

Grade 5 | Kentucky Mathematics Course Standards Correlation to *Eureka Math*²®

When the original *Eureka Math*[®] curriculum was released, it quickly became the most widely used K–5 mathematics curriculum in the country. Now, the Great Minds[®] teacher–writers have created *Eureka Math*²®, 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*² 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*² 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*² 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*² 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*² add to students’ engagement with the math. The curriculum provides teachers with digital slides for each lesson. In addition, each grade level includes wordless videos that spark students’ interest and curiosity. Students at all levels work through mathematical explorations that help lead to their own mathematical discoveries. Digital lessons and videos provide opportunities for students to wonder, explore, and make sense of mathematics, which contributes to the development of a strong, positive mathematical identity.

| Standards for Mathematical Practice | Aligned Components of <i>Eureka Math</i> ² |
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| <p>MP.1 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>MP.2 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>MP.3 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>MP.4 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>MP.5 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>MP.6 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>MP.7 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>MP.8 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> |

Operations and Algebraic Thinking

Write and interpret numerical expressions.

| Kentucky Mathematics Course Standards | Aligned Components of <i>Eureka Math</i> ² |
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| <p>KY.5.OA.1</p> <p>Use parentheses, brackets or braces in numerical expressions and evaluate expressions that include symbols.</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 Topic D: Multi-Step Problems with Whole Numbers</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>KY.5.OA.2</p> <p>Write simple expressions with numbers and interpret numerical expressions without evaluating them.</p> | <p>5 M1 Topic D: Multi-Step Problems with Whole Numbers</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> |

Operations and Algebraic Thinking

Analyze patterns and relationships.

| Kentucky Mathematics Course Standards | Aligned Components of <i>Eureka Math</i> ² |
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| <p>KY.5.OA.3</p> <p>Generate numerical patterns for situations.</p> | <p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p> |
| <p>KY.5.OA.3.a</p> <p>Generate a rule for growing patterns, identifying the relationship between corresponding terms (x, y).</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> |
| <p>KY.5.OA.3.b</p> <p>Generate patterns using one or two given rules (x, y).</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> |

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| <p>KY.5.OA.3.c</p> <p>Use tables, ordered pairs and graphs to represent the relationship between the quantities.</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> |

Number and Operations in Base Ten

Understand the place value system.

| Kentucky Mathematics Course Standards | Aligned Components of <i>Eureka Math</i> ² |
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| <p>KY.5.NBT.1</p> <p>Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and $\frac{1}{10}$ 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> |

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| <p>KY.5.NBT.2</p> <p>Multiply and divide by powers of 10.</p> <ul style="list-style-type: none"> • Explain patterns in the number of zeros of the product when multiplying a number by powers of 10. • 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>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>KY.5.NBT.3</p> <p>Read, write and compare decimals to thousandths.</p> | <p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p> |
| <p>KY.5.NBT.3.a</p> <p>Read and write decimals to thousandths using base-ten numerals, number names and expanded form.</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>KY.5.NBT.3.b</p> <p>Compare two decimals to thousandths based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.</p> | <p>5 M4 Lesson 6: Compare decimal numbers to the thousandths place.</p> |

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| <p>KY.5.NBT.4</p> <p>Use place value understanding to round decimals to any 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> |

Number and Operations in Base Ten

Perform operations with multi-digit whole numbers and with decimals to hundredths.

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| <p>KY.5.NBT.5</p> <p>Fluently multiply multi-digit whole numbers (not to exceed four-digit by two-digit multiplication) using an algorithm.</p> | <p>5 M1 Topic B: Multiplication of Whole Numbers</p> |
| <p>KY.5.NBT.6</p> <p>Divide up to four-digit dividends by two-digit divisors.</p> | <p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p> |
| <p>KY.5.NBT.6.a</p> <p>Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors using ...</p> <ul style="list-style-type: none"> • strategies based on place value • the properties of operations • the relationship between multiplication and division | <p>5 M1 Topic C: Division of Whole Numbers</p> |

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| <p>KY.5.NBT.6.b</p> <p>Illustrate and explain the calculation by using equations, rectangular arrays and/or area models.</p> | <p>5 M1 Topic C: Division of Whole Numbers</p> |
| <p>KY.5.NBT.7</p> <p>Operations with decimals to hundredths.</p> | <p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p> |
| <p>KY.5.NBT.7.a</p> <p>Add, subtract, multiply and divide decimals to hundredths using ...</p> <ul style="list-style-type: none"> • concrete models or drawings • strategies based on place value • properties of operations • the relationship between addition and subtraction | <p>5 M4 Topic B: Addition and Subtraction of Decimal Numbers</p> <p>5 M4 Topic C: Multiplication of Decimal Numbers</p> <p>5 M4 Topic D: Division of Decimal Numbers</p> |
| <p>KY.5.NBT.7.b</p> <p>Relate the strategy to a written method and explain the reasoning used.</p> | <p>5 M4 Topic B: Addition and Subtraction of Decimal Numbers</p> <p>5 M4 Topic C: Multiplication of Decimal Numbers</p> <p>5 M4 Topic D: Division of Decimal Numbers</p> |

Number and Operations—Fractions

Use equivalent fractions as a strategy to add and subtract fractions.

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| <p>KY.5.NF.1</p> <p>Efficiently add and subtract fractions with unlike denominators (including mixed numbers) by ...</p> <ul style="list-style-type: none"> • using reasoning strategies, such as counting up on a number line or creating visual fraction models • finding common denominators | <p>5 M2 Topic B: Addition and Subtraction of Fractions by Making Like Units</p> <p>5 M2 Topic C: Addition and Subtraction of Fractions, Whole Numbers, and Mixed Numbers</p> |
| <p>KY.5.NF.2</p> <p>Solve word problems involving addition and subtraction of fractions.</p> | <p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p> |
| <p>KY.5.NF.2.a</p> <p>Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators.</p> | <p>5 M2 Topic C: Addition and Subtraction of Fractions, Whole Numbers, and Mixed Numbers</p> <p>5 M2 Lesson 17: Solve problems by equally redistributing a total amount.</p> |
| <p>KY.5.NF.2.b</p> <p>Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.</p> | <p>5 M2 Topic C: Addition and Subtraction of Fractions, Whole Numbers, and Mixed Numbers</p> <p>5 M2 Lesson 17: Solve problems by equally redistributing a total amount.</p> |

Number and Operations—Fractions

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

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| <p>KY.5.NF.3</p> <p>Interpret a fraction as division of the numerator by the denominator ($\frac{a}{b} = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers by using visual fraction models or equations to represent the problem.</p> | 5 M2 Topic A: Fractions and Division |
| <p>KY.5.NF.4</p> <p>Apply and extend previous understanding of multiplication to multiply a fraction or whole number by a fraction.</p> | <p>5 M3 Lesson 3: Multiply a whole number by a fraction less than 1.</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 M5 Lesson 12: Multiply mixed numbers.</p> |
| <p>KY.5.NF.4.a</p> <p>Interpret the product $(\frac{a}{b}) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$.</p> | <p>5 M3 Topic A: Multiplication of a Whole Number by a Fraction</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 11: Multiply fractions.</p> |

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| <p>KY.5.NF.4.b</p> <p>Find the area of a rectangle with fractional side lengths by tiling it with 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> |
| <p>KY.5.NF.5</p> <p>Interpret multiplication as scaling (resizing), by:</p> | <p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p> |
| <p>KY.5.NF.5.a</p> <p>Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.</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 Topic B: Multiplication of Fractions</p> |

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| <p>KY.5.NF.5.b</p> <p>Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $\frac{a}{b} = \frac{n \times a}{n \times b}$ to the effect of multiplying $\frac{a}{b}$ by 1.</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 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 Topic B: Multiplication of Fractions</p> |
| <p>KY.5.NF.6</p> <p>Solve 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>KY.5.NF.7</p> <p>Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.</p> | <p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p> |

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| <p>KY.5.NF.7.a</p> <p>Interpret division of a unit fraction by a non-zero whole number and compute such quotients.</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>KY.5.NF.7.b</p> <p>Interpret division of a whole number by a unit fraction and compute such quotients.</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 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>KY.5.NF.7.c</p> <p>Solve real-world problems involving division of unit fractions by non-zero whole numbers and division of 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 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> |

Measurement and Data

Convert like measurement units within a given measurement system.

| Kentucky Mathematics Course Standards | Aligned Components of <i>Eureka Math</i> ² |
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| <p>KY.5.MD.1</p> <p>Convert among different size measurement units (mass, weight, liquid volume, length, time) within one system of units (metric system, U.S. standard system and time).</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> |

Measurement and Data

Understand and apply the statistics process.

| Kentucky Mathematics Course Standards | Aligned Components of <i>Eureka Math</i> ² |
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| <p>KY.5.MD.2</p> <p>Identify and gather data for statistical questions focused on both categorical and numerical data. Select an appropriate data display (bar graph, pictograph, dot plot). Make observations from the graph about the questions posed.</p> | <p><i>Supplemental material is necessary to address this standard.</i></p> |

Measurement and Data

Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

| Kentucky Mathematics Course Standards | Aligned Components of <i>Eureka Math</i> ² |
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| <p>KY.5.MD.3</p> <p>Recognize volume as an attribute of solid figures and understand concepts of volume measurement.</p> | <p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p> |
| <p>KY.5.MD.3.a</p> <p>A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume and can be used to measure volume.</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 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>KY.5.MD.3.b</p> <p>A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.</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 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>KY.5.MD.4</p> <p>Measure volumes by counting unit cubic cm, cubic in, cubic ft. and improvised units.</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 21: Relate volumes of solids and liquid volume.</p> |

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| <p>KY.5.MD.5</p> <p>Relate volume to the operations of multiplication and addition and solve real-world and mathematical problems involving volume.</p> | <p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p> |
| <p>KY.5.MD.5.a</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, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes.</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>KY.5.MD.5.b</p> <p>Apply the formulas $V = l \times w \times h$ and $V = B \times h$ for rectangular prisms with whole-number edge lengths in the context of solving real-world and mathematical problems.</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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| <p>KY.5.MD.5.c</p> <p>Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real-world problems.</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> |
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Geometry

Graph points on the coordinate plane to solve real-world and mathematical problems.

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| <p>KY.5.G.1</p> <p>Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis and the second number indicates how far to travel in the direction of the second.</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> |
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| <p>KY.5.G.2</p> <p>Represent real-world and mathematical problems by graphing points 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 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> <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 Topic C: Solve Mathematical Problems in the Coordinate Plane</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

Classify two-dimensional figures into categories based on their properties.

| Kentucky Mathematics Course Standards | Aligned Components of <i>Eureka Math</i> ² |
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| <p>KY.5.G.3</p> <p>Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.</p> | <p>5 M5 Topic A: Drawing, Analysis, and Classification of Two-Dimensional Figures</p> |
| <p>KY.5.G.4</p> <p>Classify two-dimensional figures in a hierarchy based on properties.</p> | <p>5 M5 Topic A: Drawing, Analysis, and Classification of Two-Dimensional Figures</p> <p>5 M6 Lesson 12: Graph and classify quadrilaterals in the coordinate plane.</p> |