EUREKA MATH™

GREAT MINDS

ABOUT *EUREKA MATH*	Created by the nonprofit Great Minds, *Eureka Math* helps teachers deliver unparalleled math instruction that provides students with a deep understanding and fluency in math. Crafted by teachers and math scholars, the curriculum carefully sequences the mathematical progressions to maximize coherence from Prekindergarten through Precalculus—a principle tested and proven to be essential in students' mastery of math. Teachers and students using *Eureka Math* find the trademark "Aha!" moments in *Eureka Math* to be a source of joy and inspiration, lesson after lesson, year after year.
ALIGNED	*Eureka Math* is the only curriculum found by EdReports.org to align fully with the Common Core State Standards for Mathematics for all grades, Kindergarten through Grade 8. Great Minds offers detailed analyses which demonstrate how each grade of *Eureka Math* aligns with specific state standards. Access these free alignment studies at greatminds.org/state-studies.
DATA	Schools and districts nationwide are experiencing student growth and impressive test scores after using *Eureka Math*. See their stories and data at greatminds.org/data.
FULL SUITE OF RESOURCES	As a nonprofit, Great Minds offers the *Eureka Math* curriculum as PDF downloads for free, noncommercial use. Access the free PDFs at greatminds.org/math/curriculum. The teacher–writers who created the curriculum have also developed essential resources, available only from Great Minds, including the following:

- Printed material in English and Spanish
- Digital resources
- Professional development
- Classroom tools and manipulatives
- Teacher support materials
- Parent resources

Kentucky Academic Standards for Mathematics Correlation to *Eureka Math™*

GRADE 3 MATHEMATICS

The Grade 3 Kentucky Academic Standards for Mathematics are fully covered by the Grade 3 *Eureka Math* curriculum. A detailed analysis of alignment is provided in the table below.

INDICATORS

Green indicates that the Kentucky standard is fully addressed in *Eureka Math*.

Yellow indicates that the Kentucky standard may not be completely addressed in *Eureka Math*.

Red indicates that the Kentucky standard is not addressed in *Eureka Math*.

Blue indicates there is a discrepancy between the grade level at which this standard is addressed in the Kentucky standards and in *Eureka Math*.

Standards for Mathematical Practice	Aligned Components of *Eureka Math*
1: Make sense of problems and persevere in solving them. Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.	Lessons in every module engage students in making sense of problems and persevering in solving them as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 1, which is specifically addressed in the following modules: G3 M1: Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10 G3 M3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10 G3 M7: Geometry and Measurement Word Problems

Standards for Mathematical Practice	**Aligned Components of *Eureka Math***
2: Reason abstractly and quantitatively. Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to *decontextualize*—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to *contextualize*, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.	Lessons in every module engage students in reasoning abstractly and quantitatively as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 2, which is specifically addressed in the following modules: G3 M1: Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10 G3 M2: Place Value and Problem Solving with Units of Measure G3 M4: Multiplication and Area G3 M5: Fractions as Numbers on the Number Line G3 M6: Collecting and Displaying Data

Standards for Mathematical Practice	Aligned Components of *Eureka Math*
3: Construct viable arguments and critique the reasoning of others. Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.	Lessons in every module engage students in constructing viable arguments and critiquing the reasoning of others as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 3, which is specifically addressed in the following modules: G3 M1: Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10 G3 M3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10 G3 M4: Multiplication and Area G3 M5: Fractions as Numbers on the Number Line G3 M7: Geometry and Measurement Word Problems

Standards for Mathematical Practice	**Aligned Components of *Eureka Math***
4: Model with mathematics. Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.	Lessons in every module engage students in modeling with mathematics as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 4, which is specifically addressed in the following modules: G3 M1: Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10 G3 M2: Place Value and Problem Solving with Units of Measure G3 M3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10

Standards for Mathematical Practice	**Aligned Components of *Eureka Math***
5: Use appropriate tools strategically. Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.	Lessons in every module engage students in using appropriate tools strategically as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 5, which is specifically addressed in the following modules: G3 M3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10 G3 M6: Collecting and Displaying Data G3 M7: Geometry and Measurement Word Problem*s*

Standards for Mathematical Practice	**Aligned Components of _Eureka Math_**
6: Attend to precision. Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.	Lessons in every module engage students in attending to precision as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 6, which is specifically addressed in the following modules: G3 M2: Place Value and Problem Solving with Units of Measure G3 M4: Multiplication and Area G3 M5: Fractions as Numbers on the Number Line G3 M6: Collecting and Displaying Data G3 M7: Geometry and Measurement Word Problems

Standards for Mathematical Practice	**Aligned Components of *Eureka Math***
7: Look for and make use of structure. Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7×8 equals the well remembered $7 \times 5 + 7 \times 3$, in preparation for learning about the distributive property. In the expression $x^2 + 9x + 14$, older students can see the 14 as 2×7 and the 9 as $2 + 7$. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5 - 3(x - y)^2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.	Lessons in every module engage students in looking for and making use of structure as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 7, which is specifically addressed in the following modules: G3 M1: Properties of Multiplication and Division and Solving Problems with Units of 2−5 and 10 G3 M2: Place Value and Problem Solving with Units of Measure G3 M3: Multiplication and Division with Units of 0, 1, 6−9, and Multiples of 10 G3 M4: Multiplication and Area G3 M5: Fractions as Numbers on the Number Line G3 M6: Collecting and Displaying Data

Standards for Mathematical Practice	**Aligned Components of *Eureka Math***
8: Look for and express regularity in repeated reasoning. Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x^2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.	Lessons in every module engage students in looking for and expressing regularity in repeated reasoning as required by this standard. This practice standard is analogous to the CCSSM Standards for Mathematical Practice 8, which is specifically addressed in the following modules: G3 M4: Multiplication and Area

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
Operations and Algebraic Thinking	**Cluster: Represent and solve problems involving multiplication and division.**	
	3.OA.A.1 Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each.	G3 M1 Topic A: Multiplication and the Meaning of the Factors G3 M1 Topic C: Multiplication Using Units of 2 and 3
	3.OA.A.2 Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each.	G3 M1 Topic B: Division as an Unknown Factor Problem G3 M1 Topic D: Division Using Units of 2 and 3 G3 M1 Lesson 17: Model the relationship between multiplication and division.
	3.OA.A.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	G3 M1 Topic D: Division Using Units of 2 and 3 G3 M1 Topic F: Distributive Property and Problem Solving Using Units of 2–5 and 10 G3 M3 Lesson 7: Interpret the unknown in multiplication and division to model and solve problems using units of 6 and 7. G3 M3 Lesson 11: Interpret the unknown in multiplication and division to model and solve problems. G3 M3 Lesson 15: Interpret the unknown in multiplication and division to model and solve problems. G3 M3 Lesson 18: Solve two-step word problems involving all four operations and assess the reasonableness of solutions.

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	3.OA.A.4 Determine the unknown whole number in a multiplication or division equation relating three whole numbers.	G3 M1 Topic D: Division Using Units of 2 and 3 G3 M1 Lesson 17: Model the relationship between multiplication and division. G3 M3 Lesson 3: Multiply and divide with familiar facts using a letter to represent the unknown. G3 M3 Topic B: Multiplication and Division Using Units of 6 and 7 G3 M3 Lesson 11: Interpret the unknown in multiplication and division to model and solve problems. G3 M3 Lesson 15: Interpret the unknown in multiplication and division to model and solve problems.

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	Cluster: Understand properties of multiplication and the relationship between multiplication and division.	
	3.OA.B.5 Apply properties of operations as strategies to multiply and divide.	G3 M1: Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10 G3 M3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10
	3.OA.B.6 Understand division as an unknown-factor problem.	G3 M1 Topic B: Division as an Unknown Factor Problem G3 M1 Topic D: Division Using Units of 2 and 3 G3 M1 Lesson 17: Model the relationship between multiplication and division. G3 M3 Topic B: Multiplication and Division Using Units of 6 and 7
	Cluster: Multiply and divide within 100.	
	3.OA.C.7 Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	G3 M1 Topic E: Multiplication and Division Using Units of 4 G3 M3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	Cluster: Solve problems involving the four operations, and identify and explain patterns in arithmetic.	
	3.OA.D.8 Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	G3 M3 Lesson 11: Interpret the unknown in multiplication and division to model and solve problems. G3 M3 Lesson 15: Interpret the unknown in multiplication and division to model and solve problems. G3 M3 Lesson 18: Solve two-step word problems involving all four operations and assess the reasonableness of solutions. G3 M3 Lesson 21: Solve two-step word problems involving multiplying single-digit factors and multiples of 10. G3 M7 Topic A: Solving Word Problems
	3.OA.D.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.	G3 M3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
Number and Operations in Base Ten	**Cluster: Use place value understanding and properties of operations to perform multi-digit arithmetic.**	
	3.NBT.A.1 Use place value understanding to round whole numbers to the nearest 10 or 100.	G3 M2 Topic C: Rounding to the Nearest Ten and Hundred G3 M2 Lesson 17: Estimate sums by rounding and apply to solve measurement word problems. G3 M2 Topic E: Two- and Three-Digit Measurement Subtraction Using the Standard Algorithm
	3.NBT.A.2 Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	G3 M2 Lesson 4: Solve word problems involving time intervals within 1 hour by counting backward and forward using the number line and clock. G3 M2 Lesson 5: Solve word problems involving time intervals within 1 hour by adding and subtracting on the number line. G3 M2 Lesson 8: Solve one-step word problems involving metric weights within 100 and estimate to reason about solutions. G3 M2 Lesson 11: Solve mixed word problems involving all four operations with grams, kilograms, liters, and milliliters given in the same units. G3 M2 Topic D: Two- and Three-Digit Measurement Addition Using the Standard Algorithm G3 M2 Topic E: Two- and Three-Digit Measurement Subtraction Using the Standard Algorithm

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	3.NBT.A.3 Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.	G3 M3 Topic F: Multiplication of Single-Digit Factors and Multiples of 10
Number and Operations—Fractions	**Cluster: Develop understanding of fractions as numbers.**	
	3.NF.A.1 Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.	G3 M5 Topic B: Unit Fractions and their Relation to the Whole G3 M5 Lesson 12: Specify the corresponding whole when presented with one equal part.
	3.NF.A.2 Understand a fraction as a number on the number line; represent fractions on a number line diagram.	
	a. Represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $1/b$ and that the endpoint of the part based at 0 locates the number $1/b$ on the number line.	G3 M5 Lesson 14: Place fractions on a number line with endpoints 0 and 1. G3 M5 Lesson 15: Place any fraction on a number line with endpoints 0 and 1. G3 M5 Lesson 30: Partition various wholes precisely into equal parts using a number line method.

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	b. Represent a fraction *a/b* on a number line diagram by marking off *a* lengths 1/*b* from 0. Recognize that the resulting interval has size *a/b* and that its endpoint locates the number *a/b* on the number line.		G3 M5 Topic D: Fractions on the Number Line
	3.NF.A.3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.		
	a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.		G3 M5 Topic E: Equivalent Fractions
	b. Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3. Explain why the fractions are equivalent, e.g., by using a visual fraction model.		G3 M5 Topic E: Equivalent Fractions

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers.	G3 M5 Topic D: Fractions on the Number Line G3 M5 Topic E: Equivalent Fractions
	d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.	G3 M5 Topic C: Comparing Unit Fractions and Specifying the Whole G3 M5 Lesson 18: Compare fractions and whole numbers on the number line by reasoning about their distance from 0. G3 M5 Lesson 19: Understand distance and position on the number line as strategies for comparing fractions. G3 M5 Topic F: Comparison, Order, and Size of Fractions
Measurement and Data	**Cluster: Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.**	
	3.MD.A.1 Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.	G3 M2 Topic A: Time Measurement and Problem Solving G3 M2 Lesson 12: Round two-digit measurements to the nearest ten on the vertical number line.

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	3.MD.A.2 Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.	G3 M2 Topic B: Measuring Weight and Liquid Volume in Metric Units G3 M2 Lesson 12: Round two-digit measurements to the nearest ten on the vertical number line. G3 M2 Lesson 21: Estimate sums and differences of measurements by rounding, and then solve mixed word problems.
	Cluster: Represent and interpret data.	
	3.MD.B.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs.	G3 M6: Collecting and Displaying Data
	3.MD.B.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.	G3 M6: Collecting and Displaying Data G3 M7 Lesson 19: Use a line plot to record the number of rectangles constructed from a given number of unit squares. G3 M7 Lesson 22: Use a line plot to record the number of rectangles constructed in Lessons 20 and 21.

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	Cluster: Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	
	3.MD.C.5 Recognize area as an attribute of plane figures and understand concepts of area measurement.	
	a. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.	G3 M4 Topic A: Foundations for Understanding Area G3 M4 Lesson 6: Draw rows and columns to determine the area of a rectangle given an incomplete array.
	b. A plane figure which can be covered without gaps or overlaps by *n* unit squares is said to have an area of *n* square units.	G3 M4 Topic A: Foundations for Understanding Area G3 M4 Lesson 6: Draw rows and columns to determine the area of a rectangle given an incomplete array.
	3.MD.C.6 Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).	G3 M4: Multiplication and Area

Domain	Standards for Mathematical Content		Aligned Components of *Eureka Math*
	3.MD.C.7 Relate area to the operations of multiplication and addition.		
	a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.		G3 M4: Multiplication and Area
	b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.		G3 M4 Lesson 8: Find the area of a rectangle through multiplication of the side lengths. G3 M4 Lesson 11: Demonstrate the possible whole number side lengths of rectangles with areas of 24, 36, 48, or 72 square units using the associative property. G3 M4 Topic D: Applications of Area Using Side Lengths of Figures

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
	c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.	G3 M4 Topic C: Arithmetic Properties Using Area Models
	d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.	G3 M4 Topic D: Applications of Area Using Side Lengths of Figures
	Cluster: Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.	
	3.MD.D.8 Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.	G3 M7: Geometry and Measurement Word Problems

Domain	Standards for Mathematical Content	Aligned Components of *Eureka Math*
Geometry	**Cluster: Reason with shapes and their attributes.**	
	3.G.A.1 Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.	G3 M7 Topic B: Attributes of Two-Dimensional Figures
	3.G.A.2 Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.	G3 M5 Topic A: Partitioning a Whole into Equal Parts