



First Grade Mathematics Scope and Sequence

Quarter 1			
Domain	Operation and Algebraic Thinking	Numbers and Operations In Base Ten	Measurement & Data
Standard	<p>1.OA.5 Relate counting to addition and subtraction, e.g., by counting on 2 to add 2.</p> <p>1.OA.6 Add and subtract within 20, demonstrating fluency with various strategies for addition and subtraction within 10. Strategies may include 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 $6 + 6 + 1 = 12 + 1 = 13$.</p> <p>1.OA.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: $8 + \square = 11$; $5 = \square - 3$; $6 + 6 = \square$.</p>	<p>1.NBT.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.</p> <p>1.NBT.3 Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.</p> <p>1.NBT.2 Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: 10 can be thought of as a bundle of ten ones — called a “ten;” the numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones; and 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).</p>	<p>1.MD.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object.</p> <p>1.MD.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.</p>
Resource	Bridges – Unit 1, 2	Bridges – Unit 1, 2	Bridges – Unit 8, March NC

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First Grade

Mathematics

2021-2022

Quarter 2				
Domain	Operations & Algebraic Thinking	Number and Operations in Base Ten	Geometry	Measurement & Data
Standard	<p>1.OA.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.</p> <p>1.OA.4 Understand subtraction as an unknown-addend problem. For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8.</p> <p>1.OA.5 Relate counting to addition and subtraction, e.g., by counting on 2 to add 2.</p> <p>1.OA.6 Add and subtract within 20, demonstrating fluency with various strategies for addition and subtraction within 10. Strategies may include 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 $6 + 6 + 1 = 12 + 1 = 13$.</p> <p>1.OA.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</p>	<p>1.NBT.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.</p> <p>1.NBT.3 Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.</p> <p>1.NBT.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; record the strategy with a written numerical method (drawings and, when appropriate, equations) and explain the reasoning used. Understand that when adding two-digit numbers, tens are added to tens; ones are added to ones; and sometimes it is necessary to compose a ten.</p> <p>1.NBT.5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.</p> <p>1.NBT.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</p>	<p>1.G.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 that possess defining attributes.</p>	<p>1.MD.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</p>

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	true in each of the equations: $8 + \square = 11$; $5 = \square - 3$; $6 + 6 = \square$.	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.		
Resource	Bridges – Unit 3	Bridges – Unit 3, 4	Bridges – Unit 5	Bridges – Unit 8, March NC

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Mathematics

2021-2022

Quarter 3				
Domain	Operations & Algebraic Thinking	Numbers & Operations In Base Ten	Geometry	Measurement and Data
Standard	<p>1.OA.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.</p> <p>1.OA.4 Understand subtraction as an unknown-addend problem. For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8.</p> <p>1.OA.6 Add and subtract within 20, demonstrating fluency with various strategies for addition and subtraction within 10. Strategies may include 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 $6 + 6 + 1 = 12 + 1 = 13$.</p> <p>1.OA.7 Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6 = 6$; $7 = 8 - 1$; $5 + 2 = 2 + 5$; $4 + 1 = 5 + 2$.</p> <p>1.OA.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: $8 + \square = 11$; $5 = \square - 3$; $6 + 6 = \square$.</p>	<p>1.NBT.2 Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: 10 can be thought of as a bundle of ten ones — called a “ten;” the numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones; and 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).</p>	<p>1.G.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 in real-world contexts. Understand for these examples that decomposing into more equal shares creates smaller shares.</p>	<p>1.MD.3 Work with time and money.</p> <p>a. Tell and write time in hours and half-hours using analog and digital clocks.</p> <p>b. Identify pennies and dimes by name and value.</p>
Resource	Bridges – Unit 6	Bridges – Unit 4	Bridges – Unit 5	Bridges – Unit 8, March NC

Quarter 4			
Domain	Operations & Algebraic Thinking	Numbers & Operations In Base Ten	Measurement and Data
Standard	<p>1.OA.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)</p> <p>1.OA.3 Apply properties of operations as strategies to add and subtract. For example, 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). Students need not use formal terms for these properties.</p>	<p>1.NBT.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.</p> <p>1.NBT.3 Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.</p> <p>1.NBT.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; record the strategy with a written numerical method (drawings and, when appropriate, equations) and explain the reasoning used. Understand that when adding two-digit numbers, tens are added to tens; ones are added to ones; and sometimes it is necessary to compose a ten.</p> <p>1.NBT.5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.</p> <p>1.NBT.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.</p>	<p>1.MD.3 Work with time and money. a. Tell and write time in hours and half-hours using analog and digital clocks. b. Identify pennies and dimes by name and value.</p> <p>1.MD.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.</p>
Resource	Bridges – Unit 7	Bridges – Unit 7, 8	Bridges – Unit 8, March NC

Quarter 1 Learning Targets

Ohio Standard	Learning Targets	Notes
1.OA.5	(Introductory) Relate counting to addition by counting on.	Mastery expected in Quarter 2
	(Introductory) Relate counting to subtraction by counting back.	Mastery expected in Quarter 2
	Explain the relationship between counting and adding or subtracting. ¹	
1.OA.6	Add within 10 by using various strategies.	Fluency expected in Quarter 2
	Subtract within 10 by using strategies.	Fluency expected in Quarter 2
1.OA.8	Determine the unknown whole number in an addition equation relating three whole numbers within 10.	Unknown number should be represented with a □ or picture
	Determine the unknown whole number in a subtraction equation relating three whole numbers within 10.	Unknown number should be represented with a □ or picture
1.NBT.1	Count by ones to 60, starting at any given number.	
	Count by tens to 100.	Mastery expected in Quarter 2
	Read numerals to 60.	
	Write numerals to 60.	
	Recognize and explain visual patterns in written numerals. ¹	
1.NBT.2	Understand that the two digits of a two-digit number represent amounts of tens and ones.	
	Understand that 10 can be thought of as a bundle of ten ones – called a “ten.”	
	Understand that numbers from 11 to 19 are composed of a ten and one(s).	
	Understand that the numbers 10, 20, 30, 40, 50, 60, 70, 80, and 90 refer to one, two, three, four, five, six, seven, eight, or nine tens and 0 ones.	
1.NBT.3	Compare two single-digit numbers by using the symbols $>$, $=$, and $<$.	
1.MD.1	Order three objects by shortest to longest and longest to shortest.	
	Compare the lengths of two objects indirectly using a third object.	
1.MD.4	Interpret data with up to three categories by asking and answering questions about the total number of data points, how many in each category, and how many more or less in one category than in another.	

¹ Instructional Focus recommended by the ODE’s Mathematics Model Curriculum; Learning Target needed for complete standard mastery

Quarter 2 Learning Targets

Ohio Standard	Learning Targets	Notes
1.OA.1	Solve addition word problems to 12 by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	See appendix, Table 1 for question examples; scholars should be exposed to all question types
	Solve subtraction word problems to 12 by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	See appendix, Table 1 for question examples; scholars should be exposed to all question types
1.OA.4	(Introductory) Understand subtraction as an unknown-addend problem.	Mastery expected in Quarter 3
1.OA.5	Relate counting to addition by counting on.	
	Relate counting to subtraction by counting back.	
1.OA.6	Demonstrate fluency in addition within 10.	
	Demonstrate fluency in subtraction within 10.	
	(Introductory) Add within 20 using a variety of strategies.	See standard for strategies; Mastery expected in Quarter 3
	(Introductory) Subtract within 20 using a variety of strategies.	See standard for strategies; Mastery expected in Quarter 3
	(Introductory) Describe why some strategies for adding and subtracting within 20 are more efficient than others. ¹	Mastery expected in Quarter 3
1.OA.8	(Introductory) Demonstrate that problems can be solved in a variety of ways. ¹	Mastery expected in Quarter 3
	Determine the unknown whole number in an addition equation relating three whole numbers within 15.	Unknown number should be represented with a □ or picture
	Determine the unknown whole number in a subtraction equation relating three whole numbers within 15.	Unknown number should be represented with a □ or picture
1.NBT.1	Count by ones to 120, starting at any given number.	
	Count by tens to 120.	
	Read numbers to 120.	
	Write numerals to 120.	
	Recognize and explain word patterns from 20-99 and 100-120. ¹	
	Recognize and explain visual patterns in written numerals. ¹	
1.NBT.3	Compare two two-digit numbers based on the meaning of the tens and ones digit by using the symbols $>$, $=$, $<$.	
1.NBT.4	Add within 100 using a two digit number and a multiple of 10.	
	Explain the pattern when adding multiples of 10. ¹	

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1.NBT.5	Mentally find 10 more of a given two-digit number without having to count.	
	Mentally find 10 less of a given two-digit number without having to count.	
1.NBT.6	Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship addition and subtraction.	
	Relate the strategy to a written method and explain the reasoning used to subtract multiples of 10.	
	Explain the pattern when subtracting multiples of 10. ¹	
1.G.1	Distinguish between defining attributes vs. non-defining attributes of two-dimensional shapes.	
	Distinguish between defining attributes vs. non-defining attributes of three-dimensional shapes.	
	Explore classifying shapes based on defining attributes. ¹	
1.MD.2	Express the length of an object as a whole number of length units by laying multiple copies of a short object end to end.	Use nonstandard tools
	Understand that the length measurement of an object is the number of same-sized length units that span it with no gaps or overlaps.	Using nonstandard tools

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Quarter 3 Learning Targets		
Ohio Standard	Learning Targets	Notes
1.OA.1	Solve addition word problems to 20 by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	See appendix, Table 1 for question examples; scholars should be exposed to all question types
	Solve subtraction word problems to 20 by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	See appendix, Table 1 for question examples; scholars should be exposed to all question types
1.OA.4	Understand subtraction as an unknown-addend problem.	
1.OA.6	Add within 20 using a variety of strategies.	See standard for strategies
	Subtract within 20 using a variety of strategies.	See standard for strategies
	Describe why some strategies for adding within 20 are more efficient than others. ¹	
	Describe why some strategies for subtracting within 20 are more efficient than others. ¹	
	Demonstrate that problems can be solved in a variety of ways. ¹	
1.OA.7	Understand the meaning of the equal sign.	Express equations in multiple formats, e.g. $a = a$, $c = a + b$, $a = a + 0$, $a + b = b + a$.
	Determine if equations involving addition are true (equal) or false (unequal).	
	Determine if equations involving subtraction are true (equal) or false (unequal).	
1.OA.8	Determine the unknown whole number in an addition equation relating three whole numbers within 20.	Unknown number should be represented with a \square or picture
	Determine the unknown whole number in a subtraction equation relating three whole numbers within 20.	Unknown number should be represented with a \square or picture
1.G.3	Partition circles and rectangles into two and four equal shares.	
	Describe how the shares using the words halves, fourths, and quarters, and the phrases half of, fourth of, and quarter of.	
	Describe the whole as two of or four of the shares in real-world contexts.	
	Understand that decomposing shares into more equal shares creates smaller shares.	
	Describe part-whole relationships. ¹	
1.MD.3	(Introductory) Tell and write time to the hour and half-hours using an analog and digital clock.	Expected mastery in Quarter 4
	Identify pennies and dimes by name and value.	

¹ Instructional Focus recommended by the ODE's Mathematics Model Curriculum; Learning Target needed for complete standard mastery

Quarter 4 Learning Targets		
Ohio Standard	Learning Targets	Notes
1.OA.2	Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20 by using objects, drawings, and equations with a symbol for the unknown number to represent the problems.	
	Justify mathematical models used and explain solutions. ¹	
	Determine reasonableness of results. ¹	
1.OA.3	Apply the properties of operations as strategies to add. (commutative and associative properties to addition – scholars do not need to formally use these terms)	See appendix, Table 3 for properties of addition and subtraction; scholars should develop conceptual understanding of these properties
	Understand that adding subtracting with zero gives the same number. (Additive identity property of zero – scholars do not need to formally use this term)	
1.NBT.1	Represent objects with a written numeral up to 120.	
1.NBT.4	Add within a 100 using a two-digit number and a one-digit number by using concrete models or drawings and strategies based place value, properties of operations, and/or the relationship between addition and subtraction.	Scholars should be able to explain at least 2 different strategies that could be used.
	Record addition strategy with a written numeral method (drawings or equations) and explain the reasoning used.	
	Understand that when added two-digit numbers, tens are added to tens; ones are added to ones; and sometimes it is necessary to compose a ten.	
1.NBT.5	Mentally find 10 more of a given two-digit number without having to count and explain the reasoning used.	
1.G.2	Compose two-dimensional shapes to create a composite shape.	
	Compose new shapes from composite two-dimensional shapes.	
	Compose three-dimensional shapes to create a composite shape.	
	Compose new shapes from composite three-dimensional shapes.	
1.MD.3	Tell and write time to the hour and half-hours using an analog and digital clock.	
1.MD.4	Organize and represent data with up to three categories.	
	Interpret data with up to three categories by asking and answering questions about the total number of data points, how many in each category, and how many more or less 1 one category than in another.	

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