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## Grade 5 | Indiana Academic Standards for Mathematics Correlation to *Eureka Math*<sup>2</sup>®

When the original *Eureka Math*<sup>®</sup> curriculum was released, it quickly became the most widely used K–5 mathematics curriculum in the country. Now, the Great Minds<sup>®</sup> teacher–writers have created *Eureka Math*<sup>2</sup>®, 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 Math*<sup>2</sup> 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 Math*<sup>2</sup> 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 Math*<sup>2</sup> 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 Math*<sup>2</sup> 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 Math*<sup>2</sup> 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 Process Standards**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>PS.1</b></p> <p>Make sense of problems and persevere in solving them.</p>	<p>5 M1 Lesson 14: Divide three-digit numbers by two-digit numbers in problems that result in one-digit quotients.</p> <p>5 M1 Lesson 20: Solve multi-step word problems involving the four operations.</p> <p>5 M2 Lesson 4: Solve word problems involving division and fractions.</p> <p>5 M3 Lesson 12: Divide a nonzero whole number by a unit fraction to find the number of groups.</p> <p>5 M3 Lesson 17: Solve word problems involving fractions with multiplication and division.</p> <p>5 M4 Lesson 10: Add decimal numbers by using place value understanding.</p> <p>5 M4 Lesson 15: Multiply decimal numbers to hundredths by one-digit whole numbers and multiples of 10, 100, or 1,000 by using different written methods.</p> <p>5 M4 Lesson 25: Divide decimal numbers by decimal numbers, resulting in decimal-number quotients.</p> <p>5 M5 Lesson 14: Solve real-world problems involving areas of composite figures with mixed-number side lengths.</p> <p>5 M5 Lesson 25: Find the volumes of solid figures composed of right rectangular prisms.</p> <p>5 M5 Lesson 26: Solve word problems involving perimeter, area, and volume.</p> <p>5 M6 Lesson 3: Identify and plot points by using ordered pairs.</p> <p>5 M6 Lesson 13: Draw symmetric figures in the coordinate plane.</p>
<p><b>PS.2</b></p> <p>Reason abstractly and quantitatively.</p>	<p>5 M1 Lesson 6: Solve multi-step word problems by using metric measurement conversion.</p> <p>5 M1 Lesson 12: Divide two- and three-digit numbers by multiples of 10.</p> <p>5 M1 Lesson 16: Divide four-digit numbers by two-digit numbers.</p> <p>5 M2 Lesson 3: Represent fractions as division by using models.</p> <p>5 M2 Lesson 11: Add mixed numbers with unrelated units.</p> <p>5 M3 Lesson 4: Multiply a whole number by a fraction.</p> <p>5 M3 Lesson 13: Divide a nonzero whole number by a unit fraction to find the size of the group.</p> <p>5 M3 Lesson 19: Create and solve one-step word problems involving fractions.</p>

**Mathematical Process Standards**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>PS.2 <i>continued</i></b></p>	<p>5 M4 Lesson 24: Divide decimal numbers by decimal numbers, resulting in whole-number quotients.</p> <p>5 M5 Lesson 15: Solve multi-step word problems involving multiplication of mixed numbers.</p> <p>5 M5 Lesson 17: Find the volume of right rectangular prisms by packing with unit cubes and counting.</p> <p>5 M5 Lesson 20: Interpret volume as filling.</p> <p>5 M5 Lesson 21: Relate volumes of solids and liquid volume.</p> <p>5 M5 Lesson 24: Solve word problems involving volumes of right rectangular prisms.</p> <p>5 M6 Lesson 4: Describe the distance and direction between points in the coordinate plane.</p> <p>5 M6 Lesson 17: Plot data in the coordinate plane and analyze relationships.</p> <p>5 M6 Lesson 18: Interpret line graphs.</p>
<p><b>PS.3</b></p> <p>Construct viable arguments and critique the reasoning of others.</p>	<p>5 M1 Lesson 3: Use exponents to multiply and divide by powers of 10.</p> <p>5 M2 Lesson 16: Solve problems by using data from a line plot.</p> <p>5 M3 Lesson 8: Multiply fractions less than 1 pictorially.</p> <p>5 M3 Lesson 11: Multiply fractions.</p> <p>5 M3 Lesson 15: Divide by whole numbers and unit fractions.</p> <p>5 M4 Lesson 21: Divide decimal numbers to hundredths by one-digit whole numbers and multiples of 10, 100, or 1,000 by using place value understanding and vertical form.</p> <p>5 M4 Lesson 26: Solve a real-world problem involving metric measurements.</p> <p>5 M5 Lesson 18: Find the volume of right rectangular prisms by packing with improvised units.</p> <p>5 M5 Lesson 28: Apply concepts and formulas of volume to design a sculpture by using right rectangular prisms, part 2.</p> <p>5 M6 Lesson 11: Draw lines in the coordinate plane and identify points on the lines.</p> <p>5 M6 Lesson 15: Use the coordinate plane to reason about perimeters and areas of rectangles.</p> <p>5 M6 Lesson 16: Interpret graphs that represent real-world situations.</p>

**Mathematical Process Standards**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>PS.4</b> Model with mathematics.</p>	<p>5 M1 Lesson 19: Solve multi-step word problems involving multiplication and division.</p> <p>5 M2 Lesson 14: Subtract mixed numbers from mixed numbers with unrelated units.</p> <p>5 M3 Lesson 2: Interpret fractions as division to find fractions of a set with tape diagrams and number lines.</p> <p>5 M3 Lesson 14: Divide a unit fraction by a nonzero whole number.</p> <p>5 M3 Lesson 20: Solve multi-step word problems involving fractions and write equations with parentheses.</p> <p>5 M3 Lesson 21: Solve multi-step word problems involving fractions.</p> <p>5 M4 Lesson 28: Convert customary measurements involving decimals.</p> <p>5 M5 Lesson 27: Apply concepts and formulas of volume to design a sculpture by using right rectangular prisms, part 1.</p> <p>5 M6 Lesson 20: Reason about patterns in real-world situations.</p>
<p><b>PS.5</b> Use appropriate tools strategically.</p>	<p>5 M2 Lesson 2: Interpret a fraction as division by writing remainders as fractions.</p> <p>5 M2 Lesson 7: Add and subtract fractions with related units by finding equivalent fractions numerically.</p> <p>5 M2 Lesson 9: Add and subtract fractions with unrelated units by finding equivalent fractions numerically.</p> <p>5 M2 Lesson 10: Add whole numbers and mixed numbers and add mixed numbers with related units.</p> <p>5 M2 Lesson 17: Solve problems by equally redistributing a total amount.</p> <p>5 M3 Lesson 3: Multiply a whole number by a fraction less than 1.</p> <p>5 M4 Lesson 6: Compare decimal numbers to the thousandths place.</p> <p>5 M4 Lesson 9: Add decimal numbers by using different methods.</p> <p>5 M4 Lesson 12: Subtract decimal numbers by using place value understanding.</p> <p>5 M4 Lesson 17: Multiply decimal numbers to hundredths by two-digit whole numbers by using different methods.</p>

**Mathematical Process Standards**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>PS.5 <i>continued</i></b></p>	<p>5 M4 Lesson 22: Divide decimal numbers to hundredths by two-digit whole numbers.</p> <p>5 M5 Lesson 9: Organize, count, and represent a collection of square tiles.</p> <p>5 M5 Lesson 12: Multiply mixed numbers.</p> <p>5 M6 Lesson 14: Solve mathematical problems with rectangles in the coordinate plane.</p> <p>5 M6 Lesson 20: Reason about patterns in real-world situations.</p>
<p><b>PS.6</b></p> <p>Attend to precision.</p>	<p>5 M1 Lesson 5: Convert measurements and describe relationships between metric units.</p> <p>5 M2 Lesson 5: Add and subtract fractions with related units by using pictorial models.</p> <p>5 M2 Lesson 12: Subtract whole numbers from mixed numbers and mixed numbers from whole numbers.</p> <p>5 M2 Lesson 15: Represent data on a line plot.</p> <p>5 M3 Lesson 5: Convert larger customary measurement units to smaller measurement units.</p> <p>5 M3 Lesson 7: Multiply fractions less than 1 by unit fractions pictorially.</p> <p>5 M4 Lesson 13: Solve word problems involving addition and subtraction of decimal numbers and fractions.</p> <p>5 M4 Lesson 27: Convert metric measurements involving decimals.</p> <p>5 M6 Lesson 1: Construct a coordinate system on a line.</p> <p>5 M6 Lesson 6: Use properties of horizontal and vertical lines to solve problems.</p>
<p><b>PS.7</b></p> <p>Look for and make use of structure.</p>	<p>5 M1 Lesson 4: Estimate products and quotients by using powers of 10 and their multiples.</p> <p>5 M1 Lesson 13: Divide two-digit numbers by two-digit numbers in problems that result in one-digit quotients.</p> <p>5 M1 Lesson 15: Divide three-digit numbers by two-digit numbers in problems that result in two-digit quotients.</p> <p>5 M2 Lesson 1: Interpret a fraction as division.</p> <p>5 M2 Lesson 6: Add and subtract fractions with related units by using area models to rename fractions.</p>

**Mathematical Process Standards**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<b>PS.7 <i>continued</i></b>	
	5 M2 Lesson 13: Subtract mixed numbers from mixed numbers with related units.
	5 M3 Lesson 6: Convert smaller customary measurement units to larger measurement units.
	5 M3 Lesson 10: Multiply fractions greater than 1 by fractions.
	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 M4 Lesson 11: Subtract decimal numbers by using different methods.
	5 M4 Lesson 14: Multiply decimal numbers to hundredths by one-digit whole numbers by using different models.
	5 M4 Lesson 19: Multiply a decimal number by a decimal number.
	5 M4 Lesson 20: Divide decimal numbers to hundredths by one-digit whole numbers and multiples of 10, 100, or 1,000 by using unit form and place value understanding.
	5 M5 Lesson 8: Find areas of square tiles with fraction side lengths by relating the tile to a unit square.
	5 M5 Lesson 10: Find the area of a rectangle with fraction side lengths by relating the rectangle to a unit square.
	5 M5 Lesson 13: Solve mathematical problems involving areas of composite figures with mixed-number side lengths.
	5 M5 Lesson 16: Identify attributes and properties of right rectangular prisms.
	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 M6 Lesson 2: Construct a coordinate system in a plane.
	5 M6 Lesson 7: Generate number patterns to form ordered pairs.
	5 M6 Lesson 12: Graph and classify quadrilaterals in the coordinate plane.

**Mathematical Process Standards**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>PS.8</b></p> <p>Look for and express regularity in repeated reasoning.</p>	<p>5 M1 Lesson 2: Multiply and divide by 10, 100, and 1,000 and identify patterns in the products and quotients.</p> <p>5 M2 Lesson 8: Add and subtract fractions with unrelated units by finding equivalent fractions pictorially.</p> <p>5 M3 Lesson 1: Find fractions of a set with arrays.</p> <p>5 M3 Lesson 9: Multiply fractions by unit fractions by making simpler problems.</p> <p>5 M4 Lesson 5: Multiply and divide decimal numbers by powers of 10.</p> <p>5 M4 Lesson 16: Multiply decimal numbers to hundredths by two-digit whole numbers by using area models and vertical form.</p> <p>5 M4 Lesson 18: Relate decimal-number multiplication to fraction multiplication.</p> <p>5 M4 Lesson 23: Relate division by 0.1 and 0.01 to division by a unit fraction.</p> <p>5 M5 Lesson 11: Find areas of rectangles with fraction side lengths by using multiplication.</p> <p>5 M5 Lesson 19: Compose and decompose right rectangular prisms to find their volume by using layers.</p> <p>5 M6 Lesson 5: Identify properties of horizontal and vertical lines.</p> <p>5 M6 Lesson 8: Identify addition and subtraction relationships between corresponding terms in number patterns.</p> <p>5 M6 Lesson 9: Identify multiplication and division relationships between corresponding terms in number patterns.</p>
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## Number Sense

Students explore place value through representing powers of 10 as exponents, modeling percents as parts of 100, and comparing and ordering fractions, mixed numbers, and decimals to the thousandth.

Indiana Academic Standards for Mathematics	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<p><b>5.NS.1</b></p> <p>Use a number line to compare and order fractions, mixed numbers, and decimals to thousandths. Write the results using <math>&gt;</math>, <math>=</math>, and <math>&lt;</math> symbols. (E)</p>	<p>5 M4 Lesson 1: Model and relate decimal place value units to thousandths.</p> <p>5 M4 Lesson 2: Represent thousandths as a place value unit.</p> <p>5 M4 Lesson 3: Represent decimal numbers to the thousandths place in different forms.</p> <p>5 M4 Lesson 4: Relate the values of digits in a decimal number by using place value understanding.</p> <p>5 M4 Lesson 6: Compare decimal numbers to the thousandths place.</p> <p>5 M4 Lesson 7: Round decimal numbers to the nearest one, tenth, or hundredth.</p> <p>5 M4 Lesson 8: Round decimal numbers to any place value unit.</p> <p><i>Supplemental material is necessary to address comparing and ordering fractions, mixed numbers, and decimals simultaneously.</i></p>
<p><b>5.NS.2</b></p> <p>Explain different interpretations of fractions, including as parts of a whole, parts of a set, and division of whole numbers by whole numbers.</p>	<p>5 M2 Lesson 1: Interpret a fraction as division.</p> <p>5 M2 Lesson 2: Interpret a fraction as division by writing remainders as fractions.</p> <p>5 M2 Lesson 3: Represent fractions as division by using models.</p> <p>5 M2 Lesson 4: Solve word problems involving division and fractions.</p> <p>5 M3 Lesson 1: Find fractions of a set with arrays.</p> <p>5 M3 Lesson 2: Interpret fractions as division to find fractions of a set with tape diagrams and number lines.</p>



**Indiana Academic Standards  
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**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>5.NS.3</b></p> <p>Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.</p>	<p>5 M1 Lesson 2: Multiply and divide by 10, 100, and 1,000 and identify patterns in the products and quotients.</p> <p>5 M1 Lesson 3: Use exponents to multiply and divide by powers of 10.</p> <p>5 M1 Lesson 4: Estimate products and quotients by using powers of 10 and their multiples.</p> <p>5 M4 Lesson 5: Multiply and divide decimal numbers by powers of 10.</p>
<p><b>5.NS.4</b></p> <p>Model percents as parts of 100 using pictures or diagrams and identify the equivalent fraction.</p>	<p><i>Supplemental material is necessary to address this standard.</i></p>

## Computation and Algebraic Thinking

Students apply concepts and strategies of multiplication and division to solve real-world problems. Students add and subtract unlike fractions and use visual fraction models to multiply and divide fractions and whole numbers. Students apply conceptual models and strategies to all operations with decimals to solve real-world problems and represent real-world situations within the first quadrant of the coordinate plane.

### Indiana Academic Standards for Mathematics

### Aligned Components of *Eureka Math*<sup>2</sup>

<p><b>5.CA.1</b></p> <p>Find whole-number quotients and remainders with up to four-digit dividends and two-digit divisors using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Describe the strategy and explain the reasoning used. (E)</p>	<p>5 M1 Lesson 12: Divide two- and three-digit numbers by multiples of 10.</p> <p>5 M1 Lesson 13: Divide two-digit numbers by two-digit numbers in problems that result in one-digit quotients.</p> <p>5 M1 Lesson 14: Divide three-digit numbers by two-digit numbers in problems that result in one-digit quotients.</p> <p>5 M1 Lesson 15: Divide three-digit numbers by two-digit numbers in problems that result in two-digit quotients.</p> <p>5 M1 Lesson 16: Divide four-digit numbers by two-digit numbers.</p>
<p><b>5.CA.2</b></p> <p>Solve real-world problems involving multiplication and division of whole numbers (e.g., by using equations to represent the problem). In division problems that involve a remainder, explain how the remainder affects the solution to the problem. (E)</p>	<p>5 M1 Lesson 4: Estimate products and quotients by using powers of 10 and their multiples.</p> <p>5 M1 Lesson 12: Divide two- and three-digit numbers by multiples of 10.</p> <p>5 M1 Lesson 13: Divide two-digit numbers by two-digit numbers in problems that result in one-digit quotients.</p> <p>5 M1 Lesson 14: Divide three-digit numbers by two-digit numbers in problems that result in one-digit quotients.</p> <p>5 M1 Lesson 15: Divide three-digit numbers by two-digit numbers in problems that result in two-digit quotients.</p> <p>5 M1 Lesson 16: Divide four-digit numbers by two-digit numbers.</p> <p>5 M1 Lesson 19: Solve multi-step word problems involving multiplication and division.</p> <p>5 M1 Lesson 20: Solve multi-step word problems involving the four operations.</p>

**Indiana Academic Standards  
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<p><b>5.CA.3</b></p> <p>Add and subtract fractions and mixed numbers with unlike denominators using strategies or the standard algorithm.</p>	<p>5 M2 Lesson 5: Add and subtract fractions with related units by using pictorial models.</p> <p>5 M2 Lesson 6: Add and subtract fractions with related units by using area models to rename fractions.</p> <p>5 M2 Lesson 7: Add and subtract fractions with related units by finding equivalent fractions numerically.</p> <p>5 M2 Lesson 8: Add and subtract fractions with unrelated units by finding equivalent fractions pictorially.</p> <p>5 M2 Lesson 9: Add and subtract fractions with unrelated units by finding equivalent fractions numerically.</p> <p>5 M2 Lesson 10: Add whole numbers and mixed numbers and add mixed numbers with related units.</p> <p>5 M2 Lesson 11: Add mixed numbers with unrelated units.</p> <p>5 M2 Lesson 12: Subtract whole numbers from mixed numbers and mixed numbers from whole numbers.</p> <p>5 M2 Lesson 13: Subtract mixed numbers from mixed numbers with related units.</p> <p>5 M2 Lesson 14: Subtract mixed numbers from mixed numbers with unrelated units.</p>
<p><b>5.CA.4</b></p> <p>Solve real-world problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators (e.g., by using visual fraction models and equations to represent the problem). Use benchmark fractions and number sense of fractions to estimate mentally and assess whether the answer is reasonable. (E)</p>	<p>5 M2 Lesson 4: Solve word problems involving division and fractions.</p> <p>5 M2 Lesson 10: Add whole numbers and mixed numbers and add mixed numbers with related units.</p> <p>5 M2 Lesson 11: Add mixed numbers with unrelated units.</p> <p>5 M2 Lesson 12: Subtract whole numbers from mixed numbers and mixed numbers from whole numbers.</p> <p>5 M2 Lesson 13: Subtract mixed numbers from mixed numbers with related units.</p> <p>5 M2 Lesson 14: Subtract mixed numbers from mixed numbers with unrelated units.</p> <p>5 M2 Lesson 17: Solve problems by equally redistributing a total amount.</p> <p>5 M3 Lesson 20: Solve multi-step word problems involving fractions and write equations with parentheses.</p> <p>5 M3 Lesson 21: Solve multi-step word problems involving fractions.</p>

**Indiana Academic Standards  
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<p><b>5.CA.5</b></p> <p>Use visual fraction models to multiply a fraction by a fraction or a whole number. (E)</p>	<p>5 M3 Lesson 1: Find fractions of a set with arrays.</p> <p>5 M3 Lesson 2: Interpret fractions as division to find fractions of a set with tape diagrams and number lines.</p> <p>5 M3 Lesson 3: Multiply a whole number by a fraction less than 1.</p> <p>5 M3 Lesson 4: Multiply a whole number by a fraction.</p> <p>5 M3 Lesson 5: Convert larger customary measurement units to smaller measurement units.</p> <p>5 M3 Lesson 6: Convert smaller customary measurement units to larger measurement units.</p> <p>5 M3 Lesson 7: Multiply fractions less than 1 by unit fractions pictorially.</p> <p>5 M3 Lesson 8: Multiply fractions less than 1 pictorially.</p> <p>5 M3 Lesson 9: Multiply fractions by unit fractions by making simpler problems.</p> <p>5 M3 Lesson 10: Multiply fractions greater than 1 by fractions.</p> <p>5 M3 Lesson 11: Multiply fractions.</p> <p>5 M5 Lesson 12: Multiply mixed numbers.</p>
<p><b>5.CA.6</b></p> <p>Use visual fraction models and numbers to divide a fraction by a fraction or a whole number. (E)</p>	<p>5 M3 Lesson 12: Divide a nonzero whole number by a unit fraction to find the number of groups.</p> <p>5 M3 Lesson 13: Divide a nonzero whole number by a unit fraction to find the size of the group.</p> <p>5 M3 Lesson 14: Divide a unit fraction by a nonzero whole number.</p> <p>5 M3 Lesson 15: Divide by whole numbers and unit fractions.</p> <p>5 M3 Lesson 16: Reason about the size of quotients of whole numbers and unit fractions and quotients of unit fractions and whole numbers.</p> <p>5 M3 Lesson 19: Create and solve one-step word problems involving fractions.</p> <p>6 M2 Lesson 6: Dividing a Whole Number by a Fraction</p> <p>6 M2 Lesson 7: Dividing a Fraction by a Whole Number</p> <p>6 M2 Lesson 8: Dividing Fractions by Making Common Denominators</p> <p>6 M2 Lesson 9: Dividing Fractions by Using Tape Diagrams</p>

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<p><b>5.CA.6 <i>continued</i></b></p>	<p>6 M2 Lesson 10: Dividing Fractions by Using the Invert and Multiply Strategy 6 M2 Lesson 11: Applications of Fraction Division 6 M2 Lesson 12: Fraction Operations in a Real-World Situation</p>
<p><b>5.CA.7</b> Solve real-world problems involving multiplication of fractions, including mixed numbers (e.g., by using visual fraction models and equations to represent the problem). (E)</p>	<p>5 M3 Lesson 17: Solve word problems involving fractions with multiplication and division. 5 M3 Lesson 21: Solve multi-step word problems involving fractions. 5 M5 Lesson 14: Solve real-world problems involving areas of composite figures with mixed-number side lengths. 5 M5 Lesson 15: Solve multi-step word problems involving multiplication of mixed numbers.</p>
<p><b>5.CA.8</b> Solve real-world problems involving division of fractions and mixed numbers (e.g., by using visual fraction models and equations to represent the problem). (E)</p>	<p>5 M3 Lesson 12: Divide a nonzero whole number by a unit fraction to find the number of groups. 5 M3 Lesson 13: Divide a nonzero whole number by a unit fraction to find the size of the group. 5 M3 Lesson 14: Divide a unit fraction by a nonzero whole number. 5 M3 Lesson 15: Divide by whole numbers and unit fractions. 5 M3 Lesson 17: Solve word problems involving fractions with multiplication and division. 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. 6 M2 Lesson 6: Dividing a Whole Number by a Fraction 6 M2 Lesson 7: Dividing a Fraction by a Whole Number 6 M2 Lesson 8: Dividing Fractions by Making Common Denominators 6 M2 Lesson 9: Dividing Fractions by Using Tape Diagrams 6 M2 Lesson 10: Dividing Fractions by Using the Invert and Multiply Strategy 6 M2 Lesson 11: Applications of Fraction Division 6 M2 Lesson 12: Fraction Operations in a Real-World Situation</p>

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<p><b>5.CA.9</b></p> <p>Add, subtract, multiply, and divide decimals to hundredths, using models or drawings and strategies based on place value or the properties of operations. Describe the strategy and explain the reasoning.</p>	<p>5 M4 Lesson 9: Add decimal numbers by using different methods.</p> <p>5 M4 Lesson 10: Add decimal numbers by using place value understanding.</p> <p>5 M4 Lesson 11: Subtract decimal numbers by using different methods.</p> <p>5 M4 Lesson 12: Subtract decimal numbers by using place value understanding.</p> <p>5 M4 Lesson 14: Multiply decimal numbers to hundredths by one-digit whole numbers by using different models.</p> <p>5 M4 Lesson 15: Multiply decimal numbers to hundredths by one-digit whole numbers and multiples of 10, 100, or 1,000 by using different written methods.</p> <p>5 M4 Lesson 16: Multiply decimal numbers to hundredths by two-digit whole numbers by using area models and vertical form.</p> <p>5 M4 Lesson 17: Multiply decimal numbers to hundredths by two-digit whole numbers by using different methods.</p> <p>5 M4 Lesson 18: Relate decimal-number multiplication to fraction multiplication.</p> <p>5 M4 Lesson 19: Multiply a decimal number by a decimal number.</p> <p>5 M4 Lesson 20: Divide decimal numbers to hundredths by one-digit whole numbers and multiples of 10, 100, or 1,000 by using unit form and place value understanding.</p> <p>5 M4 Lesson 21: Divide decimal numbers to hundredths by one-digit whole numbers and multiples of 10, 100, or 1,000 by using place value understanding and vertical form.</p> <p>5 M4 Lesson 22: Divide decimal numbers to hundredths by two-digit whole numbers.</p> <p>5 M4 Lesson 23: Relate division by 0.1 and 0.01 to division by a unit fraction.</p> <p>5 M4 Lesson 24: Divide decimal numbers by decimal numbers, resulting in whole-number quotients.</p> <p>5 M4 Lesson 25: Divide decimal numbers by decimal numbers, resulting in decimal-number quotients.</p>
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**Indiana Academic Standards  
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**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>5.CA.10</b></p> <p>Solve real-world problems involving addition, subtraction, multiplication, and division with decimals to hundredths including problems that involve money in decimal notation (e.g., by using equations, models or drawings, and strategies based on place value or properties of operations to represent the problem). (E)</p>	<p>5 M4 Lesson 9: Add decimal numbers by using different methods.</p> <p>5 M4 Lesson 12: Subtract decimal numbers by using place value understanding.</p> <p>5 M4 Lesson 13: Solve word problems involving addition and subtraction of decimal numbers and fractions.</p> <p>5 M4 Lesson 15: Multiply decimal numbers to hundredths by one-digit whole numbers and multiples of 10, 100, or 1,000 by using different written methods.</p> <p>5 M4 Lesson 16: Multiply decimal numbers to hundredths by two-digit whole numbers by using area models and vertical form.</p> <p>5 M4 Lesson 17: Multiply decimal numbers to hundredths by two-digit whole numbers by using different methods.</p> <p>5 M4 Lesson 19: Multiply a decimal number by a decimal number.</p> <p>5 M4 Lesson 20: Divide decimal numbers to hundredths by one-digit whole numbers and multiples of 10, 100, or 1,000 by using unit form and place value understanding.</p> <p>5 M4 Lesson 22: Divide decimal numbers to hundredths by two-digit whole numbers.</p> <p>5 M4 Lesson 23: Relate division by 0.1 and 0.01 to division by a unit fraction.</p> <p>5 M4 Lesson 24: Divide decimal numbers by decimal numbers, resulting in whole-number quotients.</p> <p>5 M4 Lesson 25: Divide decimal numbers by decimal numbers, resulting in decimal-number quotients.</p>
<p><b>5.CA.11</b></p> <p>Represent real-world problems and equations by graphing ordered pairs in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.</p>	<p>5 M6 Lesson 1: Construct a coordinate system on a line.</p> <p>5 M6 Lesson 2: Construct a coordinate system in a plane.</p> <p>5 M6 Lesson 3: Identify and plot points by using ordered pairs.</p> <p>5 M6 Lesson 4: Describe the distance and direction between points in the coordinate plane.</p> <p>5 M6 Lesson 5: Identify properties of horizontal and vertical lines.</p> <p>5 M6 Lesson 6: Use properties of horizontal and vertical lines to solve problems.</p> <p>5 M6 Lesson 7: Generate number patterns to form ordered pairs.</p>

**Indiana Academic Standards  
for Mathematics**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>5.CA.11 <i>continued</i></b></p>	<p>5 M6 Lesson 8: Identify addition and subtraction relationships between corresponding terms in number patterns.</p> <p>5 M6 Lesson 9: Identify multiplication and division relationships between corresponding terms in number patterns.</p> <p>5 M6 Lesson 11: Draw lines in the coordinate plane and identify points on the lines.</p> <p>5 M6 Lesson 12: Graph and classify quadrilaterals in the coordinate plane.</p> <p>5 M6 Lesson 13: Draw symmetric figures in the coordinate plane.</p> <p>5 M6 Lesson 14: Solve mathematical problems with rectangles in the coordinate plane.</p> <p>5 M6 Lesson 15: Use the coordinate plane to reason about perimeters and areas of rectangles.</p> <p>5 M6 Lesson 16: Interpret graphs that represent real-world situations.</p> <p>5 M6 Lesson 17: Plot data in the coordinate plane and analyze relationships.</p> <p>5 M6 Lesson 18: Interpret line graphs.</p> <p>5 M6 Lesson 20: Reason about patterns in real-world situations.</p>
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**Geometry**

Students use appropriate tools to investigate attributes of triangles and circles.

**Indiana Academic Standards  
for Mathematics**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>5.G.1</b></p> <p>Identify, describe, and draw triangles (right, acute, obtuse) and circles using appropriate tools (e.g., ruler or straightedge, compass, and technology). Define and model the relationship between radius and diameter.</p>	<p>4 M6 Lesson 18: Analyze and classify triangles based on side length, angle measures, or both.</p> <p>4 M6 Lesson 19: Construct and classify triangles based on given attributes.</p> <p><i>Supplemental material is necessary to address circles.</i></p>
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## Measurement

Students investigate the volume of rectangular prisms and solve real-world problems through the development and application of area formulas for rectangles, triangles, parallelograms, and trapezoids. Students investigate and convert measurements within the Customary and metric measurement systems

### Indiana Academic Standards for Mathematics

### Aligned Components of *Eureka Math*<sup>2</sup>

<p><b>5.M.1</b></p> <p>Convert among different-sized standard measurement units within a given measurement system and use these conversions in solving multi-step, real-world problems.</p>	<p>5 M1 Lesson 5: Convert measurements and describe relationships between metric units.</p> <p>5 M1 Lesson 6: Solve multi-step word problems by using metric measurement conversion.</p> <p>5 M3 Lesson 5: Convert larger customary measurement units to smaller measurement units.</p> <p>5 M3 Lesson 6: Convert smaller customary measurement units to larger measurement units.</p> <p>5 M4 Lesson 26: Solve a real-world problem involving metric measurements.</p> <p>5 M4 Lesson 27: Convert metric measurements involving decimals.</p> <p>5 M4 Lesson 28: Convert customary measurements involving decimals.</p>
<p><b>5.M.2</b></p> <p>Find the area of a rectangle with fractional side lengths by modeling with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.</p>	<p>5 M5 Lesson 8: Find areas of square tiles with fraction side lengths by relating the tile to a unit square.</p> <p>5 M5 Lesson 9: Organize, count, and represent a collection of square tiles.</p> <p>5 M5 Lesson 10: Find the area of a rectangle with fraction side lengths by relating the rectangle to a unit square.</p> <p>5 M5 Lesson 11: Find areas of rectangles with fraction side lengths by using multiplication.</p> <p>5 M5 Lesson 12: Multiply mixed numbers.</p> <p>5 M5 Lesson 13: Solve mathematical problems involving areas of composite figures with mixed-number side lengths.</p> <p>5 M5 Lesson 14: Solve real-world problems involving areas of composite figures with mixed-number side lengths.</p> <p>5 M6 Lesson 15: Use the coordinate plane to reason about perimeters and areas of rectangles.</p>

**Indiana Academic Standards  
for Mathematics**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>5.M.3</b></p> <p>Develop and use formulas for the area of triangles, parallelograms, and trapezoids. Solve real-world and other mathematical problems that involve perimeter and area of triangles, parallelograms, and trapezoids, using appropriate units for measures. (E)</p>	<p>6 M5 Lesson 1: The Area of a Parallelogram</p> <p>6 M5 Lesson 2: The Area of a Right Triangle</p> <p>6 M5 Lesson 3: The Area of a Triangle</p> <p>6 M5 Lesson 4: Areas of Triangles in Real-World Situations</p> <p>6 M5 Lesson 5: Perimeter and Area in the Coordinate Plane</p> <p>6 M5 Lesson 6: Problem Solving with Area in the Coordinate Plane</p> <p>6 M5 Lesson 7: Areas of Trapezoids and Other Polygons</p> <p>6 M5 Lesson 8: Areas of Composite Figures in Real-World Situations</p>
<p><b>5.M.4</b></p> <p>Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths or multiplying the height by the area of the base. (E)</p>	<p>5 M5 Lesson 16: Identify attributes and properties of right rectangular prisms.</p> <p>5 M5 Lesson 17: Find the volume of right rectangular prisms by packing with unit cubes and counting.</p> <p>5 M5 Lesson 18: Find the volume of right rectangular prisms by packing with improvised units.</p> <p>5 M5 Lesson 19: Compose and decompose right rectangular prisms to find their volume by using layers.</p> <p>5 M5 Lesson 20: Interpret volume as filling.</p> <p>5 M5 Lesson 21: Relate volumes of solids and liquid volume.</p> <p>5 M5 Lesson 22: Find the volumes of right rectangular prisms by using the area of the base.</p> <p>5 M5 Lesson 23: Find the volumes of right rectangular prisms by multiplying the edge lengths.</p> <p>5 M5 Lesson 24: Solve word problems involving volumes of right rectangular prisms.</p>

**Indiana Academic Standards  
for Mathematics**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>5.M.5</b></p> <p>Apply the formulas <math>V = l \times w \times h</math> and <math>V = B \times h</math> for right rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths to solve real-world problems and other mathematical problems. (E)</p>	<p>5 M5 Lesson 22: Find the volumes of right rectangular prisms by using the area of the base.</p> <p>5 M5 Lesson 23: Find the volumes of right rectangular prisms by multiplying the edge lengths.</p> <p>5 M5 Lesson 25: Find the volumes of solid figures composed of right rectangular prisms.</p> <p>5 M5 Lesson 26: Solve word problems involving perimeter, area, and volume.</p> <p>5 M5 Lesson 27: Apply concepts and formulas of volume to design a sculpture by using right rectangular prisms, part 1.</p> <p>5 M5 Lesson 28: Apply concepts and formulas of volume to design a sculpture by using right rectangular prisms, part 2.</p>
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**Data Analysis**

Students create questions appropriate to the data and answer the questions using multiple representations.

**Indiana Academic Standards  
for Mathematics**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>5.DA.1</b></p> <p>Formulate questions that can be addressed with categorical and numerical data and make predictions about the data. Collect, organize, and graph data from observations, surveys, and experiments using line plots with fractional intervals, histograms, or other graphical representations that appropriately represent the data set. (E)</p>	<p>5 M2 Lesson 15: Represent data on a line plot.</p> <p>5 M2 Lesson 16: Solve problems by using data from a line plot.</p> <p>5 M2 Lesson 17: Solve problems by equally redistributing a total amount.</p> <p>6 M6 Lesson 3: Creating a Dot Plot</p> <p>6 M6 Lesson 4: Creating a Histogram</p> <p>6 M6 Lesson 5: Comparing Data Displays</p> <p>6 M6 Lesson 6: Selecting a Data Display</p> <p>6 M6 Lesson 22: Presenting Statistical Projects</p>
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**Indiana Academic Standards  
for Mathematics**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>5.DA.2</b></p> <p>Calculate measures of central tendency (mean, median, and mode) to describe a data set. Analyze data sets to determine which measure of central tendency appropriately describes the distribution of data. (E)</p>	<p>6 M6 Lesson 7: Using the Mean to Describe the Center</p> <p>6 M6 Lesson 8: The Mean as a Balance Point</p> <p>6 M6 Lesson 10: The Mean Absolute Deviation</p> <p>6 M6 Lesson 11: Using the Mean and Mean Absolute Deviation</p> <p>6 M6 Lesson 12: Using the Median to Describe the Center</p> <p>6 M6 Lesson 18: Connecting Graphical Representations and Summary Measures</p> <p>6 M6 Lesson 20: Choosing a Measure of Center</p> <p><i>Supplemental material is necessary to address mode.</i></p>
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**Integrated STEM  
Communication and Collaboration**

**Indiana Academic Standards:  
Integrated STEM**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>5.CC.1</b></p> <p>Collect and document evidence to share information with others in charts, tables, presentations or text.</p>	<p>5 M1 Lesson 3: Use exponents to multiply and divide by powers of 10.</p> <p>5 M1 Lesson 6: Solve multi-step word problems by using metric measurement conversion.</p> <p>5 M1 Lesson 16: Divide four-digit numbers by two-digit numbers.</p> <p>5 M2 Lesson 9: Add and subtract fractions with unrelated units by finding equivalent fractions numerically.</p> <p>5 M2 Lesson 11: Add mixed numbers with unrelated units.</p> <p>5 M2 Lesson 14: Subtract mixed numbers from mixed numbers with unrelated units.</p> <p>5 M3 Lesson 8: Multiply fractions less than 1 pictorially.</p> <p>5 M4 Lesson 10: Add decimal numbers by using place value understanding.</p> <p>5 M4 Lesson 17: Multiply decimal numbers to hundredths by two-digit whole numbers by using different methods.</p>
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**Indiana Academic Standards:  
Integrated STEM**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>5.CC.1 <i>continued</i></b></p>	<p>5 M4 Lesson 18: Relate decimal-number multiplication to fraction multiplication.</p> <p>5 M4 Lesson 26: Solve a real-world problem involving metric measurements.</p> <p>5 M5 Lesson 9: Organize, count, and represent a collection of square tiles.</p> <p>5 M5 Lesson 13: Solve mathematical problems involving areas of composite figures with mixed-number side lengths.</p> <p>5 M5 Lesson 14: Solve real-world problems involving areas of composite figures with mixed-number side lengths.</p> <p>5 M6 Lesson 17: Plot data in the coordinate plane and analyze relationships.</p> <p>5 M6 Lesson 18: Interpret line graphs.</p>
<p><b>5.CC.2</b></p> <p>Communicate the solution(s) of a problem/analysis either orally, visually, or in writing, including process steps, findings or conclusions.</p>	<p>5 M1 Lesson 19: Solve multi-step word problems involving multiplication and division.</p> <p>5 M1 Lesson 20: Solve multi-step word problems involving the four operations.</p> <p>5 M2 Lesson 4: Solve word problems involving division and fractions.</p> <p>5 M2 Lesson 14: Subtract mixed numbers from mixed numbers with unrelated units.</p> <p>5 M2 Lesson 17: Solve problems by equally redistributing a total amount.</p> <p>5 M3 Lesson 17: Solve word problems involving fractions with multiplication and division.</p> <p>5 M4 Lesson 22: Divide decimal numbers to hundredths by two-digit whole numbers.</p> <p>5 M4 Lesson 26: Solve a real-world problem involving metric measurements.</p> <p>5 M5 Lesson 9: Organize, count, and represent a collection of square tiles.</p> <p>5 M5 Lesson 14: Solve real-world problems involving areas of composite figures with mixed-number side lengths.</p> <p>5 M6 Lesson 20: Reason about patterns in real-world situations.</p>

**Indiana Academic Standards:  
Integrated STEM**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>5.CC.3</b></p> <p>Identify and implement roles and responsibilities to collaborate in various group settings (i.e., online, onsite and/or hybrid) and situations.</p>	<p>5 M2 Lesson 4: Solve word problems involving division and fractions.</p> <p>5 M2 Lesson 16: Solve problems by using data from a line plot.</p> <p>5 M4 Lesson 17: Multiply decimal numbers to hundredths by two-digit whole numbers by using different methods.</p> <p>5 M5 Lesson 24: Solve word problems involving volumes of right rectangular prisms.</p> <p>5 M5 Lesson 28: Apply concepts and formulas of volume to design a sculpture by using right rectangular prisms, part 2.</p> <p>5 M6 Lesson 1: Construct a coordinate system on a line.</p> <p>5 M6 Lesson 2: Construct a coordinate system in a plane.</p> <p>5 M6 Lesson 3: Identify and plot points by using ordered pairs.</p>
<p><b>5.CC.4</b></p> <p>Communicate specific constraints and criteria established for an investigation.</p>	<p>5 M1 Lesson 6: Solve multi-step word problems by using metric measurement conversion.</p> <p>5 M2 Lesson 3: Represent fractions as division by using models.</p> <p>5 M2 Lesson 11: Add mixed numbers with unrelated units.</p> <p>5 M3 Lesson 4: Multiply a whole number by a fraction.</p> <p>5 M3 Lesson 13: Divide a nonzero whole number by a unit fraction to find the size of the group.</p> <p>5 M3 Lesson 19: Create and solve one-step word problems involving fractions.</p> <p>5 M4 Lesson 24: Divide decimal numbers by decimal numbers, resulting in whole-number quotients.</p> <p>5 M5 Lesson 15: Solve multi-step word problems involving multiplication of mixed numbers.</p> <p>5 M5 Lesson 17: Find the volume of right rectangular prisms by packing with unit cubes and counting.</p> <p>5 M5 Lesson 20: Interpret volume as filling.</p> <p>5 M5 Lesson 21: Relate volumes of solids and liquid volume.</p> <p>5 M5 Lesson 24: Solve word problems involving volumes of right rectangular prisms.</p> <p>5 M6 Lesson 4: Describe the distance and direction between points in the coordinate plane.</p> <p>5 M6 Lesson 17: Plot data in the coordinate plane and analyze relationships.</p> <p>5 M6 Lesson 18: Interpret line graphs.</p>

**Indiana Academic Standards:  
Integrated STEM**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>5.CC.5</b></p> <p>Critique or support methods, investigations, or arguments using evidence-based reasoning.</p>	<p>5 M1 Lesson 3: Use exponents to multiply and divide by powers of 10.</p> <p>5 M1 Lesson 15: Divide three-digit numbers by two-digit numbers in problems that result in two-digit quotients.</p> <p>5 M2 Lesson 5: Add and subtract fractions with related units by using pictorial models.</p> <p>5 M2 Lesson 9: Add and subtract fractions with unrelated units by finding equivalent fractions numerically.</p> <p>5 M2 Lesson 16: Solve problems by using data from a line plot.</p> <p>5 M3 Lesson 8: Multiply fractions less than 1 pictorially.</p> <p>5 M3 Lesson 11: Multiply fractions.</p> <p>5 M3 Lesson 15: Divide by whole numbers and unit fractions.</p> <p>5 M3 Lesson 19: Create and solve one-step word problems involving fractions.</p> <p>5 M4 Lesson 3: Represent decimal numbers to the thousandths place in different forms.</p> <p>5 M4 Lesson 10: Add decimal numbers by using place value understanding.</p> <p>5 M4 Lesson 21: Divide decimal numbers to hundredths by one-digit whole numbers and multiples of 10, 100, or 1,000 by using place value understanding and vertical form.</p> <p>5 M4 Lesson 24: Divide decimal numbers by decimal numbers, resulting in whole-number quotients.</p> <p>5 M4 Lesson 26: Solve a real-world problem involving metric measurements.</p> <p>5 M5 Lesson 10: Find the area of a rectangle with fraction side lengths by relating the rectangle to a unit square.</p> <p>5 M5 Lesson 11: Find areas of rectangles with fraction side lengths by using multiplication.</p> <p>5 M5 Lesson 13: Solve mathematical problems involving areas of composite figures with mixed-number side lengths.</p> <p>5 M5 Lesson 18: Find the volume of right rectangular prisms by packing with improvised units.</p> <p>5 M6 Lesson 11: Draw lines in the coordinate plane and identify points on the lines.</p> <p>5 M6 Lesson 15: Use the coordinate plane to reason about perimeters and areas of rectangles.</p> <p>5 M6 Lesson 16: Interpret graphs that represent real-world situations.</p> <p>5 M6 Lesson 18: Interpret line graphs.</p>
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## Integrated STEM

### Data Analysis and Measurement

#### Indiana Academic Standards: Integrated STEM

#### Aligned Components of *Eureka Math*<sup>2</sup>

<p><b>5.DM.1</b></p> <p>Determine appropriate measurement tools to perform measurements, calculations, and conversions (e.g., fractions, decimals, pounds, perimeter, area, volume, central tendency) defined in grade level content standards to analyze real-world scenarios.</p>	<p>5 M1 Lesson 5: Convert measurements and describe relationships between metric units.</p> <p>5 M1 Lesson 6: Solve multi-step word problems by using metric measurement conversion.</p> <p>5 M2 Lesson 15: Represent data on a line plot.</p> <p>5 M2 Lesson 16: Solve problems by using data from a line plot.</p> <p>5 M2 Lesson 17: Solve problems by equally redistributing a total amount.</p> <p>5 M3 Lesson 5: Convert larger customary measurement units to smaller measurement units.</p> <p>5 M3 Lesson 6: Convert smaller customary measurement units to larger measurement units.</p> <p>5 M4 Lesson 26: Solve a real-world problem involving metric measurements.</p> <p>5 M4 Lesson 27: Convert metric measurements involving decimals.</p> <p>5 M4 Lesson 28: Convert customary measurements involving decimals.</p> <p>5 M5 Lesson 8: Find areas of square tiles with fraction side lengths by relating the tile to a unit square.</p> <p>5 M5 Lesson 9: Organize, count, and represent a collection of square tiles.</p> <p>5 M5 Lesson 10: Find the area of a rectangle with fraction side lengths by relating the rectangle to a unit square.</p> <p>5 M5 Lesson 11: Find areas of rectangles with fraction side lengths by using multiplication.</p> <p>5 M5 Lesson 13: Solve mathematical problems involving areas of composite figures with mixed-number side lengths.</p> <p>5 M5 Lesson 28: Apply concepts and formulas of volume to design a sculpture by using right rectangular prisms, part 2.</p> <p>5 M6 Lesson 15: Use the coordinate plane to reason about perimeters and areas of rectangles.</p>



**Indiana Academic Standards:  
Integrated STEM**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>5.DM.2</b></p> <p>Construct visual representations defined in grade level content standards (e.g., bar graphs, charts, line plots) to determine patterns, using digital tools when possible and feasible.</p>	<p>5 M2 Lesson 15: Represent data on a line plot.</p> <p>5 M2 Lesson 16: Solve problems by using data from a line plot.</p> <p>5 M2 Lesson 17: Solve problems by equally redistributing a total amount.</p> <p>5 M6 Lesson 2: Construct a coordinate system in a plane.</p> <p>5 M6 Lesson 3: Identify and plot points by using ordered pairs.</p> <p>5 M6 Lesson 4: Describe the distance and direction between points in the coordinate plane.</p> <p>5 M6 Lesson 7: Generate number patterns to form ordered pairs.</p> <p>5 M6 Lesson 8: Identify addition and subtraction relationships between corresponding terms in number patterns.</p> <p>5 M6 Lesson 9: Identify multiplication and division relationships between corresponding terms in number patterns.</p> <p>5 M6 Lesson 11: Draw lines in the coordinate plane and identify points on the lines.</p> <p>5 M6 Lesson 12: Graph and classify quadrilaterals in the coordinate plane.</p> <p>5 M6 Lesson 13: Draw symmetric figures in the coordinate plane.</p> <p>5 M6 Lesson 17: Plot data in the coordinate plane and analyze relationships.</p> <p>5 M6 Lesson 18: Interpret line graphs.</p>
<p><b>5.DM.3</b></p> <p>Evaluate reasonableness of observations, results, and solutions throughout processes.</p>	<p>5 M1 Lesson 4: Estimate products and quotients by using powers of 10 and their multiples.</p> <p>5 M1 Lesson 6: Solve multi-step word problems by using metric measurement conversion.</p> <p>5 M1 Lesson 12: Divide two- and three-digit numbers by multiples of 10.</p> <p>5 M1 Lesson 13: Divide two-digit numbers by two-digit numbers in problems that result in one-digit quotients.</p> <p>5 M1 Lesson 14: Divide three-digit numbers by two-digit numbers in problems that result in one-digit quotients.</p> <p>5 M1 Lesson 15: Divide three-digit numbers by two-digit numbers in problems that result in two-digit quotients.</p>

**Indiana Academic Standards:  
Integrated STEM**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>5.DM.3 <i>continued</i></b></p>	<p>5 M1 Lesson 16: Divide four-digit numbers by two-digit numbers.</p> <p>5 M1 Lesson 19: Solve multi-step word problems involving multiplication and division.</p> <p>5 M1 Lesson 20: Solve multi-step word problems involving the four operations.</p> <p>5 M2 Lesson 3: Represent fractions as division by using models.</p> <p>5 M2 Lesson 4: Solve word problems involving division and fractions.</p> <p>5 M2 Lesson 5: Add and subtract fractions with related units by using pictorial models.</p> <p>5 M2 Lesson 6: Add and subtract fractions with related units by using area models to rename fractions.</p> <p>5 M2 Lesson 7: Add and subtract fractions with related units by finding equivalent fractions numerically.</p> <p>5 M2 Lesson 10: Add whole numbers and mixed numbers and add mixed numbers with related units.</p> <p>5 M2 Lesson 13: Subtract mixed numbers from mixed numbers with related units.</p> <p>5 M2 Lesson 17: Solve problems by equally redistributing a total amount.</p> <p>5 M3 Lesson 3: Multiply a whole number by a fraction less than 1.</p> <p>5 M3 Lesson 4: Multiply a whole number by a fraction.</p> <p>5 M3 Lesson 5: Convert larger customary measurement units to smaller measurement units.</p> <p>5 M3 Lesson 6: Convert smaller customary measurement units to larger measurement units.</p> <p>5 M3 Lesson 7: Multiply fractions less than 1 by unit fractions pictorially.</p> <p>5 M3 Lesson 10: Multiply fractions greater than 1 by fractions.</p> <p>5 M3 Lesson 11: Multiply fractions.</p> <p>5 M3 Lesson 12: Divide a nonzero whole number by a unit fraction to find the number of groups.</p> <p>5 M3 Lesson 14: Divide a unit fraction by a nonzero whole number.</p> <p>5 M3 Lesson 15: Divide by whole numbers and unit fractions.</p> <p>5 M3 Lesson 21: Solve multi-step word problems involving fractions.</p>
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**Indiana Academic Standards:  
Integrated STEM**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>5.DM.3 <i>continued</i></b></p>	<p>5 M4 Lesson 2: Represent thousandths as a place value unit.</p> <p>5 M4 Lesson 9: Add decimal numbers by using different methods.</p> <p>5 M4 Lesson 10: Add decimal numbers by using place value understanding.</p> <p>5 M4 Lesson 11: Subtract decimal numbers by using different methods.</p> <p>5 M4 Lesson 12: Subtract decimal numbers by using place value understanding.</p> <p>5 M4 Lesson 15: Multiply decimal numbers to hundredths by one-digit whole numbers and multiples of 10, 100, or 1,000 by using different written methods.</p> <p>5 M4 Lesson 17: Multiply decimal numbers to hundredths by two-digit whole numbers by using different methods.</p> <p>5 M4 Lesson 19: Multiply a decimal number by a decimal number.</p> <p>5 M4 Lesson 20: Divide decimal numbers to hundredths by one-digit whole numbers and multiples of 10, 100, or 1,000 by using unit form and place value understanding.</p> <p>5 M4 Lesson 21: Divide decimal numbers to hundredths by one-digit whole numbers and multiples of 10, 100, or 1,000 by using place value understanding and vertical form.</p> <p>5 M4 Lesson 22: Divide decimal numbers to hundredths by two-digit whole numbers.</p> <p>5 M4 Lesson 24: Divide decimal numbers by decimal numbers, resulting in whole-number quotients.</p> <p>5 M4 Lesson 25: Divide decimal numbers by decimal numbers, resulting in decimal-number quotients.</p> <p>5 M5 Lesson 12: Multiply mixed numbers.</p> <p>5 M5 Lesson 15: Solve multi-step word problems involving multiplication of mixed numbers.</p> <p>5 M6 Lesson 20: Reason about patterns in real-world situations.</p>
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**Indiana Academic Standards:  
Integrated STEM**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>5.DM.4</b></p> <p>Choose data sets and analysis methods to support the inquiry process.</p>	<p>5 M1 Lesson 19: Solve multi-step word problems involving multiplication and division.</p> <p>5 M3 Lesson 14: Divide a unit fraction by a nonzero whole number.</p> <p>5 M3 Lesson 20: Solve multi-step word problems involving fractions and write equations with parentheses.</p> <p>5 M3 Lesson 21: Solve multi-step word problems involving fractions.</p> <p>5 M4 Lesson 28: Convert customary measurements involving decimals.</p> <p>5 M5 Lesson 27: Apply concepts and formulas of volume to design a sculpture by using right rectangular prisms, part 1.</p>
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**Integrated STEM**

**Inquiry-Based Approaches and Problem Solving**

**Indiana Academic Standards:  
Integrated STEM**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>5.IPS.1</b></p> <p>Plan and conduct an investigation to answer a specific question or solve a specific problem.</p>	<p>5 M2 Lesson 8: Add and subtract fractions with unrelated units by finding equivalent fractions pictorially.</p> <p>5 M2 Lesson 14: Subtract mixed numbers from mixed numbers with unrelated units.</p> <p>5 M3 Lesson 2: Interpret fractions as division to find fractions of a set with tape diagrams and number lines.</p> <p>5 M6 Lesson 20: Reason about patterns in real-world situations.</p>
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**Indiana Academic Standards:  
Integrated STEM**

**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>5.IPS.2</b></p> <p>Decompose a complex problem into smaller steps or sequences to evaluate (e.g., what should be done first, second).</p>	<p>5 M1 Lesson 6: Solve multi-step word problems by using metric measurement conversion.</p> <p>5 M1 Lesson 19: Solve multi-step word problems involving multiplication and division.</p> <p>5 M1 Lesson 20: Solve multi-step word problems involving the four operations.</p> <p>5 M3 Lesson 17: Solve word problems involving fractions with multiplication and division.</p> <p>5 M3 Lesson 20: Solve multi-step word problems involving fractions and write equations with parentheses.</p> <p>5 M3 Lesson 21: Solve multi-step word problems involving fractions.</p> <p>5 M4 Lesson 13: Solve word problems involving addition and subtraction of decimal numbers and fractions.</p> <p>5 M5 Lesson 8: Find areas of square tiles with fraction side lengths by relating the tile to a unit square.</p> <p>5 M5 Lesson 9: Organize, count, and represent a collection of square tiles.</p> <p>5 M5 Lesson 13: Solve mathematical problems involving areas of composite figures with mixed-number side lengths.</p> <p>5 M5 Lesson 14: Solve real-world problems involving areas of composite figures with mixed-number side lengths.</p> <p>5 M5 Lesson 15: Solve multi-step word problems involving multiplication of mixed numbers.</p> <p>5 M5 Lesson 24: Solve word problems involving volumes of right rectangular prisms.</p> <p>5 M5 Lesson 25: Find the volumes of solid figures composed of right rectangular prisms.</p> <p>5 M5 Lesson 26: Solve word problems involving perimeter, area, and volume.</p>
<p><b>5.IPS.3</b></p> <p>Determine one or more viable solutions using data and information to resolve a scenario given criteria and constraints.</p>	<p>5 M1 Lesson 13: Divide two-digit numbers by two-digit numbers in problems that result in one-digit quotients.</p> <p>5 M2 Lesson 1: Interpret a fraction as division.</p> <p>5 M2 Lesson 11: Add mixed numbers with unrelated units.</p>

## Integrated STEM

### Applications and Modeling

#### Indiana Academic Standards: Integrated STEM

#### Aligned Components of *Eureka Math*<sup>2</sup>

<p><b>5.AM.1</b></p> <p>Apply symbols and relationships (e.g., place value, equations, operations) to represent physical or conceptual objects (e.g., letters, numbers, or displays of color may represent objects).</p>	<p>5 M1 Lesson 6: Solve multi-step word problems by using metric measurement conversion.</p> <p>5 M1 Lesson 19: Solve multi-step word problems involving multiplication and division.</p> <p>5 M1 Lesson 20: Solve multi-step word problems involving the four operations.</p> <p>5 M2 Lesson 1: Interpret a fraction as division.</p> <p>5 M3 Lesson 1: Find fractions of a set with arrays.</p> <p>5 M3 Lesson 2: Interpret fractions as division to find fractions of a set with tape diagrams and number lines.</p> <p>5 M3 Lesson 17: Solve word problems involving fractions with multiplication and division.</p> <p>5 M3 Lesson 19: Create and solve one-step word problems involving fractions.</p> <p>5 M3 Lesson 20: Solve multi-step word problems involving fractions and write equations with parentheses.</p> <p>5 M3 Lesson 21: Solve multi-step word problems involving fractions.</p> <p>5 M4 Lesson 1: Model and relate decimal place value units to thousandths.</p> <p>5 M4 Lesson 2: Represent thousandths as a place value unit.</p> <p>5 M4 Lesson 13: Solve word problems involving addition and subtraction of decimal numbers and fractions.</p> <p>5 M5 Lesson 8: Find areas of square tiles with fraction side lengths by relating the tile to a unit square.</p> <p>5 M5 Lesson 9: Organize, count, and represent a collection of square tiles.</p> <p>5 M5 Lesson 10: Find the area of a rectangle with fraction side lengths by relating the rectangle to a unit square.</p> <p>5 M5 Lesson 11: Find areas of rectangles with fraction side lengths by using multiplication.</p> <p>5 M5 Lesson 13: Solve mathematical problems involving areas of composite figures with mixed-number side lengths.</p>

**Indiana Academic Standards:  
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**Aligned Components of *Eureka Math*<sup>2</sup>**

<p><b>5.AM.1 <i>continued</i></b></p>	<p>5 M5 Lesson 14: Solve real-world problems involving areas of composite figures with mixed-number side lengths.</p> <p>5 M5 Lesson 15: Solve multi-step word problems involving multiplication of mixed numbers.</p> <p>5 M5 Lesson 16: Identify attributes and properties of right rectangular prisms.</p> <p>5 M5 Lesson 17: Find the volume of right rectangular prisms by packing with unit cubes and counting.</p> <p>5 M5 Lesson 18: Find the volume of right rectangular prisms by packing with improvised units.</p> <p>5 M5 Lesson 19: Compose and decompose right rectangular prisms to find their volume by using layers.</p> <p>5 M5 Lesson 20: Interpret volume as filling.</p> <p>5 M5 Lesson 21: Relate volumes of solids and liquid volume.</p> <p>5 M5 Lesson 22: Find the volumes of right rectangular prisms by using the area of the base.</p> <p>5 M5 Lesson 23: Find the volumes of right rectangular prisms by multiplying the edge lengths.</p> <p>5 M5 Lesson 24: Solve word problems involving volumes of right rectangular prisms.</p> <p>5 M5 Lesson 25: Find the volumes of solid figures composed of right rectangular prisms.</p> <p>5 M5 Lesson 26: Solve word problems involving perimeter, area, and volume.</p> <p>5 M6 Lesson 1: Construct a coordinate system on a line.</p> <p>5 M6 Lesson 2: Construct a coordinate system in a plane.</p> <p>5 M6 Lesson 3: Identify and plot points by using ordered pairs.</p>
<p><b>5.AM.2</b></p> <p>Create a model showing a subsystem as part of a larger system.</p>	<p>5 M6 Lesson 1: Construct a coordinate system on a line.</p> <p>5 M6 Lesson 2: Construct a coordinate system in a plane.</p>

## Integrated STEM

### Information and Digital Literacy

#### Indiana Academic Standards: Integrated STEM

#### Aligned Components of *Eureka Math*<sup>2</sup>

Indiana Academic Standards: Integrated STEM	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<p><b>5.IDL.1</b></p> <p>Identify and evaluate the impact of technology when selecting tools to solve a problem in order to determine the most effective solution.</p>	<p><i>Supplemental material is necessary to address this standard.</i></p>
<p><b>5.IDL.2</b></p> <p>Review and compile information from multiple sources to solve a problem.</p>	<p>5 M2 Lesson 1: Interpret a fraction as division.</p> <p>5 M2 Lesson 5: Add and subtract fractions with related units by using pictorial models.</p> <p>5 M2 Lesson 17: Solve problems by equally redistributing a total amount.</p> <p>5 M3 Lesson 2: Interpret fractions as division to find fractions of a set with tape diagrams and number lines.</p> <p>5 M3 Lesson 6: Convert smaller customary measurement units to larger measurement units.</p> <p>5 M3 Lesson 20: Solve multi-step word problems involving fractions and write equations with parentheses.</p> <p>5 M4 Lesson 1: Model and relate decimal place value units to thousandths.</p> <p>5 M4 Lesson 11: Subtract decimal numbers by using different methods.</p> <p>5 M4 Lesson 26: Solve a real-world problem involving metric measurements.</p> <p>5 M5 Lesson 8: Find areas of square tiles with fraction side lengths by relating the tile to a unit square.</p> <p>5 M5 Lesson 14: Solve real-world problems involving areas of composite figures with mixed-number side lengths.</p> <p>5 M5 Lesson 16: Identify attributes and properties of right rectangular prisms.</p> <p>5 M5 Lesson 20: Interpret volume as filling.</p> <p>5 M5 Lesson 21: Relate volumes of solids and liquid volume. 5 M6 Lesson 4: Describe the distance and direction between points in the coordinate plane.</p>



**Indiana Academic Standards:  
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<p><b>5.IDL.2 <i>continued</i></b></p>	<p>5 M6 Lesson 4: Describe the distance and direction between points in the coordinate plane</p> <p>5 M6 Lesson 8: Identify addition and subtraction relationships between corresponding terms in number patterns.</p> <p>5 M6 Lesson 9: Identify multiplication and division relationships between corresponding terms in number patterns.</p> <p>5 M6 Lesson 20: Reason about patterns in real-world situations.</p>
<p><b>5.IDL.3</b></p> <p>Describe how solutions or technologies are adapted to meet the changing needs and wants of individuals or communities.</p>	<p><i>Supplemental material is necessary to address this standard.</i></p>