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## Grade 5 | Arkansas Mathematics Standards (2023) Correlation to *Eureka Math*<sup>2</sup>® (2027)

*Eureka Math*<sup>2</sup> is a research-proven math curriculum that empowers teachers to center instructional techniques on student success. Teachers can foster more “aha!” learning moments by providing the support needed for all learners to build a more confident math mindset.

This *Eureka Math*<sup>2</sup> edition builds on a strong foundation of effective instruction. It provides teachers with guidance on delivering rigorous instruction that honors student choice and encourages confident problem-solving.

*Eureka Math*<sup>2</sup> carefully sequences mathematical content to maximize vertical alignment from kindergarten through high school. This kind of sequencing has proven to be essential in students’ mastery of math.

### Teachability

*Eureka 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 into the teacher materials.

### Accessibility

*Eureka Math*<sup>2</sup> incorporates Universal Design for Learning (UDL) principles so all learners can access the mathematics and take on challenging math concepts. UDL, Differentiation, and Multilingual Learner supports are built into the instructional design and are clearly identified in the *Teach* book.

The curriculum also carries a focus on readability. By eliminating unnecessary words and using clear sentences, the *Eureka 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.

### Math Confidence

*Eureka Math*<sup>2</sup> fosters a classroom culture of learning by encouraging student-led discourse and cognitive engagement that results in confident learners. By leveraging consistent models, routines, and progressions, teachers can remove barriers and allow all students an avenue to success. Within the digital platform, each grade includes wordless videos and digital interactives that spark students’ curiosity and help them make conceptual connections. Using the *Learn* books, students wonder, explore, and make sense of mathematics, which helps them develop a strong, positive mathematical identity.

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

## Number & Place Value

### Place Value

Students understand the base ten place value system.

Arkansas Mathematics Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<p><b>5.NPV.1</b></p> <p>Recognize that, in a multi-digit number, a digit in a given place represents 10 times as much as it represents in the place to its right and <math>\frac{1}{10}</math> of what it represents in the place to its left.</p>	<p>5 M1 Lesson 1: Relate adjacent place value units by using place value understanding.</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 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><b>5.NPV.2</b></p> <p>Explain patterns in the number of zeros and/or the decimal point when multiplying or dividing a number by a power of 10, using 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.NPV.3</b></p> <p>Read and write decimals to thousandths, using base-ten numerals, word form, and a variety of expanded forms.</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 6: Compare decimal numbers to the thousandths place.</p>
<p><b>5.NPV.4</b></p> <p>Apply place value understanding to round decimals to any place up to the thousandths.</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>

## Number & Place Value

### Comparison

Students use place value understanding to compare numbers.

Arkansas Mathematics Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<b>5.NPV.5</b> Compare two decimals to thousandths based on the value of the digits in each place, using symbols ( $<$ , $=$ , $>$ ) to record the results of comparisons.	5 M4 Lesson 6: Compare decimal numbers to the thousandths place.

## Number & Place Value

### Fraction Foundations

Students build a conceptual understanding of fractions.

Arkansas Mathematics Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<b>5.NPV.6</b> Use visual models to explain the product of multiplying a whole number by a fraction greater than and less than one.	5 M3 Lesson 1: Find fractions of a set with arrays. 5 M3 Lesson 2: Interpret fractions as division to find fractions of a set with tape diagrams and number lines. 5 M3 Lesson 3: Multiply a whole number by a fraction less than 1. 5 M3 Lesson 4: Multiply a whole number by a fraction. 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 M3 Lesson 7: Multiply fractions less than 1 by unit fractions pictorially. 5 M3 Lesson 8: Multiply fractions less than 1 pictorially. 5 M3 Lesson 9: Multiply fractions by unit fractions by making simpler problems. 5 M3 Lesson 10: Multiply fractions greater than 1 by fractions. 5 M3 Lesson 11: Multiply fractions.

## Computation & Algebraic Reasoning

### Operations & Properties

Students perform operations using place value understanding and properties of operations.

Arkansas Mathematics Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<p><b>5.CAR.1</b></p> <p>Use computational fluency to multiply multi-digit whole numbers by using strategies and algorithms, including the standard algorithm, with mastery by the end of fifth grade.</p>	<p>5 M1 Lesson 7: Multiply by using familiar methods.</p> <p>5 M1 Lesson 8: Multiply two- and three-digit numbers by two-digit numbers by using the distributive property.</p> <p>5 M1 Lesson 9: Multiply two- and three-digit numbers by two-digit numbers by using the standard algorithm.</p> <p>5 M1 Lesson 10: Multiply three- and four-digit numbers by three-digit numbers by using the standard algorithm.</p> <p>5 M1 Lesson 11: Multiply two multi-digit numbers by using the standard algorithm.</p>
<p><b>5.CAR.2</b></p> <p>Calculate whole number quotients of whole numbers with up to four-digit dividends and two-digit divisors using strategies based on place value, properties of operations, divisibility rules, and the relationship between multiplication and division.</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.CAR.3</b></p> <p>Add and subtract decimals to the hundredths using concrete models or drawings and strategies based on place value, properties of operations, or the relationship between addition and subtraction.</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>

**Arkansas Mathematics Standards**

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

<p><b>5.CAR.3 <i>continued</i></b></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>
<p><b>5.CAR.4</b></p> <p>Multiply and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, or the relationship between multiplication and division.</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>

**Arkansas Mathematics Standards**

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

<p><b>5.CAR.4 <i>continued</i></b></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>
<p><b>5.CAR.5</b></p> <p>Add and subtract fractions with like and unlike denominators by using equivalent fractions <math>\left\{\frac{a}{b} = \left(\frac{n \times a}{n \times b}\right)\right\}</math> to create common denominators; include real-world problems.</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>

Arkansas Mathematics Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<p><b>5.CAR.6</b></p> <p>Interpret and solve fractions as division problems, <math>\left(\frac{a}{b} = a \div b\right)</math>, where <math>a</math> and <math>b</math> are natural 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><b>5.CAR.7</b></p> <p>Use visual models and equations to multiply whole numbers by fractions and fractions by fractions, including mixed numbers and fractions greater than one.</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.CAR.8</b></p> <p>Apply previous understanding of division to divide unit fractions by whole numbers and whole numbers by unit 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 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>

## Computation & Algebraic Reasoning

### Problem Solving

Students solve real-world problems.

Arkansas Mathematics Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<p><b>5.CAR.9</b></p> <p>Solve and create real-world problems involving multiplication of fractions and mixed numbers.</p>	<p>5 M3 Lesson 17: Solve word problems involving fractions with multiplication and division.</p> <p>5 M3 Lesson 21: Solve multi-step word problems involving fractions.</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><b>5.CAR.10</b></p> <p>Solve real-world problems involving the division of natural numbers leading to answers in the form of fractions or mixed numbers using visual models and equations.</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><b>5.CAR.11</b></p> <p>Solve real-world problems involving the division of unit fractions by whole numbers and whole numbers by unit fractions, using visual fraction models and equations.</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 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>

## Computation & Algebraic Reasoning

### Algebraic Concepts

Students develop and apply an understanding of foundational algebraic concepts.

Arkansas Mathematics Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<p><b>5.CAR.12</b></p> <p>Evaluate numerical expressions with parentheses or brackets and exponents with the base of ten, using the Order of Operations.</p>	<p>5 M1 Lesson 7: Multiply by using familiar methods.</p> <p>5 M1 Lesson 8: Multiply two- and three-digit numbers by two-digit numbers by using the distributive property.</p> <p>5 M1 Lesson 17: Write, interpret, and compare numerical expressions.</p> <p>5 M1 Lesson 18: Create and solve real-world problems for given numerical expressions.</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 18: Compare and evaluate expressions with parentheses.</p> <p>5 M3 Lesson 22: Evaluate expressions involving nested grouping symbols.</p> <p>5 M4 Lesson 29: Interpret, evaluate, and compare numerical expressions involving decimals.</p> <p>5 M4 Lesson 30: Create and solve real-world problems for given numerical expressions involving decimals.</p> <p>6 M4 Lesson 1: Expressions with Addition and Subtraction</p> <p>6 M4 Lesson 2: Expressions with Multiplication and Division</p> <p>6 M4 Lesson 3: Exploring Exponents</p> <p>6 M4 Lesson 4: Evaluating Expressions with Exponents</p> <p>6 M4 Lesson 5: Exploring Order of Operations</p> <p>6 M4 Lesson 6: Order of Operations</p>

Arkansas Mathematics Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<p><b>5.CAR.13</b></p> <p>Write simple expressions that record calculations with numbers, interpreting numerical expressions without evaluating them.</p>	<p>5 M1 Lesson 17: Write, interpret, and compare numerical expressions.</p> <p>5 M1 Lesson 18: Create and solve real-world problems for given numerical expressions.</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 12: Divide a nonzero whole number by a unit fraction to find the number of groups.</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 18: Compare and evaluate expressions with parentheses.</p> <p>5 M4 Lesson 29: Interpret, evaluate, and compare numerical expressions involving decimals.</p> <p>5 M4 Lesson 30: Create and solve real-world problems for given numerical expressions involving decimals.</p>
<p><b>5.CAR.14</b></p> <p>Generate two numerical patterns given two rules, identifying the relationship between the corresponding terms by graphing the terms in the first quadrant of the coordinate grid.</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 20: Reason about patterns in real-world situations.</p>

## Geometry & Measurement

### Shapes

Students expand knowledge of shapes by analyzing sides and angles.

Arkansas Mathematics Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<p><b>5.GM.1</b></p> <p>Classify two-dimensional figures in a hierarchy based on properties with the focus on quadrilaterals and triangles when teaching hierarchies.</p>	<p>5 M5 Lesson 1: Analyze hierarchies and identify properties of quadrilaterals.</p> <p>5 M5 Lesson 2: Classify trapezoids based on their properties.</p> <p>5 M5 Lesson 3: Classify parallelograms based on their properties.</p> <p>5 M5 Lesson 4: Classify rectangles and rhombuses based on their properties.</p> <p>5 M5 Lesson 5: Classify kites and squares based on their properties.</p> <p>5 M5 Lesson 6: Identify quadrilaterals from given properties.</p> <p>5 M5 Lesson 7: Classify quadrilaterals in a hierarchy based on properties.</p> <p>5 M6 Lesson 12: Graph and classify quadrilaterals in the coordinate plane.</p>

## Geometry & Measurement

### Area & Volume

Students solve the area of rectangles and volume of rectangular prisms.

Arkansas Mathematics Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<p><b>5.GM.2</b></p> <p>Find the area of a rectangle with fractional and/or mixed number side lengths by using models and multiplying the fractional side lengths showing that both strategies produce the same area.</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>

Arkansas Mathematics Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<p><b>5.GM.3</b></p> <p>Measure volumes by counting unit cubes using cubic cm (cm<sup>3</sup>), cubic in (in<sup>3</sup>), cubic ft (ft<sup>3</sup>), and improvised units (u<sup>3</sup>).</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><b>5.GM.4</b></p> <p>Solve real-world and mathematical problems involving the volume of rectangular prisms with whole number side lengths by applying the formulas (<math>V = l \cdot w \cdot h</math> or <math>V = B \cdot h</math>) and the properties of operations.</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 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>
<p><b>5.GM.5</b></p> <p>Solve real-world problems by calculating volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts.</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 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>

## Geometry & Measurement

### Conversions

Students apply measurement knowledge to solve real-world problems.

Arkansas Mathematics Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<p><b>5.GM.6</b></p> <p>Convert among different-sized standard measurement units within the same system, including both the metric and customary systems, and solve multi-step, real-world problems using conversions.</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>

## Geometry & Measurement

### Coordinate Plane System

Students develop an understanding of the coordinate system.

Arkansas Mathematics Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<p><b>5.GM.7</b></p> <p>Graph points with whole number coordinates on a coordinate plane in the first quadrant, explaining how the coordinates relate to the horizontal and vertical axes to describe the location of points in the plane.</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>

**Arkansas Mathematics Standards****Aligned Components of *Eureka Math*<sup>2</sup>****5.GM.8**

Represent real-world and mathematical problems by graphing points in the first quadrant on a coordinate plane, interpreting coordinate values of points in the context of the situation.

5 M6 Lesson 4: Describe the distance and direction between points in the coordinate plane.

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 Lesson 11: Draw lines in the coordinate plane and identify points on the lines.

5 M6 Lesson 12: Graph and classify quadrilaterals in the coordinate plane.

5 M6 Lesson 13: Draw symmetric figures in the coordinate plane.

5 M6 Lesson 14: Solve mathematical problems with rectangles in the coordinate plane.

5 M6 Lesson 15: Use the coordinate plane to reason about perimeters and areas of rectangles.

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.

## Data Analysis

### Charts, Graphs, & Tables

Students organize and analyze data.

Arkansas Mathematics Standards	Aligned Components of <i>Eureka Math</i> <sup>2</sup>
<p><b>5.DA.1</b></p> <p>Make a line plot to display a data set of measurements in fractions of a unit (<math>\frac{1}{2}, \frac{1}{4}, \frac{1}{8}</math>).</p>	<p>5 Data Investigation: A Typical Night of Sleep</p>
<p><b>5.DA.2</b></p> <p>Use a line plot to display a data set of measurements in fractions of a unit solving problems involving all four operations with fractions (excluding division of a fraction by fraction) using data presented in line plots.</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>