



GRADE 1						
	Operations and	Algebraic Thinking				
	Represent and solve problems involving addition and subtraction Major					
1.OA.1 Use addition and		Desired Student Performance				
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. ² ² See Glossary, Table 1.	 A student should know The numbers 1-20. The symbols used when writing addition and subtraction equations (+, -, =). How to represent addition equations. How to represent subtraction equations. How to solve addition and subtraction word problems within 10 using objects or drawings. 	 A student should understand Strategies for adding within 20. (ex: counting on, making 10, decomposing a number leading to 10, using the relationship between addition and subtraction, and creating easier, equivalent facts). Strategies for subtracting within 20. (same as above) A symbol can represent an unknown number. There is more than one strategy that can be used to solve a word problem (using objects, drawings, and equations). How to make sense of a problem. 	 A student should be able to do Solve addition and subtraction word problems within 20. Solve addition and subtraction facts with unknowns in all positions. Use various strategies to solve for unknowns in word problems (using objects, drawing, and equations). Use symbols for unknown numbers in number sentences. Compare equations with unknowns. Model with mathematics to solve and justify word problem. 			





GRADE 1					
	Operations and	Algebraic Thinking			
	Represent and solve problems involving addition and subtraction Major				
1.0A.2 Solve word problems	Desired Student Performance				
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.	 A student should know The numbers 1-20. Strategies for solving addition word problems within 10. How to represent an addition number sentence. The symbols used when writing addition number sentences (+, =). How to represent addition with mental images, drawing, sounds, etc Fluently add within 5. Part and whole relationships. 	 A student should understand There can be more than 2 addends (parts) when adding. There is more than 1 strategy that can be used to solve a word problem (using objects, drawings, equations). A symbol can be used in a number sentence to represent an unknown number. The associative property of addition to find easier facts when using more than 2 addends. How to make sense of word problems. How to check their answer for reasonableness. 	A stud A da les Us pro nu tha dra Ap pro str Wr syr un pro str Mo sol	ent should be able to do d 3 numbers with a sum as than 20. We a strategy to solve word oblems when adding 3 mbers with a sum less an 20 (using objects, awings, and equations). Uply the associative operty of addition as a ategy. Write an equation using a mbol to represent an known number in a oblem. Odel with mathematics to live and justify answer.	





GRADE 1					
	Operations and	Algebraic Thinking			
Understand and apply properties of operations and the relationship between Major Major					
<u>1.OA.3</u> Apply properties of		Desired Student Performance			
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 number cans be added to make a ten, so $2+6+4$ = 2+10=12. (Associative property of addition.) ² Students need not use formal terms for these properties.	 A student should know The numbers 1-20. How to represent an addition number sentence. How to represent a subtraction number sentence. Addition and subtraction facts within 10. How to apply strategies for addition and subtraction facts. Decomposing numbers. 	 A student should understand Numbers do not have to be added in the order of the number sentence. Strategies for adding within 20 (e.g. making a 10). Compensation or manipulating numbers so that they are "friendlier" to add and subtract. 	A stude • Ade stra • Ree cor ado • Ree ass ado • Loo stru	ent should be able to do d within 20 using various ategies. cognize and apply the nmutative property when ding. cognize and apply the sociative property when ding. bk for and make use of ucture (e.g. 7+3=3+7).	





GRADE 1					
Operations and Algebraic Thinking Understand and apply properties of operations and the relationship between addition and subtraction Major					
1.OA.4 Understand subtraction as an unknown-addend problem. <i>For example,</i>	A student should knowHow to represent a	Desired Student Performance A student should understand The inverse relationship	A stud	ent should be able to do	
subtract 10 - 8 by finding the number that makes 10 when added to 8.	 subtraction number sentence. Addition facts within 20. Strategies for addition within 20. "Counting on" to find the difference. 	 between addition and subtraction (ex: 2+3=5 and 5-3=2). How to look for patterns in the structure of numbers (e.g. How to compose 10 using 8 and another part). Using a symbol for an unknown number. 	sol sei ma • Re sul as nu 2=	ve subtraction number ntences (ex: counting on, aking a ten, etc.). present an unknown otraction number sentence an unknown addition mber sentence (ex: 10- ? as 2+?=10).	





GRADE 1				
Operations and Algebraic Thinking				
Add and subtract within 20 Major I.OA.5 Desired Student Performance				
Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).	 A student should know How to count to 100. How to count forward starting at any number. The relationship between counting numbers and quantities. Addition and subtraction facts within 10. Comparing numbers. 	 A student should understand "Counting on" (adding) results in a higher quantity. "Counting back" (subtracting) results in a smaller quantity. Addition is the same as "counting on." Subtraction is the same as "counting back." Modeling counting, addition, and subtraction (e.g. number lines) 	A stude • Sta and (wi • Sta and (wi • Mo add for nur • Un the sys	ent should be able to do art with any given number d count forward to add thin 20). art with any given number d count back to subtract thin 20). del "counting on" for dition and "counting back" subtraction using a mber line. derstand and make use of e structure of the number stem.





	GRADE 1				
	Operations and Algebraic Thinking				
	Add and sub	tract within 20	Major		
1.OA.6 Add and subtract within		Desired Student Performance			
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., known 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).	 A student should know Numbers 1-20. Addition and subtraction facts within 10. How to fluently add and subtract within 5. How to decompose numbers less than 10 into pairs. 	 A student should understand The inverse relationship between addition and subtraction. How to make a 10. Common addition strategies (doubles, making 10, etc.) to apply to other facts. How to reason with numbers abstractly and quantitatively. The commutative property of addition to solve known facts. The associative property of addition. 	 A student should be able to do Fluently add and subtract within 10. Use strategies such as: "counting on," making 10, decomposing a number leading to 10, using inverse operations, and creating equivalent facts (ex. doubles +1) to solve addition and subtraction facts within 20. Look for and make use of structure (ex. 7+3 is the same as 3+7). 		





GRADE 1 Operations and Algebraic Thinking				
	Work with addition and	d subtraction equations	Major	
1.0A.7 Understand the		Desired Student Performance		
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.	 A student should know The word equal (and the equal symbol) means "the same" (ex. 3 = 3). The meaning of "true" as being something that is correct. The meaning of the word "false" as being something that is incorrect/wrong. Numbers 1-20. Addition and subtraction facts within 10. 	 A student should understand Number sentences can be written in different orders (ex. addition sentences can be written as 5+3=8 or as 8=3+5 and subtraction sentences can be written as 8-3=5 or as 8=5-3). Just because there is an equal sign, doesn't mean a number sentence is true. An equal sign can represent two equal equations (ex. 3+2=4+1). 	 A student should be able to do Understand the placement of the equal sign. Solve addition and subtraction facts within 20. Identify number sentences that are true. Identify number sentences that are false. Work with precision when solving addition and subtraction number sentences for accuracy. Solve to find if equations are true or false. 	





GRADE 1						
	Operations and	Algebraic Thinking				
	Work with addition and subtraction equations Major					
1.0A.8 Determine the unknown		Desired Student Performance				
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 $8+?=11, 5=\Box-3, 6+6=\Box$.	 A student should know Numbers 1-20. Addition and subtraction facts within 10. The symbols used in number sentences (+, -, =). Counting forward from a given number. Comparing numbers. For any number 1-9, find the number that makes 10 when added together. 	 A student should understand Strategies for solving addition and subtraction facts within 20. The inverse relationship between addition and subtraction (3+5=8 and 8- 5=3). An unknown number can be represented using symbols in a number sentence. An unknown number is a number that is not known. Strategies for solving for an unknown number. Number sentences are not all written with the problem first and the sum or difference last. The meaning of "true." 	 A student should be able to do Solve for an unknown number in any position in an addition or subtraction equation within 20. Apply the inverse operation to solve for an unknown number. 			





GRADE 1				
	Number and Op	erations in Base Ten		
	Extend the counting sec	quence	Major	
1.NBT.1 Count to 120, starting at		Desired Student Performance		
any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	 A student should know How to count to 100 by ones and tens. Write numbers from 0-20. That numbers represent quantities. When reading the numbers 13-19, the ones is read first, but in 20-100, the tens is read first. Counting forward from a given number. The relationship between spoken words and written numerals (e.g. 5 is five). 	 A student should understand When counting on, you begin at a number one more than the previous or given number. The counting sequence is never ending. Representing a number of objects with a written number. The structure of counting and sequence. 	 A student should be able to do Count to 120 starting at any number. Read the numbers 0-120. Write the numbers 0-120. Write a number 0-120 to represent an amount of objects. Represent a number of objects 0-120. 	





GRADE 1					
Number and Operations in Base Ten					
	Understand place value Major				
1.NBT.2 Understand that the two		Desired Student Performance			
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. c. 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).	 A student should know A number represents a quantity. Count the numbers 0-100. Write the numbers 0-20. When reading the numbers 13-19, the ones is read first, but in 20-100, the tens is read first. How to compose and decompose numbers 11-19 into ten ones and some more ones. 	 A student should understand The base-ten number system is composed of the numerals 0-9. 10 ones units equals 1 ten. The value of a number depends on the placement of a digit. (e.g. The 4's do not have the same value in 24 and 47). When 2 digits are written together, they represent one number (e.g. 35 is not 3 and 5, but 35). 	A stud Ide ter dig De nu pla nu Mc Co two	ent should be able to do entify the numbers in the as and ones place in a two- pit number. termine the value of a meral based on its acement in a two-digit mber. odel two-digit numbers. mpose and decompose o-digit numbers.	





GRADE 1						
	Number and Operations in Base Ten					
	Understand place value Major					
1.NBT.3 Compare two two-digit		Desired Student Performance				
numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.	 A student should know A number represents a quantity. The numbers 0-100. How to compare two written numbers between 0 and 10. When 2 numerals are written together, they represent 1 number (ex. 23 is not 2 and 3, but 23). Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group. 	 A student should understand The value of a numeral is based on its placement in a two-digit number. ">" is a symbol that means "greater than". "<" is a symbol that means "less than". "=" is a symbol that means "equal to" (same). When comparing two-digit numbers with the same amount of tens, you must look at the value of the ones. 	A stude Ide larg Ve nui "gr and Us cor in v	ent should be able to do entify when one number is ger than another. rbally compare 2 two-digit mbers using the terms eater than", "less than," d "equal to." e symbols (>, <, and =) to mpare 2 two-digit numbers written form.		





GRADE 1					
	Number and Op	erations in Base Ten			
Use place value understanding and properties of operations to add and subtract Major					
1.NBT.4 Add within 100, including		Desired Student Performance			
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.	 A student should know The numbers 0-100. Strategies for solving basic addition facts within 20. How to fluently add within 10. How to count by 10's, starting with a number less than 120. How to represent an addition number sentence using the + and = signs in the correct placement. The sum is the whole and the addends are the parts. 	 A student should understand The value of a numeral is based on its placement in a two-digit number. That when adding 2 numbers, the sum will be larger. How to make sense of problems while solving them. When adding two-digit numbers add tens with tens and ones with ones. If the amount of added ones is more than 9, it will be necessary to compose another ten and add it to the remaining tens. 	A stud • Wo • Mo usi dra ba pro an be sul • Ju: soi • Ad a c • Ad a r	ent should be able to do ork with precision. odel with mathematics ing concrete models or awings and strategies sed on place value, operties of operations, d/or the relationship tween addition and btraction. stify the reasoning used to live for the sum. Id a two-digit number with one-digit number. Ids a two-digit number and nultiple of 10.	





GRADE 1					
Number and Operations in Base Ten					
Use place value understanding and properties of operations to add and subtract Major					
<u>1.NBT.5</u> Given a two-digit		Desired Student Performance			
number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.	 A student should know The numbers 0-120. Count to 100 by 10s. When adding on (counting on), the total will be a larger amount. When subtracting (counting back), the difference in the numbers will be less than the original total. 	 A student should understand Mentally means "in your head" (without pencil/paper and other manipulatives including a hundreds chart). When adding tens, the digit in the ones place doesn't change as there aren't any ones in 10 (identity property of addition). When subtracting tens, the digit in the tens place doesn't change as there aren't any ones in 10 (identity property of addition). When subtracting tens, the digit in the tens place doesn't change as there aren't any ones in 10 (identity property of subtraction). 	 A student Make the nu Menta given i countii Menta from a countii Justify when i subtra number 	should be able to do use of the structure of imber system. ally add 10 more to a number (without ing). ally subtract 10 less a given number (without ing). / the reasoning used mentally adding or acting 10 to a given er.	





GRADE 1						
	Number and Operations in Base Ten					
Use place value understanding and properties of operations to add and subtract Major						
1.NBT.6 Subtract multiples of 10		Desired Student Performance				
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.	 A student should know The numbers 0-100. How to count by 10s to 100. When subtracting, the difference in the numbers will be less than the total. Compose and decompose numbers through 19. Place-value system. 	 A student should understand When subtracting a multiple of ten, the digit in the ones place will not change as there are no ones in 10 (identity property of subtraction). When subtracting a multiple of ten from a multiple of ten, it is easier to think of the tens as ones to subtract (ex: 80-30 could be worked as 8-3=5, so 80-30=50). Subtraction as taking apart and taking from. 	 A student should be able to do Start with a multiple of ten and count back (thinking of each problem as 10 less). Subtract a multiple of ten from a multiple of ten. Use concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Look for and make use of structure of the place value system. Justify the reasoning used when subtracting a multiple of 10 from a multiple of 10. 			





GRADE 1						
Measurement and Data						
Measure lengths indirectly and by iterating length units Major						
1.MD.1 Order three objects by		Desired Student Performance				
length; compare the lengths of two objects indirectly by using a third object.	 A student should know Length is a term used to describe how long an object is. How to describe the length of an object. Compare the length of 2 objects and describe the difference. (e.g. longer, smaller, more of, etc) Sorting and classifying objects. 	 A student should understand When comparing the length of objects, the objects should start at the same point (be lined up). That length is maintained when objects are moved in different directions (ex: when a pencil is turned horizontally instead of vertically). 	A stude • Co obj • Ord len sho • Us the obj boo cra lon sho	ent should be able to do mpare the length of three jects. der three objects based on ogth (ex. longest to ortest). e an object to compare e length of two other jects (ex: the pencil and ok are longer than the ayon OR the pencil is oger than the crayon, but orter than the book).		





GRADE 1					
Measurement and Data					
Measure lengths indirectly and by iterating length units Major					
1.MD.2 Express the length of an		Desired Student Performance			
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. <i>Limit to</i> <i>contexts where the</i> <i>object being measured</i> <i>is spanned by a whole</i> <i>number of length units</i> <i>with no gaps or</i> <i>overlaps.</i>	 A student should know Length is a term used to describe how long an object is. When measuring the length of an object, the length spans from one end to the opposite end. How to describe the length of an object. 	 A student should understand Length can be measured in different units. When using an object to measure length, there cannot be any gaps or overlays in the measurement. When measuring the length of an object, the unit must remain constant throughout the measurement. The numerical length of an object can change depending upon the size of the unit being used to measure 	A stud • Us me ob co ob • Me ob me un • Me • Se str	ent should be able to do e a smaller unit to easure the length of an ject by laying multiple pies of the unit onto the ject. easure the length of jects using nonstandard easurement units in whole its. easure with precision. elect appropriate tools ategically.	





GRADE 1					
Measurement and Data					
Tell and write time Additional					
1.MD.3 Tell and write time in	Desired Student Performance				
hours and half-hours using analog and digital clocks.	 A student should know The difference in an analog and digital clock. How to count by 5s from 0-60. Write the numbers 0-30. Halves. Whole. 	 A student should understand An analog clock is a continuation of time (a circular number line). 60 minutes equals 1 hour. The "short hand" tells the number of hours on an analog clock. The "long hand" tells the number of minutes on an analog clock. The numbers on an analog clock. The numbers on an analog clock represent hours and minutes. A colon is used to separate the hour from the minutes when writing time. On a digital clock the numbers on the left of the colon are hours and to the right of the colon are minutes. 	A stud • Te dig • Wr dig • Te a c • Wr a c • Us wh ho	ent should be able to do Il time in hours using a jital and analog clock. ite time in hours using a jital and analog clock. Il time in half-hours using digital and analog clock. ite time in half-hours using digital and analog clock. e the terminology "o'clock" en describing a time in urs.	





GRADE 1					
Measurement and Data					
Represent and interpret data Supporting					
<u>1.MD.4</u> Organize, represent,		Desired Student Performance			
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.	 A student should know How to sort objects into given categories. Count the number of objects in each category. Order categories based on total number of objects in each category (ex. more/less). Counting to answer "how many?" Write numbers 0-100. Use the vocabulary terms "more than", "less than", and "equal to". Solve addition and subtraction word problems within 20. 	 A student should understand Categories are groups of "like objects". Each category represents a separate set of data. A number can be written to represent the amount of objects in each category. "How many more" is the difference between two numbers. 	A stud Or cat Re cat Int cat As da An cat ea obj mo	ent should be able to do ganize objects into up to 3 tegories. present the data in each tegory. erpret the data in each tegory. k questions about the ta. swer questions about the tagories (ex: how many in ch category, how many jects in all, how many ore, how many less).	





GRADE 1					
Geometry					
Reason with shapes and their attributes Additional					
1.G.1 Distinguish between	Desired Student Performance				
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.	 A student should know Identify squares, circles, triangles, rectangles, and hexagons. Describe squares, circles, triangles, rectangles, and hexagons. Attributes of squares, circles, triangles, rectangles, rectangles, rectangles, rectangles, sort shapes based on attributes. 	 A student should understand A shape can change location and orientation without changing shape. The difference in a defining attribute and a non-defining attribute. A shape can change color and size and remain the same shape. Descriptions of shapes. 	 A student should be able to do Draw a shape using given attributes. Identify attributes of common shapes (ex: these are all triangles because they have 3 sides and are closed). Build a shape using given attributes. 		





GRADE 1					
Geometry					
Reason with shapes and their attributes Additional					
1.G.2 Compose two-		Desired Student Performance			
dimensional snapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter- circles) or three- dimensional shapes (cubes, right rectangular prisms, right circular	 Identify two-dimensional shapes (rectangles, squares, trapezoids, triangles, half- circles, and quarter-circles). Identify three-dimensional shapes (cubes, right rectangular prisms, right rectangular cones, and right circular cylinders). 	 The difference between a 2-dimensional and a 3-dimensional shape (a 2-dimensional shape is flat and a 3-dimensional shape has volume). The attributes that compose shapes (e.g. a shape with 3 sides is a 	 Cc oth tra he Cc oth cu rec 	ompose a 2-D shape using ner 2-D shapes (ex. two pezoids can make a xagon). ompose a 3-D shape using ner 3-D shapes (ex. two bes can make a ctangular prism).	
cylinders) to create a composite shape, and compose new shapes from the composite shape. ⁴ ⁴ Students do not need to learn formal names such as "right rectangular prism."	 How to build and draw shapes. Analyze and compare shapes of different sizes and orientations. 	 shapes can be put together to create new shapes (composed). Shapes can be taken apart to create smaller shapes (decomposed). 	oth he 6 t De oth rec bro	her 2-D shapes (ex. A xagon can be broken into riangles). compose a 3-D shape into her 3-D shapes (ex. a ctangular prism can be oken into two cubes).	





GRADE 1					
Geometry					
Reason with shapes and their attributes Additional					
1.G.3 Partition circles and		Desired Student Performance			
rectangles into two and four equal shares, describe the shares using the words <i>halves</i> , <i>fourths</i> , and <i>quarters</i> , and use the phrases <i>half of</i> , <i>fourth of</i> , and <i>quarter of</i> . Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.	 A student should know Identify a circle and a rectangle. Equal means "the same amount". Shapes can be decomposed into smaller shapes. Model shapes. 	 A student should understand Circles and rectangles can be partitioned (divided) into equal parts. Halves, fourths, quarters. Partitioning shapes into smaller shares can create new shapes. The more shares that a shape is partitioned into, the smaller the shares. There can be more than one way to partition a shape into equal shares. 	A stud Pa int De De Mo ex sm	ent should be able to do artition a circle or rectangle o two equal shares. escribe the shares. escribe the whole. odel decomposing and plain the shares get haller.	