Grade 5 | Pennsylvania Core Standards 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.

Standards for Mathematical Practice	Aligned Components of *Eureka Math²*
MP.1 Make sense of problems and persevere in solving them.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.2 Reason abstractly and quantitatively.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.3 Construct viable arguments and critique the reasoning of others.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.4 Model with mathematics.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.5 Use appropriate tools strategically.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.6 Attend to precision.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.7 Look for and make use of structure.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.8 Look for and express regularity in repeated reasoning.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.

Numbers and Operations
CC.2.1.5.B Numbers and Operations in Base Ten

Pennsylvania Core Standards Mathematics	Aligned Components of *Eureka Math²*
CC.2.1.5.B.1 Apply place-value concepts to show an understanding of operations and rounding as they pertain to whole numbers and decimals.	5 M1 Lesson 1: Relate adjacent place value units by using place value understanding. 5 M1 Lesson 2: Multiply and divide by 10, 100, and 1,000 and identify patterns in the products and quotients. 5 M1 Lesson 3: Use exponents to multiply and divide by powers of 10. 5 M1 Lesson 4: Estimate products and quotients by using powers of 10 and their multiples. 5 M4 Topic A: Understanding Decimals with Place Value and Fraction Thinking
CC.2.1.5.B.2 Extend an understanding of operations with whole numbers to perform operations including decimals.	5 M1 Topic B: Multiplication of Whole Numbers 5 M1 Topic C: Division of Whole Numbers 5 M4 Lesson 9: Add decimal numbers by using different methods. 5 M4 Lesson 10: Add decimal numbers by using place value understanding. 5 M4 Lesson 11: Subtract decimal numbers by using different methods. 5 M4 Lesson 12: Subtract decimal numbers by using place value understanding. 5 M4 Topic C: Multiplication of Decimal Numbers 5 M4 Topic D: Division of Decimal Numbers

Numbers and Operations
CC.2.1.5.C Numbers and Operations—Fractions

Pennsylvania Core Standards Mathematics	Aligned Components of *Eureka Math²*
CC.2.1.5.C.1 Use the understanding of equivalency to add and subtract fractions.	5 M2 Topic B: Addition and Subtraction of Fractions by Making Like Units 5 M2 Topic C: Addition and Subtraction of Fractions, Whole Numbers, and Mixed Numbers

Pennsylvania Core Standards Mathematics	Aligned Components of *Eureka Math²*
CC.2.1.5.C.2 Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	5 M2 Topic A: Fractions and Division 5 M3 Topic A: Multiplication of a Whole Number by a Fraction 5 M3 Topic B: Multiplication of Fractions 5 M3 Topic C: Division with a Unit Fraction and a Whole Number 5 M3 Lesson 19: Create and solve one-step word problems involving fractions. 5 M3 Lesson 20: Solve multi-step word problems involving fractions and write equations with parentheses. 5 M3 Lesson 21: Solve multi-step word problems involving fractions. 5 M5 Topic B: Areas of Rectangular Figures with Fraction Side Lengths 5 M6 Lesson 15: Use the coordinate plane to reason about perimeters and areas of rectangles.

Algebraic Concepts
CC.2.2.5.A Operations and Algebraic Thinking

Pennsylvania Core Standards Mathematics	Aligned Components of *Eureka Math²*
CC.2.2.5.A.1 Interpret and evaluate numerical expressions using order of operations.	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 12: Divide a nonzero whole number by a unit fraction to find the number of groups. 5 M3 Lesson 16: Reason about the size of quotients of whole numbers and unit fractions and quotients of unit fractions and whole numbers. 5 M3 Lesson 18: Compare and evaluate expressions with parentheses. 5 M3 Lesson 22: Evaluate expressions involving nested grouping symbols.

Pennsylvania Core Standards Mathematics	Aligned Components of *Eureka Math²*
CC.2.2.5.A.1 *continued*	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.
CC.2.2.5.A.4 Analyze patterns and relationships using two rules.	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.

Geometry
CC.2.3.5.A Geometry

Pennsylvania Core Standards Mathematics	Aligned Components of *Eureka Math²*
CC.2.3.5.A.1 Graph points in the first quadrant on the coordinate plane and interpret these points when solving real-world and mathematical problems.	5 M6 Topic A: Coordinate Systems
	5 M6 Lesson 5: Identify properties of horizontal and vertical lines.
	5 M6 Lesson 6: Use properties of horizontal and vertical lines to solve problems.
	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 Topic C: Solve Mathematical Problems in the Coordinate Plane

Pennsylvania Core Standards Mathematics	Aligned Components of *Eureka Math²*
CC.2.3.5.A.1 *continued*	5 M6 Lesson 16: Interpret graphs that represent real-world situations.
	5 M6 Lesson 17: Plot data in the coordinate plane and analyze relationships.
	5 M6 Lesson 18: Interpret line graphs.
	5 M6 Lesson 20: Reason about patterns in real-world situations.
CC.2.3.5.A.2 Classify two-dimensional figures into categories based on an understanding of their properties.	5 M5 Topic A: Drawing, Analysis, and Classification of Two-Dimensional Figures 5 M6 Lesson 12: Graph and classify quadrilaterals in the coordinate plane.

Measurement, Data, and Probability

CC.2.4.5.A Measurement and Data

Pennsylvania Core Standards Mathematics	Aligned Components of *Eureka Math²*
CC.2.4.5.A.1 Solve problems using conversions within a given measurement system.	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 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 26: Solve a real-world problem involving metric measurements.
	5 M4 Lesson 27: Convert metric measurements involving decimals.
	5 M4 Lesson 28: Convert customary measurements involving decimals.
CC.2.4.5.A.2 Represent and interpret data using appropriate scale.	5 M2 Topic D: Problem Solving and Line Plots with Fractional Measurements

Pennsylvania Core Standards Mathematics	Aligned Components of *Eureka Math²*
CC.2.4.5.A.4 Solve problems involving computation of fractions using information provided in a line plot.	5 M2 Topic D: Problem Solving and Line Plots with Fractional Measurements
CC.2.4.5.A.5 Apply concepts of volume to solve problems and relate volume to multiplication and to addition.	5 M5 Topic C: Volume Concepts 5 M5 Topic D: Volume and the Operations of Multiplication and Addition