Grade 5 | Oklahoma Academic Standards for Mathematics
Correlation to *Eureka Math²*®

When the original *Eureka Math*® curriculum was released, it quickly became the most widely used K–5 mathematics curriculum in the country. Now, the Great Minds® teacher–writers have created *Eureka Math²*®, a groundbreaking new curriculum that helps teachers deliver exponentially better math instruction while still providing students with the same deep understanding of and fluency in math. *Eureka Math²* carefully sequences mathematical content to maximize vertical alignment—a principle tested and proven to be essential in students' mastery of math—from kindergarten through high school.

While this innovative new curriculum includes all the trademark *Eureka Math* aha moments that have been delighting students and teachers for years, it also boasts these exciting new features:

Teachability

Eureka Math² employs streamlined materials that allow teachers to plan more efficiently and focus their energy on delivering high-quality instruction that meets the individual needs of their students. Differentiation suggestions, slide decks, digital interactives, and multiple forms of assessment are just a few of the resources built right into the teacher materials.

Accessibility

Eureka Math² incorporates Universal Design for Learning principles so all learners can access the mathematics and take on challenging math concepts. Student supports are built into the instructional design and are clearly identified in the *Teach* book. Further, the curriculum carries a focus on readability. By eliminating unnecessary words and using simple, clear sentences, the *Eureka Math²* teacher–writers have created one of the most readable mathematics curricula on the market. The curriculum's readability and accessibility help all students see themselves as mathematical thinkers and doers who are fully capable of owning their mathematics learning.

Digital Engagement

The digital elements of *Eureka Math²* add to students' engagement with the math. The curriculum provides teachers with digital slides for each lesson. In addition, each grade level includes wordless videos that spark students' interest and curiosity. Students at all levels work through mathematical explorations that help lead to their own mathematical discoveries. Digital lessons and videos provide opportunities for students to wonder, explore, and make sense of mathematics, which contributes to the development of a strong, positive mathematical identity.

Mathematical Actions and Processes	Aligned Components of *Eureka Math²*
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

5.N.1 Read, write, represent, and compare fractions and decimals; recognize and write equivalent fractions; convert between fractions and decimals; use fractions and decimals in real-world and mathematical situations.

Oklahoma Academic Standards for Mathematics	Aligned Components of *Eureka Math²*
5.N.1.1 Represent decimal fractions (e.g., $\frac{1}{10}$, $\frac{1}{100}$) using a variety of models (e.g., 10 by 10 grids, base-ten blocks, meter stick) and show the rational number relationships among fractions, decimals and whole numbers.	4 M5 Topic A: Exploration of Tenths 4 M5 Topic B: Tenths and Hundredths
5.N.1.2 Read, write, and represent decimals using place value to describe decimal numbers including fractional numbers as small as thousandths and whole numbers up to seven digits.	4 M1 Lesson 7: Write numbers to 1,000,000 in unit form and expanded form by using place value structure. 4 M1 Lesson 8: Write numbers to 1,000,000 in standard form and word form. 4 M1 Lesson 10: Name numbers by using place value understanding. 5 M4 Lesson 1: Model and relate decimal place value units to thousandths. 5 M4 Lesson 2: Represent thousandths as a place value unit. 5 M4 Lesson 3: Represent decimal numbers to the thousandths place in different forms.
5.N.1.3 Compare and order decimals and fractions, including mixed numbers and fractions less than one, and locate on a number line.	4 M4 Topic C: Compare Fractions 4 M5 Lesson 11: Compare and order decimal numbers. 5 M4 Lesson 6: Compare decimal numbers to the thousandths place.
5.N.1.4 Recognize and generate equivalent terminating decimals, fractions, mixed numbers, and fractions in various models.	4 M4 Topic B: Equivalent Fractions 4 M5 Topic B: Tenths and Hundredths

Numbers & Operations

5.N.2 Divide multi-digit numbers and solve real-world and mathematical problems using arithmetic.

Oklahoma Academic Standards for Mathematics	Aligned Components of *Eureka Math²*
5.N.2.1 Estimate solutions to division problems to assess the reasonableness of results.	5 M1 Lesson 12: Divide two- and three-digit numbers by multiples of 10. 5 M1 Lesson 13: Divide two-digit numbers by two-digit numbers resulting in one-digit quotients. 5 M1 Lesson 16: Divide four-digit numbers by two-digit numbers.
5.N.2.2 Divide multi-digit numbers, by one- and two-digit divisors, based on knowledge of place value, including but not limited to standard algorithms.	4 M2 Lesson 2: Divide two- and three-digit multiples of 10 by one-digit numbers. 4 M2 Topic C: Division of Tens and Ones by One-Digit Numbers 4 M3 Lesson 1: Divide multiples of 100 and 1,000. 4 M3 Topic B: Division of Thousands, Hundreds, Tens, and Ones 4 M3 Lesson 21: Find whole-number quotients and remainders. 4 M3 Lesson 22: Represent, estimate, and solve division word problems. 5 M1 Topic C: Division of Whole Numbers
5.N.2.3 Recognize that remainders can be represented in a variety of ways, including a whole number, fraction, or decimal. Determine the most meaningful form of a remainder based on the context of the problem.	5 M1 Lesson 2: Interpret a fraction as division by writing remainders as fractions. 6 M2 Lesson 17: Partial Quotients 6 M2 Lesson 18: The Standard Division Algorithm 6 M2 Lesson 19: Expressing Quotients as Decimals 6 M2 Lesson 20: Real-World Division Problems

Oklahoma Academic Standards for Mathematics	Aligned Components of *Eureka Math²*
5.N.2.4 Construct models to solve multi-digit whole number problems requiring addition, subtraction, multiplication, and division using various representations, including the inverse relationships between operations, the use of technology, and the context of the problem to assess the reasonableness of results.	4 M1 Lesson 17: Solve multi-step addition word problems by using the standard algorithm. 4 M1 Lesson 21: Solve two-step word problems by using addition and subtraction. 4 M1 Lesson 22: Solve multi-step word problems by using addition and subtraction. 4 M3 Topic F: Remainders, Estimating, and Problem Solving 5 M1 Lesson 4: Estimate products and quotients by using powers of 10 and their multiples. 5 M1 Topic D: Multi-Step Problems with Whole Numbers

Numbers & Operations

5.N.3 Add and subtract fractions with like and unlike denominators, mixed numbers, and decimals to solve real-world and mathematical problems.

Oklahoma Academic Standards for Mathematics	Aligned Components of *Eureka Math²*
5.N.3.1 Estimate sums and differences of fractions with like and unlike denominators, mixed numbers, and decimals to assess the reasonableness of the results.	5 M2 Lesson 10: Add whole numbers and mixed numbers and add mixed numbers with related units. 5 M2 Lesson 12: Subtract whole numbers from mixed numbers and mixed numbers from whole numbers. 5 M2 Lesson 13: Subtract mixed numbers from mixed numbers with related units. 5 M4 Lesson 9: Add decimal numbers by using different methods. 5 M4 Lesson 12: Subtract decimal numbers by using place value understanding.

Oklahoma Academic Standards for Mathematics	Aligned Components of *Eureka Math²*
5.N.3.2 Illustrate addition and subtraction of fractions with like and unlike denominators, mixed numbers, and decimals using a variety of mathematical models (e.g., fraction strips, area models, number lines, fraction rods).	4 M4 Topic D: Add and Subtract Fractions 4 M4 Lesson 23: Add a fraction to a mixed number. 4 M4 Lesson 24: Add a mixed number to a mixed number. 4 M4 Lesson 25: Subtract a fraction from a mixed number, part 1. 4 M4 Lesson 26: Subtract a fraction from a mixed number, part 2. 4 M4 Lesson 27: Subtract a mixed number from a mixed number. 5 M2 Lesson 7: Add and subtract fractions with related units by finding equivalent fractions numerically. 5 M2 Lesson 8: Add and subtract fractions with unrelated units by finding equivalent fractions pictorially. 5 M2 Lesson 9: Add and subtract fractions with unrelated units by finding equivalent fractions numerically. 5 M2 Topic C: Addition and Subtraction of Fractions, Whole Numbers, and Mixed Numbers
5.N.3.3 Add and subtract fractions with like and unlike denominators, mixed numbers, and decimals, involving money, measurement, geometry, and data. Use various models and efficient strategies, including but not limited to standard algorithms.	5 M2 Lesson 11: Add mixed numbers with unrelated units. 5 M2 Lesson 14: Subtract mixed numbers from mixed numbers with unrelated units.

Oklahoma Academic Standards for Mathematics	Aligned Components of *Eureka Math²*
5.N.3.4 Apply mental math and knowledge of place value (no written computations) to find 0.1 more or 0.1 less than a number, 0.01 more or 0.01 less than a number, and 0.001 more or 0.001 less than a number.	*Supplemental material is necessary to address this objective.*

Algebraic Reasoning & Algebra

5.A.1 Describe and graph patterns of change created through numerical patterns.

Oklahoma Academic Standards for Mathematics	Aligned Components of *Eureka Math²*
5.A.1.1 Use tables and rules with up to two operations to describe patterns of change and make predictions and generalizations about various mathematical situations.	5 M6 Lesson 7: Generate number patterns to form ordered pairs. 5 M6 Lesson 8: Identify addition and subtraction relationships between corresponding terms in number patterns. 5 M6 Lesson 9: Identify multiplication and division relationships between corresponding terms in number patterns. 5 M6 Lesson 11: Draw lines in the coordinate plane and identify points on the lines. 5 M6 Lesson 20: Reason about patterns in real-world situations.
5.A.1.2 Use a rule or table to represent ordered pairs of whole numbers and graph these ordered pairs on a coordinate plane, identifying the origin and axes in relation to the coordinates.	5 M6 Lesson 7: Generate number patterns to form ordered pairs. 5 M6 Lesson 8: Identify addition and subtraction relationships between corresponding terms in number patterns. 5 M6 Lesson 9: Identify multiplication and division relationships between corresponding terms in number patterns. 5 M6 Lesson 11: Draw lines in the coordinate plane and identify points on the lines. 5 M6 Lesson 20: Reason about patterns in real-world situations.

Algebraic Reasoning & Algebra

5.A.2 Understand and interpret expressions, equations, and inequalities involving variables and whole numbers, and use them to represent and evaluate real-world and mathematical problems.

Oklahoma Academic Standards for Mathematics	Aligned Components of *Eureka Math²*
5.A.2.1 Generate equivalent numerical expressions and solve problems using number sense involving whole numbers by applying the commutative property, associative property, distributive property, and order of operations (excluding exponents).	5 M1 Lesson 7: Multiply by using familiar methods. 5 M1 Lesson 8: Multiply two- and three-digit numbers by two-digit numbers by using the distributive property. 5 M1 Topic D: Multi-Step Problems with Whole Numbers 5 M3 Lesson 18: Compare and evaluate expressions with parentheses. 5 M3 Lesson 22: Evaluate expressions involving nested grouping symbols. 5 M4 Lesson 29: Interpret, evaluate, and compare numerical expressions involving decimals. 5 M4 Lesson 30: Create and solve real-world problems for given numerical expressions involving decimals.
5.A.2.2 Determine whether an equation or inequality involving a variable is true or false for a given value of the variable.	6 M4 Lesson 17: Equations and Solutions 6 M4 Lesson 18: Inequalities and Solutions
5.A.2.3 Evaluate expressions involving variables when values for the variables are given.	6 M4 Lesson 8: Algebraic Expressions with Addition, Subtraction, Multiplication, and Division 6 M4 Lesson 12: Applying Properties to Multiplication and Division Expressions 6 M4 Lesson 17: Equations and Solutions

Geometry & Measurement

5.GM.1 Describe, identify, classify, and construct two- and three-dimensional figures using their geometric attributes.

Oklahoma Academic Standards for Mathematics	Aligned Components of *Eureka Math²*
5.GM.1.1 Describe, identify, classify, and construct triangles (equilateral, right, scalene, isosceles) by their attributes using various mathematical models.	4 M6 Lesson 18: Analyze and classify triangles based on side length, angle measures, or both. 4 M6 Lesson 19: Construct and classify triangles based on given attributes.
5.GM.1.2 Describe, identify, and classify three-dimensional figures (cubes, rectangular prisms, and pyramids) and their attributes (number of edges, faces, vertices, shapes of faces), given various mathematical models.	*Supplemental material is necessary to address this objective.*
5.GM.1.3 Recognize and draw a net for a three-dimensional figure (cube, rectangular prism, pyramid).	6 M5 Topic C: Nets and Surface Area

Geometry & Measurement

5.GM.2 Determine volume using the object's dimensions. Compare and analyze rectangular prisms with equivalent volume to recognize their different dimensions.

Oklahoma Academic Standards for Mathematics	Aligned Components of *Eureka Math²*
5.GM.2.1 Determine the volume of rectangular prisms by the number of unit cubes (n) used to construct the shape and by the product of the dimensions of the prism $a \cdot b \cdot c = n$. Understand rectangular prisms of different dimensions (p, q, and r) can have the same volume if $a \cdot b \cdot c = p \cdot q \cdot r = n$.	5 M5 Lesson 22: Find the volumes of right rectangular prisms by using the area of the base. 5 M5 Lesson 23: Find the volumes of right rectangular prisms by multiplying the edge lengths.
5.GM.2.2 Estimate the perimeter of polygons and create arguments for reasonable perimeter values of shapes that may include curves.	*Supplemental material is necessary to address this objective.*

Geometry & Measurement

5.GM.3 Understand angle, length, weight, and capacity as measurable attributes of real-world and mathematical objects, using various tools to measure them. Solve real-world problems of length.

Oklahoma Academic Standards for Mathematics	Aligned Components of *Eureka Math²*
5.GM.3.1 Measure and compare angles according to size using various tools.	4 M6 Topic B: Angle Measurement

Oklahoma Academic Standards for Mathematics	Aligned Components of *Eureka Math²*
5.GM.3.2 Measure the length of an object to the nearest whole centimeter or up to $\frac{1}{16}$ inch using an appropriate instrument.	*Supplemental material is necessary to address this objective.*
5.GM.3.3 Apply the relationship between inches, feet, and yards to measure, convert, and compare objects to solve problems.	5 M3 Lesson 5: Convert larger customary measurement units to smaller measurement units. 5 M3 Lesson 6: Convert smaller customary measurement units to larger measurement units. 5 M4 Lesson 28: Convert customary measurements involving decimals.
5.GM.3.4 Apply the relationship between millimeters, centimeters, and meters to measure, convert, and compare objects to solve problems.	5 M1 Lesson 5: Convert measurements and describe relationships between metric units. 5 M1 Lesson 6: Solve multi-step word problems by using metric measurement conversion. 5 M4 Lesson 26: Solve a real-world problem involving metric measurements. 5 M4 Lesson 27: Convert metric measurements involving decimals.
5.GM.3.5 Estimate lengths and geometric measurements to the nearest whole unit, using benchmarks in customary and metric measurement systems.	*Supplemental material is necessary to address this objective.*

Data & Probability
5.D.1 Create and analyze data to find the range and measures of central tendency (mean, median, mode).

Oklahoma Academic Standards for Mathematics	Aligned Components of *Eureka Math²*
5.D.1.1 Find the measures of central tendency (i.e., mean, median, mode) and range of a set of data. Understand that the mean is a "leveling out" or central balance point of the data.	6 M6 Lesson 7: Using the Mean to Describe the Center 6 M6 Lesson 8: The Mean as a Balance Point 6 M6 Lesson 12: Using the Median to Describe the Center 6 M6 Lesson 18: Connecting Graphical Representations and Summary Measures
5.D.1.2 Create and analyze line and double-bar graphs with increments of whole numbers, fractions, and decimals.	5 M6 Lesson 18: Interpret line graphs. *Supplemental material is necessary to address double-bar graphs.*