

# Grade 1 Yearlong Mathematics Map

**Resources:** Approved from Board of Education

**Assessments:** District Benchmark Assessments

**Common Core State Standards – Standards for Mathematical Practice:**

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| 1. Make sense of problems and persevere in solving them.            | 2. Reason abstractly and quantitatively.                  |
| 3. Construct viable arguments and critique the reasoning of others. | 4. Model with mathematics.                                |
| 5. Use appropriate tools strategically.                             | 6. Attend to precision.                                   |
| 7. Look for and make use of structure.                              | 8. Look for and express regularity in repeated reasoning. |

Domain	Cluster	Common Core Standard	Content	Skills	Academic Vocabulary
OA	Represent and solve problems involving addition and subtraction.	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.1	Addition of Whole Numbers	1.OA.1 Solve word problems using addition within 20 that have symbols for unknowns in all positions	Sum Addend Total Part Strategy
OA	Represent and solve problems involving addition and subtraction.	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.1	Subtraction of Whole Numbers	1.OA.1 Solve word problems using subtraction within 20 that have symbols for unknowns in all positions	Difference Total Part Strategy
OA	Represent and solve problems involving addition and subtraction.	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.	Addition of Whole Numbers	1.OA.2 Solve addition word problems using three whole numbers with a sum less than or equal to 20 with symbols for unknowns	Sum Addend

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OA	Understand and apply properties of operations and the relationship between addition and subtraction.	1.OA.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.)	Addition of Whole Numbers	1.OA.3 Solve addition problems utilizing commutative property	Strategy
OA	Understand and apply properties of operations and the relationship between addition and subtraction.	1.OA.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.)	Addition of Whole Numbers	1.OA.3 Solve addition problems utilizing associative property	Strategy
OA	Understand and apply properties of operations and the relationship between addition and subtraction.	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.	Subtraction of Whole Numbers	1.OA.4 Solve subtraction problems utilizing unknown addend problems	Strategy
OA	Add and subtract within 20.	1.OA.5 Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).	Addition of Whole Numbers	1.OA.5 Apply forward counting to addition	Count Strategy
OA	Add and subtract within 20.	1.OA.5 Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).	Subtraction of Whole Numbers	1.OA.5 Apply forward and backward counting to subtraction	Count Strategy
OA	Add and subtract within 20.	1.OA.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 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 $6 + 6 + 1 = 12 + 1 = 13$ ).	Addition of Whole Numbers	1.OA.6 Utilize strategies to add within 20	Strategy

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OA	Add and subtract within 20.	1.OA.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 $6 + 6 + 1 = 12 + 1 = 13$ ).	Subtraction of Whole Numbers	1.OA.6 Utilize strategies to subtract within 20	Strategy
OA	Add and subtract within 20.	1.OA.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 $6 + 6 + 1 = 12 + 1 = 13$ ).	Addition of Whole Numbers	1.OA.6 Add fluently within 10	Strategy
OA	Add and subtract within 20.	1.OA.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 $6 + 6 + 1 = 12 + 1 = 13$ ).	Subtraction of Whole Numbers	1.OA.6 Subtract fluently within 10	Strategy

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OA	Work with addition and subtraction equations.	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? $6 = 6$ , $7 = 8 - 1$ , $5 + 2 = 2 + 5$ , $4 + 1 = 5 + 2$ .	Addition and Subtraction of Whole Numbers	1.OA.7 Define meaning of the equal sign	Equal
OA	Work with addition and subtraction equations.	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? $6 = 6$ , $7 = 8 - 1$ , $5 + 2 = 2 + 5$ , $4 + 1 = 5 + 2$ .	Addition and Subtraction of Whole Numbers	1.OA.7 Identify if equations are true or false through use of the equal sign	Equal
OA	Work with addition and subtraction equations.	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 $8 + ? = 11$ , $5 = \_ - 3$ , $6 + 6 = \_$ .	Addition of Whole Numbers	1.OA.8 Identify an unknown whole number in an addition equation relating to three whole numbers	Part Whole
OA	Work with addition and subtraction equations.	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 $8 + ? = 11$ , $5 = \_ - 3$ , $6 + 6 = \_$ .	Subtraction of Whole Numbers	1.OA.8 Identify an unknown whole number in a subtraction equation relating to three whole numbers	Part Whole
NBT	Extend the counting sequence.	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.	Counting	1.NBT.1 Count forward to 120 from any number	Count
NBT	Extend the counting sequence.	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.	Numerals ID	1.NBT.1 Read numerals to 120	Number
NBT	Extend the counting sequence.	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.	Numerals ID	1.NBT.1 Write numerals to 120	Number
NBT	Extend the counting sequence.	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.	Counting and Numerals ID	1.NBT.1 When given a set to count (1-120), write the numeral that represents the counted set	Number

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NBT	Understand place value.	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:	Place Value	1.NBT.2 Illustrate a two-digit number representing the values of tens and ones	Ten One
NBT	Understand place value.	1.NBT.2a 10 can be thought of as a bundle of ten ones — called a “ten.”	Place Value	1.NBT.2a Build a bundle of 10 ones to represent a group of ten.	Ten One
NBT	Understand place value.	1.NBT.2b The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.	Place Value	1.NBT.2b Combine a bundle of ten with extra ones to represent teen numbers	Ten One Teen Number
NBT	Understand place value.	1.NBT.2c 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).	Place Value	1.NBT.2c Combine bundles of ten to represent decade numbers	Decade Number
NBT	Understand place value.	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 $<$ .	Relative Magnitude	1.NBT.3 Compare two two-digit numbers based on meanings of the tens and ones digits by applying the symbols $<$ , $>$ and $=$	Greater Less Equal
NBT	Use place value understanding and properties of operations to add and subtract.	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; 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.	Addition of Whole Numbers Place Value	1.NBT.4 Add a two-digit number and a one-digit number within 100 applying a variety of strategies and explain reasoning	Strategy Decade Number Teen Number Ten One

Domain	Cluster	Common Core Standard	Content	Skills	Academic Vocabulary
NBT	Use place value understanding and properties of operations to add and subtract.	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; 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.	Addition of Whole Numbers Place Value	1.NBT.4 Compose a written representation for the addition of a two-digit number and a one-digit number within 100 and explain reasoning	Strategy Decade Number Teen Number Ten One
NBT	Use place value understanding and properties of operations to add and subtract.	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; 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.	Addition of Whole Numbers Place Value	1.NBT.4 Add a two-digit number and a multiple of 10 within 100 applying a variety of strategies and explain reasoning	Strategy Decade Number Teen Number Ten One
NBT	Use place value understanding and properties of operations to add and subtract.	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; 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.	Addition of Whole Numbers Place Value	1.NBT.4 Compose a written representation for the addition of a two-digit number and a multiple of 10 within 100 and explain reasoning	Strategy Decade Number Teen Number Ten One

Domain	Cluster	Common Core Standard	Content	Skills	Academic Vocabulary
NBT	Use place value understanding and properties of operations to add and subtract.	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.	Place Value	1.NBT.5 Mentally compute without having to count 10 more or 10 less than a given two-digit number and explain reasoning	Greater Less
NBT	Use place value understanding and properties of operations to add and subtract.	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.	Subtraction of Whole Numbers Place Value	1.NBT.6 Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 and explain reasoning	Ten Decade Number
MD	Measure lengths indirectly and by iterating length units.	1.MD.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object.	Linear Measurement	1.MD.1 Order three objects by length	Length
MD	Measure lengths indirectly and by iterating length units.	1.MD.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object.	Linear Measurement	1.MD.1 Compare the lengths of two objects by using a third object indirectly.	Length Measure
MD	Measure lengths indirectly and by iterating length units.	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 overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.	Linear Measurement	1.MD.2 State the length of an object as a whole number by using non-standard units of measure by lining up multiple copies of same-size units	Length Measure
MD	Tell and write time.	1.MD.3 Tell and write time in hours and half-hours using analog and digital clocks.	Measurement of Time	1.MD.3 Tell time in hours and half-hours using analog and digital clocks	Minute Hour
MD	Tell and write time.	1.MD.3 Tell and write time in hours and half-hours using analog and digital clocks.	Measurement of Time	1.MD.3 Write time in hours and half-hours using analog clocks	Minute Hour

Domain	Cluster	Common Core Standard	Content	Skills	Academic Vocabulary
MD	Represent and interpret data.	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.	Data	1.MD.4 Organize data with up to three categories	Survey Data
MD	Represent and interpret data.	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.	Data	1.MD.4 Represent data with up to three categories	Bar Graph Pictograph
MD	Represent and interpret data.	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.	Data	1.MD.4 Interpret data in order to ask and answer questions	Survey Data Greater Less
G	Reason with shapes and their attributes.	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 to possess defining attributes.	Geometry	1.G.1 Distinguish between defining attributes versus non-defining attributes	Side Vertex Flat Shape Solid Shape
G	Reason with shapes and their attributes.	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 to possess defining attributes.	Geometry	1.G.1 Build and draw shapes to possess defining attributes	Side Vertex Flat Shape Solid Shape
G	Reason with shapes and their attributes.	1.G.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.1	Geometry	1.G.2 Compose composite shape using two-dimensional shapes	Flat Shape



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G	Reason with shapes and their attributes.	1.G.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.1	Geometry	1.G.2 Compose composite shapes using three-dimensional shapes	Cube Rectangular Prism Cone Cylinder Sphere Solid Shape
G	Reason with shapes and their attributes.	1.G.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.1	Geometry	1.G.3 Compose new shapes from two-dimensional and three-dimensional composite shapes	Flat Shape Solid Shape
G	Reason with shapes and their attributes.	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. Understand for these examples that decomposing into more equal shares creates smaller shares.	Fractions / Geometry	1.G.3 Partition circles into two and four equal shares	Whole Half Fourth Quarter Part
G	Reason with shapes and their attributes.	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. Understand for these examples that decomposing into more equal shares creates smaller shares.	Fractions / Geometry	1.G.3 Partition rectangles into two and four equal shares	Whole Half Fourth Quarter Part Equal Shares

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G	Reason with shapes and their attributes.	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. Understand for these examples that decomposing into more equal shares creates smaller shares.	Fractions / Geometry	1.G.3 Describe shares using the words half of, fourth of, fourths and quarters	Whole Half Fourth Quarter Part
G	Reason with shapes and their attributes.	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. Understand for these examples that decomposing into more equal shares creates smaller shares.	Fractions / Geometry	1.G.3 Generalize that by breaking into more equal parts creates smaller parts	Equal Whole Part