

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

Texas Essential Knowledge and Skills for Mathematics Correlation to *Eureka Math*[™]

GRADE 7 MATHEMATICS

The majority of the Grade 7 Texas Essential Knowledge and Skills for Mathematics are fully covered by the Grade 7 *Eureka Math* curriculum. The areas where the Grade 7 Texas Essential Knowledge and Skills for Mathematics and Grade 7 *Eureka Math* do not align will require the use of *Eureka Math* content from other grade levels or courses, or 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 Texas Essential Knowledge and Skills for Mathematics while still benefiting from the coherence and rigor of *Eureka Math*.

INDICATORS

-  Green indicates that the Texas standard is fully addressed in *Eureka Math*.
-  Yellow indicates that the Texas standard may not be completely addressed in *Eureka Math*.
-  Red indicates that the Texas 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 Texas standards and in *Eureka Math*.

Mathematical Process Standards**Aligned Components of *Eureka Math***

| Mathematical Process Standards | Aligned Components of <i>Eureka Math</i> |
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| <p>(1) The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>a. apply mathematics to problems arising in everyday life, society, and the workplace;</p> | <p>This process standard is analogous to the CCSSM Standards for Mathematical Practice 1, which is specifically addressed in the following modules:</p> <p>G7 M1: Ratios and Proportional Relationships</p> <p>G7 M2: Rational Numbers</p> <p>G7 M4: Percent and Proportional Relationships</p> <p>G7 M6: Geometry</p> |
| <p>b. use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution;</p> | <p>This process standard is analogous to the CCSSM Standards for Mathematical Practice 1, which is specifically addressed in the following modules:</p> <p>G7 M1: Ratios and Proportional Relationships</p> <p>G7 M2: Rational Numbers</p> <p>G7 M4: Percent and Proportional Relationships</p> <p>G7 M6: Geometry</p> |

Mathematical Process Standards

Aligned Components of *Eureka Math*

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| <p>c. select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;</p> | <p>This process standard is analogous to the CCSSM Standards for Mathematical Practice 5, which is specifically addressed in the following modules:</p> <p>G7 M4: Percent and Proportional Relationships</p> <p>G7 M5: Statistics and Probability</p> <p>G7 M6: Geometry</p> |
| <p>d. communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;</p> | <p>This process standard is analogous to the CCSSM Standards for Mathematical Practice 4, which is specifically addressed in the following modules:</p> <p>G7 M2: Rational Numbers</p> <p>G7 M3: Expressions and Equations</p> <p>G7 M5: Statistics and Probability</p> |
| <p>e. create and use representations to organize, record, and communicate mathematical ideas;</p> | <p>This process standard is analogous to the CCSSM Standards for Mathematical Practice 6, which is specifically addressed in the following modules:</p> <p>G7 M2: Rational Numbers</p> <p>G7 M3: Expressions and Equations</p> <p>G7 M4: Percent and Proportional Relationships</p> <p>G7 M5: Statistics and Probability</p> |

Mathematical Process Standards**Aligned Components of *Eureka Math***

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| f. analyze mathematical relationships to connect and communicate mathematical ideas; and | <p>This process standard is analogous to the CCSSM Standards for Mathematical Practice 2, which is specifically addressed in the following modules:</p> <p>G7 M1: Ratios and Proportional Relationships</p> <p>G7 M2: Rational Numbers</p> <p>G7 M3: Expressions and Equations</p> <p>G7 M4: Percent and Proportional Relationships</p> <p>G7 M5: Statistics and Probability</p> |
| g. display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication. | <p>This process standard is analogous to the CCSSM Standards for Mathematical Practice 3, which is specifically addressed in the following modules:</p> <p>G7 M5: Statistics and Probability</p> <p>G7 M6: Geometry</p> |

| Skill | Expectations | Aligned Components of <i>Eureka Math</i> |
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| Number and Operations | <p>111.27.2</p> <p>The student applies mathematical process standards to represent and use rational numbers in a variety of forms. The student is expected to extend previous knowledge of sets and subsets using a visual representation to describe relationships between sets of rational numbers.</p> | <p>G7 M2: Rational Numbers</p> <p>Note: Supplemental material is necessary to address sets and subsets.</p> |
| | <p>111.27.3</p> <p>The student applies mathematical process standards to add, subtract, multiply, and divide while solving problems and justifying solutions. The student is expected to:</p> | |
| | <p>a. add, subtract, multiply, and divide rational numbers fluently; and</p> | <p>G7 M2: Rational Numbers</p> |
| | <p>b. apply and extend previous understandings of operations to solve problems using addition, subtraction, multiplication, and division of rational numbers.</p> | <p>G7 M2: Rational Numbers</p> |

| Skill | Expectations | Aligned Components of <i>Eureka Math</i> |
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| Proportionality | 111.27.4 The student applies mathematical process standards to represent and solve problems involving proportional relationships. The student is expected to: | |
| | a. represent constant rates of change in mathematical and real-world problems given pictorial, tabular, verbal, numeric, graphical, and algebraic representations, including $d = rt$; | G8 M4 Lesson 2: Linear and Nonlinear Expressions in x G8 M4 Topic C: Slope and Equations of Lines G8 M5 Lesson 8: Graphs of Simple Nonlinear Functions |
| | b. calculate unit rates from rates in mathematical and real-world problems; | G7 M1: Ratios and Proportional Relationships |
| | c. determine the constant of proportionality ($k = y/x$) within mathematical and real-world problems; | G7 M1 Topic B: Unit Rate and the Constant of Proportionality G7 M1 Lesson 15: Equations of Graphs of Proportional Relationships Involving Fractions G7 M1 Lesson 16: Relating Scale Drawings to Ratios and Rates G7 M4 Lesson 12: The Scale Factor as a Percent for a Scale Drawing |
| | d. solve problems involving ratios, rates, and percents, including multi-step problems involving percent increase and percent decrease, and financial literacy problems; and | G7 M4: Percent and Proportional Relationships |

| Skill | Expectations | Aligned Components of <i>Eureka Math</i> |
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| | e. convert between measurement systems, including the use of proportions and the use of unit rates. | G7 M1: Ratios and Proportional Relationships Note: Supplemental material is necessary to address conversions between measurement systems. |
| | 111.27.5 The student applies mathematical process standards to use geometry to describe or solve problems involving proportional relationships. The student is expected to: | |
| | a. generalize the critical attributes of similarity, including ratios within and between similar shapes; | G8 M3 Lesson 3: Examples of Dilations G8 M3 Topic B: Similar Figures |
| | b. describe π as the ratio of the circumference of a circle to its diameter; and | G7 M3 Lesson 16: The Most Famous Ratio of All |
| | c. solve mathematical and real-world problems involving similar shape and scale drawings. | G7 M1 Topic D: Ratios of Scale Drawings G7 M4 Topic C: Scale Drawings |

| Skill | Expectations | Aligned Components of <i>Eureka Math</i> |
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| | <p>111.27.6 The student applies mathematical process standards to use probability and statistics to describe or solve problems involving proportional relationships. The student is expected to:</p> | |
| | <p>a. represent sample spaces for simple and compound events using lists and tree diagrams;</p> | <p>G7 M5 Lesson 3: Chance Experiments with Equally Likely Outcomes</p> <p>G7 M5 Lesson 6: Using Tree Diagrams to Represent a Sample Space and to Calculate Probabilities</p> <p>G7 M5 Lesson 7: Calculating Probabilities of Compound Events</p> |
| | <p>b. select and use different simulations to represent simple and compound events with and without technology;</p> | <p>G7 M5 Lesson 6: Using Tree Diagrams to Represent a Sample Space and to Calculate Probabilities</p> <p>G7 M5 Lesson 7: Calculating Probabilities of Compound Events</p> <p>G7 M5 Lessons 10–11: Conducting a Simulation to Estimate the Probability of an Event</p> <p>Note: Supplemental material is necessary to incorporate technology.</p> |
| | <p>c. make predictions and determine solutions using experimental data for simple and compound events;</p> | <p>G7 M5: Statistics and Probability</p> |

| Skill | Expectations | Aligned Components of <i>Eureka Math</i> |
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| | d. make predictions and determine solutions using theoretical probability for simple and compound events; | <p>G7 M5 Lesson 4: Calculating Probabilities for Chance Experiments with Equally Likely Outcomes</p> <p>G7 M5 Lesson 6: Using Tree Diagrams to Represent a Sample Space and to Calculate Probabilities</p> <p>G7 M5 Lesson 7: Calculating Probabilities of Compound Events</p> <p>G7 M5 Topic B: Estimating Probabilities</p> |
| | e. find the probabilities of a simple event and its complement and describe the relationship between the two; | G7 M5 Topic A: Calculating and Interpreting Probabilities |
| | f. use data from a random sample to make inferences about a population; | G7 M5: Statistics and Probability |
| | g. solve problems using data represented in bar graphs, dot plots, and circle graphs, including part-to-whole and part-to-part comparisons and equivalents; | <p>G3 M6 Topic A: Generate and Analyze Categorical Data</p> <p>G6 M6 Lesson 3: Creating a Dot Plot</p> <p>Note: Supplemental material is needed to address circle graphs.</p> |
| | h. solve problems using qualitative and quantitative predictions and comparisons from simple experiments; and | <p>G7 M5 Lesson 1: Chance Experiments</p> <p>G7 M5 Lesson 2: Estimating Probabilities by Collecting Data</p> <p>G7 M5 Lesson 4: Calculating Probabilities for Chance Experiments with Equally Likely Outcomes</p> <p>G7 M5 Topic B: Estimating Probabilities</p> |

| Skill | Expectations | Aligned Components of <i>Eureka Math</i> |
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| | i. determine experimental and theoretical probabilities related to simple and compound events using data and sample spaces. | G7 M5: Statistics and Probability |
| Expressions, Equations, and Relationships | 111.27.7 The student applies mathematical process standards to represent linear relationships using multiple representations. The student is expected to represent linear relationships using verbal descriptions, tables, graphs, and equations that simplify to the form $y = mx + b$. | G8 M4 Topic C: Slope and Equations of Lines G8 M5: Examples of Functions from Geometry |
| | 111.27.8 The student applies mathematical process standards to develop geometric relationships with volume. The student is expected to: | |
| | a. model the relationship between the volume of a rectangular prism and a rectangular pyramid having both congruent bases and heights and connect that relationship to the formulas; | G7 M3 Lessons 23–24: The Volume of a Right Prism G7 M3 Lessons 25–26: Volume and Surface Area G7 M6 Topic E: Problems Involving Volume Note: Supplemental material may be necessary to address rectangular pyramids and further develop the relationship between prisms and pyramids. |

| Skill | Expectations | Aligned Components of <i>Eureka Math</i> |
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| | <p>b. explain verbally and symbolically the relationship between the volume of a triangular prism and a triangular pyramid having both congruent bases and heights and connect that relationship to the formulas; and</p> | <p>G7 M3 Lessons 23–24: The Volume of a Right Prism</p> <p>G7 M3 Lessons 25–26: Volume and Surface Area</p> <p>G7 M6 Topic E: Problems Involving Volume</p> <p>Note: Supplemental material may be necessary to address triangular pyramids and further develop the relationship between prisms and pyramids.</p> |
| | <p>c. use models to determine the approximate formulas for the circumference and area of a circle and connect the models to the actual formulas.</p> | <p>G7 M3 Lesson 16: The Most Famous Ratio of All</p> <p>G7 M3 Lesson 17: The Area of a Circle</p> <p>G7 M3 Lesson 18: More Problems on Area and Circumference</p> <p>G7 M3 Lesson 20: Composite Area Problems</p> |
| | <p>111.27.9 The student applies mathematical process standards to solve geometric problems. The student is expected to:</p> | |
| | <p>a. solve problems involving the volume of rectangular prisms, triangular prisms, rectangular pyramids, and triangular pyramids;</p> | <p>G7 M3 Lessons 23–24: The Volume of a Right Prism</p> <p>G7 M3 Lessons 25–26: Volume and Surface Area</p> <p>G7 M6 Topic E: Problems Involving Volume</p> <p>Note: Supplemental material is necessary to address triangular pyramids.</p> |

| Skill | Expectations | Aligned Components of <i>Eureka Math</i> |
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| | b. determine the circumference and area of circles; | <p>G7 M3 Lesson 16: The Most Famous Ratio of All</p> <p>G7 M3 Lesson 17: The Area of a Circle</p> <p>G7 M3 Lesson 18: More Problems on Area and Circumference</p> <p>G7 M6 Lesson 22: Area Problems with Circular Regions</p> |
| | c. determine the area of composite figures containing combinations of rectangles, squares, parallelograms, trapezoids, triangles, semicircles, and quarter circles; and | <p>G7 M3 Lesson 18: More Problems on Area and Circumference</p> <p>G7 M3 Lesson 19: Unknown Area Problems on the Coordinate Plane</p> <p>G7 M3 Lesson 20: Composite Area Problems</p> <p>G7 M6 Lesson 20: Real-World Area Problems</p> <p>G7 M6 Lesson 22: Area Problems with Circular Regions</p> |
| | d. solve problems involving the lateral and total surface area of a rectangular prism, rectangular pyramid, triangular prism, and triangular pyramid by determining the area of the shape's net. | <p>G7 M3 Lessons 21–22: Surface Area</p> <p>G7 M3 Lessons 25–26: Volume and Surface Area</p> <p>G7 M6 Topic D: Problems Involving Area and Surface Area</p> |

| Skill | Expectations | Aligned Components of <i>Eureka Math</i> |
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| | <p>111.27.10 The student applies mathematical process standards to use one-variable equations and inequalities to represent situations. The student is expected to:</p> | |
| | <p>a. write one-variable, two-step equations and inequalities to represent constraints or conditions within problems;</p> | <p>G7 M2 Lesson 17: Comparing Tape Diagram Solutions to Algebraic Solutions</p> <p>G7 M2 Lessons 22–23: Solving Equations Using Algebra</p> <p>G7 M3 Topic B: Solve Problems Using Expressions, Equations, and Inequalities</p> <p>G7 M4 Lesson 10: Simple Interest</p> <p>G7 M4 Lesson 11: Tax, Commissions, Fees, and Other Real-World Percent Applications</p> <p>G7 M4 Lesson 17: Mixture Problems</p> |
| | <p>b. represent solutions for one-variable, two-step equations and inequalities on number lines; and</p> | <p>G7 M3 Lesson 15: Graphing Solutions to Inequalities</p> <p>Note: Supplemental material is necessary to address graphing solutions of equations on number lines.</p> |
| | <p>c. write a corresponding real-world problem given a one-variable, two-step equation or inequality.</p> | <p><i>Eureka Math</i> does not ask students to write real-world problems when presented an equation or inequality.</p> |

| Skill | Expectations | Aligned Components of <i>Eureka Math</i> |
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| | <p>111.27.11 The student applies mathematical process standards to solve one-variable equations and inequalities. The student is expected to:</p> | |
| | <p>a. model and solve one-variable, two-step equations and inequalities;</p> | <p>G7 M2 Lesson 17: Comparing Tape Diagram Solutions to Algebraic Solutions</p> <p>G7 M2 Lessons 22–23: Solving Equations Using Algebra</p> <p>G7 M3 Topic B: Solve Problems Using Expressions, Equations, and Inequalities</p> <p>G7 M4 Lesson 10: Simple Interest</p> <p>G7 M4 Lesson 11: Tax, Commissions, Fees, and Other Real-World Percent Applications</p> <p>G7 M4 Lesson 17: Mixture Problems</p> |
| | <p>b. determine if the given value(s) make(s) one-variable, two-step equations and inequalities true; and</p> | <p>G6 M4 Topic G: Solving Equations</p> <p>G6 M4 Topic H: Applications of Equations</p> |
| | <p>c. write and solve equations using geometry concepts, including the sum of the angles in a triangle, and angle relationships.</p> | <p>G7 M3 Lessons 10–11: Angle Problems and Solving Equations</p> <p>G7 M6 Topic A: Unknown Angles</p> |

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| Measurement and Data | <p>111.27.12</p> <p>The student applies mathematical process standards to use statistical representations to analyze data. The student is expected to:</p> | |
| | <p>a. compare two groups of numeric data using comparative dot plots or box plots by comparing their shapes, centers, and spreads;</p> | G6 M6: Statistics |
| | <p>b. use data from a random sample to make inferences about a population; and</p> | G7 M5: Statistics and Probability |
| | <p>c. compare two populations based on data in random samples from these populations, including informal comparative inferences about differences between the two populations.</p> | G7 M5: Statistics and Probability |
| Personal Financial Literacy | <p>111.27.13</p> <p>The student applies mathematical process standards to develop an economic way of thinking and problem solving useful in one’s life as a knowledgeable consumer and investor. The student is expected to:</p> | |
| | <p>a. calculate the sales tax for a given purchase and calculate income tax for earned wages;</p> | <p>G7 M4 Lesson 11: Tax, Commissions, Fees, and Other Real-World Percent Applications</p> <p>Note: <i>Eureka Math</i> addresses sales tax; the other components of this standard require supplemental material.</p> |

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| | b. identify the components of a personal budget, including income; planned savings for college, retirement, and emergencies; taxes; and fixed and variable expenses, and calculate what percentage each category comprises of the total budget; | <i>Eureka Math</i> does not address personal financial skills. |
| | c. create and organize a financial assets and liabilities record and construct a net worth statement; | <i>Eureka Math</i> does not address personal financial skills. |
| | d. use a family budget estimator to determine the minimum household budget and average hourly wage needed for a family to meet its basic needs in the student's city or another large city nearby; | <i>Eureka Math</i> does not address personal financial skills. |
| | e. calculate and compare simple interest and compound interest earnings; and | G7 M4 Lesson 10: Simple Interest Algebra I M3 Lesson 4: Why Do Banks Pay YOU to Provide Their Services? |
| | f. analyze and compare monetary incentives, including sales, rebates, and coupons. | G7 M1 Lesson 14: Multi-Step Ratio Problems G7 M4 Topic B: Percent Problems Including More Than One Whole Note: <i>Eureka Math</i> addresses analyzing and comparing sales; the other components of this standard require supplemental material. |