Grade 2 | New York Next Generation Mathematics Learning Standards Correlation to *Eureka Math*®

About *Eureka Math*

Created by Great Minds®, a mission-driven Public Benefit Corporation, *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

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

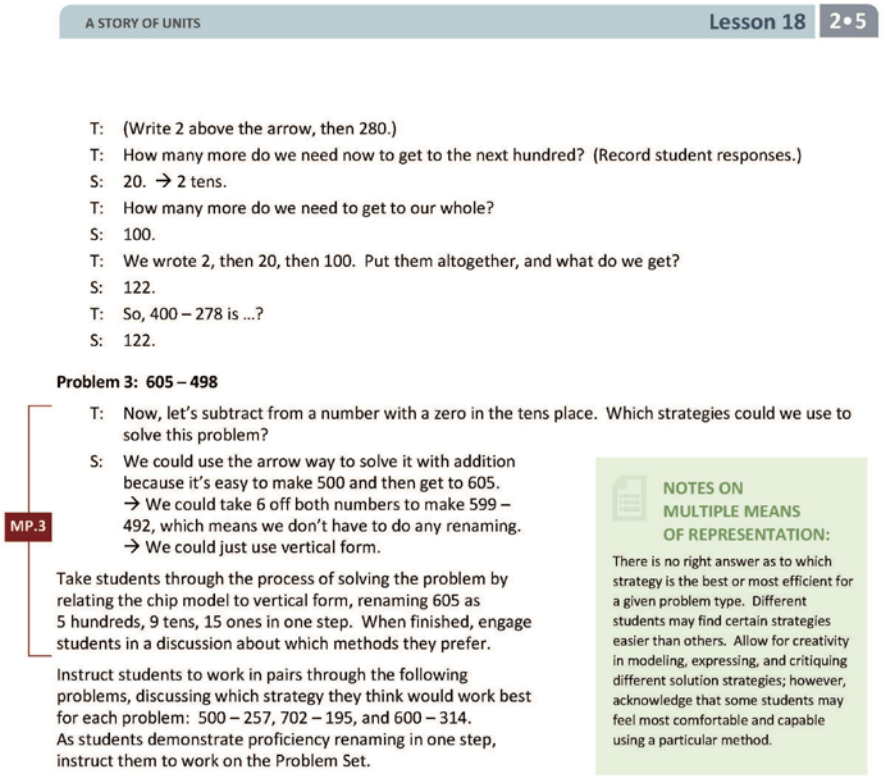
Schools and districts nationwide are experiencing student growth and impressive test scores after using *Eureka Math*. See their stories and data at greatminds.org/data.

Full Suite of Resources

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

Standards for Mathematical Practice	Aligned Components of *Eureka Math*
MP.1 Make sense of problems and persevere in solving them.	Lessons in every module engage students in mathematical practices. These are designated in the Module Overview and labeled in lessons. For example: 
MP.2 Reason abstractly and quantitatively.	
MP.3 Construct viable arguments and critique the reasoning of others.	
MP.4 Model with mathematics.	
MP.5 Use appropriate tools strategically.	
MP.6 Attend to precision.	
MP.7 Look for and make use of structure.	
MP.8 Look for and express regularity in repeated reasoning.	

Operations and Algebraic Thinking

Represent and solve problems involving addition and subtraction.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-2.OA.1a Use addition and subtraction within 100 to solve one-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions.	G2 M1 Lesson 2: Practice making the next ten and adding to a multiple of ten. G2 M1 Lesson 5: Make a ten to add within 100. G2 M1 Lesson 8: Take from ten within 100. G2 M4 Lesson 5: Solve one- and two-step word problems within 100 using strategies based on place value. G2 M4 Lesson 16: Solve one- and two-step word problems within 100 using strategies based on place value. G2 M4 Lesson 31: Solve two-step word problems within 100. G2 M6 Lesson 9: Solve word problems involving addition of equal groups in rows and columns.
NY-2.OA.1b Use addition and subtraction within 100 to develop an understanding of solving two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions.	G2 M1 Lesson 2: Practice making the next ten and adding to a multiple of ten. G2 M1 Lesson 5: Make a ten to add within 100. G2 M1 Lesson 8: Take from ten within 100. G2 M4 Lesson 5: Solve one- and two-step word problems within 100 using strategies based on place value. G2 M4 Lesson 16: Solve one- and two-step word problems within 100 using strategies based on place value. G2 M4 Lesson 31: Solve two-step word problems within 100. G2 M6 Lesson 9: Solve word problems involving addition of equal groups in rows and columns.

Operations and Algebraic Thinking

Add and subtract within 20.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-2.OA.2a Fluently add and subtract within 20 using mental strategies. Strategies could include: (i) counting on; (ii) making ten; (iii) decomposing a number leading to a ten; (iv) using the relationship between addition and subtraction; and (v) creating equivalent but easier or known sums.	G2 M1 Topic A: Foundations for Fluency with Sums and Differences Within 100 G2 M1 Lesson 3: Add and subtract like units. G2 M1 Lesson 4: Make a ten to add within 20. G2 M1 Lesson 5: Make a ten to add within 100.
NY-2.OA.2b Know from memory all sums within 20 of two one-digit numbers.	G2 M1 Topic A: Foundations for Fluency with Sums and Differences Within 100 G2 M1 Lesson 3: Add and subtract like units. G2 M1 Lesson 4: Make a ten to add within 20. G2 M1 Lesson 5: Make a ten to add within 100.

Operations and Algebraic Thinking

Work with equal groups of objects to gain foundations for multiplication.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-2.OA.3a Determine whether a group of objects (up to 20) has an odd or even number of members.	G2 M6 Topic D: The Meaning of Even and Odd Numbers

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-2.OA.3b Write an equation to express an even number as a sum of two equal addends.	G2 M6 Topic D: The Meaning of Even and Odd Numbers
NY-2.OA.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns. Write an equation to express the total as a sum of equal addends.	G2 M6 Topic A: Formation of Equal Groups G2 M6 Topic B: Arrays and Equal Groups G2 M6 Lesson 10: Use square tiles to compose a rectangle, and relate to the array model. G2 M6 Lesson 11: Use square tiles to compose a rectangle, and relate to the array model. G2 M6 Lesson 13: Use square tiles to decompose a rectangle. G2 M6 Lesson 15: Use math drawings to partition a rectangle with square tiles, and relate to repeated addition.

Number and Operations in Base Ten

Understand place value.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-2.NBT.1 Understand that the digits of a three-digit number represent amounts of hundreds, tens, and ones.	G2 M3 Topic A: Forming Base Ten Units of Ten, a Hundred, and a Thousand G2 M3 Lesson 4: Count up to 1,000 on the place value chart. G2 M3 Lesson 5: Write base ten three-digit numbers in unit form; show the value of each digit. G2 M3 Lesson 7: Write, read, and relate base ten numbers in all forms. G2 M3 Topic D: Modeling Base Ten Numbers Within 1,000 with Money G2 M3 Topic E: Modeling Numbers Within 1,000 with Place Value Disks G2 M3 Topic G: Finding 1, 10, and 100 More or Less Than a Number

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-2.NBT.1.a Understand 100 can be thought of as a bundle of ten tens, called a "hundred."	G2 M3 Topic A: Forming Base Ten Units of Ten, a Hundred, and a Thousand G2 M3 Lesson 2: Count up and down between 100 and 220 using ones and tens.
NY-2.NBT.1.b Understand the numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).	G2 M3 Topic B: Understanding Place Value Units of One, Ten, and a Hundred G2 M3 Lesson 4: Count up to 1,000 on the place value chart. G2 M3 Lesson 5: Write base ten three-digit numbers in unit form; show the value of each digit.
NY-2.NBT.2 Count within 1,000; skip-count by 5s, 10s, and 100s.	G2 M3 Topic B: Understanding Place Value Units of One, Ten, and a Hundred G2 M3 Lesson 4: Count up to 1,000 on the place value chart. G2 M3 Topic D: Modeling Base Ten Numbers Within 1,000 with Money G2 M3 Lesson 12: Change 10 ones for 1 ten, 10 tens for 1 hundred, and 10 hundreds for 1 thousand. G2 M3 Lesson 15: Explore a situation with more than 9 groups of ten. G2 M3 Topic G: Finding 1, 10, and 100 More or Less Than a Number
NY-2.NBT.3 Read and write numbers to 1,000 using base-ten numerals, number names, and expanded form.	G2 M3 Lesson 5: Write base ten three-digit numbers in unit form; show the value of each digit. G2 M3 Lesson 6: Write base ten numbers in expanded form. G2 M3 Lesson 7: Write, read, and relate base ten numbers in all forms. G2 M3 Lesson 11: Count the total value of ones, tens, and hundreds with place value disks. G2 M3 Lesson 13: Read and write numbers within 1,000 after modeling with place value disks. G2 M3 Lesson 14: Model numbers with more than 9 ones or 9 tens; write in expanded, unit, standard, and word forms. G2 M3 Lesson 15: Explore a situation with more than 9 groups of ten. G2 M3 Topic F: Comparing Two Three-Digit Numbers

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-2.NBT.4 Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.	G2 M3 Topic F: Comparing Two Three-Digit Numbers

Number and Operations in Base Ten

Use place value understanding and properties of operations to add and subtract.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	G2 M1 Lesson 6: Subtract single-digit numbers from multiples of 10 within 100. G2 M1 Lesson 7: Take from ten within 20. G2 M1 Lesson 8: Take from ten within 100. G2 M4 Topic A: Sums and Differences Within 100 G2 M7 Topic B: Problem Solving with Coins and Bills
NY-2.NBT.6 Add up to four two-digit numbers using strategies based on place value and properties of operations.	G2 M4 Lesson 22: Solve additions with up to four addends with totals within 200 with and without two compositions of larger units.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-2.NBT.7a Add and subtract within 1,000, using concrete models or drawings, and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Relate the strategy to a written representation.	G2 M4 Topic B: Strategies for Composing a Ten G2 M4 Topic C: Strategies for Decomposing a Ten G2 M4 Lesson 17: Use mental strategies to relate compositions of 10 tens as 1 hundred to 10 ones as 1 ten. G2 M4 Lesson 18: Use manipulatives to represent additions with two compositions. G2 M4 Lesson 19: Relate manipulative representations to a written method. G2 M4 Lesson 20: Use math drawings to represent additions with up to two compositions and relate drawings to a written method. G2 M4 Lesson 21: Use math drawings to represent additions with up to two compositions and relate drawings to a written method. G2 M4 Topic E: Strategies for Decomposing Tens and Hundreds G2 M4 Topic F: Student Explanations of Written Methods G2 M5 Topic A: Strategies for Adding and Subtracting Within 1,000 G2 M5 Topic B: Strategies for Composing Tens and Hundreds Within 1,000 G2 M5 Topic C: Strategies for Decomposing Tens and Hundreds Within 1,000 G2 M5 Topic D: Student Explanations for Choice of Solution Methods
NY-2.NBT.7b Understand that in adding or subtracting up to three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones, and sometimes it is necessary to compose or decompose tens or hundreds.	G2 M4 Topic B: Strategies for Composing a Ten G2 M4 Topic C: Strategies for Decomposing a Ten G2 M4 Lesson 17: Use mental strategies to relate compositions of 10 tens as 1 hundred to 10 ones as 1 ten. G2 M4 Lesson 18: Use manipulatives to represent additions with two compositions. G2 M4 Lesson 19: Relate manipulative representations to a written method. G2 M4 Lesson 20: Use math drawings to represent additions with up to two compositions and relate drawings to a written method.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-2.NBT.7b *continued*	G2 M4 Lesson 21: Use math drawings to represent additions with up to two compositions and relate drawings to a written method. G2 M4 Topic E: Strategies for Decomposing Tens and Hundreds G2 M4 Topic F: Student Explanations of Written Methods G2 M5 Topic A: Strategies for Adding and Subtracting Within 1,000 G2 M5 Topic B: Strategies for Composing Tens and Hundreds Within 1,000 G2 M5 Topic C: Strategies for Decomposing Tens and Hundreds Within 1,000 G2 M5 Topic D: Student Explanations for Choice of Solution Methods
NY-2.NBT.8 Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.	G2 M3 Lesson 19: Model and use language to tell about 1 more and 1 less, 10 more and 10 less, and 100 more and 100 less. G2 M3 Lesson 21: Complete a pattern counting up and down. G2 M4 Lesson 1: Relate 1 more, 1 less, 10 more, and 10 less to addition and subtraction of 1 and 10. G2 M4 Lesson 2: Add and subtract multiples of 10 including counting on to subtract. G2 M4 Lesson 3: Add and subtract multiples of 10 and some ones within 100. G2 M4 Lesson 4: Add and subtract multiples of 10 and some ones within 100. G2 M4 Lesson 17: Use mental strategies to relate compositions of 10 tens as 1 hundred to 10 ones as 1 ten. G2 M5 Lesson 1: Relate 10 more, 10 less, 100 more, and 100 less to addition and subtraction of 10 and 100. G2 M5 Lesson 2: Add and subtract multiples of 100, including counting on to subtract. G2 M5 Lesson 3: Add multiples of 100 and some tens within 1,000. G2 M5 Lesson 4: Subtract multiples of 100 and some tens within 1,000. G2 M5 Lesson 5: Use the associative property to make a hundred in one addend.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-2.NBT.9 Explain why addition and subtraction strategies work, using place value and the properties of operations.	G2 M4 Lesson 3: Add and subtract multiples of 10 and some ones within 100. G2 M4 Lesson 4: Add and subtract multiples of 10 and some ones within 100. G2 M4 Lesson 5: Solve one- and two-step word problems within 100 using strategies based on place value. G2 M4 Lesson 7: Relate addition using manipulatives to a written vertical method. G2 M4 Lesson 8: Use math drawings to represent the composition and relate drawings to a written method. G2 M4 Lesson 9: Use math drawings to represent the composition when adding a two-digit to a three-digit addend. G2 M4 Lesson 10: Use math drawings to represent the composition when adding a two-digit to a three-digit addend. G2 M4 Lesson 12: Relate manipulative representations to a written method. G2 M4 Lesson 13: Use math drawings to represent subtraction with and without decomposition and relate drawings to a written method. G2 M4 Lesson 14: Represent subtraction with and without the decomposition when there is a three-digit minuend. G2 M4 Lesson 15: Represent subtraction with and without the decomposition when there is a three-digit minuend. G2 M4 Lesson 16: Solve one- and two-step word problems within 100 using strategies based on place value. G2 M4 Lesson 19: Relate manipulative representations to a written method. G2 M4 Lesson 20: Use math drawings to represent additions with up to two compositions and relate drawings to a written method. G2 M4 Lesson 21: Use math drawings to represent additions with up to two compositions and relate drawings to a written method.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-2.NBT.9 ***continued***	G2 M4 Lesson 22: Solve additions with up to four addends with totals within 200 with and without two compositions of larger units. G2 M4 Lesson 25: Relate manipulative representations to a written method. G2 M4 Lesson 26: Use math drawings to represent subtraction with up to two decompositions and relate drawings to a written method. G2 M4 Lesson 27: Subtract from 200 and from numbers with zeros in the tens place. G2 M4 Lesson 28: Subtract from 200 and from numbers with zeros in the tens place. G2 M4 Topic F: Student Explanations of Written Methods G2 M5 Lesson 4: Subtract multiples of 100 and some tens within 1,000. G2 M5 Lesson 5: Use the associative property to make a hundred in one addend. G2 M5 Lesson 6: Use the associative property to subtract from three-digit numbers and verify solutions with addition. G2 M5 Lesson 7: Share and critique solution strategies for varied addition and subtraction problems within 1,000. G2 M5 Topic B: Strategies for Composing Tens and Hundreds Within 1,000 G2 M5 Topic C: Strategies for Decomposing Tens and Hundreds Within 1,000 G2 M5 Topic D: Student Explanations for Choice of Solution Methods

Measurement and Data

Measure and estimate lengths in standard units.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-2.MD.1 Measure the length of an object to the nearest whole by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.	G2 M2 Topic A: Understand Concepts About the Ruler G2 M2 Lesson 4: Measure various objects using centimeter rulers and meter sticks. G2 M2 Lesson 6: Measure and compare lengths using centimeters and meters. G2 M7 Topic C: Creating an Inch Ruler G2 M7 Lesson 16: Measure various objects using inch rulers and yardsticks. G2 M7 Lesson 17: Develop estimation strategies by applying prior knowledge of length and using mental benchmarks. G2 M7 Lesson 19: Measure to compare the differences in length using inches, feet, and yards.
NY-2.MD.2 Measure the length of an object twice, using different "length units" for the two measurements; describe how the two measurements relate to the size of the unit chosen.	G2 M2 Lesson 7: Measure and compare lengths using standard metric length units and non-standard length units; relate measurement to unit size. G2 M7 Lesson 18: Measure an object twice using different length units and compare; relate measurement to unit size.
NY-2.MD.3 Estimate lengths using units of inches, feet, centimeters, and meters.	G2 M2 Lesson 5: Develop estimation strategies by applying prior knowledge of length and using mental benchmarks. G2 M7 Lesson 16: Measure various objects using inch rulers and yardsticks. G2 M7 Lesson 17: Develop estimation strategies by applying prior knowledge of length and using mental benchmarks.
NY-2.MD.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard "length unit."	G2 M2 Lesson 6: Measure and compare lengths using centimeters and meters. G2 M2 Lesson 9: Measure lengths of string using measurement tools, and use tape diagrams to represent and compare the lengths. G2 M7 Lesson 19: Measure to compare the differences in length using inches, feet, and yards.

Measurement and Data

Relate addition and subtraction to length.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-2.MD.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units.	G2 M2 Topic D: Relate Addition and Subtraction to Length G2 M7 Lesson 20: Solve two-digit addition and subtraction word problems involving length by using tape diagrams and writing equations to represent the problem.
NY-2.MD.6 Represent whole numbers as lengths from 0 on a number line with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line.	G2 M2 Lesson 8: Solve addition and subtraction word problems using the ruler as a number line. G2 M7 Lesson 21: Identify unknown numbers on a number line diagram by using the distance between numbers and reference points. G2 M7 Lesson 22: Represent two-digit sums and differences involving length by using the ruler as a number line. G2 M7 Lesson 24: Draw a line plot to represent the measurement data; relate the measurement scale to the number line.

Measurement and Data

Work with time and money.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-2.MD.7 Tell and write time from analog and digital clocks in five minute increments, using a.m. and p.m. Develop an understanding of common terms, such as, but not limited to, *quarter past*, *half past*, and *quarter to*.	G2 M8 Topic D: Application of Fractions to Tell Time

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-2.MD.8a Count a mixed collection of coins whose sum is less than or equal to one dollar.	G2 M7 Topic B: Problem Solving with Coins and Bills
NY-2.MD.8b Solve real world and mathematical problems within one dollar involving quarters, dimes, nickels, and pennies, using the ¢ (cent) symbol appropriately.	G2 M7 Topic B: Problem Solving with Coins and Bills

Measurement and Data

Represent and interpret data.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-2.MD.9 Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Present the measurement data in a line plot, where the horizontal scale is marked off in whole-number units.	G2 M7 Topic F: Displaying Measurement Data

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-2.MD.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a picture graph or a bar graph.	G2 M7 Topic A: Problem Solving with Categorical Data

Geometry

Reason with shapes and their attributes.

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-2.G.1 Classify two-dimensional figures as polygons or non-polygons.	*Supplemental material is necessary to address this standard.*
NY-2.G.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	G2 M6 Topic C: Rectangular Arrays as a Foundation for Multiplication and Division

New York Next Generation Mathematics Learning Standards	Aligned Components of *Eureka Math*
NY-2.G.3 Partition circles and rectangles into two, three, or four equal shares. Describe the shares using the words *halves*, *thirds*, *half of*, *a third of*, etc. Describe the whole as *two halves*, *three thirds*, *four fourths*. Recognize that equal shares of identical wholes need not have the same shape.	G2 M8 Topic B: Composite Shapes and Fraction Concepts G2 M8 Topic C: Halves, Thirds, and Fourths of Circles and Rectangles G2 M8 Lesson 13: Construct a paper clock by partitioning a circle into halves and quarters, and tell time to the half hour or quarter hour.