1 M1 Lesson 11: Writing and Solving Equations in One Variable A1 M1 Lesson 14: Solution Sets of Compound Statements A1 M1 Lesson 15: Solving and Graphing Compound Inequalities A1 M2 Lesson 1: Solution Sets of Linear Equations in Two Variables A1 M2 Lesson 6: Applications of Linear Equations and Inequalities A1 M6 Lesson 5: Solar System Models
M.A.CED.A.4 Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations.	A1 M1 Lesson 12: Rearranging Formulas A1 M4 Lesson 13: Using Square Roots to Solve Quadratic Equations

Reasoning with Equations and Inequalities

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

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.A.REI.A.1 Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.	A1 M1 Lesson 9: Solving Linear Equations in One Variable A1 M1 Lesson 10: Some Potential Dangers When Solving Equations A1 M1 Lesson 11: Writing and Solving Equations in One Variable

Reasoning with Equations and Inequalities

B. Solve equations and inequalities in one variable.

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.A.REI.B.3 Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. (F2Y)	A1 M1 Lesson 7: Printing Presses A1 M1 Lesson 8: Solution Sets for Equations and Inequalities in One Variable A1 M1 Lesson 9: Solving Linear Equations in One Variable A1 M1 Lesson 10: Some Potential Dangers When Solving Equations A1 M1 Lesson 11: Writing and Solving Equations in One Variable A1 M1 Lesson 13: Solving Linear Inequalities in One Variable A1 M1 Lesson 14: Solution Sets of Compound Statements A1 M1 Lesson 15: Solving and Graphing Compound Inequalities A1 M1 Lesson 16: Solving Absolute Value Equations A1 M1 Lesson 17: Solving Absolute Value Inequalities A1 M1 Lesson 18: Applying Absolute Value

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.A.REI.B.4 Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula, factoring, and graphing as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b. (F2Y)	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 5: Solving Equations That Contain Factored Expressions A1 M4 Lesson 6: Solving Quadratic Equations by Factoring: Identities and Guess and Check A1 M4 Lesson 7: Solving Quadratic Equations by Factoring: Splitting the Linear Term 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 12: Using Symmetry to Graph Quadratic functions from Standard Form A1 M4 Lesson 13: Using Square Roots to Solve Quadratic Equations A1 M4 Lesson 14: Solving Quadratic Equations by Completing the Square A1 M4 Lesson 15: Deriving the Quadratic Formula A1 M4 Lesson 16: Solving Quadratic Equations A1 M4 Lesson 18: The Quadratic Formula and Zeros of a Function

Reasoning with Equations and Inequalities

C. Solve systems of equations.

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.A.REI.C.5 Justify that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.	A1 M2 Lesson 9: A New Way to Solve Systems
M.A.REI.C.6 Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.	A1 M2 Lesson 7: Low-Flow Showerhead A1 M2 Lesson 8: Systems of Linear Equations in Two Variables A1 M2 Lesson 9: A New Way to Solve Systems A1 M2 Lesson 10: The Elimination Method A1 M2 Lesson 11: Applications of Systems of Equations
M.A.REI.C.7 Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically.	A1 M4 Lesson 24: Another Look at Systems of Equations

Reasoning with Equations and Inequalities

D. Represent and solve equations and inequalities graphically.

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.A.REI.D.10 Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).	A1 M2 Lesson 1: Solution Sets of Linear Equations in Two Variables A1 M2 Lesson 2: Graphing Linear Equations in Two Variables
M.A.REI.D.11 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 $f(x) = g(x)$; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations.	A1 M3 Lesson 11: Using Graphs to Solve Equations A1 M3 Lesson 16: The Absolute Value Function A1 M4 Lesson 24: Another Look at Systems of Equations A1 M5 Lesson 13: Using Transformations to Graph Exponential Functions (Bases Between 0 and 1) A1 M5 Lesson 20: Comparing Growth of Functions
M.A.REI.D.12 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.	A1 M2 Lesson 4: Solution Sets of Linear Inequalities 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 13: Graphing Solution Sets of Systems of Linear Inequalities A1 M2 Lesson 14: Applications of Systems of Linear Inequalities A1 M6 Lesson 5: Solar System Models

Interpreting Functions

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

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.F.IF.A.1 Understand that a function from one set, discrete or continuous, (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range.	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 7: Inverses of Linear Functions
M.F.IF.A.2 Use function notation, evaluate functions. and interpret statements that use function notation in terms of a context.	A1 M3 Lesson 1: The Definition of a Function A1 M3 Lesson 2: Representing, Naming, and Evaluating Functions A1 M3 Lesson 6: Representations of Functions A1 M3 Lesson 17: Step Functions A1 M5 Lesson 1: Exploring Patterns A1 M5 Lesson 2: The Recursive Challenge A1 M5 Lesson 3: Recursive Formulas for Sequences A1 M5 Lesson 4: Explicit Formulas for Sequences A1 M5 Lesson 7: Sierpinski Triangle

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.F.IF.A.3 Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers.	A1 M5 Lesson 1: Exploring Patterns A1 M5 Lesson 2: The Recursive Challenge A1 M5 Lesson 3: Recursive Formulas for Sequences A1 M5 Lesson 4: Explicit Formulas for Sequences A1 M5 Lesson 5: Arithmetic and Geometric Sequences A1 M5 Lesson 6: Representations of Arithmetic and Geometric Sequences

Interpreting Functions

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

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.F.IF.B.4 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. (F2Y)	A1 M3 Lesson 8: Exploring Key Features of a Function and Its Graph A1 M3 Lesson 9: Identifying Key Features of a Function and Its Graph A1 M3 Lesson 10: Representing Functions from Verbal Descriptions A1 M3 Lesson 12: Comparing Functions A1 M3 Lesson 13: Mars Curiosity Rover A1 M3 Lesson 14: Modeling Elevation as a Function of Time 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 11: Graphing Quadratic Functions from Factored Form A1 M4 Lesson 12: Using Symmetry to Graph Quadratic Functions from Standard Form 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 25: Maximizing Area

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.F.IF.B.5 Relate the domain of a function to its graph and find an appropriate domain (discrete or continuous) in the context of the given problem.	A1 M3 Lesson 3: The Graph of a Function A1 M3 Lesson 14: Modeling Elevation as a Function of Time A1 M3 Lesson 17: Step Functions 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
M.F.IF.B.6 Calculate and interpret the average rate of change of a linear or nonlinear function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.	A1 M4 Lesson 1: Falling Objects A1 M4 Lesson 3: Analyzing Functions That Model Projectile Motion A1 M4 Lesson 12: Using Symmetry to Graph Quadratic Functions from Standard Form A1 M5 Lesson 19: Analyzing Exponential Growth A1 M5 Lesson 20: Comparing Growth of Functions A1 M5 Lesson 24: Modeling an Invasive Species Population

Interpreting Functions

C. Analyze functions using different representations.

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.F.IF.C.7 Graph functions expressed symbolically and show key features of the graph using an efficient method.	*This standard is fully addressed by the lessons aligned to its subsections.*

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.F.IF.C.7.a Graph linear and quadratic functions and show intercepts, maxima, and minima; and exponential functions, showing intercepts and end behavior.	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 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 23: Creating Equations of Quadratic Functions to Model Contexts A1 M5 Lesson 11: Graphing Exponential Functions A1 M5 Lesson 12: Using Transformations to Graph Exponential Functions (Bases Greater Than 1) A1 M5 Lesson 13: Using Transformations to Graph Exponential Functions (Bases Between 0 and 1)
M.F.IF.C.7.b Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.	A1 M3 Lesson 14: Modeling Elevation as a Function of Time A1 M3 Lesson 15: Piecewise Linear Functions 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
M.F.IF.C.8 Write a function defined by an expression in equivalent forms to reveal and explain different properties of the function.	*This standard is fully addressed by the lessons aligned to its subsections.*

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.F.IF.C.8.a Use an efficient process to rewrite $f(x) = ax^2 + bx + c$ as $f(x) = a(x - h)^2 + k$ or $f(x) = a(x - p)(x - q)$ to determine the characteristics of the function and interpret these in terms of a context.	A1 M4 Lesson 10: Zeros of Functions A1 M4 Lesson 11: Graphing Quadratic Functions from Factored Form A1 M4 Lesson 22: A Summary of Graphing Quadratic Functions
M.F.IF.C.8.b Use the properties of exponents to interpret expressions for exponential 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 18: Modeling Populations
M.F.IF.C.9 Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).	A1 M3 Lesson 11: Using Graphs to Solve Equations A1 M4 Lesson 12: Using Symmetry to Graph Quadratic Functions from Standard Form A1 M4 Lesson 21: Completing the Square to Graph Quadratic Functions

Building Functions

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

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.F.BF.A.1 Write a function that describes a relationship between two quantities.	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 12: Using Symmetry to Graph Quadratic functions from Standard Form A1 M6 Lesson 5: Solar System Models

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.F.BF.A.1.a Determine an explicit expression, a recursive process, or steps for calculation from a context.	A1 M3 Lesson 18: Piecewise Linear Functions in Context A1 M4 Lesson 23: Creating Equations of Quadratic Functions to Model Contexts A1 M4 Lesson 25: Maximizing Area A1 M4 Lesson 26: Modeling Data with Quadratic Functions A1 M4 Lesson 27: Search and Rescue Helicopter A1 M5 Lesson 1: Exploring Patterns A1 M5 Lesson 2: The Recursive Challenge A1 M5 Lesson 3: Recursive Formulas for Sequences A1 M5 Lesson 4: Explicit Formulas for Sequences A1 M5 Lesson 5: Arithmetic and Geometric Sequences A1 M5 Lesson 6: Representation of Arithmetic and Geometric Sequences A1 M5 Lesson 7: Sierpinski Triangle A1 M5 Lesson 8: Exponential Functions A1 M5 Lesson 15: Calculating Interest A1 M6 Lesson 4: The Deal A1 M6 Lesson 5: Solar System Models A1 M6 Lesson 6: Designing a Fundraiser A1 M6 Lesson 7: World Record Doughnut
M.F.BF.A.1.b Combine standard function types using arithmetic operations.	A1 M6 Lesson 4: The Deal A1 M6 Lesson 6: Designing a Fundraiser A1 M6 Lesson 7: World Record Doughnut

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.F.BF.A.2 Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.	A1 M5 Lesson 5: Arithmetic and Geometric Sequences A1 M5 Lesson 6: Representations of Arithmetic and Geometric Sequences A1 M5 Lesson 7: Sierpinski Triangle

Building Functions

B. Build new functions from existing functions.

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.F.BF.B.3 Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $kf(x)$, $f(kx)$, and $f(x + k)$ using transformations for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them.	A1 M3 Lesson 19: Exploring Transformations of the Graphs of Functions A1 M3 Lesson 20: Building New Functions—Translations A1 M3 Lesson 21: Building New Functions —Reflections A1 M3 Lesson 22: Building New Functions—Vertical Scaling A1 M3 Lesson 23: Building New Functions—Horizontal Scaling A1 M3 Lesson 24: A Summary of Transforming the Graph of a Function A1 M4 Lesson 20: Art with Transformations A1 M5 Lesson 12: Using Transformations to Graph Exponential Functions (Bases Greater Than 1) A1 M5 Lesson 13: Using Transformations to Graph Exponential Functions (Bases Between 0 and 1) A1 M5 Lesson 14: Writing Equations for Exponential Functions from Tables or Graphs A1 M5 Lesson 23: Modeling the Temperature of Objects Cooling Over Time

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.F.BF.B.4 Identify and create inverse functions, using tables, graphs, and symbolic methods to solve for the other variable. (F2Y)	A1 M3 Lesson 7: Inverses of Linear Functions

Linear, Quadratic, and Exponential Models

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

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.F.LE.A.1 Distinguish between situations that can be modeled with linear functions and with exponential functions.	A1 M6 Lesson 1: Analyzing Paint Splatters A1 M6 Lesson 2: Using Residual Plots to Select Models for Data A1 M6 Lesson 3: Populations of US Cities
M.F.LE.A.1.a Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals.	A1 M5 Lesson 19: Analyzing Exponential Growth
M.F.LE.A.1.b Recognize situations in which one quantity changes at a constant rate per unit interval relative to another. (F2Y)	A1 M5 Lesson 15: Calculating Interest A1 M5 Lesson 18: Modeling Populations A1 M5 Lesson 21: World Population Prediction A1 M5 Lesson 22: A Closer Look at Populations A1 M5 Lesson 24: Modeling an Invasive Species Population

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.F.LE.A.1.c Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another. (F2Y)	A1 M5 Lesson 15: Calculating Interest A1 M5 Lesson 18: Modeling Populations A1 M5 Lesson 21: World Population Prediction A1 M5 Lesson 22: A Closer Look at Populations A1 M5 Lesson 24: Modeling an Invasive Species Population
M.F.LE.A.2 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).	A1 M5 Lesson 8: Exponential Functions A1 M5 Lesson 14: Writing Equations for Exponential Functions from Tables or Graphs A1 M5 Lesson 16: Exponential Growth A1 M5 Lesson 17: Exponential Decay A1 M5 Lesson 21: World Population Prediction A1 M5 Lesson 22: A Closer Look at Populations A1 M5 Lesson 23: Modeling the Temperature of Objects Cooling Over Time A1 M5 Lesson 24: Modeling an Invasive Species Population A1 M6 Lesson 4: The Deal A1 M6 Lesson 5: Solar System Models A1 M6 Lesson 6: Designing a Fundraiser A1 M6 Lesson 7: World Record Doughnut
M.F.LE.A.3 Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.	A1 M5 Lesson 20: Comparing Growth of Functions

Linear, Quadratic, and Exponential Models

B. Interpret expressions for functions in terms of the situation they model.

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.F.LE.B.5 Interpret the parameters in a linear or exponential function in terms of a context.	A1 M5 Lesson 18: Modeling Populations A1 M5 Lesson 19: Analyzing Exponential Growth A1 M5 Lesson 23: Modeling the Temperature of Objects Cooling Over Time A1 M5 Lesson 24: Modeling an Invasive Species Population

Interpreting Categorical and Quantitative Data

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

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.SP.ID.A.1 Represent data with plots on the real number line (dot plots, histograms, and box plots).	A1 M1 Lesson 19: Distributions and Their Shapes A1 M1 Lesson 20: Describing the Center of a Distribution A1 M1 Lesson 21: Using Center to Compare Data Distributions
M.SP.ID.A.2 Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.	A1 M1 Lesson 19: Distributions and Their Shapes A1 M1 Lesson 20: Describing the Center of a Distribution A1 M1 Lesson 21: Using Center to Compare Data Distributions A1 M1 Lesson 22: Describing Variability in a Univariate Distribution with Standard Deviation A1 M1 Lesson 23: Estimating Variability in Data Distributions A1 M1 Lesson 24: Comparing Distributions of Univariate Data

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.SP.ID.A.3 Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).	A1 M1 Lesson 19: Distributions and Their Shapes A1 M1 Lesson 20: Describing the Center of a Distribution A1 M1 Lesson 21: Using Center to Compare Data Distributions A1 M1 Lesson 22: Describing Variability in a Univariate Distribution with Standard Deviation A1 M1 Lesson 23: Estimating Variability in Data Distributions A1 M1 Lesson 24: Comparing Distributions of Univariate Data

Interpreting Categorical and Quantitative Data

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

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.SP.ID.B.5 Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies as examples of proportionality and disproportionality). Recognize possible associations and trends in the data.	A1 M2 Lesson 22: Summarizing Bivariate Categorical Data with Two-Way Tables A1 M2 Lesson 23: Bivariate Categorical Data and Conditional Relative Frequency Tables A1 M2 Lesson 24: Conditional Relative Frequencies and Association
M.SP.ID.B.6 Represent data on two quantitative variables on a scatter plot and describe how the variables are related.	A1 M2 Lesson 15: Relationships Between Quantitative Variables A1 M2 Lesson 21: Analyzing Bivariate Quantitative Data

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.SP.ID.B.6.a Fit a function to the data; use functions fitted to data to solve problems in the context of the data. Use given functions or choose a function suggested by the context. Emphasize appropriate families of functions to model.	A1 M2 Lesson 16: Using Lines to Model Bivariate Quantitative Data A1 M2 Lesson 17: Modeling Relationships with a Line A1 M4 Lesson 23: Creating Equations of Quadratic Functions to Model Contexts A1 M4 Lesson 26: Modeling Data with Quadratic Functions A1 M4 Lesson 27: Search and Rescue Helicopter A1 M6 Lesson 1: Analyzing Paint Splatters A1 M6 Lesson 2: Using Residual Plots to Select Models for Data A1 M6 Lesson 3: Populations of US Cities
M.SP.ID.B.6.b Informally assess the fit of a function by plotting and analyzing residuals.	A1 M2 Lesson 18: Calculating and Analyzing Residuals A1 M2 Lesson 19: Analyzing Residuals A1 M6 Lesson 1: Analyzing Paint Splatters A1 M6 Lesson 2: Using Residual Plots to Select Models for Data A1 M6 Lesson 3: Populations of US Cities
M.SP.ID.B.6.c Fit a linear function for a scatter plot that suggests a linear association.	A1 M2 Lesson 17: Modeling Relationships with a Line A1 M2 Lesson 18: Calculating and Analyzing Residuals A1 M2 Lesson 20: Interpreting Correlation A1 M6 Lesson 1: Analyzing Paint Splatters A1 M6 Lesson 2: Using Residual Plots to Select Models for Data A1 M6 Lesson 3: Populations of US Cities

Interpreting Categorical and Quantitative Data

C. Interpret linear models.

Wisconsin Standards for Mathematics	Aligned Components of *Eureka Math²*
M.SP.ID.C.7 Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.	A1 M2 Lesson 16: Using Lines to Model Bivariate Quantitative Data A1 M2 Lesson 21: Analyzing Bivariate Quantitative Data
M.SP.ID.C.8 Use technology to create a correlation coefficient for a linear fit and then interpret its meaning for the model.	A1 M2 Lesson 20: Interpreting Correlation A1 M2 Lesson 21: Analyzing Bivariate Quantitative Data
M.SP.ID.C.9 Distinguish between correlation and causation.	A1 M2 Lesson 20: Interpreting Correlation A1 M2 Lesson 21: Analyzing Bivariate Quantitative Data