Grade 1 | Indiana Academic Standards for Mathematics Correlation to *Eureka Math*²™

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 Math*²™, 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 Math*² 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 Math*² 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 Math*² 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 Math*² 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 Math*² 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.

Process Standards for Mathematics	Aligned Components of *Eureka Math²*
PS.1: Make sense of problems and persevere in solving them. Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway, rather than simply jumping into a solution attempt. They consider analogous problems and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" and "Is my answer reasonable?" They understand the approaches of others to solving complex problems and identify correspondences between different approaches. Mathematically proficient students understand how mathematical ideas interconnect and build on one another to produce a coherent whole.	While lessons in every module engage students in making sense of problems and persevering in solving them, this mathematical practice is specifically addressed in the following modules: 1 M2: Addition and Subtraction Relationships 1 M3: Properties of Operations to Make Easier Problems 1 M6: Attributes of Shapes · Advancing Place Value, Addition, and Subtraction
PS.2: Reason abstractly and quantitatively. Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.	While lessons in every module engage students in reasoning abstractly and quantitatively, this mathematical practice is specifically addressed in the following modules: 1 M2: Addition and Subtraction Relationships 1 M3: Properties of Operations to Make Easier Problems 1 M4: Comparison and Composition of Length Measurements

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PS.3: Construct viable arguments and critique the reasoning of others. Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They analyze situations by breaking them into cases and recognize and use counterexamples. They organize their mathematical thinking, justify their conclusions and communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. They justify whether a given statement is true always, sometimes, or never. Mathematically proficient students participate and collaborate in a mathematics community. They listen to or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.	While lessons in every module engage students in constructing viable arguments and critiquing the reasoning of others, this mathematical practice is specifically addressed in the following modules: 1 M1: Counting, Comparison, and Addition 1 M2: Addition and Subtraction Relationships 1 M3: Properties of Operations to Make Easier Problems 1 M5: Place Value Concepts to Compare, Add, and Subtract 1 M6: Attributes of Shapes · Advancing Place Value, Addition, and Subtraction

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PS.4: Model with mathematics. Mathematically proficient students apply the mathematics they know to solve problems arising in everyday life, society, and the workplace using a variety of appropriate strategies. They create and use a variety of representations to solve problems and to organize and communicate mathematical ideas. Mathematically proficient students apply what they know and are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.	While lessons in every module engage students in modeling with mathematics, this mathematical practice is specifically addressed in the following modules: 1 M2: Addition and Subtraction Relationships 1 M3: Properties of Operations to Make Easier Problems 1 M6: Attributes of Shapes · Advancing Place Value, Addition, and Subtraction
PS.5: Use appropriate tools strategically. Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Mathematically proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. Mathematically proficient students identify relevant external mathematical resources, such as digital content, and use them to pose or solve problems. They use technological tools to explore and deepen their understanding of concepts and to support the development of learning mathematics. They use technology to contribute to concept development, simulation, representation, reasoning, communication and problem solving.	While lessons in every module engage students in using appropriate tools strategically, this mathematical practice is specifically addressed in the following modules: 1 M1: Counting, Comparison, and Addition 1 M4: Comparison and Composition of Length Measurements

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PS.6: Attend to precision. Mathematically proficient students communicate precisely to others. They use clear definitions, including correct mathematical language, in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They express solutions clearly and logically by using the appropriate mathematical terms and notation. They specify units of measure and label axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently and check the validity of their results in the context of the problem. They express numerical answers with a degree of precision appropriate for the problem context.	While lessons in every module engage students in attending to precision, this mathematical practice is specifically addressed in the following modules: 1 M1: Counting, Comparison, and Addition 1 M4: Comparison and Composition of Length Measurements
PS.7: Look for and make use of structure. Mathematically proficient students look closely to discern a pattern or structure. They step back for an overview and shift perspective. They recognize and use properties of operations and equality. They organize and classify geometric shapes based on their attributes. They see expressions, equations, and geometric figures as single objects or as being composed of several objects.	While lessons in every module engage students in looking for and making use of structure, this mathematical practice is specifically addressed in the following modules: 1 M1: Counting, Comparison, and Addition 1 M2: Addition and Subtraction Relationships 1 M3: Properties of Operations to Make Easier Problems 1 M5: Place Value Concepts to Compare, Add, and Subtract 1 M6: Attributes of Shapes · Advancing Place Value, Addition, and Subtraction

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PS.8: Look for and express regularity in repeated reasoning. Mathematically proficient students notice if calculations are repeated and look for general methods and shortcuts. They notice regularity in mathematical problems and their work to create a rule or formula. Mathematically proficient students maintain oversight of the process, while attending to the details as they solve a problem. They continually evaluate the reasonableness of their intermediate results.	While lessons in every module engage students in looking for and expressing regularity in repeated reasoning, this mathematical practice is specifically addressed in the following modules: 1 M1: Counting, Comparison, and Addition 1 M5: Place Value Concepts to Compare, Add, and Subtract 1 M6: Attributes of Shapes · Advancing Place Value, Addition, and Subtraction

Strands	Indiana Academic Standards for Mathematics	Aligned Components of *Eureka Math²*
Number Sense	**1.NS.1** Count to at least 120 by ones, fives, and tens from any given number. In this range, read and write numerals and represent a number of objects with a written numeral.	1 M1 Topic A: Count and Compare with 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 Topic A: Grouping Units in Tens and Ones 1 M5 Lesson 16: Use related single-digit facts to add and subtract multiples of ten. 1 M5 Lesson 20: Add ones and multiples of ten to any number. 1 M6 Topic D: Count and Represent Numbers Beyond 100 1 M6 Lesson 25: Solve nonroutine problems.
	1.NS.2 Understand that 10 can be thought of as a group of ten ones—called a "ten." Understand that the numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. Understand that the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).	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 M3 Topic E: Make Easier Problems to Subtract 1 M4 Topic B: Length Measurement and Comparison 1 M5 Topic A: Grouping Units in Tens and Ones 1 M5 Lesson 21: Use varied strategies to add 2 two-digit addends.
	1.NS.3 Match the ordinal numbers first, second, third, etc., with an ordered set up to 10 items.	*Supplemental material is necessary to address ordinal numbers.*

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	1.NS.4 Use place value understanding to compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.	1 M1 Topic A: Count and Compare with Data 1 M4 Lesson 5: Measure and compare lengths. 1 M5 Topic B: Use Place Value to Compare
	1.NS.5 Find mentally ten more or ten less than a given two-digit number without having to count, and explain the thinking process used to get the answer.	1 M5 Lesson 6: Add 10 or take 10 from a two-digit number. 1 M5 Topic D: Addition and Subtraction of Tens 1 M5 Lesson 23: Decompose an addend and add tens first.
	1.NS.6 Show equivalent forms of whole numbers as groups of tens and ones, and understand that the individual digits of a two-digit number represent amounts of tens and ones.	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 M3 Topic E: Make Easier Problems to Subtract 1 M4 Topic B: Length Measurement and Comparison 1 M5 Topic A: Grouping Units in Tens and Ones 1 M5 Lesson 21: Use varied strategies to add 2 two-digit addends.
Computation and Algebraic Thinking	**1.CA.1** Demonstrate fluency with addition facts and the corresponding subtraction facts within 20. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a 10 (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$). Understand the role of 0 in addition and subtraction.	1 M1 Lesson 17: Add 0 and 1 to any number. 1 M1 Topic D: Make the Same Total in Varied Ways 1 M2 Topic A: Reason About *Take From* Situations 1 M2 Lesson 7: Count on or count back to solve related addition and subtraction problems. 1 M2 Topic D: Find an Unknown Part by Using Addition and Subtraction 1 M3: Properties of Operations to Make Easier Problems

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	1.CA.2 Solve real-world problems involving addition and subtraction within 20 in situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all parts of the addition or subtraction problem (e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem).	1 M1 Topic B: Count On from a Visible Part 1 M1 Topic C: Count On to Add 1 M2: Addition and Subtraction Relationships 1 M3 Topic C: Make Easier Addition Problems with a Linear Model 1 M3 Lesson 19: Solve *take from with change unknown* problems with totals in the teens. 1 M3 Topic E: Make Easier Problems to Subtract 1 M4 Topic C: Comparison Word Problems with Measurement 1 M6 Topic E: Deepening Problem Solving 1 M6 Lesson 30: Make the next ten and add tens to make 100.
	1.CA.3 Create a real-world problem to represent a given equation involving addition and subtraction within 20.	1 M2 Lesson 1: Represent *result unknown* problems and record as addition or subtraction number sentences. *Supplemental material is necessary to address the creation of real-world problems.*
	1.CA.4 Solve real-world problems that call for addition of three whole numbers whose sum is within 20 (e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem).	1 M3 Lesson 2: Make ten with three addends. 1 M3 Lesson 3: Represent and solve three-addend word problems.

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	1.CA.5 Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; describe the strategy and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and that sometimes it is necessary to compose a ten.	1 M5: Place Value Concepts to Compare, Add, and Subtract 1 M6 Topic F: Extending Addition to 100
	1.CA.6 Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false (e.g., Which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$).	1 M1 Lesson 9: Count on from both parts and record part–total relationships. 1 M1 Topic C: Count On to Add 1 M1 Lesson 18: Determine whether number sentences are true or false. 1 M3 Topic A: Make Easier Problems with Three Addends 1 M3 Topic B: Make Easier Problems to Add 1 M5 Topic C: Addition of One-Digit and Two-Digit Numbers 1 M5 Lesson 23: Decompose an addend and add tens first. 1 M5 Lesson 24: Decompose an addend to make the next ten.
	1.CA.7 Create, extend, and give an appropriate rule for number patterns using addition within 100.	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 15: Count on and back by tens to add and subtract. *Choral counting routines used in fluency activities embed patterns by using addition.*

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Geometry	**1.G.1** Identify objects as two-dimensional or three-dimensional. Classify and sort two-dimensional and three-dimensional objects by shape, size, roundness and other attributes. Describe how two-dimensional shapes make up the faces of three-dimensional objects.	1 M6 Topic A: Attributes of Shapes
	1.G.2 Distinguish between defining attributes of two- and three-dimensional shapes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size). Create and draw two-dimensional shapes with defining attributes.	1 M6 Topic A: Attributes of Shapes
	1.G.3 Use two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. [In grade 1, students do not need to learn formal names such as “right rectangular prism.”]	1 M3 Lesson 4: Use properties of addition to make three-addend expressions easier. 1 M3 Lesson 10: Make ten when there are three addends. 1 M6 Topic B: Composition of Shapes
	1.G.4 Partition circles and rectangles into two and four equal parts; describe the parts using the words halves, fourths, and quarters; and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of, the parts. Understand for partitioning circles and rectangles into two and four equal parts that decomposing into equal parts creates smaller parts.	1 M6 Topic C: Halves and Fourths

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Measurement	**1.M.1** Use direct comparison or a nonstandard unit to compare and order objects according to length, area, capacity, weight, and temperature.	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 M6 Lesson 24: Reason with nonstandard measurement units.
	1.M.2 Tell and write time to the nearest half-hour and relate time to events (before/after, shorter/longer) using analog clocks. Understand how to read hours and minutes using digital clocks.	1 M1 Lesson 17: Add 0 and 1 to any number. 1 M5 Lesson 1: Tell time to the hour and half hour by using digital and analog clocks. 1 M6 Lesson 14: Tell time to the half hour with the term *half past*. 1 M6 Lesson 15: Reason about the location of the hour hand to tell time.

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	1.M.3 Identify the value of a penny, nickel, dime, and a collection of pennies, nickels, and dimes.	1 M2 Lesson 7: Count on or count back to solve related addition and subtraction problems. 1 M2 Lesson 8: Interpret and find an unknown change. 1 M2 Lesson 12: Represent and find an unknown subtrahend in equations. 1 M2 Lesson 21: Represent and solve *compare with difference unknown* problems, part 1. 1 M5 Lesson 4: Represent a number in multiple ways by trading 10 ones for a 10. 1 M5 Lesson 5: Reason about equivalent representations of a number. 1 M5 Lesson 17: Use tens to find an unknown part. 2 M4 Lesson 1: Organize, count, and represent a collection of objects. 2 M5 Lesson 2: Use the fewest number of coins to make a given value.
Data Analysis	**1.DA.1** Organize and interpret data with up to three choices (What is your favorite fruit? apples, bananas, oranges); ask and answer questions about the total number of data points, how many in each choice, and how many more or less in one choice compared to another.	1 M1 Topic A: Count and Compare with Data 1 M1 Lesson 10: Count on from 5 within a set. 1 M1 Lesson 20: Find all two-part expressions equal to 6. 1 M2 Lesson 23: Compare categories in a graph to figure out how many more. 1 M3 Lesson 26: Pose and solve varied word problems.