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

GRADE 5 MATHEMATICS

The majority of the Grade 5 Colorado Academic Standards in Mathematics are fully covered by the Grade 5 *Eureka Math* curriculum. The primary area where the Grade 5 Colorado Academic Standards in Mathematics and *Eureka Math* do not align is in the standard of Patterns, Functions, and Algebraic Structures. Grade Level Expectations in this standard will require the use of supplemental materials. A detailed analysis of alignment is provided in the table below. With strategic placement of supplemental materials, *Eureka Math* can ensure students are successful in achieving the proficiencies of the Colorado Academic Standards in Mathematics while still benefitting from the coherence and rigor of *Eureka Math*.

INDICATORS

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

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

Red indicates that the Colorado 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 Colorado 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: G5 M2: Multi-Digit Whole Number and Decimal Fraction Operations G5 M3: Addition and Subtraction of Fractions G5 M5: Addition and Multiplication with Volume and Area G5 M6: Problem Solving with the Coordinate Plane

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 <u>decontextualize</u>—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 <u>contextualize</u>, 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: G5 M2: Multi-Digit Whole Number and Decimal Fraction Operations G5 M4: Multiplication and Division of Fractions and Decimal Fractions G5 M5: Addition and Multiplication with Volume and Area G5 M6: Problem Solving with the Coordinate Plane

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: G5 M3: Addition and Subtraction of Fractions G5 M4: Multiplication and Division of Fractions and Decimal Fractions G5 M5: Addition and Multiplication with Volume and Area G5 M6: Problem Solving with the Coordinate Plane

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: G5 M4: Multiplication and Division of Fractions and Decimal Fractions G5 M5: Addition and Multiplication with Volume and Area

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: G5 M3: Addition and Subtraction of Fractions G5 M4: Multiplication and Division of Fractions and Decimal Fractions

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: G5 M1: Place Value and Decimal Fractions G5 M5: Addition and Multiplication with Volume and Area G5 M6: Problem Solving with the Coordinate Plane

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: G5 M1: Place Value and Decimal Fractions G5 M2: Multi-Digit Whole Number and Decimal Fraction Operations G5 M3: Addition and Subtraction of Fractions G5 M4: Multiplication and Division of Fractions and Decimal Fractions G5 M5: Addition and Multiplication with Volume and Area G5 M6: Problem Solving with the Coordinate Plane

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: G5 M1: Place Value and Decimal Fractions G5 M2: Multi-Digit Whole Number and Decimal Fraction Operations G5 M3: Addition and Subtraction of Fractions

Standard	Evidence Outcomes	Aligned Components of *Eureka Math*
Number Sense, Properties, and Operation	**Prepared Graduates: Understand the structure and properties of our number system. At their most basic level numbers are abstract symbols that represent real-world quantities**	
	Grade Level Expectation: The decimal number system describes place value patterns and relationships that are repeated in large and small numbers and forms the foundation for efficient algorithms	
	1.1.a Explain 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 1/10 of what it represents in the place to its left.	
	i. Explain patterns in the number of zeros of the product when multiplying a number by powers of 10.	G5 M1 Topic A: Multiplicative Patterns on the Place Value Chart G5 M2 Topic A: Mental Strategies for Multi-Digit Whole Number Multiplication
	ii. Explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10.	G5 M1 Topic A: Multiplicative Patterns on the Place Value Chart G5 M1 Topic E: Multiplying Decimals G5 M2 Topic A: Mental Strategies for Multi-Digit Whole Number Multiplication G5 M2 Lesson 16: Use *divide by 10 patterns* for multi-digit whole number division. G5 M2 Lesson 24: Divide decimal dividends by multiples of 10, reasoning about the placement of the decimal point and making connections to a written method.

Standard	Evidence Outcomes	Aligned Components of *Eureka Math*
	iii. Use whole-number exponents to denote powers of 10.	G5 M1 Topic A: Multiplicative Patterns on the Place Value Chart G5 M1 Topic E: Multiplying Decimals G5 M2 Topic A: Mental Strategies for Multi-Digit Whole Number Multiplication
	1.1.b Read, write, and compare decimals to thousandths.	
	i. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form.	G5 M1: Place Value and Decimal Fractions
	ii. Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.	G5 M1 Lesson 6: Compare decimal fractions to the thousandths using like units, and express comparisons with >, <, =.
	1.1.c Use place value understanding to round decimals to any place.	G5 M1 Topic C: Place Value and Rounding Decimal Fractions

Standard	Evidence Outcomes		Aligned Components of *Eureka Math*
	1.1.d Convert like measurement units within a given measurement system.		
	i. Convert among different-sized standard measurement units within a given measurement system.		G5 M1 Lesson 4: Use exponents to denote powers of 10 with application to metric conversions. G5 M2 Topic D: Measurement Word Problems with Whole Number and Decimal Multiplication G5 M4 Topic C: Multiplication of a Whole Number by a Fraction G5 M4 Lesson 19: Convert measures involving whole numbers, and solve multi-step word problems. G5 M4 Lesson 20: Convert mixed unit measurements, and solve multi-step word problems.
	ii. Use measurement conversions in solving multi-step, real-world problems.		G5 M1 Lesson 4: Use exponents to denote powers of 10 with application to metric conversions. G5 M2 Topic D: Measurement Word Problems with Whole Number and Decimal Multiplication G5 M4 Topic C: Multiplication of a Whole Number by a Fraction G5 M4 Lesson 19: Convert measures involving whole numbers, and solve multi-step word problems. G5 M4 Lesson 20: Convert mixed unit measurements, and solve multi-step word problems.

Standard	Evidence Outcomes	Aligned Components of *Eureka Math*
	Prepared Graduates: Are fluent with basic numerical and symbolic facts and algorithms, and are able to select and use appropriate (mental math, paper and pencil, and technology) methods based on an understanding of their efficiency, precision, and transparency	
	Grade Level Expectation: Formulate, represent, and use algorithms with multi-digit whole numbers and decimals with flexibility, accuracy, and efficiency	
	1.2.a Fluently multiply multi-digit whole numbers using standard algorithms.	G5 M2 Topic B: The Standard Algorithm for Multi-Digit Whole Number Multiplication G5 M2 Topic D: Measurement Word Problems with Whole Number and Decimal Multiplication
	1.2.b Find whole-number quotients of whole numbers.	
	i. Use strategies based on place value, the properties of operations, and/or the relationship between multiplication and division.	G5 M2 Topic E: Mental Strategies for Multi-Digit Whole Number Division G5 M2 Topic F: Partial Quotients and Multi-Digit Whole Number Division G5 M2 Topic H: Measurement Word Problems with Multi-Digit Division
	ii. Illustrate and explain calculations by using equations, rectangular arrays, and/or area models.	G5 M2 Topic E: Mental Strategies for Multi-Digit Whole Number Division G5 M2 Topic F: Partial Quotients and Multi-Digit Whole Number Division G5 M2 Topic H: Measurement Word Problems with Multi-Digit Division

Standard	Evidence Outcomes	Aligned Components of *Eureka Math*
	1.2.c Add, subtract, multiply, and divide decimals to hundredths.	
	i. Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	G5 M1: Place Value and Decimal Fractions G5 M2: Multi-Digit Whole Number and Decimal Fraction Operations G5 M4 Lessons 17–18: Relate decimal and fraction multiplication. G5 M4 Lesson 29: Connect division by a unit fraction to division by 1 tenth and 1 hundredth. G5 M4 Lessons 30–31: Divide decimal dividends by non-unit decimal divisors.
	ii. Relate strategies to a written method and explain the reasoning used.	G5 M1 Topic C: Place Value and Rounding Decimal Fractions
	1.2.d Write and interpret numerical expressions.	
	i. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.	G5 M2 Lesson 3: Write and interpret numerical expressions, and compare expressions using a visual model. G5 M2 Lesson 4: Convert numerical expressions into unit form as a mental strategy for multi-digit multiplication. G5 M4 Lesson 10: Compare and evaluate expressions with parentheses. G5 M4 Topic H: Interpretation of Numerical Expressions

Standard	Evidence Outcomes	Aligned Components of *Eureka Math*
	ii. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.	G5 M2 Lesson 3: Write and interpret numerical expressions, and compare expressions using a visual model. G5 M2 Lesson 4: Convert numerical expressions into unit form as a mental strategy for multi-digit multiplication. G5 M4 Lesson 10: Compare and evaluate expressions with parentheses. G5 M4 Topic H: Interpretation of Numerical Expressions G5 M6 Topic B: Patterns in the Coordinate Plane and Graphing Number Patterns from Rules
	Prepared Graduates: Are fluent with basic numerical and symbolic facts and algorithms, and are able to select and use appropriate (mental math, paper and pencil, and technology) methods based on an understanding of their efficiency, precision, and transparency	
	Grade Level Expectation: Formulate, represent, and use algorithms to add and subtract fractions with flexibility, accuracy, and efficiency	
	1.3.a Use equivalent fractions as a strategy to add and subtract fractions.	
	i. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.	G5 M3: Addition and Subtraction of Fractions

Standard	Evidence Outcomes		Aligned Components of *Eureka Math*
	ii. Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions with like denominators.		G5 M3: Addition and Subtraction of Fractions
	iii. Solve word problems involving addition and subtraction of fractions referring to the same whole.		G5 M3 Lesson 7: Solve two-step word problems. G5 M3 Lesson 9: Add fractions making like units numerically. G5 M3 Topic D: Further Applications
	Prepared Graduates: Understand the structure and properties of our number system. At their most basic level numbers are abstract symbols that represent real-world quantities		
	Grade Level Expectation: The concepts of multiplication and division can be applied to multiply and divide fractions		
	1.4.a Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$).		G5 M4 Topic B: Fractions as Division
	1.4.b Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers.		G5 M4 Topic B: Fractions as Division

Standard	Evidence Outcomes	Aligned Components of *Eureka Math*
	1.4.c Interpret the product $(a/b) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. In general, $(a/b) \times (c/d) = ac/bd$.	G5 M4 Topic C: Multiplication of a Whole Number by a Fraction G5 M4 Lesson 10: Compare and evaluate expressions with parentheses. G5 M4 Topic E: Multiplication of a Fraction by a Fraction G5 M4 Topic H: Interpretation of Numerical Expressions
	1.4.d Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths.	
	i. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.	G5 M5 Topic C: Area of Rectangular Figures with Fractional Side Lengths
	1.4.e Interpret multiplication as scaling (resizing).	
	i. Compare 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.	G5 M4 Topic F: Multiplication with Fractions and Decimals as Scaling and Word Problems
	ii. Apply the principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of multiplying a/b by 1.	G5 M4 Topic F: Multiplication with Fractions and Decimals as Scaling and Word Problems

Standard	Evidence Outcomes	Aligned Components of *Eureka Math*
	1.4.f Solve real-world problems involving multiplication of fractions and mixed numbers.	G5 M4 Topic D: Fraction Expressions and Word Problems G5 M4 Lesson 16: Solve word problems using tape diagrams and fraction-by-fraction multiplication. G5 M4 Lesson 24: Solve word problems using fraction and decimal multiplication. G5 M5 Lessons 14–15: Solve real-world problems involving area of figures with fractional side lengths using visual models and/or equations.
	1.4.g Interpret division of a unit fraction by a non-zero whole number, and compute such quotients.	G5 M4 Lesson 26: Divide a unit fraction by a whole number.
	1.4.h Interpret division of a whole number by a unit fraction, and compute such quotients.	G5 M4 Lesson 25: Divide a whole number by a unit fraction.
	1.4.i Solve real-world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions.	G5 M4 Lesson 27: Solve problems involving fraction division. G5 M4 Lesson 28: Write equations and word problems corresponding to tape and number line diagrams. G5 M4 Topic H: Interpretation of Numerical Expressions

Standard	Evidence Outcomes	Aligned Components of *Eureka Math*
Patterns, Functions, and Algebraic Structures	**Prepared Graduates: Make sound predictions and generalizations based on patterns and relationships that arise from numbers, shapes, symbols, and data**	
	Grade Level Expectation: Number patterns are based on operations and relationships	
	2.1.a Generate two numerical patterns using given rules.	G5 M6 Topic B: Patterns in the Coordinate Plane and Graphing Number Patterns from Rules G5 M6 Lesson 18: Draw symmetric figures on the coordinate plane.
	2.1.b Identify apparent relationships between corresponding terms.	G5 M6 Topic B: Patterns in the Coordinate Plane and Graphing Number Patterns from Rules G5 M6 Lesson 18: Draw symmetric figures on the coordinate plane.
	2.1.c Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane.	G5 M6 Topic B: Patterns in the Coordinate Plane and Graphing Number Patterns from Rules G5 M6 Lesson 18: Draw symmetric figures on the coordinate plane.
	2.1.d Explain informally relationships between corresponding terms in the patterns.	G5 M6 Topic B: Patterns in the Coordinate Plane and Graphing Number Patterns from Rules G5 M6 Lesson 18: Draw symmetric figures on the coordinate plane.

Standard	Evidence Outcomes	Aligned Components of *Eureka Math*
	2.1.e Use patterns to solve problems including those involving saving and checking accounts.	*Eureka Math* does not address savings accounts, and discussions of checking accounts are not limited to positive numbers.
	2.1.f Explain, extend, and use patterns and relationships in solving problems, including those involving saving and checking accounts such as understanding that spending more means saving less.	*Eureka Math* does not address patterns within savings accounts.
Data Analysis, Statistics, and Probability	**Prepared Graduates: Solve problems and make decisions that depend on understanding, explaining, and quantifying the variability in data**	
	Grade Level Expectation: Visual displays are used to interpret data	
	3.1.a Represent and interpret data.	
	i. Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8).	G5 M4 Topic A: Line Plots of Fraction Measurements
	ii. Use operations on fractions for this grade to solve problems involving information presented in line plots.	G5 M4 Topic A: Line Plots of Fraction Measurements

Standard	Evidence Outcomes	Aligned Components of *Eureka Math*
Shape, Dimension, and Geometric Relationships	**Prepared Graduates: Understand quantity through estimation, precision, order of magnitude, and comparison. The reasonableness of answers relies on the ability to judge appropriateness, compare, estimate, and analyze error**	
	Grade Level Expectation: Properties of multiplication and addition provide the foundation for volume, an attribute of solids	
	4.1.a Model and justify the formula for volume of rectangular prisms.	
	i. Model the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes.	G5 M5 Lesson 3: Compose and decompose right rectangular prisms using layers. G5 M5 Lesson 4: Use multiplication to calculate volume. G5 M5 Lesson 5: Use multiplication to connect volume as *packing* with volume as *filling*.
	ii. 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.	G5 M5 Lesson 7: Solve word problems involving the volume of rectangular prisms with whole number edge lengths.
	iii. Represent threefold whole-number products as volumes to represent the associative property of multiplication.	G5 M5 Topic B: Volume and the Operations of Multiplication and Addition

Standard	Evidence Outcomes		Aligned Components of *Eureka Math*
	4.1.b Find volume of rectangular prisms using a variety of methods and use these techniques to solve real-world and mathematical problems.		
	i. Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.		G5 M5 Topic A: Concepts of Volume
	ii. Apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths.		G5 M5 Lesson 7: Solve word problems involving the volume of rectangular prisms with whole number edge lengths.
	iii. Use the additive nature of volume to find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts.		G5 M5 Topic B: Volume and the Operations of Multiplication and Addition
	Prepared Graduates: Make claims about relationships among numbers, shapes, symbols, and data and defend those claims by relying on the properties that are the structure of mathematics		
	Grade Level Expectation: Geometric figures can be described by their attributes and specific locations in the plane		
	4.2.a Graph points on the coordinate plane to solve real-world and mathematical problems.		G5 M6 Topic A: Coordinate Systems G5 M6 Lesson 7: Plot points, use them to draw lines in the plane, and describe patterns within the coordinate pairs.

Standard	Evidence Outcomes		Aligned Components of *Eureka Math*
	4.2.b 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.		G5 M6 Lesson 14: Construct parallel line segments, and analyze relationships of the coordinate pairs. G5 M6 Lesson 16: Construct perpendicular line segments, and analyze relationships of the coordinate pairs. G5 M6 Topic D: Problem Solving in the Coordinate Plane
	4.2.c Classify two-dimensional figures into categories based on their properties.		
	i. Explain that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.		G5 M5 Topic D: Drawing, Analysis, and Classification of Two-Dimensional Shapes
	ii. Classify two-dimensional figures in a hierarchy based on properties.		G5 M5 Lesson 20: Classify two-dimensional figures in a hierarchy based on properties. G5 M5 Lesson 21: Draw and identify varied two-dimensional figures from given attributes.