Grade 4 | Florida's Benchmark for Excellent Student Thinking Standards for Mathematics Correlation to *Eureka Math²® Florida B.E.S.T. Edition*

When the original *Eureka Math®* curriculum was released, it quickly became the most widely used K–5 mathematics curriculum in the country. Now, the Great Minds® teacher–writers have created *Eureka Math²® Florida B.E.S.T. Edition*, a groundbreaking new curriculum that helps teachers deliver exponentially better math instruction while still providing students with the same deep understanding of and fluency in math. *Eureka Math² Florida B.E.S.T. Edition* carefully sequences mathematical content to maximize vertical alignment—a principle tested and proven to be essential in students' mastery of math—from kindergarten through high school.

While this innovative new curriculum includes all the trademark *Eureka Math* aha moments that have been delighting students and teachers for years, it also boasts these exciting new features:

Teachability

Eureka Math² Florida B.E.S.T. Edition employs streamlined materials that allow teachers to plan more efficiently and focus their energy on delivering high-quality instruction that meets the individual needs of their students. Differentiation suggestions, slide decks, digital interactives, and multiple forms of assessment are just a few of the resources built right into the teacher materials.

Accessibility

Eureka Math² Florida B.E.S.T. Edition incorporates Universal Design for Learning principles so all learners can access the mathematics and take on challenging math concepts. Student supports are built into the instructional design and are clearly identified in the *Teach* book. Further, the curriculum carries a focus on readability. By eliminating unnecessary words and using simple, clear sentences, the *Eureka Math² Florida B.E.S.T. Edition* teacher–writers have created one of the most readable mathematics curricula on the market. The curriculum's readability and accessibility help all students see themselves as mathematical thinkers and doers who are fully capable of owning their mathematics learning.

Digital Engagement

The digital elements of *Eureka Math² Florida B.E.S.T. Edition* add to students' engagement with the math. The curriculum provides teachers with digital slides for each lesson. In addition, each grade level includes wordless videos that spark students' interest and curiosity. Students at all levels work through mathematical explorations that help lead to their own mathematical discoveries. Digital lessons and videos provide opportunities for students to wonder, explore, and make sense of mathematics, which contributes to the development of a strong, positive mathematical identity.

Standards for Mathematical Practice	Aligned Components
MP.1 Make sense of problems and persevere in solving them.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.2 Reason abstractly and quantitatively.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.3 Construct viable arguments and critique the reasoning of others.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.4 Model with mathematics.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.5 Use appropriate tools strategically.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.6 Attend to precision.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.7 Look for and make use of structure.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.
MP.8 Look for and express regularity in repeated reasoning.	Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.

Number Sense and Operations

MA.4.NSO.1 Understand place value for multi-digit numbers.

Florida's Benchmark for Excellent Student Thinking Standards for Mathematics	Aligned Components
MA.4.NSO.1.1 Express how the value of a digit in a multi-digit whole number changes if the digit moves one place to the left or right.	4 M1 Lesson 6: Demonstrate that a digit represents 10 times the value of what it represents in the place to its right. 4 M1 Lesson 7: Demonstrate that a digit represents $\frac{1}{10}$ as much as what it represents in the place to its left. 4 M4 Lesson 35: Apply fraction multiplication to place value relationships.
MA.4.NSO.1.2 Read and write multi-digit whole numbers from 0 to $1{,}000{,}000$ using standard form, expanded form and word form.	4 M1 Lesson 5: Organize, count, and represent a collection of objects. 4 M1 Lesson 8: Write numbers to $1{,}000{,}000$ in unit form and expanded form by using place value structure. 4 M1 Lesson 9: Write numbers to $1{,}000{,}000$ in standard form and word form. 4 M1 Lesson 12: Name numbers by using place value understanding.
MA.4.NSO.1.3 Plot, order and compare multi-digit whole numbers up to $1{,}000{,}000$.	4 M1 Lesson 10: Compare numbers within $1{,}000{,}000$ by using $>$, $=$, and $<$. 4 M1 Lesson 11: Plot, order, and compare within $1{,}000{,}000$ on a scaled number line.
MA.4.NSO.1.4 Round whole numbers from 0 to $10{,}000$ to the nearest 10, 100 or $1{,}000$.	4 M1 Lesson 14: Round four-digit numbers to the nearest thousand, hundred, and ten. 4 M1 Lesson 15: Round to the nearest ten thousand and hundred thousand. 4 M1 Lesson 16: Round multi-digit numbers to any place. 4 M1 Lesson 17: Estimate by rounding to assess the reasonableness of sums. 4 M1 Lesson 18: Solve two-step addition word problems. 4 M1 Lesson 19: Estimate by rounding to assess the reasonableness of differences. 4 M1 Lesson 20: Solve two-step subtraction word problems. 4 M1 Lesson 21: Solve two-step word problems by using addition and subtraction.

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MA.4.NSO.1.5 Plot, order and compare decimals up to the hundredths.	4 M5 Lesson 2: Decompose 1 one and express tenths in fraction form and decimal form. 4 M5 Topic C: Comparison of Decimal Numbers

Number Sense and Operations

MA.4.NSO.2 Build an understanding of operations with multi-digit numbers including decimals.

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MA.4.NSO.2.1 Recall multiplication facts with factors up to 12 and related division facts with automaticity.	4 M2 Lesson 1: Determine and explain whether an equation involving any of the four operations is true or false. 4 M2 Lesson 2: Multiply by using place value strategies and the distributive property. 4 M2 Lesson 8: Divide two- and three-digit multiples of 10 by one-digit numbers.
MA.4.NSO.2.2 Multiply two whole numbers, up to three digits by up to two digits, with procedural reliability.	4 M2 Lesson 2: Multiply by using place value strategies and the distributive property. 4 M2 Lesson 3: Multiply with regrouping by using place value strategies and the distributive property. 4 M2 Lesson 4: Multiply by using an area model and the distributive property. 4 M2 Lesson 5: Multiply by applying the distributive property and write equations. 4 M2 Lesson 6: Solve multiplication word problems. 4 M2 Lesson 7: Multiply by applying simplifying strategies. 4 M3 Lesson 2: Multiply by multiples of 100 and 1,000. 4 M3 Lesson 3: Multiply a two-digit multiple of 10 by a two-digit multiple of 10. 4 M3 Topic C: Multiplication of up to Four-Digit Numbers by One-Digit Numbers 4 M3 Lesson 12: Multiply two-digit numbers by two-digit multiples of 10.

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MA.4.NSO.2.2 ***continued***	4 M3 Lesson 13: Apply place value strategies to multiply two-digit numbers by two-digit numbers. 4 M3 Lesson 14: Multiply with four partial products. 4 M3 Lesson 15: Multiply with two partial products. 4 M3 Lesson 18: Multiply three-digit numbers by two-digit numbers by using the distributive property.
MA.4.NSO.2.3 Multiply two whole numbers, each up to two digits, including using a standard algorithm with procedural fluency.	4 M3 Lesson 16: Multiply two-digit numbers by two-digit numbers by using the standard algorithm. 4 M3 Lesson 17: Solve multiplication word problems by using various methods.
MA.4.NSO.2.4 Divide a whole number up to four digits by a one-digit whole number with procedural reliability. Represent remainders as fractional parts of the divisor.	4 M2 Topic B: Division of Tens and Ones by One-Digit Numbers 4 M3 Lesson 1: Divide multiples of 100 and $1{,}000$. 4 M3 Topic B: Division of Thousands, Hundreds, Tens, and Ones 4 M3 Topic F: Remainders, Estimating, and Problem Solving
MA.4.NSO.2.5 Explore the multiplication and division of multi-digit whole numbers using estimation, rounding and place value.	4 M3 Lesson 19: Explore multi-digit multiplication by using estimation, rounding, and place value. 4 M3 Lesson 20: Explore multi-digit division by using estimation, rounding, and place value.
MA.4.NSO.2.6 Identify the number that is one-tenth more, one-tenth less, one-hundredth more and one-hundredth less than a given number.	4 M5 Lesson 3: Represent tenths as a place value unit. 4 M5 Lesson 6: Represent hundredths as a place value unit. 4 M5 Lesson 7: Write mixed numbers in decimal form with hundredths.

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MA.4.NSO.2.7 Explore the addition and subtraction of multi-digit numbers with decimals to the hundredths.	4 M5 Lesson 15: Add decimal numbers by using different methods. 4 M5 Lesson 16: Add decimal numbers by using place value understanding. 4 M5 Lesson 17: Subtract decimal numbers by using different methods. 4 M5 Lesson 18: Subtract decimal numbers by using place value understanding.

Algebraic Reasoning

MA.4.AR.1 Represent and solve problems involving the four operations with whole numbers and fractions.

Florida's Benchmark for Excellent Student Thinking Standards for Mathematics	Aligned Components
MA.4.AR.1.1 Solve real-world problems involving multiplication and division of whole numbers including problems in which remainders must be interpreted within the context.	4 M1 Topic A: Multiplication as Multiplicative Comparison 4 M1 Lesson 6: Demonstrate that a digit represents 10 times the value of what it represents in the place to its right. 4 M2 Lesson 6: Solve multiplication word problems. 4 M3 Topic F: Remainders, Estimating, and Problem Solving
MA.4.AR.1.2 Solve real-world problems involving addition and subtraction of fractions with like denominators, including mixed numbers and fractions greater than one.	4 M4 Lesson 16: Estimate sums and differences of fractions by using benchmarks. 4 M4 Lesson 18: Subtract a fraction from a whole number. 4 M4 Lesson 19: Solve addition and subtraction word problems and estimate the reasonableness of the answers. 4 M4 Lesson 24: Add a mixed number to a mixed number. 4 M4 Lesson 28: Represent and solve word problems with mixed numbers by using drawings and equations.

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MA.4.AR.1.3 Solve real-world problems involving multiplication of a fraction by a whole number or a whole number by a fraction.	4 M4 Lesson 22: Solve word problems involving multiplication of a whole number by a fraction. 4 M4 Lesson 32: Find fractions of a set by using arrays and tape diagrams. 4 M4 Lesson 34: Solve word problems involving multiplication of a fraction by a whole number.

Algebraic Reasoning

MA.4.AR.2 Demonstrate an understanding of equality and operations with whole numbers.

Florida's Benchmark for Excellent Student Thinking Standards for Mathematics	Aligned Components
MA.4.AR.2.1 Determine and explain whether an equation involving any of the four operations with whole numbers is true or false.	4 M1 Lesson 22: Determine and explain whether an equation involving addition and/or subtraction is true or false. 4 M2 Lesson 1: Determine and explain whether an equation involving any of the four operations is true or false.
MA.4.AR.2.2 Given a mathematical or real-world context, write an equation involving multiplication or division to determine the unknown whole number with the unknown in any position.	4 M2 Lesson 16: Find unknown side lengths in area and perimeter problems. 4 M2 Lesson 17: Solve problems to determine the perimeters of rectangles with the same area. 4 M2 Lesson 18: Solve problems to determine the areas of rectangles with the same perimeter. 4 M3 Lesson 19: Explore multi-digit multiplication by using estimation, rounding, and place value. 4 M3 Lesson 26: Solve time word problems where the change in time is unknown. 4 M3 Lesson 30: Express a remainder as a fraction.

Algebraic Reasoning

MA.4.AR.3 Recognize numerical patterns, including patterns that follow a given rule.

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MA.4.AR.3.1 Determine factor pairs for a whole number from 0 to 144. Determine whether a whole number from 0 to 144 is prime, composite or neither.	4 M2 Lesson 20: Find factor pairs for numbers up to 144 and use factors to identify numbers as prime or composite. 4 M2 Lesson 21: Use division and the associative property of multiplication to find factors. 4 M2 Lesson 22: Apply divisibility rules to determine factors of a number. 4 M2 Lesson 23: Recognize that a number is a multiple of each of its factors. 4 M2 Lesson 24: Explore properties of prime and composite numbers up to 100 by using multiples.
MA.4.AR.3.2 Generate, describe and extend a numerical pattern that follows a given rule.	4 M1 Lesson 1: Interpret multiplication as multiplicative comparison. 4 M1 Lesson 13: Find 1, 10, and 100 thousand more than and less than a given number. 4 M2 Lesson 25: Use relationships within a pattern to find an unknown term in the sequence.

Measurement

MA.4.M.1 Measure the length of objects and solve problems involving measurement.

Florida's Benchmark for Excellent Student Thinking Standards for Mathematics	Aligned Components
MA.4.M.1.1 Select and use appropriate tools to measure attributes of objects.	4 M1 Lesson 23: Measure lengths by using different metric units. 4 M3 Lesson 21: Measure weight in customary units. 4 M3 Lesson 23: Measure liquid volume in customary units. 4 M6 Lesson 3: Measure length to the nearest eighth inch and sixteenth inch.

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MA.4.M.1.2 Convert within a single system of measurement using the units: yards, feet, inches; kilometers, meters, centimeters, millimeters; pounds, ounces; kilograms, grams; gallons, quarts, pints, cups; liter, milliliter; and hours, minutes, seconds.	4 M1 Lesson 24: Express metric measurements of length in terms of smaller units. 4 M1 Lesson 25: Express metric measurements of length in terms of larger units. 4 M1 Lesson 26: Express metric measurements of mass and liquid volume in terms of smaller units. 4 M2 Lesson 14: Express measurements of length in terms of smaller units. 4 M2 Lesson 15: Express measurements of length in terms of larger units. 4 M3 Lesson 22: Express customary measurements of weight in terms of both smaller and larger units. 4 M3 Lesson 24: Express customary measurements of liquid volume in terms of both smaller and larger units. 4 M3 Lesson 25: Express units of time in terms of both smaller and larger units.

Measurement

MA.4.M.2 Solve problems involving time and money.

Florida's Benchmark for Excellent Student Thinking Standards for Mathematics	Aligned Components
MA.4.M.2.1 Solve two-step real-world problems involving distances and intervals of time using any combination of the four operations.	4 M1 Lesson 3: Describe relationships between measurements by using multiplicative comparison. 4 M1 Lesson 18: Solve two-step addition word problems. 4 M1 Lesson 20: Solve two-step subtraction word problems. 4 M1 Lesson 21: Solve two-step word problems by using addition and subtraction. 4 M3 Lesson 11: Multiply by using various recording methods in vertical form. 4 M3 Lesson 18: Multiply three-digit numbers by two-digit numbers by using the distributive property. 4 M3 Lesson 26: Solve time word problems where the change in time is unknown. 4 M4 Lesson 28: Represent and solve word problems with mixed numbers by using drawings and equations.

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MA.4.M.2.2 Solve one- and two-step addition and subtraction real-world problems involving money using decimal notation.	4 M5 Lesson 19: Solve word problems involving addition and subtraction of decimal numbers and money.

Fractions

MA.4.FR.1 Develop an understanding of the relationship between different fractions and the relationship between fractions and decimals.

Florida's Benchmark for Excellent Student Thinking Standards for Mathematics	Aligned Components
MA.4.FR.1.1 Model and express a fraction, including mixed numbers and fractions greater than one, with the denominator 10 as an equivalent fraction with the denominator 100.	4 M5 Topic B: Tenths and Hundredths
MA.4.FR.1.2 Use decimal notation to represent fractions with denominators of 10 or 100, including mixed numbers and fractions greater than 1, and use fractional notation with denominators of 10 or 100 to represent decimals.	4 M5 Topic A: Exploration of Tenths 4 M5 Topic B: Tenths and Hundredths 4 M5 Lesson 14: Solve word problems with tenths and hundredths.

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MA.4.FR.1.3 Identify and generate equivalent fractions, including fractions greater than one. Describe how the numerator and denominator are affected when the equivalent fraction is created.	4 M4 Topic B: Equivalent Fractions
MA.4.FR.1.4 Plot, order and compare fractions, including mixed numbers and fractions greater than one, with different numerators and different denominators.	4 M4 Topic C: Compare Fractions

Fractions

MA.4.FR.2 Build a foundation of addition, subtraction and multiplication operations with fractions.

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MA.4.FR.2.1 Decompose a fraction, including mixed numbers and fractions greater than one, into a sum of fractions with the same denominator in multiple ways. Demonstrate each decomposition with objects, drawings and equations.	4 M4 Topic A: Fraction Decomposition and Equivalence 4 M4 Lesson 5: Rename fractions as a sum of equivalent smaller unit fractions. 4 M4 Lesson 16: Estimate sums and differences of fractions by using benchmarks. 4 M4 Lesson 18: Subtract a fraction from a whole number.

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MA.4.FR.2.2 Add and subtract fractions with like denominators, including mixed numbers and fractions greater than one, with procedural reliability.	4 M4 Lesson 17: Add and subtract fractions with like units. 4 M4 Lesson 18: Subtract a fraction from a whole number. 4 M4 Lesson 23: Add a fraction to a mixed number. 4 M4 Lesson 24: Add a mixed number to a mixed number. 4 M4 Lesson 25: Subtract a fraction from a mixed number, part 1. 4 M4 Lesson 26: Subtract a fraction from a mixed number, part 2. 4 M4 Lesson 27: Subtract a mixed number from a mixed number.
MA.4.FR.2.3 Explore the addition of a fraction with denominator of 10 to a fraction with denominator of 100 using equivalent fractions.	4 M5 Topic D: Addition of Tenths and Hundredths
MA.4.FR.2.4 Extend previous understanding of multiplication to explore the multiplication of a fraction by a whole number or a whole number by a fraction.	4 M4 Topic E: Repeated Addition of Fractions as Multiplication 4 M4 Lesson 31: Multiply a whole number by a mixed number by using the distributive property. 4 M4 Lesson 32: Find fractions of a set by using arrays and tape diagrams. 4 M4 Lesson 33: Multiply a fraction less than 1 by a whole number. 4 M4 Lesson 34: Solve word problems involving multiplication of a fraction by a whole number.

Geometric Reasoning

MA.4.GR.1 Draw, classify and measure angles.

Florida's Benchmark for Excellent Student Thinking Standards for Mathematics	Aligned Components
MA.4.GR.1.1 Informally explore angles as an attribute of two-dimensional figures. Identify and classify angles as acute, right, obtuse, straight or reflex.	4 M6 Lesson 5: Identify right, acute, obtuse, and straight angles. 4 M6 Lesson 6: Draw right, acute, obtuse, and straight angles. 4 M6 Lesson 7: Relate geometric figures to a real-world context. 4 M6 Lesson 8: Explore angles as fractional turns through a circle. 4 M6 Lesson 9: Use a circular protractor to recognize a $1°$ angle as a turn through $\frac{1}{360}$ of a circle. 4 M6 Lesson 13: Use a protractor to draw angles up to $180°$.
MA.4.GR.1.2 Estimate angle measures. Using a protractor, measure angles in whole-number degrees and draw angles of specified measure in whole-number degrees. Demonstrate that angle measure is additive.	4 M6 Lesson 9: Use a circular protractor to recognize a $1°$ angle as a turn through $\frac{1}{360}$ of a circle. 4 M6 Lesson 11: Use $180°$ protractors to measure angles. 4 M6 Lesson 12: Estimate and measure angles with a $180°$ protractor. 4 M6 Lesson 13: Use a protractor to draw angles up to $180°$. 4 M6 Topic C: Determine Unknown Angle Measures
MA.4.GR.1.3 Solve real-world and mathematical problems involving unknown whole-number angle measures. Write an equation to represent the unknown.	4 M6 Topic C: Determine Unknown Angle Measures

Geometric Reasoning

MA.4.GR.2 Solve problems involving the perimeter and area of rectangles.

Florida's Benchmark for Excellent Student Thinking Standards for Mathematics	Aligned Components
MA.4.GR.2.1 Solve perimeter and area mathematical and real-world problems, including problems with unknown sides, for rectangles with whole-number side lengths.	4 M2 Lesson 4: Multiply by using an area model and the distributive property. 4 M2 Lesson 16: Find unknown side lengths in area and perimeter problems. 4 M2 Lesson 19: Apply area and perimeter formulas to solve problems.
MA.4.GR.2.2 Solve problems involving rectangles with the same perimeter and different areas or with the same area and different perimeters.	4 M2 Lesson 17: Solve problems to determine the perimeters of rectangles with the same area. 4 M2 Lesson 18: Solve problems to determine the areas of rectangles with the same perimeter.

Data Analysis and Probability

MA.4.DP.1 Collect, represent and interpret data and find the mode, median and range of a data set.

Florida's Benchmark for Excellent Student Thinking Standards for Mathematics	Aligned Components
MA.4.DP.1.1 Collect and represent numerical data, including fractional values, using tables, stem-and-leaf plots or line plots.	4 M4 Lesson 29: Solve problems by using data from a line plot. 4 M4 Lesson 30: Represent data on a line plot. 4 M6 Lesson 1: Collect and represent data by using stem-and-leaf plots. 4 M6 Lesson 4: Collect, represent and interpret data.

Florida's Benchmark for Excellent Student Thinking Standards for Mathematics	Aligned Components
MA.4.DP.1.2 Determine the mode, median or range to interpret numerical data including fractional values, represented with tables, stem-and-leaf plots or line plots.	4 M4 Lesson 29: Solve problems by using data from a line plot. 4 M4 Lesson 30: Represent data on a line plot. 4 M6 Lesson 2: Determine and interpret the mode, median, and range of a given data set. 4 M6 Lesson 4: Collect, represent and interpret data.
MA.4.DP.1.3 Solve real-world problems involving numerical data.	4 M6 Lesson 1: Collect and represent data by using stem-and-leaf plots. 4 M6 Lesson 4: Collect, represent and interpret data.