



Second Grade Mathematics Scope and Sequence

Quarter 1			
Domain	Operations & Algebraic Thinking	Numbers and Operations Base Ten	Measurement & Data
Standard	<p>2.OA.1 Use addition and subtraction within 100 to solve one- and twostep word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.</p> <p>2.OA.2 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. See standard 1.OA.6 for a list of mental strategies.</p> <p>2.OA.3 Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.</p> <p>2.OA.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.</p>	<p>2.NBT.1 Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: a. 100 can be thought of as a bundle of ten tens - called a "hundred." b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).</p> <p>2.NBT.3 Read and write numbers to 1,000 using base-ten numerals, number names, expanded form, and equivalent representations, e.g., 716 is $700 + 10 + 6$, or $6 + 700 + 10$, or 6 ones and 71 tens, etc.</p> <p>2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.</p>	<p>2.MD.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.</p>
Resource	Bridges – Unit 1 & 2	Bridges – Unit 1 & 2	Bridges – Unit 1 & 2

Quarter 2				
Domain	Operations and Algebraic Thinking	Numbers and Operations Base Ten	Measurement & Data	Geometry
Standard	<p>2.OA.1 Use addition and subtraction within 100 to solve one- and twostep word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.</p> <p>2.OA.2 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. See standard 1.OA.6 for a list of mental strategies.</p>	<p>2.NBT.1 Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:</p> <p>a. 100 can be thought of as a bundle of ten tens - called a "hundred."</p> <p>b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).</p> <p>2.NBT.3 Read and write numbers to 1,000 using base-ten numerals, number names, expanded form, and equivalent representations, e.g., 716 is $700 + 10 + 6$, or $6 + 700 + 10$, or 6 ones and 71 tens, etc.</p> <p>2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.</p> <p>2.NBT.6 Add up to four two-digit numbers using strategies based on place value and properties of operations.</p>	<p>2.MD.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.</p> <p>2.MD.2 Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.</p> <p>2.MD.3 Estimate lengths using units of inches, feet, centimeters, and meters.</p> <p>2.MD.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.</p> <p>2.MD.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same whole number units, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. Drawings need not show details,</p>	<p>2.G.3 Partition circles and rectangles into two, three, or four equal shares; describe the shares using the words halves, thirds, or fourths and quarters, and use the phrases half of, third of, or fourth of and quarter of. Describe the whole as two halves, three thirds, or four fourths in real -world contexts. Recognize that equal shares of identical wholes need not have the same shape.</p>

		<p>2.NBT.8 Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.</p>	<p>but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)</p> <p>2.MD.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2,..., and represent whole-number sums and differences within 100 on a number line diagram.</p> <p>2.MD.10 Organize, represent, and interpret data with up to four categories; complete picture graphs when single -unit scales are provided; complete bar graphs when single -unit scales are provided; solve simple put - together, take -apart, and compare problems in a graph.</p>	
Resource	Bridges – Unit 3 & 4	Bridges – Unit 3 & 4	Bridges – Unit 3 & 4	Bridges – Unit 3 & 4

Quarter 3				
Domain	Operations and Algebraic Thinking	Numbers in Base Ten	Measurement and Data	Geometry
Standard	<p>2.OA.1 Use addition and subtraction within 100 to solve one- and twostep word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.</p> <p>2.OA.2 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. See standard 1.OA.6 for a list of mental strategies.</p> <p>2.OA.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.</p>	<p>2.NBT.1 Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:</p> <p>a. 100 can be thought of as a bundle of ten tens - called a "hundred."</p> <p>b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).</p> <p>2.NBT.2 Count forward and backward within 1,000 by ones, tens, and hundreds starting at any number; skip-count by 5s starting at any multiple of</p> <p>5. 2.NBT.3 Read and write numbers to 1,000 using base-ten numerals, number names, expanded form, and equivalent representations, e.g., 716 is $700 + 10 + 6$, or $6 + 700 + 10$, or 6 ones and 71 tens, etc.</p> <p>2.NBT.4 Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits,</p>	<p>2.MD.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.</p> <p>2.MD.8 Solve problems with money.</p> <p>a. Identify nickels and quarters by name and value.</p> <p>b. Find the value of a collection of quarters, dimes, nickels, and pennies.</p> <p>c. Solve word problems by adding and subtracting within 100, dollars with dollars and cents with cents (not using dollars and cents simultaneously) using the \$ and ¢ symbols appropriately (not including decimal notation).</p>	<p>2.G.1 Recognize and identify triangles, quadrilaterals, pentagons, and hexagons based on the number of sides or vertices. Recognize and identify cubes, rectangular prisms, cones, and cylinders.</p> <p>2.G.2 Partition a rectangle into rows and columns of same -size squares and count to find the total number of them.</p> <p>2.G.3 Partition circles and rectangles into two, three, or four equal shares; describe the shares using the words halves, thirds, or fourths and quarters, and use the phrases half of, third of, or fourth of and quarter of. Describe the whole as two halves, three thirds, or four fourths in real -world contexts. Recognize that equal shares of identical wholes need not have the same shape.</p>

		<p>using $>$, $=$, and $<$ symbols to record the results of comparisons.</p> <p>2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.</p> <p>2.NBT.9 Explain why addition and subtraction strategies work, using place value and the properties of operations. Explanations may be supported by drawings or objects.</p> <p>2.NBT.6 Add up to four two-digit numbers using strategies based on place value and properties of operations.</p> <p>2.NBT.8 Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.</p>		
Resource	Bridges – Unit 5 & 6	Bridges – Unit 5 & 6	Bridges – Unit 5 & 6	Bridges – Unit 5 & 6

Quarter 4				
Domain	Operations and Algebraic Thinking	Numbers & Operations in Base Ten	Measurement & Data	Geometry
Standard	<p>2.OA.1 Use addition and subtraction within 100 to solve one- and twostep word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.</p> <p>2.OA.2 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. See standard 1.OA.6 for a list of mental strategies.</p> <p>2.OA.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.</p>	<p>2.NBT.3 Read and write numbers to 1,000 using base-ten numerals, number names, expanded form, and equivalent representations, e.g., 716 is $700 + 10 + 6$, or $6 + 700 + 10$, or 6 ones and 71 tens, etc.</p> <p>2.NBT.4 Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.</p> <p>2.NBT.7 Add and subtract within 1,000, 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 in adding or subtracting three-digit numbers, hundreds are added or subtracted from hundreds, tens are added or subtracted from tens, ones are added or subtracted from ones; and sometimes it is necessary to compose or decompose tens or hundreds.</p>	<p>2.MD.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.</p> <p>2.MD.3 Estimate lengths using units of inches, feet, centimeters, and meters.</p> <p>2.MD.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.</p> <p>2.MD.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same whole number units, e.g., by using 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>2.G.2 Partition a rectangle into rows and columns of same -size squares and count to find the total number of them.</p> <p>2.G.3 Partition circles and rectangles into two, three, or four equal shares; describe the shares using the words halves, thirds, or fourths and quarters, and use the phrases half of, third of, or fourth of and quarter of. Describe the whole as two halves, three thirds, or four fourths in real -world contexts. Recognize that equal shares of identical wholes need not have the same shape.</p>

			<p>2.MD.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.</p> <p>2.MD.8 Solve problems with money.</p> <p>a. Identify nickels and quarters by name and value.</p> <p>b. Find the value of a collection of quarters, dimes, nickels, and pennies.</p> <p>c. Solve word problems by adding and subtracting within 100, dollars with dollars and cents with cents (not using dollars and cents simultaneously) using the \$ and ¢ symbols appropriately (not including decimal notation).</p> <p>2.MD.9 Generate measurement data by measuring lengths of several objects to the nearest whole unit or by making repeated measurements of the same object. Show the measurements by creating a line plot, where the horizontal scale is marked off in whole-number units.</p>	
Resource	Bridges – Unit 7 & 8	Bridges – Unit 7 & 8	Bridges – Unit 7 & 8	Bridges – Unit 7 & 8

Quarter 1 Learning Targets

Ohio Standard	Learning Targets	Notes
2.OA.1	Solve for an unknown (represented by an empty box or picture in any position). ¹	Problems should include solving for result unknown, change unknown, start unknown, total unknown, addend unknown, both addends unknown (See table 1 in Appendix for problem examples).
	Use addition within 20 to solve one-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem.	
	Use subtraction within 20 to solve one-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem.	
2.OA.2	(Introductory) Fluently add within 20 using mental strategies. •	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 $6 + 6 + 1 = 12 + 1 = 13$.
	(Introductory) Fluently subtract within 20 using mental strategies.	
2.OA.3	Determine whether a group of objects (up to 20) has odd or even number of members and explain why. ¹	
2.OA.4	Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns.	
2.NBT.1	Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones.	
2.NBT.3	Read and write 3-digit numbers using base ten numerals and number names.	
	Read and write 3-digit numbers using expanded form.	
	Read and write 3-digit numbers using equivalent representations.	
2.NBT.5	Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	Mastery expected in Quarter 2
2.MD.6	Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2...	Sums to be mastered this quarter; differences will be mastered in Quarter 2
	Represent whole-number sums within 100 on a number line diagram.	

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	
2.OA.1	Use addition within 100 to solve one-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem.	Problems should include solving for result unknown, change unknown, start unknown, total unknown, addend unknown, both addends unknown (See table 1 in Appendix for problem examples). Mastery expected for one-step word problems in Quarter 3
	Use subtraction within 100 to solve one-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem.	
2.OA.2	Fluently add within 20 using mental strategies.	Mastery expected by Quarter 4
	Fluently subtract within 20 using mental strategies.	Mastery expected by quarter 4
2.NBT.1	Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones.	
2.NBT.2	(Introductory) Count forward and backward within 1,000 by ones, tens, and hundreds starting at any given number.	Mastery expected by Quarter 3
	(Introductory) Skip count by 5s starting at any multiple of 5.	Mastery expected by Quarter 3
2.NBT.3	Read and write numbers to 1,000 using base ten numerals and number names.	
	Read and write numbers to 1,000 using expanded form.	
	Read and write numbers to 1,000 using equivalent representations.	
2.NBT.5	Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	
2.NBT.6	(Introductory) Add up to four two-digit numbers using strategies based on place value and properties of operations.	Mastery expected in Quarter 3
2.NBT.8	(Introductory) Mentally add 10 or 100 to a given number 100-900.	Mastery expected in Quarter 3
	(Introductory) Mentally subtract 10 or 100 to a given number 100-900.	Mastery expected in Quarter 3
2.MD.1	Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. (focus on measuring inches and feet)	Scholars will need to be able to identify appropriate tools before measuring (i.e. when to use a measuring tape vs. a ruler)
2.MD.2	Measure the length of an object twice, using length units of different lengths for the two measures.	
	Describe how the two different measurements of the same object relate to the size of the unit chosen.	
2.MD.3	Estimate lengths using units of inches and feet.	

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2.MD.4	Measure to determine how much longer one object is than another, expressing the length difference in inches or feet.	
2.MD.5	Use addition and subtraction within 100 to solve word problems involving length that are given the same whole number units by using drawings and equations with a symbol for the unknown number to represent the problem.	
2.MD.6	Represent whole-number sums and differences within 100 on a number line diagram.	
2.MD.10	Organize, represent and interpret data in picture graphs with single-unit scales are provided with up to four categories.	
	Solve simple put-together, take-apart and compare problems in a picture graph.	
	Organize, represent and interpret data bar graphs with single-unit scales are provided with up to four categories.	
	Solve simple put-together, take-apart and compare problems in a picture graph.	

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

Quarter 3 Learning Targets

Ohio Standard	Learning Targets	Notes
2.OA.1	Use addition within 100 to solve one-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem.	Problems should include solving for result unknown, change unknown, start unknown, total unknown, addend unknown, both addends unknown (See table 1 in Appendix for problem examples).
	Use subtraction within 100 to solve one-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem.	
2.OA.2	Fluently add within 20 using mental strategies (know from memory)	Mastery expected by Quarter 4
	Fluently subtract within 20 using mental strategies (know from memory)	Mastery expected by quarter 4
2.OA.4	Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns.	
	Write an equation to express the total of objects arranged in an array as a sum of equal addends.	
2.NBT.2	Count forward and backward within 1,000 by ones, tens, and hundreds starting at any given number.	
	Skip count by 5s starting at any multiple of 5.	
2.NBT.4	(Introductory) Compare two and three-digit numbers based on the meanings of the hundreds, tens, and ones using $>$, $=$, and $<$ symbols to record the results of comparisons.	Mastery expected by Quarter 4
2.NBT.5	Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. (Teach with 2.NBT.9)	
2.NBT.6	Add up to four two-digit numbers using strategies based on place value and properties of operations.	
2.NBT.8	Mentally add 10 or 100 to a given number 100-900.	
	Mentally subtract 10 or 100 to a given number 100-900.	
2.NBT.9	Explain why addition and subtraction work, using place value and the properties of operations. (Teach with 2.NBT.5)	
2.MD.8	Identify pennies, nickels, dimes and quarters by name and value.	Pennies and dimes were taught in grade 1 in connection with place value, but added to learning target for review & intro, if needed (not part of standard).
	Find the value of a collection of quarters, dimes, nickels, and pennies.	

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Second Grade

Mathematics

2021-2022

	(Introductory) Solve word problems by adding and subtracting with 100, dollars with dollars and cents with cents using \$ and cent symbols appropriately.	Mastery expected by Quarter 4
2.G.1	Recognize and identify triangles, quadrilaterals, pentagons, and hexagons based on the number of sides or vertices (2D shapes).	
	Recognize and identify cubes, rectangular prisms, cones and cylinders.	
2.G.2	Partitions a rectangle into rows and columns of same-size squares and count to find the total number of them.	
2.G.3	Partitions circles into two, three, or four equal shares.	
	Partition rectangles into two, three, or four equal shares.	
	Describe shares of partitions as halves, thirds, fourths or quarters and use the phrases half of, third of, fourth of, or quarter of.	
	Describe the whole as two halves, three thirds, or four fourths in real-world context.	
	Recognize that equal shares of identical wholes need not have the same shape.	

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
2.OA.1	Use addition within 100 to solve two-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem.	Problems should include solving for result unknown, change unknown, start unknown, total unknown, addend unknown, both addends unknown (See table 1 in Appendix for problem examples).
	Use subtraction within 100 to solve two-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem.	
2.OA.2	Fluently add within 20 using mental strategies (know from memory).	
	Fluently subtract within 20 using mental strategies (know from memory).	
2.NBT.4	Compare two and three-digit numbers based on the meanings of the hundreds, tens, and ones using $>$, $=$, and $<$ symbols to record the results of comparisons.	
2.NBT.7	Add within 1,000 using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	
	Subtract within 1,000 using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	
	Record the chosen strategy with a written numerical method using a drawing or equation.	
	Explain the reason a strategy was chosen to solve.	
	Understand that in adding or subtracting three-digit numbers, hundreds are added or subtracted from hundreds, tens are added and subtracted from tens, ones are added or subtracted from ones; and sometimes it is necessary to compose and decompose tens or hundreds.	
2.MD.1	Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. (focus on centimeters and meters)	
2.MD.3	Estimate lengths using units of centimeters and meters.	
2.MD.4	Measure to determine how much longer one object is than another, expressing the length difference in centimeters and meters.	
2.MD.5	Use addition and subtraction within 100 to solve word problems involving length that are given the same whole number units by using drawings and equations with a symbol for the unknown number to represent the problem.	

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2.MD.7	Tell and write time from an analog and digital clock to the nearest five.	Link back to 2.NBT.2 with skip counting to 5; review time to the hour and half hour as needed as this was taught in 1 st grade, but not part of this standard.
	Identify the number of hours in a day and determine when to represent a.m. and p.m. ¹	
2.MD.8	Solve word problems by adding and subtracting with 100, dollars with dollars and cents with cents using \$ and cent symbols appropriately.	
2.MD.9	Generate measurement data by measuring lengths of several objects to the nearest whole unit or by making repeated measurements of the same object.	
	Show measurements by creating a line plot, where the horizontal scale is marked off in whole-number units.	

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