CHIEF ACADEMIC OFFICE

2ND GRADE BIE ESSENTIAL STANDARDS

MATHEMATICS

8-14-2025

2nd Grade BIE Essential Math Standards

Operations & Algebraic Thinking (2. OA)	
M.BIE.2. OA.A.1	The student can create a word problem and solve it by creating an equation; then explain the steps used throughout the process.
M.BIE.2OA.C.4	The student can arrange objects into equal rows and columns and write a multiplication equation using the information created with the array.
M.BIE.2. OA.B.2	The student can fluently add and subtract within 20. By the end of Grade 2, know from memory all sums of two one-digit numbers.
M.BIE.2. OA.C.3	The student can distinguish between odd and even numbers and justify their reasoning.
Number & Operations in Base Ten (2.NBT)	
M.BIE.2.NBT.A.1	The student can describe and create a number from 0-999 using ones, tens, and hundreds.
M.BIE.2.NBT.A.2	The student can skip counting by 5's, 10's, and 100's to 1000.
M.BIE.2.NBT.A.3	The student can show numbers by using standard form, written form, expanded notation, and models.
M.BIE.2.NBT.A.4	The student can create and compare expressions using words or symbols, then justify their thinking.
M.BIE.2.NBT. B.5a	The student can fluently add whole numbers and solve word problems within 1000 with and without regrouping.
M.BIE.2.NBT. B.5b	The student can fluently subtract numbers and solve word problems within 1000 with and without regrouping.
M.BIES.2.NBT.B.7	The student can demonstrate understanding of addition and subtraction within 1000, connecting objects or drawings to strategies based on place value (including multiples of 10), properties of operations, and/or the relationship between addition and subtraction. Relate the strategy to a written form.
M.BIE.2.NBT.B.8	The student can add or subtract by 10's or 100's using mental math.
Measurement and Data (2.MD)	
M.BIE.2MD.A.1a	The student can measure the length, weight, and capacity of an object using the appropriate customary tool.
M.BIE.2. MD.A.1b	The student can measure the length, mass, and capacity of an object using the appropriate metric tool.
M.BIE.2. MD.A.3	The student can estimate lengths using units of inches, feet, centimeters, and meters.
M.BIE.2. MD.A.4	The student can measure to determine how much longer one object is than another, expressing the length difference in terms of a standard-length unit.
M.BIE.2. MD.B.5	The student can use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.
M.BIE.2. MD.C.8	The student will use the least number of coins and bills to show an amount of money up to $100.00.
Geometry (2.G)	
M.BIE.2. G.A.1	The student can compare and draw polygons based on specific attributes.
M.BIE.2. G.A.3	The student can divide circles and rectangles into fractions beyond fourths, compare two fraction visual models using symbols, and justify using the correct vocabulary.

Scope and Sequence – 2nd Grade M.BIE Math Standards

Quarter 1 – Building Place Value & Operations Foundations

M.BIE.2.NBT.A.1 – Understand that three-digit numbers represent hundreds, tens, and ones.
M.BIE.2.NBT.A.3 – Read and write numbers to 1,000 in numerals, words, and expanded form.
M.BIE.2.NBT.A.2 – Count within 1,000; skip-count by 5s, 10s, and 100s.
M.BIE.2.OA.C.3 – Determine odd or even numbers; write an equation to show even number as a sum of two equal addends.
M.BIE.2.OA.C.4 – Use addition to find the total number of objects in rectangular arrays; write equations to express totals.

Quarter 2 – Fluency in Addition & Subtraction

M.BIE.2.NBT.A.4 – Compare two three-digit numbers using >, =, and <.
M.BIE.2.NBT.B.5a – Fluently add within 100 using place value strategies.
M.BIE.2.NBT.B.5b – Fluently subtract within 100 using place value strategies.
M.BIE.2.OA.A.1 – Use addition and subtraction within 100 to solve one- and two-step word problems.
M.BIE.2.OA.B.2 – Fluently add and subtract within 20 using mental strategies.

Quarter 3 – Extending Place Value to Problem Solving

M.BIES.2.NBT.B.07 – Add and subtract within 1,000 using models or strategies.
M.BIE.2.NBT.B.8 – Mentally add or subtract 10 or 100 from a given number.
M.BIE.2.MD.A.1a – Measure the length of objects using appropriate tools.
M.BIE.2.MD.A.1b – Measure the same object twice using different units; describe how measurements relate.
M.BIE.2.MD.A.03 – Estimate lengths using units.

Quarter 4 – Measurement, Money, & Geometry

M.BIE.2.MD.A.04 – Measure to determine how much longer one object is than another.
M.BIE.2.MD.B.5 – Use addition and subtraction within 100 to solve word problems involving lengths.
M.BIE.2.MD.C.8 – Solve word problems involving money using $ and ¢ symbols.
M.BIE.2.G.A.1 – Recognize and draw shapes with given attributes.
M.BIE.2.G.A.3 – Partition circles and rectangles into equal shares; describe shares using fractions.

Why this order works:

- Start with place value so students have the language and understanding for operations.
- Introduce addition/subtraction fluency early to support problem solving all year.
- Delay measurement and geometry until after core number skills are established, so those topics become applications rather than brand-new skills.
- Spiral review ensures concepts are reinforced each quarter.