CHIEF ACADEMIC OFFICE

1ST GRADE BIE ESSENTIAL STANDARDS

MATHEMATICS

8-13-2025

1st Grade Math Standards (For 2nd grade readiness)

STANDARD	DESCRIPTION
1. Operations and Algebraic Thinking (1.OA)	
M.BIE. K.1.OA. A.1	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
M.BIE. K.1.OA. B.3	Apply properties of operations as strategies to add and subtract. 2 Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)
M.BIE. K.1.OA. B.4	Understand subtraction as an unknown-addend problem. For example, subtract 10 - 8 by finding the number that makes 10 when added to 8.
M.BIE. K.1.OA. C.5	Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
M.BIE. K.1.OA. C.6	Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (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).
M.BIE. K.1.OA. D.8	Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = _ - 3, 6 + 6 = _.
2. Number and Operations Base Ten (1.NBT)	
M.BIE.1.NBT. A.1	Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
M.BIE.1.NBT. B.2	Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
M.BIE.1.NBT. B.3	Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.
M.BIE.1.NBT. C.4	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 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 method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

M.BIE.1.NBT. C.5	Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.
M.BIE.1.NBT. C.6	Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), 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 method and explain the reasoning used.
3. Measurement and Data	
M.BIE.1. MD.A.1	Order three objects by length; compare the lengths of two objects indirectly by using a third object.
M.BIE.1. MD.A.2	Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.
M.BIE.1. MD.B.3	Tell and write time in hours and half-hours using analog and digital clocks.
M.BIE.1. MD.C.4	CCSS.Math.Content.1.MD.C.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.
4. Geometry	
M.BIE.1. G.A.1	Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.
M.BIE.1. G.A.2	Compose 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
M.BIE.1. G.A.3	Partition circles and rectangles into two and four equal shares, describe the shares 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 shares. Understand for these examples that decomposing into more equal shares creates smaller shares.

Scope and Sequence – 1st Grade Math Standards

Quarter 1 – Building Number Sense & Early Operations
Focus: Understanding numbers, addition/subtraction within 10, counting sequences
M.BIE.K.1.OA.A.1 – Represent addition and subtraction within 10 using objects, fingers, drawings, sounds, acting out, verbal explanations, and equations.
M.BIE.K.1.OA.B.3 – Decompose numbers less than or equal to 10 into pairs in more than one way.
M.BIE.K.1.OA.B.4 – For any number 1–9, find the number that makes 10.
M.BIE.K.1.OA.C.5 – Fluently add and subtract within 5.

Quarter 2 – Expanding to Place Value Foundations
Focus: Counting to 120, understanding tens and ones
M.BIE.K.1.OA.C.6 – Add and subtract within 10 using various strategies.
M.BIE.K.1.OA.D.8 – Determine if equations are true or false.
M.BIE.1.NBT.A.1 – Count to 120, starting at any number less than 120; read/write numbers; represent objects with numbers.
M.BIE.1.NBT.B.2 – Understand that 2-digit numbers are composed of tens and ones.
M.BIE.1.NBT.B.3 – Compare two-digit numbers using <, =, and >.

Quarter 3 – Applying Place Value & Measurement
Focus: Addition/subtraction within 20, place value strategies, measuring length
M.BIE.1.NBT.C.4 – Add within 100 using place value models and strategies.
M.BIE.1.NBT.C.5 – Mentally find 10 more or less than a given two-digit number.
M.BIE.1.NBT.C.6 – Subtract multiples of 10 from multiples of 10 (10–90) using models.
M.BIE.1.MD.A.1 – Order three objects by length; compare lengths using a third object.
M.BIE.1.MD.A.2 – Measure length indirectly and by using non-standard units.

Quarter 4 – Data, Time, and Geometry
Focus: Organizing data, telling time, identifying shapes

M.BIE.1.MD.B.3 – Tell and write time to the hour and half-hour using analog and digital clocks.
M.BIE.1.MD.C.4 – Organize, represent, and interpret data with up to three categories.
M.BIE.1.G.A.1 – Distinguish between defining and non-defining attributes; build and draw shapes.
M.BIE.1.G.A.2 – Compose two- and three-dimensional shapes to create new shapes.
M.BIE.1.G.A.3 – Partition circles and rectangles into halves and fourths; describe parts using “half of,” “fourth of.”