August 2020



Grade 1: New Jersey Student Learning Standards for Mathematics - Prerequisite Standards and Learning Objectives

Description

Included here are the prerequisite concepts and skills necessary for students to learn grade level content based on the New Jersey Student Learning Standards in mathematics. This tool is intended to support educators in the identification of any gaps in conceptual understanding or skill that might exist in a student's understanding of mathematics standards. The organization of this document mirrors that of the mathematics instructional units, includes all grade level standards, and reflects a grouping of standards and student learning objectives.

The tables are divided into three columns. The first column contains the grade level standard and student learning objectives, which reflect the corresponding concepts and skills in that standard. The second column contains standards from prior grades and the corresponding learning objectives, which reflect prerequisite concepts and skills essential for student attainment of the grade level standard as listed on the left. Given that a single standard may reflect multiple concepts and skills, all learning objectives for a prior grade standard may not be listed. Only those prior grade learning objectives that reflect prerequisite concepts and skills important for attainment of the associated grade level standard is listed. The third column contains Student Achievement Partners' recommendations (SAP) for the 2020-21 school year regarding preserving or reducing time as compared to a typical academic year.

Content Emphases Key:

: Major Cluster

: Supporting Cluster : Additional Cluster

Unit 1: Strategies for Addition and Subtraction

Rationale for Unit Focus

The primary focus of Unit 1 is addition and subtraction. Building upon the counting sequence mastered in Kindergarten, learners begin counting to 120, reading and writing numbers through 50 and representing objects with a written number. Learners build place value understanding as they learn that a ten is a bundle of ten ones and can be used to compose numbers 11 through 19.



An important conceptual understanding for their future work in mathematics is the meaning of the equal sign. Learners use this understanding to determine if addition and subtraction equations are true or false. Learners solve word problems using various strategies for addition and subtraction and use equations with an unknown in any position.

Introducing composite two-dimensional shapes is essential for expanding geometric skills and concepts from kindergarten. Grade 1 learners move beyond describing objects in the environment using two-dimensional shapes to composing new shapes from composite two-dimensional shapes.

Note: Double asterisks (**) indicate that the example(s) included within the New Jersey Student Learning Standard may be especially informative when considering the Student Learning Objective.

Unit 1, Module A

Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
 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. We are learning to/that count to 120 count on from any number within 120 read numbers within 50 write numbers within 50 represent up to 50 objects with a written number 	 K.CC.A.1 Count to 100 by ones and by tens. We have learned to/that count by ones to 100 K.CC.B.5 Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects. We have learned to/that count out the correct number of objects when given a number up to 20 	 Eliminate lessons that are solely about extending the count sequence in order to reduce the amount of time spent on this cluster. Incorporate extending the count sequence into other lessons in the grade. Note: While the standards in cluster 1.NBT.A are Major Work of the Grade, during the 2020-21 school year, it is recommended that they receive lighter treatment.



Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
	 K.CC.A.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects). We have learned to/that write numbers 0 through 20 	
	 represent the number of objects with a written number from 0 through 20 	



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 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: a. 10 can be thought of as a bundle of ten ones — called a "ten." b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. We are learning to/that 10 can be thought of as a bundle of ten ones called a "ten" the numbers 11 to 19 are made up of one ten and one, two, three, four, five, six, seven, eight, or nine ones 	 K.NBT.A.1 Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. We have learned to/that compose and record numbers from 11 to 19 into a ten and some further ones (e.g. using objects or drawings) decompose and record numbers 11 to 19 into a ten and some further ones (e.g. using objects or drawings) the numbers 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones 	Incorporate foundational work on understanding that numbers 11–19 are built from ten, ones, and some further ones (K.NBT.A) to support grade 1 understanding of place value.



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Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
 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. We are learning to/that represent a word problem using objects, drawings, or equations using a symbol for the unknown solve addition and subtraction word problems within 10 involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions 	 K.OA.A.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. We have learned to/that represent addition and subtraction word problems within 10 using objects, drawings solve addition and subtraction word problems within 10 	Emphasize problems that involve sums less than or equal to 10 and/or the related differences in order to keep the focus on making sense of different problem types; Do not limit the range of addition and subtraction situations; Assign fewer problems with sums greater than 10 or related differences.



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Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
 1.OA.C.5 Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). We are learning to/that relate counting to addition relate counting to subtraction 	 K.OA.A.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. We have learned to/that find the number that makes 10 when added to a given number from 1 to 9 (e.g. using objects or drawings) record the numbers that make 10 with a drawing or equation 	 Integrate counting (1.NBT.A.1) into the work of this domain (OA), instead of separate lessons, in order to reduce the amount of time spent on this standard. Note: While this standard is Major Work of the Grade, during the 2020-21 school year, it is recommended that it receive lighter treatment.
 1.OA.B.3 Apply properties of operations as strategies to add and subtract.3 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} We are learning to/that apply the commutative and identity properties as strategies to add and subtract 	n/a	No special considerations for curricula well aligned to understanding and applying properties of operations to addition and subtraction, as detailed in this standard/cluster. Time spent on instruction and practice should not be reduced.



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Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
 ■ 1.OA.D.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. We are learning to/that ■ an equal sign means both sides of the equal sign have the same value in an addition or subtraction equation within 10 ■ determine if equations involving addition and subtraction within 10 are true or false 	n/a	No special considerations for curricula well aligned to work with addition and subtraction equations, as detailed in this standard/cluster. Time spent on instruction and practice should not be reduced.
1.0A.D.8 Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = 2 - 3$, $6 + 6 = 2$.	n/a	No special considerations for curricula well aligned to work with addition and subtraction equations, as detailed in this standard/cluster. Time spent on instruction and practice should not be reduced.
 We are learning to/that determine the unknown number that makes an equation involving addition or subtraction within 10 true** 		



Unit 1, Module B

Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
 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. We are learning to/that a composite shape is a shape built by combining other shapes compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) to create a composite shape compose new shapes from composite shapes 	 K.G.B.6 Compose simple shapes to form larger shapes. For example, "Can you join these two triangles with full sides touching to make a rectangle?" We have learned to/that simple shapes can join to compose larger shapes** compose simple shapes to form larger shapes** 	Combine lessons to address key concepts of defining attributes of shapes and composing shapes in order to reduce the amount of time spent on this standard/cluster.



November 2020



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Content Emphases Key:

: Major Cluster : Supporting Cluster : Additional Cluster

Unit 2: Place Value and More Strategies for Addition and Subtraction

Rationale for Unit Focus

Continuing the counting sequence of Unit 1, learners read and write numbers up to 120. The major focus of Unit 2 is place value of two-digit numbers as students learn to use the conceptual understanding of tens and ones in order to compare two-digit numbers. Learners build upon the properties of operations introduced in Unit 1 as they discover the relationship between addition and subtraction, understanding subtraction as an unknown-addend problem. They use this understanding as a strategy to add and subtract numbers within 20. While students develop their repertoire of addition and subtraction strategies, they use them in context with varied word problem situations



including adding three whole numbers within 20. Learners continue to work towards fluency when adding and subtracting within 10 and extend their understanding of the equals sign as they apply its meaning to determine whether equations are true or false.

Building upon kindergarten skills of classifying objects into categories and sorting categories by count, grade 1 learners organize, represent and interpret data in up to three categories. Learners answer questions about the data that they have represented, reinforcing their numeracy skills. Learners also tell and write time to the hour.

Note: Double asterisks (**) indicate that the example(s) included within the New Jersey Student Learning Standard may be especially informative when considering the Student Learning Objective.

Unit 2, Module A

Standard and Student Learning Objectives	Previous Grade(s) Standards and Student	Instructional Considerations
	Learning Objectives	<u>SAP</u> recommendation to preserve or reduce time
	_	in 20-21 as compared to a typical year
 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. We are learning to/that read numbers up to 120 write numbers up to 120 represent objects with a written number in sets within 120 objects 	 K.CC.A.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects). We have learned to/that write numbers 0 through 20 represent the number of objects with a written number from 0 through 20 	Eliminate lessons that are solely about extending the count sequence in order to reduce the amount of time spent on this cluster. Incorporate extending the count sequence into other lessons in the grade. Note: While the standards in cluster 1.NBT.A are Major Work of the grade, during the 2020-21 school year, it is recommended that they receive lighter
		treatment.
■ 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: c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four,	K.NBT.A.1 Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., 18 = 10 + 8); understand that these numbers are composed of ten ones and one,	Incorporate foundational work on understanding that numbers 11–19 are built from ten, ones, and some further ones (K.NBT.A) to support grade 1 understanding of place value.



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Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
five, six, seven, eight, or nine tens (and 0 ones). We are learning to/that in a two-digit number, one digit represents the amount of tens and the other digit represents the amount of ones the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 are made up of some tens and 0 ones	 two, three, four, five, six, seven, eight, or nine ones. We have learned to/that compose and record numbers from 11 to 19 into a ten and some further ones (e.g. using objects or drawings) decompose and record numbers 11 to 19 into a ten and some further ones (e.g. using objects or drawings) the numbers 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones 	
 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 <. We are learning to/that compare two two-digit numbers using the meanings of the tens and ones digits compare two numbers using the symbols <, >, and = 	 K.CC.C.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. We have learned to/that equal means the same amount identify when the number of objects is equal to, greater than, or less than the number of objects in another group by matching or counting the number of objects in both groups K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals. 	Incorporate foundational work on understanding that numbers 11–19 are built from ten, ones, and some further ones (K.NBT.A) to support grade 1 understanding of place value.



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 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. We are learning to/that represent a word problem using objects, drawings, or equations using a symbol for the unknown solve addition and subtraction word problems within 20 involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions 	 compare two written numbers between 1 and 10 K.OA.A.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. We have learned to/that represent addition and subtraction word problems within 10 using objects, drawings solve addition and subtraction word problems within 10 	Emphasize problems that involve sums less than or equal to 10 and/or the related differences in order to keep the focus on making sense of different problem types. Do not limit the range of addition and subtraction situations. Assign fewer problems with sums greater than 10 or related differences.
■ 1.OA.B.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	K.OA.A.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. We have learned to/that	No special considerations for curricula well aligned to understanding and applying properties of operations to addition and subtraction, as detailed in this standard/cluster.



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Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
 + 10 = 12. (Associative property of addition.) {Students need not use formal terms for these properties} We are learning to/that apply the associative, commutative and identity properties as strategies to add and subtract 	 represent addition and subtraction word problems within 10 using objects, drawings solve addition and subtraction word problems within 10 	Time spent on instruction and practice should not be reduced.
 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. We are learning to/that subtraction can be thought of as an addition problem with an unknown addend a related addition problem can be used to solve a subtraction problem 	 K.OA.A.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. We have learned to/that find the number that makes 10 when added to a given number from 1 to 9 (e.g. using objects or drawings) record the numbers that make 10 with a drawing or equation 	No special considerations for curricula well aligned to understanding and applying properties of operations to addition and subtraction, as detailed in this standard/cluster. Time spent on instruction and practice should not be reduced.
■ 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	K.OA.A.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. We have learned to/that	No special considerations for curricula well aligned to adding and subtracting within 20, as detailed in this standard/cluster. Time spent on instruction and practice should not be reduced.



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Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
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). We are learning to/that add and subtract within 20 using strategies such as counting on, making ten, and decomposing a number leading to a ten add and subtract within 20 using strategies such as relationship between addition and subtraction, and using easier or known sums within 10 working towards accuracy and efficiency for addition and subtraction within 10, use efficient strategies to add and subtract within 20	 represent addition and subtraction word problems within 10 using objects, drawings K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1). We have learned to/that decompose numbers less than or equal to 10 in pairs e.g. by using objects or drawings record the decomposition of numbers less than or equal to 10 in pairs with a drawing or equation decompose numbers less than or equal to 10 in pairs in more than one way e.g. by using objects or drawings and record the decompositions with a drawing or equation K.OA.A.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. We have learned to/that 	



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	 find the number that makes 10 when added to a given number from 1 to 9 (e.g. using objects or drawings) record the numbers that make 10 with a drawing or equation K.OA.A.5 Demonstrate fluency for addition and subtraction within 5. We have learned to/that 	
	represent addition and subtraction withinwith accuracy and efficiency	
■ 1.OA.D.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. We are learning to/that	n/a	No special considerations for curricula well aligned to work with addition and subtraction equations, as detailed in this standard/cluster. Time spent on instruction and practice should not be reduced.
 determine if equations involving addition and subtraction within 10 are true or false 		
1.0A.D.8 Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = \bigcirc -3$, $6 + 6 = \bigcirc$.	n/a	No special considerations for curricula well aligned to work with addition and subtraction equations, as detailed in this standard/cluster. Time spent on instruction and practice should not be reduced.



Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
 We are learning to/that determine the unknown number that makes an equation involving addition or subtraction within 20 true 		



Unit 2, Module B

Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
1.OA.A.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.	n/a	Combine lessons to address key concepts of defining attributes of shapes and composing shapes in order to reduce the amount of time spent on this standard/cluster.
We are learning to/that		
 solve addition word problems with three whole numbers with a sum of 20 or less using objects, drawings or equations with symbols for the unknown 		
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.	■ K.MD.B.3 Classify objects into given categories; count the number of objects in each category and sort the categories by count. (Note: Limit category counts to be less than or equal to 10) We have learned to/that	Eliminate lessons devoted to representing and interpreting data. Do not eliminate problems about using addition and subtraction to solve problems about the data.
 We are learning to/that organize and represent data with up to three categories interpret data with up to three categories by stating observations about the data ask and answer questions about the total number of data points, the number in 	 classify objects into given categories count the number of objects in a category and sort the categories of objects by their count 	



Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
each category, and how many more or less are in one category than in another		
■ 1.MD.B.3 Tell and write time in hours and half-hours using analog and digital clocks. We are learning to/that	n/a	Eliminate lessons devoted to telling and writing time to the hour and half-hour (1.MD.B.3).
 tell and write time to the hour using analog and digital clocks 		



February 2021



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Unit 3: Place Value and Two-Digit Addition and Subtraction Strategies

Rationale for Unit Focus

The major focus of Unit 3 is demonstrating place value understanding through addition and subtraction strategies. Learners demonstrate understanding of the composition of tens through the use of concrete models or drawings and become more sophisticated in their use of strategies. They add and subtract within 100, working towards fluency within 10. Learners relate their concrete models and drawings to their strategy and explain the reasoning used.



Learners, knowing from Kindergarten that length is a measurable attribute of shapes, measure lengths of objects. They compare the lengths of two objects indirectly and lay multiple copies of a shorter object to measure a longer object. These concrete experiences with measurement build a foundation for measurement in second grade.

Note: Double asterisks (**) indicate that the example(s) included within the New Jersey Student Learning Standard may be especially informative when considering the Student Learning Objective.

Unit 3, Module A

Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce
 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 (e.g., base ten blocks) 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. We are learning to/that sometimes it is necessary to compose tens when adding compose tens when adding two-digit numbers, if necessary when adding two-digit numbers, one adds tens and tens, ones and ones 	n/a	time in 20-21 as compared to a typical year Emphasize the understanding that in adding two two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten, in order to strengthen the progression toward fluency with multi-digit addition and subtraction.



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 10, 20, 30, 40, 50, 60, 70, 80, and 90 are multiples of 10 add a two-digit number and a one-digit number within 100 using concrete models (e.g., base ten blocks) or drawings add a two-digit number and a one-digit number within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction relate strategies for adding a two-digit and a one-digit number within 100 to a written method and explain the reasoning used to solve add a two-digit number and a multiple of 10, within 100, using concrete models (e.g., base ten blocks) or drawings add a two-digit number and a multiple of 10, within 100, using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction relate strategies for adding a two-digit number and a multiple of 10, within 100, to a written method and explain the reasoning used to solve 		



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Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
 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. We are learning to/that mentally find 10 more or 10 less than any given two-digit number, without having to count explain how to mentally find 10 more or 10 less than any given two-digit number 	n/a	Emphasize the understanding that in adding two two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten, in order to strengthen the progression toward fluency with multi-digit addition and subtraction.
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.	n/a	Emphasize the understanding that in adding two two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten, in order to strengthen the progression toward fluency with multi-digit addition and subtraction.
We are learning to/that		
 subtract multiples of 10 from multiples of 10 using concrete models or drawings (multiples of 10 less than or equal to 90) subtract multiples of 10 from multiples of 10 using strategies based on place value or properties of operations (multiples of 10 less than or equal to 90) 		



Grade 1: New Jersey Student Learning Standards for Mathematics - Prerequisite Standards and Learning Objectives

Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
 subtract multiples of 10 from multiples of 10 using the relationship between addition and subtraction (multiples of 10 less than or equal to 90) relate the strategy used to subtract multiples of 10 from multiples of 10 to a written method explain the reasoning used when subtracting multiples of 10 from multiples of 10 (multiples of 10 less than or equal to 90) 		
 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. We are learning to/that represent a word problem using objects, drawings, or equations using a symbol for the unknown solve addition and subtraction word problems within 20 involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions 	 K.OA.A.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. We have learned to/that represent addition and subtraction word problems within 10 using objects, drawings solve addition and subtraction word problems within 10 	Emphasize problems that involve sums less than or equal to 10 and/or the related differences in order to keep the focus on making sense of different problem types. Do not limit the range of addition and subtraction situations. Assign fewer problems with sums greater than 10 or related differences.



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 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). We are learning to/that add and subtract within 20 using strategies such as counting on, making ten, and decomposing a number leading to a ten add and subtract within 20 using strategies such as relationship between addition and subtraction, and using easier or known sums within 10 working towards accuracy and efficiency for addition and subtraction within 10, use efficient strategies to add and subtract within 20 	 ■ K.OA.A.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. We have learned to/that ■ represent addition and subtraction word problems within 10 using objects, drawings ■ K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1). We have learned to/that ■ decompose numbers less than or equal to 10 in pairs e.g. by using objects or drawings ■ record the decomposition of numbers less than or equal to 10 in pairs with a drawing or equation ■ decompose numbers less than or equal to 10 in pairs in more than one way e.g. by using objects or drawings and record the decompositions with a drawing or equation 	No special considerations for curricula well aligned to adding and subtracting within 20, as detailed in this standard/cluster. Time spent on instruction and practice should not be reduced.



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	K.OA.A.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.	
	We have learned to/that	
	 find the number that makes 10 when added to a given number from 1 to 9 (e.g. using objects or drawings) record the numbers that make 10 with a drawing or equation 	
	K.OA.A.5 Demonstrate fluency for addition and subtraction within 5.	
	We have learned to/that	
	represent addition and subtraction within5 with accuracy and efficiency	



Unit 3, Module B

Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
 1.MD.A.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object. We are learning to/that length is measured from one endpoint to another use a third object to compare lengths of two objects that may not be moved order three objects by length 	 K.MD.A.2 Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter. Note: shapes include squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres. We have learned to/that compare two objects that share a measurable attribute to see which object has "more of"/"less of" the attribute describe the difference between two objects that share the same measurable attribute** 	No special considerations for curricula well aligned to measuring lengths indirectly by iterating length units, as detailed in this standard/cluster. Time spent on instruction and practice should not be reduced.
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	 K.MD.A.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. Note: shapes include squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres. We have learned to/that 	No special considerations for curricula well aligned to measuring lengths indirectly by iterating length units, as detailed in this standard/cluster. Time spent on instruction and practice should not be reduced.



Grade 1: New Jersey Student Learning Standards for Mathematics - Prerequisite Standards and Learning Objectives

Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
by a whole number of length units with no gaps or overlaps. We are learning to/that the length of an object is the number of same-size length units that span it with no gaps or overlaps express the length of an object as a whole number of length units, by laying multiple copies of a shorter object end to end	 objects have measurable attributes, such as length or weight. describe measurable attributes of objects, such as length or weight. describe several measurable attributes of a single object 	



February 2021



Grade 1: New Jersey Student Learning Standards for Mathematics - Prerequisite Standards and Learning Objectives

Description

Included here are the prerequisite concepts and skills necessary for students to learn grade level content based on the New Jersey Student Learning Standards in mathematics. This tool is intended to support educators in the identification of any gaps in conceptual understanding or skill that might exist in a student's understanding of mathematics standards. The organization of this document mirrors that of the mathematics instructional units, includes all grade level standards, and reflects a grouping of standards and student learning objectives.

The tables are divided into three columns. The first column contains the grade level standard and student learning objectives, which reflect the corresponding concepts and skills in that standard. The second column contains standards from prior grades and the corresponding learning objectives, which reflect prerequisite concepts and skills essential for student attainment of the grade level standard as listed on the left. Given that a single standard may reflect multiple concepts and skills, all learning objectives for a prior grade standard may not be listed. Only those prior grade learning objectives that reflect prerequisite concepts and skills important for attainment of the associated grade level standard is listed. The third column contains the recommendations from Student Achievement Partners recommendations (SAP) for the 2020-21 school year regarding preserving or reducing time as compared to a typical academic year.

Content Emphases Key: : Major Cluster : Supporting Cluster : Additional Cluster

Unit 4: Place Value Strategies and Composite Shapes

Rationale for Unit Focus

The focus of unit 4 is solidifying learners place value understanding for addition within 100, as well as the use of various strategies to efficiently add and subtract within 20. They apply addition and subtraction strategies to solve word problems and become fluent with adding and subtracting within 10. Learners tell and write time to the half-hour, and partition shapes to develop a foundation for understanding fractions.



Learners extend their geometric understanding from Kindergarten as they identify defining and non-defining attributes of shapes. They extend their understanding of composite two-dimensional shapes to create composite three-dimensional shapes and to compose new shapes from composite three-dimensional shapes.

Unit 4, Module A

Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
1.NBT.C.4 Add within 100, including	n/a	Emphasize the understanding that in adding
adding a two-digit number and a one-digit		two two-digit numbers, one adds tens, and
number, and adding a two-digit number and		tens, ones and ones, and sometimes it is
a multiple of 10, using concrete models (e.g.,		necessary to compose a ten, to strengthen
base ten blocks) or drawings and strategies		the progression toward fluency with multi-
based on place value, properties of		digit addition and subtraction.
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.		
We are learning to/that		
sometimes it is necessary to compose		
tens when adding		
 compose tens when adding two-digit 		
numbers, if necessary		
when adding two-digit numbers, one		
adds tens and tens, ones and ones		
 add a two-digit number and a one-digit 		
number within 100 using concrete		
models (e.g., base ten blocks) or		
drawings		



Grade 1: New Jersey Student Learning Standards for Mathematics - Prerequisite Standards and Learning Objectives

Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
 relate strategies for adding a two-digit and a one-digit number within 100 to a written method and explain the reasoning used to solve add a two-digit number and a multiple of 10, within 100, using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction relate strategies for adding a two-digit number and a multiple of 10, within 100, to a written method and explain the reasoning used to solve 		
 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. We are learning to/that represent a word problem using objects, drawings, or equations using a symbol for the unknown solve addition and subtraction word problems within 20 involving situations of adding to, taking from, putting 	 K.OA.A.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. We have learned to/that represent addition and subtraction word problems within 10 using objects, drawings solve addition and subtraction word problems within 10 	Emphasize problems that involve sums less than or equal to 10 and/or the related differences to keep the focus on making sense of different problem types. Do not limit the range of addition and subtraction situations. Assign fewer problems with sums greater than 10 or related differences.



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Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
together, taking apart, and comparing, with unknowns in all positions		
■ 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). We are learning to/that ■ add and subtract within 20 using strategies such as counting on, making ten, and decomposing a number leading to a ten ■ add and subtract within 20 using strategies such as relationship between addition and subtraction, and using easier or known sums within 10 ■ add and subtract within 10 with accuracy and efficiency	 ■ K.OA.A.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. ■ We have learned to/that ■ represent addition and subtraction word problems within 10 using objects, drawings ■ K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1). We have learned to/that ■ decompose numbers less than or equal to 10 in pairs e.g. by using objects or drawings ■ record the decomposition of numbers less than or equal to 10 in pairs with a drawing or equation ■ decompose numbers less than or equal to 10 in pairs in more than one way e.g. by using objects or drawings and record the decompositions with a drawing or equation 	No special considerations for curricula well aligned to adding and subtracting within 20, as detailed in this standard/cluster. Time spent on instruction and practice should not be reduced.



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Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
	K.OA.A.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.	
	We have learned to/that	
	 find the number that makes 10 when added to a given number from 1 to 9 (e.g. using objects or drawings) record the numbers that make 10 with a drawing or equation 	
	K.OA.A.5 Demonstrate fluency for addition and subtraction within 5.	
	We have learned to/that	
	represent addition and subtraction within5 with accuracy and efficiency	



Unit 4, Module B

Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
• 1.MD.B.3 Tell and write time in hours and half-hours using analog and digital clocks. We are learning to/that	n/a	Eliminate lessons devoted to telling and writing time to the hour and half-hour (1.MD.B.3).
 tell and write time to the hour using analog and digital clocks tell and write time to the half-hour using analog and digital clocks 		
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.	n/a	Combine lessons to address key concepts of defining attributes of shapes and composing shapes to reduce the amount of time spent on this standard/cluster.
We are learning to/that		
 partition means to split a shape into smaller parts, also called shares partition circles and rectangles into two equal shares and describe each share using the word "halves" or the phrase "half of" partition circles and rectangles into four equal shares and describe each share 		



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using the word "fourths" or the phrase "fourth of"		
○ 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.	 K.G.A.2 Correctly name shapes regardless of their orientations or overall size. Note: shapes include squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres. We have learned to/that 	Combine lessons to address key concepts of defining attributes of shapes and composing shapes to reduce the amount of time spent on this standard/cluster.
 distinguish between defining and non-defining attributes build and draw shapes that have particular defining attributes 	 the name of a shape does not change when orientation and size change correctly name squares, circles, triangles, rectangles and hexagons of different sizes and orientations orientation and size do not change the shape (cubes, cones, cylinders and spheres) correctly name cubes, cones, cylinders, and spheres 	
	K.G.A. 3 Identify shapes as two- dimensional (lying in a plane, "flat") or three-dimensional ("solid").	
	We have learned to/that	
	 two-dimensional shapes are "flat" (lying in a plane) three-dimensional shapes are "solid" identify shapes as two-dimensional or three-dimensional 	



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	K.G.B.4 Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).	
	 We have learned to/that describe the parts of two- and three-dimensional shapes (e.g., number of sides, faces, vertices/ "corners") compare by describing similarities, differences, parts, and other attributes of two- and three-dimensional shapes using informal language 	
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. We are learning to/that	 K.G.B.6 Compose simple shapes to form larger shapes. For example, "Can you join these two triangles with full sides touching to make a rectangle?" We have learned to/that simple shapes can join to compose larger shapes compose simple shapes to form larger shapes 	Combine lessons to address key concepts of defining attributes of shapes and composing shapes in order to reduce the amount of time spent on this standard/cluster.
 a composite shape is a shape built by combining other shapes 		



Standard and Student Learning Objectives	Previous Grade(s) Standards and Student Learning Objectives	Instructional Considerations SAP recommendation to preserve or reduce time in 20-21 as compared to a typical year
 compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) to create a composite shape compose new shapes from composite shapes 		

