Grade 4 | 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.2.1.4.B Numbers and Operations in Base Ten

Pennsylvania Core Standards Mathematics	Aligned Components of *Eureka Math²*
CC.2.1.4.B.1 Apply place-value concepts to show an understanding of multi-digit whole numbers.	4 M1 Topic B: Place Value and Comparison Within 1,000,000 4 M1 Topic C: Rounding Multi-Digit Whole Numbers
CC.2.1.4.B.2 Use place-value understanding and properties of operations to perform multi-digit arithmetic.	4 M1 Topic D: Multi-Digit Whole Number Addition and Subtraction 4 M2 Lesson 1: Multiply multiples of 10 by one-digit numbers by using the associative property of multiplication. 4 M2 Lesson 2: Divide two- and three-digit multiples of 10 by one-digit numbers. 4 M2 Topic B: Multiplication of Tens and Ones by One-Digit Numbers 4 M2 Topic C: Division of Tens and Ones by One-Digit Numbers 4 M3 Topic A: Multiplication and Division of Multiples of Tens, Hundreds, and Thousands 4 M3 Topic B: Division of Thousands, Hundreds, Tens, and Ones 4 M3 Topic C: Multiplication of up to Four-Digit Numbers by One-Digit Numbers 4 M3 Topic D: Multiplication of Two-Digit Numbers by Two-Digit Numbers 4 M3 Lesson 21: Find whole-number quotients and remainders. 4 M3 Lesson 22: Represent, estimate, and solve division word problems.

Numbers and Operations
CC.2.1.4.C Numbers and Operations—Fractions

Pennsylvania Core Standards Mathematics	Aligned Components of *Eureka Math²*
CC.2.1.4.C.1 Extend the understanding of fractions to show equivalence and ordering.	4 M4 Lesson 8: Generate equivalent fractions with smaller units for unit fractions. 4 M4 Lesson 9: Generate equivalent fractions with smaller units for non-unit fractions. 4 M4 Lesson 10: Generate equivalent fractions with larger units. 4 M4 Lesson 11: Represent equivalent fractions by using tape diagrams, number lines, and multiplication or division. 4 M4 Lesson 12: Generate equivalent fractions for fractions greater than 1 and generate equivalent mixed numbers. 4 M4 Topic C: Compare Fractions
CC.2.1.4.C.2 Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	4 M4 Topic A: Fraction Decomposition and Equivalence 4 M4 Lesson 7: Rename fractions as a sum of equivalent smaller unit fractions. 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. 4 M4 Lesson 28: Represent and solve word problems with mixed numbers by using drawings and equations. 4 M4 Topic F: Repeated Addition of Fractions as Multiplication

Pennsylvania Core Standards Mathematics	Aligned Components of *Eureka Math²*
CC.2.1.4.C.3 Connect decimal notation to fractions, and compare decimal fractions (base 10 denominator, e.g., $\frac{19}{100}$).	4 M5 Topic A: Exploration of Tenths 4 M5 Topic B: Tenths and Hundredths 4 M5 Topic C: Comparison of Decimal Numbers 4 M5 Topic D: Addition of Tenths and Hundredths

Algebraic Concepts
CC.2.2.4.A Operations and Algebraic Thinking

Pennsylvania Core Standards Mathematics	Aligned Components of *Eureka Math²*
CC.2.2.4.A.1 Represent and solve problems involving the four operations.	4 M1 Topic A: Multiplication as Multiplicative Comparison 4 M1 Lesson 6: Demonstrate that a digit represents 10 times the value of what it represents in the place to its right. 4 M1 Lesson 15: Apply estimation to real-world situations by using rounding. 4 M1 Lesson 16: Add by using the standard algorithm. 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 M2 Lesson 9: Solve multiplication word problems. 4 M2 Lesson 20: Solve word problems involving additive and multiplicative comparisons. 4 M3 Topic F: Remainders, Estimating, and Problem Solving

Pennsylvania Core Standards Mathematics	Aligned Components of *Eureka Math²*
CC.2.2.4.A.2 Develop and/or apply number theory concepts to find factors and multiples.	4 M2 Lesson 21: Find factor pairs for numbers up to 100 and use factors to identify numbers as prime or composite. 4 M2 Lesson 22: Use division and the associative property of multiplication to find factors. 4 M2 Lesson 23: Determine whether a whole number is a multiple of another number. 4 M2 Lesson 24: Recognize that a number is a multiple of each of its factors. 4 M2 Lesson 25: Explore properties of prime and composite numbers up to 100 by using multiples.
CC.2.2.4.A.4 Generate and analyze patterns using one rule.	4 M2 Lesson 26: Use relationships within a pattern to find an unknown term in the sequence.

Geometry
CC.2.3.4.A Geometry

Pennsylvania Core Standards Mathematics	Aligned Components of *Eureka Math²*
CC.2.3.4.A.1 Draw lines and angles and identify these in two-dimensional figures.	4 M6 Topic A: Lines and Angles 4 M6 Lesson 10: Use 180° protractors to measure angles. 4 M6 Lesson 11: Estimate and measure angles with a 180° protractor. 4 M6 Lesson 12: Use a protractor to draw angles up to 180°. 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. 4 M6 Lesson 20: Sort polygons based on a given rule.

Pennsylvania Core Standards Mathematics	Aligned Components of *Eureka Math²*
CC.2.3.4.A.2 Classify two-dimensional figures by properties of their lines and angles.	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. 4 M6 Lesson 20: Sort polygons based on a given rule.
CC.2.3.4.A.3 Recognize symmetric shapes and draw lines of symmetry.	4 M6 Lesson 17: Recognize, identify, and draw lines of symmetry.

Measurement, Data, and Probability
CC.2.4.4.A Measurement and Data

Pennsylvania Core Standards Mathematics	Aligned Components of *Eureka Math²*
CC.2.4.4.A.1 Solve problems involving measurement and conversions from a larger unit to a smaller unit.	4 M1 Topic E: Metric Measurement Conversion Tables 4 M2 Lesson 3: Investigate and use a formula for the area of a rectangle. 4 M2 Lesson 7: Multiply by using an area model and the distributive property. 4 M2 Topic D: Problem Solving with Measurement 4 M3 Topic E: Problem Solving with Measurement 4 M4 Lesson 18: Estimate sums and differences of fractions by using benchmarks. 4 M4 Lesson 20: Subtract a fraction from a whole number. 4 M4 Lesson 21: Solve addition and subtraction word problems and estimate the reasonableness of the answers. 4 M4 Lesson 24: Add a mixed number to a mixed number. 4 M4 Lesson 27: Subtract a mixed number from a mixed number. 4 M4 Lesson 28: Represent and solve word problems with mixed numbers by using drawings and equations.

Pennsylvania Core Standards Mathematics	Aligned Components of *Eureka Math²*
CC.2.4.4.A.1 *continued*	4 M4 Lesson 33: Solve word problems involving multiplication of a fraction by a whole number.
	4 M5 Lesson 14: Solve word problems with tenths and hundredths.
CC.2.4.4.A.2 Translate information from one type of data display to another.	4 M4 Lesson 29: Solve problems by using data from a line plot.
	4 M4 Lesson 30: Represent data on a line plot.
CC.2.4.4.A.4 Represent and interpret data involving fractions using information provided in a line plot.	4 M4 Lesson 29: Solve problems by using data from a line plot.
	4 M4 Lesson 30: Represent data on a line plot.
CC.2.4.4.A.6 Measure angles and use properties of adjacent angles to solve problems.	4 M6 Topic B: Angle Measurement
	4 M6 Topic C: Determine Unknown Angle Measures