| | |
|---|---|
| ABOUT *EUREKA MATH* | Created by the nonprofit Great Minds, *Eureka Math* helps teachers deliver unparalleled math instruction that provides students with a deep understanding of 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.<br><br>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 that 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/resources.<br><br>The teacher–writers who created the curriculum have also developed essential resources, available only from Great Minds, including the following:<br><br>• Printed material in English and Spanish<br>• Digital resources<br>• Professional development<br>• Classroom tools and manipulatives<br>• Teacher support materials<br>• Parent resources |

# Florida Benchmarks for Excellent Student Thinking (B.E.S.T.) Standards in Mathematics Correlation to *Eureka Math*®

## GRADE 7 MATHEMATICS

The majority of the Grade 7 Florida B.E.S.T. Mathematics Standards are fully covered by the Grade 7 *Eureka Math* curriculum. A small number of standards from Number Sense and Operations and Data Analysis and Probability will require the use of *Eureka Math* content from another grade level. A detailed analysis of alignment is provided in the table below.

## INDICATORS

| | |
|---|---|
| **GREEN** | indicates the Florida standard is addressed in *Eureka Math*. |
| **YELLOW** | indicates the Florida standard may not be completely addressed in *Eureka Math*. |
| **RED** | indicates the Florida standard is not addressed in *Eureka Math*. |
| **BLUE** | indicates there is a discrepancy between the grade level at which this standard is addressed in Florida and in *Eureka Math*. |

| Strand | Benchmark | Aligned Components of *Eureka Math* |
|---|---|---|
| **Number Sense and Operations** | **Standard: MA.7.NSO.1**<br>**Rewrite numbers in equivalent forms.** | |
| | **MA.7.NSO.1.1**<br><br>Know and apply the Laws of Exponents to evaluate numerical expressions and generate equivalent numerical expressions, limited to whole-number exponents and rational number bases. | G8 M1 Topic A: Exponential Notation and Properties of Integer Exponents |
| | **MA.7.NSO.1.2**<br><br>Rewrite rational numbers in different but equivalent forms, including fractions, mixed numbers, repeating decimals and percentages to solve mathematical and real-world problems. | G7 M4 Topic A: Finding the Whole |
| | **Standard: MA.7.NSO.2**<br>**Add, subtract, multiply and divide rational numbers.** | |
| | **MA.7.NSO.2.1**<br><br>Solve mathematical problems using multi-step order of operations with rational numbers, including grouping symbols, whole-number exponents and absolute value. | G7 M2 Topic A: Addition and Subtraction of Integers and Rational Numbers<br><br>G7 M2 Topic C: Applying Operations with Rational Numbers to Expressions and Equations |
| | **MA.7.NSO.2.2**<br><br>Add, subtract, multiply and divide rational numbers with procedural fluency. | G7 M2 Topic A: Addition and Subtraction of Integers and Rational Numbers<br><br>G7 M2 Topic B: Multiplication and Division of Integers and Rational Numbers |

| Strand | Benchmark | Aligned Components of *Eureka Math* |
|---|---|---|
| | **MA.7.NSO.2.3**<br><br>Solve real-world problems involving any of the four operations with rational numbers. | G7 M2 Topic C: Applying Operations with Rational Numbers to Expressions and Equations |
| **Algebraic Reasoning** | **Standard: MA.7.AR.1**<br>**Rewrite algebraic expressions in equivalent forms.** | |
| | **MA.7.AR.1.1**<br><br>Apply properties of operations to add and subtract linear expressions with rational coefficients. | G7 M3 Lesson 8: Using If-Then Moves in Solving Equations<br><br>G7 M3 Lesson 9: Using If-Then Moves in Solving Equations<br><br>G7 M3 Lesson 16: The Most Famous Ratio of All |
| | **MA.7.AR.1.2**<br><br>Determine whether two linear expressions are equivalent. | G7 M3 Lesson 18: More Problems on Area and Circumference<br><br>G7 M3 Lesson 19: Unknown Area Problems on the Coordinate Plane |
| | **Standard: MA.7.AR.2**<br>**Write and solve equations and inequalities in one variable.** | |
| | **MA.7.AR.2.1**<br><br>Write and solve one-step inequalities in one variable within a mathematical context and represent solutions algebraically or graphically. | G7 M3 Lesson 12: Properties of Inequalities<br><br>G7 M3 Lesson 13: Inequalities<br><br>G7 M3 Lesson 14: Solving Inequalities<br><br>G7 M3 Lesson 15: Graphing Solutions to Inequalities |

| Strand | Benchmark | Aligned Components of *Eureka Math* |
|---|---|---|
| | **MA.7.AR.2.2**<br><br>Write and solve two-step equations in one variable within a mathematical or real-world context, where all terms are rational numbers. | G7 M3 Topic B: Solve Problems Using Expressions, Equations and Inequalities |
| | **Standard: MA.7.AR.3**<br>**Use percentages and proportional reasoning to solve problems.** | |
| | **MA.7.AR.3.1**<br><br>Apply previous understanding of percentages and ratios to solve multi-step real-world percent problems. | G7 M4 Topic C: Scale Drawings<br><br>G7 M4 Topic D: Population, Mixture and Counting Problems Involving Percents |
| | **MA.7.AR.3.2**<br><br>Apply previous understanding of ratios to solve real-world problems involving proportions. | G7 M1 Topic C: Ratios and Rates Involving Fractions |
| | **MA.7.AR.3.3**<br><br>Solve mathematical and real-world problems involving the conversion of units across different measurement systems. | G7 M1 Topic D: Ratios of Scale Drawings |
| | **Standard: MA.7.AR.4**<br>**Analyze and represent two-variable proportional relationships.** | |
| | **MA.7.AR.4.1**<br><br>Determine whether two quantities have a proportional relationship by examining a table, graph or written description. | G7 M1 Topic A: Proportional Relationships |

| Strand | Benchmark | Aligned Components of *Eureka Math* |
|---|---|---|
| | **MA.7.AR.4.2**<br><br>Determine the constant of proportionality within a mathematical or real-world context, given a table, graph or written description of a proportional relationship. | G7 M1 Topic B: Unit Rate and the Constant of Proportionality |
| | **MA.7.AR.4.3**<br><br>Given a mathematical or real-world context, graph proportional relationships from a table, equation or a written description. | G7 M1 Topic B: Unit Rate and the Constant of Proportionality |
| | **MA.7.AR.4.4**<br><br>Given any representation of a proportional relationship, translate the representation to a written description, table or equation. | G7 M1 Topic B: Unit Rate and the Constant of Proportionality<br><br>G7 M1 Topic C: Ratios and Rates Involving Fractions |
| | **MA.7.AR.4.5**<br><br>Solve real-world problems involving proportional relationships. | G7 M1 Topic B: Unit Rate and the Constant of Proportionality<br><br>G7 M1 Topic D: Ratios of Scale Drawings |
| **Geometric Reasoning** | **Standard: MA.7.GR.1**<br>**Solve problems involving two-dimensional figures, including circles.** | |
| | **MA.7.GR.1.1**<br><br>Apply formulas to find the areas of trapezoids, parallelograms and rhombi. | G7 M3 Topic C: Use Equations and Inequalities to Solve Geometry Problems |

| Strand | Benchmark | Aligned Components of *Eureka Math* |
|---|---|---|
| | **MA.7.GR.1.2**<br>Solve mathematical or real-world problems involving the area of polygons or composite figures by decomposing them into triangles or quadrilaterals. | G7 M3 Lesson 18: More Problems on Area and Circumference<br>G7 M3 Lesson 19: Unknown Area Problems on the Coordinate Plane |
| | **MA.7.GR.1.3**<br>Explore the proportional relationship between circumferences and diameters of circles. Apply a formula for the circumference of a circle to solve mathematical and real-world problems. | G7 M3 Lesson 16: The Most Famous Ratio of All |
| | **MA.7.GR.1.4**<br>Explore and apply a formula to find the area of a circle to solve mathematical and real-world problems. | G7 M3 Lesson 17: The Area of a Circle<br>G7 M3 Lesson 18: More Problems on Area and Circumference<br>G7 M3 Lesson 19: Unknown Area Problems on the Coordinate Plane |
| | **MA.7.GR.1.5**<br>Solve mathematical and real-world problems involving dimensions and areas of geometric figures, including scale drawings and scale factors. | G7 M1 Topic D: Ratios of Scale Drawings |
| | **Standard: MA.7.GR.2**<br>**Solve problems involving three-dimensional figures, including right circular cylinders.** | |
| | **MA.7.GR.2.1**<br>Given a mathematical or real-world context, find the surface area of a right circular cylinder using the figure's net. | G7 M6 Topic D: Problems Involving Area and Surface Area |

| Strand | Benchmark | Aligned Components of *Eureka Math* |
|---|---|---|
| | **MA.7.GR.2.2**<br><br>Solve real-world problems involving surface area of right circular cylinders. | G7 M6 Topic D: Problems Involving Area and Surface Area |
| | **MA.7.GR.2.3**<br><br>Solve mathematical and real-world problems involving volume of right circular cylinders. | G7 M7 Topic E: Problems Involving Volume |
| **Data Analysis and Probability** | **Standard: MA.7.DP.1**<br>**Represent and interpret numerical and categorical data** | |
| | **MA.7.DP.1.1**<br><br>Determine an appropriate measure of center or measure of variation to summarize numerical data, represented numerically or graphically, taking into consideration the context and any outliers. | G7 M5 Topic D: Comparing Populations |
| | **MA.7.DP.1.2**<br><br>Given two numerical or graphical representations of data, use the measure(s) of center and measure(s) of variability to make comparisons, interpret results and draw conclusions about the two populations. | G7 M5 Topic D: Comparing Populations |
| | **MA.7.DP.1.3**<br><br>Given categorical data from a random sample, use proportional relationships to make predictions about a population. | G7 M5 Topic C: Random Sampling and Estimating Population Characteristics |

| Strand | Benchmark | Aligned Components of *Eureka Math* |
|---|---|---|
| | **MA.7.DP.1.4**<br><br>Use proportional reasoning to construct, display and interpret data in circle graphs. | None |
| | **MA.7.DP.1.5**<br><br>Given a real-world numerical or categorical data set, choose and create an appropriate graphical representation. | G6 M6 Topic D: Summarizing and Describing Distributions |
| | **Standard: MA.7.DP.2**<br>**Develop an understanding of probability. Find and compare experimental and theoretical probabilities.** | |
| | **MA.7.DP.2.1**<br><br>Determine the sample space for a simple experiment. | G7 M5 Lesson 3: Chance Experiments with Equally Likely Outcomes<br><br>G7 M5 Lesson 4: Calculating Probabilities for Chance Experiments with Equally Likely Outcomes<br><br>G7 M5 Lesson 5: Chance Experiments with Outcomes that are Not Equally Likely<br><br>G7 M5 Lesson 6: Using Tree Diagrams to Represent a Sample Space and to Calculate Probabilities |

| Strand | Benchmark | Aligned Components of *Eureka Math* |
|---|---|---|
| | **MA.7.DP.2.2**<br><br>Given the probability of a chance event, interpret the likelihood of it occurring. Compare the probabilities of chance events. | G7 M5 Lesson 4: Calculating Probabilities for Chance Experiments with Equally Likely Outcomes<br><br>G7 M5 Lesson 5: Chance Experiments with Outcomes that are Not Equally Likely<br><br>G7 M5 Lesson 6: Using Tree Diagrams to Represent a Sample Space and to Calculate Probabilities<br><br>G7 M5 Lesson 7: Calculating Probabilities of Compound Events |
| | **MA.7.DP.2.3**<br><br>Find the theoretical probability of an event related to a simple experiment. | G7 M5 Topic B: Estimating Probabilities |
| | **MA.7.DP.2.4**<br><br>Use a simulation of a simple experiment to find experimental probabilities and compare them to theoretical probabilities. | G7 M5 Topic B: Estimating Probabilities |