# Grade 1 | Pennsylvania Core Standards 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**<br>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**<br>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**<br>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**<br>Model with mathematics. | Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson. |
| **MP.5**<br>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**<br>Attend to precision. | Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson. |
| **MP.7**<br>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**<br>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. |

## Numbers and Operations

**CC.2.1.1.B Numbers and Operations in Base Ten**

| Pennsylvania Core Standards Mathematics | Aligned Components of *Eureka Math²* |
|---|---|
| **CC.2.1.1.B.1**<br>Extend the counting sequence to read and write numerals to represent objects. | 1 M3 Lesson 15: Count and record a collection of objects.<br>1 M3 Lesson 16: Identify ten as a unit.<br>1 M5 Lesson 2: Count a collection and record the total in units of tens and ones.<br>1 M5 Lesson 3: Recognize the place value of digits in a two-digit number.<br>1 M5 Lesson 5: Reason about equivalent representations of a number.<br>1 M6 Topic D: Count and Represent Numbers Beyond 100 |
| **CC.2.1.1.B.2**<br>Use place-value concepts to represent amounts of tens and ones and to compare two-digit numbers. | 1 M1 Lesson 2: Organize and represent data to compare two categories.<br>1 M1 Lesson 3: Sort to represent and compare data with three categories.<br>1 M1 Lesson 4: Find the total number of data points and compare categories in a picture graph.<br>1 M1 Lesson 6: Use tally marks to represent and compare data.<br>1 M1 Lesson 12: Count on from 10 to find an unknown total.<br>1 M3 Topic D: Reason about Ten as a Unit to Add or Subtract<br>1 M4 Lesson 5: Measure and compare lengths.<br>1 M4 Lesson 8: Draw to represent a length measurement.<br>1 M4 Lesson 9: Represent a total length as units of tens and ones.<br>1 M5 Lesson 2: Count a collection and record the total in units of tens and ones.<br>1 M5 Lesson 3: Recognize the place value of digits in a two-digit number.<br>1 M5 Lesson 4: Represent a number in multiple ways by trading 10 ones for a ten.<br>1 M5 Lesson 5: Reason about equivalent representations of a number.<br>1 M5 Topic B: Use Place Value to Compare |

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|---|---|
| **CC.2.1.1.B.3**<br>Use place-value concepts and properties of operations to add and subtract within 100. | 1 M5 Topic C: Addition of One-Digit and Two-Digit Numbers<br>1 M5 Topic D: Addition and Subtraction of Tens<br>1 M5 Topic E: Addition of Two-Digit Numbers<br>1 M6 Topic F: Extending Addition to 100 |

## Algebraic Concepts

**CC.2.2.1.A Operations and Algebraic Thinking**

| Pennsylvania Core Standards Mathematics | Aligned Components of *Eureka Math²* |
|---|---|
| **CC.2.2.1.A.1**<br>Represent and solve problems involving addition and subtraction within 20. | 1 M2 Lesson 1: Represent *result unknown* problems and record as addition or subtraction number sentences.<br>1 M2 Topic B: Relate and Distinguish Addition and Subtraction<br>1 M2 Lesson 8: Interpret and find an unknown change.<br>1 M2 Lesson 9: Represent and solve *add to with change unknown* problems.<br>1 M2 Lesson 11: Represent and solve *take from with change unknown* problems.<br>1 M2 Lesson 13: Represent and solve *add to* and *take from with change unknown* problems.<br>1 M2 Lesson 14: Represent and solve *put together/take apart with addend unknown* problems.<br>1 M2 Lesson 21: Represent and solve *compare with difference unknown* problems, part 1.<br>1 M2 Lesson 22: Represent and solve *compare with difference unknown* problems, part 2.<br>1 M3 Lesson 2: Make ten with three addends.<br>1 M3 Lesson 3: Represent and solve three-addend word problems.<br>1 M3 Lesson 11: Represent and compare related situation equations, part 1.<br>1 M3 Lesson 12: Represent and compare related situation equations, part 2. |

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|---|---|
| **CC.2.2.1.A.1** ***continued*** | 1 M3 Lesson 19: Solve *take from with change unknown* problems with totals in the teens.<br>1 M3 Lesson 26: Pose and solve varied word problems.<br>1 M4 Lesson 10: Compare to find how much longer.<br>1 M4 Lesson 11: Compare to find how much shorter.<br>1 M4 Lesson 12: Find the unknown longer length.<br>1 M4 Lesson 13: Find the unknown shorter length.<br>1 M6 Topic E: Deepening Problem Solving |
| **CC.2.2.1.A.2**<br>Understand and apply properties of operations and the relationship between addition and subtraction. | 1 M1 Lesson 9: Count on from both parts and record part–total relationships.<br>1 M1 Lesson 15: Use the commutative property to count on from the larger addend.<br>1 M1 Lesson 16: Use the commutative property to find larger totals.<br>1 M2 Lesson 17: Use related addition facts to subtract from 10.<br>1 M2 Lesson 18: Use related addition facts to subtract.<br>1 M2 Lesson 19: Determine the value of the unknown in various positions.<br>1 M3 Topic A: Make Easier Problems with Three Addends<br>1 M3 Topic B: Make Easier Problems to Add<br>1 M3 Topic C: Make Easier Addition Problems with a Linear Model<br>1 M3 Lesson 26: Pose and solve varied word problems. |

## Geometry

**CC.2.3.1.A Geometry**

| Pennsylvania Core Standards Mathematics | Aligned Components of *Eureka Math²* |
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| **CC.2.3.1.A.1**<br>Compose and distinguish between two- and three-dimensional shapes based on their attributes. | 1 M6 Topic A: Attributes of Shapes |
| **CC.2.3.1.A.2**<br>Use the understanding of fractions to partition shapes into halves and quarters. | 1 M6 Lesson 10: Reason about equal and not equal shares.<br>1 M6 Lesson 11: Name equal shares as halves or fourths.<br>1 M6 Lesson 12: Partition shapes into halves, fourths, and quarters.<br>1 M6 Lesson 13: Relate the number of equal shares to the size of the shares. |

## Measurement, Data, and Probability

**CC.2.4.1.A Measurement and Data**

| Pennsylvania Core Standards Mathematics | Aligned Components of *Eureka Math²* |
|---|---|
| **CC.2.4.1.A.1**<br>Order lengths and measure them both indirectly and by repeating length units. | 1 M4 Topic A: Direct and Indirect Length Comparison<br>1 M4 Topic B: Length Measurement and Comparison<br>1 M4 Lesson 10: Compare to find how much longer.<br>1 M4 Lesson 11: Compare to find how much shorter.<br>1 M4 Lesson 14: Measure to find patterns. |
| **CC.2.4.1.A.2**<br>Tell and write time to the nearest half hour using both analog and digital clocks. | 1 M5 Lesson 1: Tell time to the hour and half hour by using digital and analog clocks.<br>1 M6 Lesson 14: Tell time to the half hour with the term *half past*.<br>1 M6 Lesson 15: Reason about the location of the hour hand to tell time. |

| Pennsylvania Core Standards Mathematics | Aligned Components of *Eureka Math²* |
|---|---|
| **CC.2.4.1.A.4**<br>Represent and interpret data using tables/charts. | 1 M1 Lesson 2: Organize and represent data to compare two categories.<br>1 M1 Lesson 3: Sort to represent and compare data with three categories.<br>1 M1 Lesson 4: Find the total number of data points and compare categories in a picture graph.<br>1 M1 Lesson 5: Organize and represent categorical data.<br>1 M1 Lesson 6: Use tally marks to represent and compare data.<br>1 M2 Lesson 23: Compare categories in a graph to figure out how many more. |