

NYS Pre-Kindergarten to Grade 1 Mathematics Learning Standards				
Grade 1				
Operations & Algebraic Thinking				
	Standard Code	Current Standard	Revised Standard Recommendation for 2018-19	Additional Information/Notes
Clusters A. Represent and solve problems involving addition and subtraction.	1.OA.A.1	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 position. e.g. By using objects, drawings, and equations with a symbol for the unknown number to represent the problem. (See glossary Table 1)	1. Use addition and subtraction within 20 to solve one step word problems involving situations of adding to, taking from, putting together, taking apart, and/or comparing, with unknowns in all positions (e.g., by using objects or drawings, and equations with a symbol for the unknown number to represent the problem). (See Table 2 Addition and Subtraction Situations, pg. 9 of https://commoncoretools.files.wordpress.com/2011/05/ccss_progression_cc_oa_k5_2011_05_302.pdf) <u>Note:</u> Instructionally, students should be taught to use objects, drawings, and equations with a symbol for the unknown number to represent the problem; however, when solving any problem, students can use objects or drawings, and equations.	We would like embedded within the grade 1 standards documents the Addition and Subtraction situations by grade level from page 9 of the Draft K-5 progression on counting and cardinality and operations and algebraic thinking.
	1.OA.A.2	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.	2. No change	

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Clusters B. Understand and apply properties of operations and the relationship between addition and subtraction.	1.OA.B.3	3. Apply properties of operations as strategies to add and subtract. (Students do not need to use formal terms for these properties) 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.) (Students need not use formal terms for these properties.)	3. Apply properties of operations as strategies to add and subtract. 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.) (Students need not use formal terms for these properties.)	Removed the extra (Students need not use formal terms for these properties).
	1.OA.B.4	4. Understand subtraction as an unknown-addend problem. For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8. Add and subtract within 20.	4. Understand subtraction as an unknown-addend problem (e.g., subtract $10 - 8$ by finding the number that makes 10 when added to 8). Add and subtract within 20.	Consistently use e.g.

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Clusters	C. Add and subtract within 20.	1.OA.C.5	5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).	5. No Change	
		1.OA.C.6	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 $6 + 6 + 1 = 12 + 1 = 13$).	6a. Add and subtract within 20. 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 $6 + 6 + 1 = 12 + 1 = 13$). 6b. Fluently add and subtract within 10. Note: Fluency involves a mixture of just knowing some answers, knowing some answers from patterns, and knowing some answers from the use of strategies.	Clarify and separate distinct skills.
	D. Work with addition and subtraction equations.	1.OA.D.7	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? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.	7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false (e.g., which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$).	Consistently use e.g.
		1.OA.D.8	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 $8 + ? = 11$, $5 = _ - 3$, $6 + 6 = _$.	8. Determine the unknown whole number in an addition or subtraction equation with the unknown in all positions, (e.g., determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $_ - 3 = 5$, $6 + 6 = \square$).	Clarification - show many types of symbols for the unknown.

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**Grade 1
Number & Operations in Base Ten**

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Clusters	A. Extend the counting sequence.	1.NBT.A.1	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.	1. No Change	
	B. Understand place value.	1.NBT.B.2	2. Understand that the two digits of a two-digit number represent amounts of tens and ones.	2. No Change	
		1.NBT.B.2a	2a. 10 can be thought of as a bundle of ten ones, called a "ten".	2a. No Change	

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Clusters	B. Understand place value.	1.NBT.B.2b	2b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.	2b. The numbers from 11 to 19 are composed of a ten and some ones.	Consistency with K standard language.
		1.NBT.B.2c	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).	2c. No Change	
		1.NBT.B.3	3. Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.	3. No Change	

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Grade 1

Number & Operations in Base Ten

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Clusters	C. Use place value understanding and properties of operations to add and subtract.	1.NBT.C.4 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.	4. Add within 100 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. A written method is any way of representing a strategy using pictures or numbers. <u>Note:</u> Instructionally, students should be taught to use strategies based on place value, properties of operations, and the relationship between addition and subtraction; however, when solving any problem, students can choose any strategy.	Clarification
			4a. Add a two-digit number and a one-digit number.	
			4b. Add a two-digit number and a multiple of 10. 4c. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten.	
	1.NBT.C.5	5. Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.	5. No Change	
	1.NBT.C.6	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.	6. Subtract multiples of 10 from multiples of 10 in the range 10-90. Relate the strategy used to a written representation and explain the reasoning. A written method is any way of representing a strategy using pictures or numbers. <u>Note:</u> Students may use concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	Clarified wordiness. Some information was implied.

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**Grade 1
Measurement & Data**

		Standard Code	Current Standard	Revised Standard Recommendation for 2018-19	Additional Information/Notes
Clusters	A. Measure lengths indirectly and by iterating length units.	1.MD.A.1	1. Order three objects by length; compare the lengths of two objects indirectly by using a third object.	1. No Change	
		1.MD.A.2	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.	2. Express the length of an object as a whole number using “length units”, (e.g., cubes, paper clips). Measure end to end with no gaps or overlaps.	Removed "Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps" so students can apply to real-world experiences. Clarified standard and nonstandard units language using the Progressions.
	B. Tell and write time and money.	1.MD.B.3	3. Tell and write time in hours and half-hours using analog and digital clocks. Recognize and identify coins, their names, and their value.	3a. Tell and write time in hours and half-hours using analog and digital clocks. Use the terms o'clock and half past.	Clarification and separate distinct skills.
		1.MD.B.3b		3b. Recognize and identify coins (penny, nickel, dime, and quarter) and their value and use the ¢ (cent) symbol appropriately.	Clarification and separate distinct skills.

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Clusters	B. Tell and write time and money.	1.MD.B.3c	NEW ADDITION	3c. Explore dimes and pennies as they relate to place value concepts.	The word "explore" indicates the topic is an important concept that builds the foundation for progression toward mastery in later grades. However, mastery at the current grade is not expected for that standard. Repeated experiences with these concepts, with immersion in the concrete, are vital.
	C. Represent and interpret data.	1.MD.C.4	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.	No Change	

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**Grade 1
Geometry**

		Standard Code	Current Standard	Revised Standard Recommendation for 2018-19	Additional Information/Notes
Clusters	A. Reason with shapes and their attributes.	1.G.A.1	1. Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); for a wide variety of shapes; build and draw shapes to possess defining attributes.	1. Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size) for a wide variety of shapes; build and/or draw shapes to possess defining attributes.	Clarification to ensure choice based on students' developmental needs.
		1.G.A.2	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. (Students do not need to learn formal names such as "right rectangular prism.")	No Change	
		1.G.A.3	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.	No Change	