Grade 1 | Minnesota K–12 Academic Standards in Mathematics Correlation to *Eureka Math²®*

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®*, 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* 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 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 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* 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* 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 of *Eureka Math²*
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.

Data and Probability

Data Sciences: Identify, formulate and investigate statistical questions by collecting data, considering cultural perspectives, analyzing and interpreting data and communicating the results.

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
1.1.1.1 Notice and describe patterns in data-rich situations and create statistical investigative questions with teacher guidance.	1 Data Talk: Monarch Butterflies 1 Data Talk: How Tall Is the Sphinx? 1 Data Talk: Airplanes Getting Faster 1 Data Talk: Scattering Seeds 1 Data Talk: Household Water Use 1 Data Talk: Wind Power 1 Data Talk: Spread Your Wings 1 Data Talk: School Libraries in the US 1 Data Talk: Symptoms of Sickness 1 Data Talk: Amazing Animal Abilities 1 Data Talk: How Many Teeth? 1 Data Talk: Sugary Drinks 1 Data Talk: Big Cats 1 Data Talk: Piles of Plastic 1 Data Investigation: Airplanes 1 Data Investigation: Losing Teeth 1 Data Investigation: Added Sugar

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
1.1.1.2 Collect and use data to consider and decide what data will answer a question. Represent the data as a drawing, tally marks and frequency bar graph and digitally communicate observations.	1 M1 Lesson 2: Organize and represent data to compare two categories. 1 M1 Lesson 3: Sort to represent and compare data with three categories. 1 M1 Lesson 4: Find the total number of data points and compare categories in a picture graph. 1 M1 Lesson 5: Organize and represent categorical data. 1 M1 Lesson 6: Use tally marks to represent and compare data. 1 M2 Lesson 23: Compare categories in a graph to figure out how many more.

Data and Probability

Chance and Uncertainty: Apply and explain the concepts of probability to interpret data, generate questions, predict and make informed decisions to solve problems and communicate ideas.

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
1.1.2.1 Describe outcomes of events as impossible, possible or certain.	*Supplemental material is necessary to address this standard.*

Spatial Reasoning

Measurement: Investigate measurement using a variety of tools, units, systems, processes and techniques in various cultures. Explain and reason with attributes, estimations and formulas to communicate measurement(s) and relationships effectively. Justify decisions and consider the reasonableness of the measurement.

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
1.2.3.1 Order three objects by length. Compare the lengths of two objects indirectly by using a third object.	1 M4 Topic A: Direct and Indirect Length Comparison 1 M4 Lesson 5: Measure and compare lengths. 1 M4 Lesson 6: Measure and order lengths.
1.2.3.2 Measure the length of an object in terms of non-standard units.	1 M4 Topic B: Length Measurement and Comparison 1 M4 Lesson 10: Compare to find how much longer. 1 M4 Lesson 11: Compare to find how much shorter. 1 M4 Lesson 14: Measure to find patterns.
1.2.3.3 Identify pennies, nickels and dimes. Find the value of a group of these coins, up to one dollar.	2 M5 Topic A: Problem Solving with Coins and Bills

Spatial Reasoning

Geometry: Analyze characteristics of geometric shapes to make mathematical arguments and justifications about geometric relationships. Use visualization and geometric modeling to compare, solve problems and communicate ideas.

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
1.2.4.1 Describe attributes of two- and three-dimensional objects, such as triangles, squares, rectangles, circles, rectangular prisms, cylinders, cones and spheres.	1 M6 Topic A: Attributes of Shapes
1.2.4.2 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles and quarter-circles) to create a composite shape. Decompose composite shapes into triangles, rectangles, squares and sectors.	1 M6 Topic B: Composition of Shapes
1.2.4.3 Describe objects in the environment using names of shapes and describe the relative positions of these objects using left and right.	K M2 Lesson 2: Classify shapes as triangles or nontriangles. K M2 Lesson 3: Classify shapes as circles, hexagons, or neither. K M2 Lesson 4: Classify shapes as rectangles or nonrectangles, with square rectangles as a special case. K M2 Lesson 5: Communicate the position of flat shapes by using position words. K M2 Lesson 14: Compose flat shapes.
1.2.4.4 Identify shapes regardless of their orientations.	1 M6 Topic A: Attributes of Shapes

Patterns and Relationships

Number Relationships: Describe, Interpret and use quantities, relationships between quantities, representations of quantities, and number systems. Describe operations and the relationship between operations. Use strategies and procedures accurately, efficiently and flexibly. Assess the reasonableness of the results.

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
1.3.5.1 Count collections of objects up to 120 using groups of 5s or 10s.	1 M1 Lesson 25: Organize, count, and record a collection of objects. 1 M3 Lesson 15: Count and record a collection of objects. 1 M5 Lesson 2: Count a collection and record the total in units of tens and ones. 1 M6 Lesson 16: Count and record totals for collections greater than 100. K M6 Lesson 24: Organize, count, and represent a collection of objects.
1.3.5.2 Read, write, compare, order and represent whole numbers from 0 to 120. Representations may include numerals, expanded notation, addition and subtraction, pictures, tally marks, number lines and manipulatives such as bundles of sticks, ten frames and base 10 blocks. The numbers 10, 20, 30, 40, 50, 60, 70, 80 and 90 refer to one, two, three, four, five, six, seven, eight or nine groups of 10s.	1 M1 Lesson 2: Organize and represent data to compare two categories. 1 M1 Lesson 3: Sort to represent and compare data with three categories. 1 M1 Lesson 4: Find the total number of data points and compare categories in a picture graph. 1 M1 Lesson 6: Use tally marks to represent and compare data. 1 M1 Lesson 10: Count on from 5 within a set. 1 M1 Lesson 25: Organize, count, and record a collection of objects. 1 M3 Topic D: Reason about Ten as a Unit to Add or Subtract 1 M3 Topic E: Make Easier Problems to Subtract 1 M4 Lesson 5: Measure and compare lengths. 1 M5 Lesson 2: Count a collection and record the total in units of tens and ones. 1 M5 Lesson 3: Recognize the place value of digits in a two-digit number. 1 M5 Lesson 5: Reason about equivalent representations of a number. 1 M5 Topic B: Use Place Value to Compare 1 M6 Topic D: Count and Represent Numbers Beyond 100 1 M6 Topic E: Deepening Problem Solving

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
1.3.5.3 Count, with or without objects, forward and backward from any given number up to 120.	1 M1 Lesson 10: Count on from 5 within a set. 1 M1 Lesson 25: Organize, count, and record a collection of objects. 1 M3 Lesson 15: Count and record a collection of objects. 1 M5 Lesson 2: Count a collection and record the total in units of tens and ones. 1 M6 Topic D: Count and Represent Numbers Beyond 100
1.3.5.4 Use models, pictures or numbers to recognize and describe the place value of numbers between 10 and 120 as a relationship of n groups of 10 plus an amount represented by a single digit $(n \times 10 + a)$.	1 M1 Lesson 12: Count on from 10 to find an unknown total. 1 M3 Topic D: Reason about Ten as a Unit to Add or Subtract 1 M4 Lesson 8: Draw to represent a length measurement. 1 M4 Lesson 9: Represent a total length as units of tens and ones. 1 M5 Lesson 2: Count a collection and record the total in units of tens and ones. 1 M5 Lesson 3: Recognize the place value of digits in a two-digit number. 1 M5 Lesson 4: Represent a number in multiple ways by trading 10 ones for a ten. 1 M5 Lesson 5: Reason about equivalent representations of a number. 1 M5 Lesson 8: Use place value reasoning to write and compare 2 two-digit numbers.
1.3.5.5 Estimate amounts up to 120 using benchmarks of 5s and 10s.	1 M1 Lesson 5: Organize and represent categorical data. 1 M1 Lesson 25: Organize, count, and record a collection of objects. 1 M3 Lesson 15: Count and record a collection of objects. 1 M5 Lesson 2: Count a collection and record the total in units of tens and ones. 1 M6 Lesson 16: Count and record totals for collections greater than 100.

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
1.3.5.6 Solve contextual situations, up to and including 20, using addition and subtraction strategies of adding to, taking from, part-part-whole, difference between and comparing. Solve for unknowns in contextual situations using objects, drawings and equations with unknowns represented by a symbol in all positions (result, change, start).	1 M3 Lesson 2: Make ten with three addends. 1 M3 Lesson 3: Represent and solve three-addend word problems. 1 M3 Lesson 11: Represent and compare related situation equations, part 1. 1 M3 Lesson 12: Represent and compare related situation equations, part 2. 1 M3 Lesson 26: Pose and solve varied word problems.
1.3.5.7 Add within 100, including adding a two-digit number with a one-digit number and adding a two-digit number with a multiple of 10 using concrete models, place value language and properties of operations. Understand that in adding two-digit numbers, sometimes it is necessary to compose a new ten.	1 M5 Topic C: Addition of One-Digit and Two-Digit Numbers 1 M5 Topic D: Addition and Subtraction of Tens 1 M5 Topic E: Addition of Two-Digit Numbers 1 M6 Topic F: Extending Addition to 100
1.3.5.8 Decompose numbers less than or equal to 10 into pairs, in more than one way, using objects or drawings. Record each decomposition with a drawing or equation.	1 M1 Lesson 20: Find all two-part expressions equal to 6. 1 M1 Lesson 21: Find all two-part expressions equal to 7 and 8. 1 M1 Lesson 22: Find all two-part expressions equal to 9 and 10.

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
1.3.5.9 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on, making ten, decomposing a number leading to a ten using the relationship between addition and subtraction and creating equivalent but easier or known sums.	1 M1 Lesson 14: Count on to find the total of an addition expression. 1 M1 Lesson 17: Add 0 and 1 to any number. 1 M1 Lesson 20: Find all two-part expressions equal to 6. 1 M1 Lesson 21: Find all two-part expressions equal to 7 and 8. 1 M1 Lesson 22: Find all two-part expressions equal to 9 and 10. 1 M1 Lesson 23: Find the totals of doubles +1 facts. 1 M1 Lesson 24: Use known facts to make easier problems. 1 M2 Lesson 2: Subtract all or subtract 0. 1 M2 Lesson 3: Subtract 1 or subtract 1 less than the total. 1 M2 Lesson 4: Use fingers to subtract 4, 5, and 6 efficiently. 1 M2 Lesson 7: Count on or count back to solve related addition and subtraction problems. 1 M2 Lesson 16: Compare the efficiency of counting on and counting back to subtract. 1 M3 Lesson 1: Group to make ten when there are three parts. 1 M3 Lesson 4: Use properties of addition to make three-addend expressions easier. 1 M3 Topic B: Make Easier Problems to Add 1 M3 Lesson 13: Count on to make ten within 20. 1 M3 Lesson 14: Count on to make the next ten within 100. 1 M3 Lesson 17: Add a two-digit number and a one-digit number. 1 M3 Lesson 18: Subtract a one-digit number from a two-digit number. 1 M3 Lesson 20: Use strategies to subtract from a teen number. 1 M3 Lesson 21: Take from ten to subtract from a teen number, part 1. 1 M3 Lesson 22: Take from ten to subtract from a teen number, part 2. 1 M3 Lesson 23: Subtract by counting on. 1 M3 Lesson 24: Decompose the subtrahend to count back. 1 M3 Lesson 25: Choose a strategy to make an easier problem.

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1.3.5.10 Use combinations of 10 to add to the next decade through 100.	1 M3 Lesson 4: Use properties of addition to make three-addend expressions easier. 1 M3 Lesson 5: Make ten when an addend is 5. 1 M3 Lesson 6: Make ten when the first addend is 9. 1 M3 Lesson 7: Make ten when the first addend is 8 or 9. 1 M3 Lesson 8: Make ten when the second addend is 8 or 9. 1 M3 Lesson 9: Make ten with either addend. 1 M3 Lesson 13: Count on to make ten within 20. 1 M3 Lesson 14: Count on to make the next ten within 100.
1.3.5.11 Determine the double of any single-digit number.	1 M1 Lesson 9: Count on from both parts and record part-total relationships. 1 M1 Lesson 22: Find all two-part expressions equal to 9 and 10. 1 M1 Lesson 23: Find the totals of doubles +1 facts. 1 M1 Lesson 24: Use known facts to make easier problems.
1.3.5.12 Represent and solve contextual equal sharing situations where a whole number of items is shared equally among 2 groups. Name the fractional amount using the word “half.”	1 M6 Lesson 10: Reason about equal and not equal shares. 1 M6 Lesson 11: Name equal shares as halves or fourths. 2 M3 Lesson 8: Create composite shapes by using equal parts and name them as halves, thirds, and fourths. 2 M3 Lesson 9: Interpret equal shares in composite shapes as halves, thirds, and fourths. 2 M3 Topic C: Halves, Thirds, and Fourths of Circles and Rectangles

Patterns and Relationships

Equivalence and Relational Thinking: Use concepts and properties of equivalence and relational thinking to represent and compare numerical expressions, proportional relationships, algebraic expressions and equations.

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1.3.6.1 Compare two two-digit numbers based on the meaning of the tens and ones digits.	1 M1 Lesson 2: Organize and represent data to compare two categories. 1 M1 Lesson 3: Sort to represent and compare data with three categories. 1 M1 Lesson 4: Find the total number of data points and compare categories in a picture graph. 1 M1 Lesson 6: Use tally marks to represent and compare data. 1 M4 Lesson 5: Measure and compare lengths. 1 M5 Topic B: Use Place Value to Compare
1.3.6.2 Determine if equations involving addition and subtraction are true or false, including those with operations on both sides.	1 M1 Lesson 18: Determine whether number sentences are true or false. 1 M1 Lesson 19: Reason about the meaning of the equal sign. 1 M1 Lesson 24: Use known facts to make easier problems. 1 M2 Lesson 20: Add or subtract to make groups equal. 1 M5 Lesson 18: Determine if number sentences involving addition and subtraction are true or false. 1 M5 Lesson 22: Decompose both addends and add like units. 1 M5 Lesson 23: Decompose an addend and add tens first. 1 M5 Lesson 24: Decompose an addend to make the next ten. 1 M5 Lesson 25: Compare equivalent expressions used to solve two-digit addition equations.
1.3.6.3 Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.	1 M2 Lesson 10: Represent and find an unknown addend in equations. 1 M2 Lesson 12: Represent and find an unknown subtrahend in equations. 1 M2 Lesson 13: Represent and solve add to and take from with change unknown problems. 1 M2 Lesson 15: Relate counting on and counting back to find an unknown part. 1 M2 Lesson 19: Determine the value of the unknown in various positions.

Patterns and Relationships

Patterns and Relationships: Represent and connect mathematical patterns and relationships using verbal descriptions, generalizations, tables and graphs. Use representations to generate questions, make predictions and solve mathematical problems.

Minnesota K–12 Academic Standards in Mathematics	Aligned Components of *Eureka Math²*
1.3.7.1 Create simple patterns using objects, pictures, numbers and rules. Identify possible rules to complete or extend patterns. Patterns may be repeating, growing or shrinking. Calculators can be used to create and explore patterns.	K M5 Topic D: Make Use of Structure 1 M4 Lesson 14: Measure to find patterns. 1 M5 Lesson 6: Add 10 or take 10 from a two-digit number. 1 M5 Lesson 13: Reason about related problems that make the next ten. 1 M5 Lesson 20: Add ones and multiples of ten to any number. 1 M6 Lesson 7: Create new composite shapes by adding a shape. 1 M6 Lesson 18: Count up and down across 100.
1.3.7.2 Recognize patterns in counting. Skip count by 2s and 5s starting at zero up to 120. Skip count by 10s up to 120 starting at a non-zero number.	1 M1 Lesson 5: Organize and represent categorical data. 1 M3 Lesson 5: Make ten when an addend is 5. 1 M3 Lesson 6: Make ten when the first addend is 9. 1 M3 Lesson 11: Represent and compare related situation equations, part 1. 1 M3 Lesson 12: Represent and compare related situation equations, part 2. 1 M3 Lesson 14: Count on to make the next ten within 100. 1 M6 Lesson 18: Count up and down across 100. 2 M1 Lesson 22: Use counting strategies to solve add to with change unknown word problems. 2 M1 Lesson 23: Organize, count, and record a collection of objects. 2 M1 Lesson 37: Organize, count, represent, and compare a collection of objects. 2 M3 Lesson 17: Relate the clock to a number line to count by fives. 2 M3 Lesson 18: Tell time to the nearest 5 minutes. 2 M6 Lesson 15: Pair objects and skip-count to determine whether a number is even or odd.

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1.3.7.3 Describe what is changing and what is staying the same in a visual growing pattern.	K M5 Lesson 25: Extend growing patterns. 1 M4 Lesson 14: Measure to find patterns. 1 M6 Lesson 7: Create new composite shapes by adding a shape.