

Content Area: Mathematics

Grade: 1

Unit	Enduring Understandings	Essential Questions	Objectives	Skills
Unit 1: Numbers Within 10: Addition & Subtraction	Students will understand that: <ul style="list-style-type: none"> • Skip counting can be used to find the total number of objects in a collection of equal groups. • Operations create relationships between numbers. • Joining parts to make a whole is one interpretation of addition. • Separating parts from a whole is one interpretation of subtraction. • Information in a problem can often be shown using a diagram and used to 	<ul style="list-style-type: none"> • Why does counting help me add and subtract? • How can numbers be equal? • How do you know which mathematical operation (+, -) to use? • How does knowing parts of whole help with addition? • How can I represent this addition or subtraction problem? • How can addition help me to solve this subtraction problem? • What is another way to show this subtraction problem? 	<u>Lesson 1</u> <ul style="list-style-type: none"> • Add within ten • Apply the counting on strategy. • Analyze counting strategies. <u>Lesson 2</u> <ul style="list-style-type: none"> • Relate an image of two equal groups to doubles. • Relate an image of two equal groups with one left over as doubles plus one. • Write addition equations for doubles and doubles plus one. • Use properties to write a doubles plus one expression (3 addends) as an expression 	<ul style="list-style-type: none"> • Count up to 10 • Read addition and subtraction number sentences • Interpret a number sentence • Add/subtract within 5 • Model addition and subtraction problems with number sentence • Find the missing addend

	<p>solve the problem.</p> <ul style="list-style-type: none"> Some problems can be solved by identifying elements that repeat in a predictable way. 	<ul style="list-style-type: none"> How do mathematical operations relate to each other? How are two numbers related? How are addition and subtraction related? How can fact families help me solve problems? What strategy will help me best to solve this problem? 	<p>with two addends</p> <p><u>Lesson 3</u></p> <ul style="list-style-type: none"> Demonstrate fluency for addition within 10 using strategies such as counting on Use the strategy of applying properties of operations to add Determine the unknown addend that makes the addition equation true for sums to 10 Add numbers in any order to find the same total <p><u>Lesson 4</u></p> <ul style="list-style-type: none"> Understand the relationship between addition and subtraction. Write a missing addend equation for a corresponding subtraction equation. 	
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			<ul style="list-style-type: none">• Connect addition and subtraction equations to a number bond.• Relate subtraction equations and missing addend equations to a problem situation <p><u>Lesson 5</u></p> <ul style="list-style-type: none">• Fluently add and subtract number partners for 10• Apply the commutative property as a strategy for adding and subtracting number partners to 10• Understand the relationship between addition and subtraction to determine the unknown whole number in an addition or subtraction equation	
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			<p><u>Lesson 6</u></p> <ul style="list-style-type: none"> • Apply the counting on strategy to subtract within 10. • Model the counting on strategy using physical and visual models. • Connect the counting on strategy to a number equation. <p><u>Lesson 7</u></p> <ul style="list-style-type: none"> • Use strategies, including counting on, doubles, doubles plus 1, and missing addend to solve addition and subtraction word problems. • Complete number equations to solve addition and subtraction word problems. <p><u>Lesson 8</u></p> <ul style="list-style-type: none"> • Understand a comparison 	
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			<p>problem situation as subtraction and/or related addition.</p> <ul style="list-style-type: none">• Compare two quantities, determining which is greater or lesser and identifying how many more or how many fewer one quantity is than the other.• Write and solve subtraction and addition sentences to solve comparison word problems. <p><u>Lesson 9</u></p> <ul style="list-style-type: none">• Understand that the equal sign is used to indicate that one quantity is the same as another.• Match equivalent expressions.• Write and identify true and false equations.	
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			<ul style="list-style-type: none"> • Rewrite a false equation to make it true. <u>Lesson 10</u> • Fluently add and subtract within 10. • Use strategies such as counting on, using the relationship between addition and subtraction, and using a known sum or difference to find an unknown sum or difference to add or subtract. 	
Unit 2: Numbers Within 20: Addition & Subtraction	Students will understand that: <ul style="list-style-type: none"> • The number relationships of 0, “1 more than”, and “2 more than” are the basis for addition facts 	<ul style="list-style-type: none"> • What are helpful strategies for addition facts with 0, 1, and 2? • What strategies can be used to find the sums of doubles and doubles plus 1 facts? 	<u>Lesson 11</u> <ul style="list-style-type: none"> • Recognize that 10 ones and 1 ten represent the same quantity • Understand that numbers between 10 	<ul style="list-style-type: none"> • Count on to add • Add to find totals up to 20 • Add and subtract in word problems

	<p>with a 0, 1, and 2.</p> <ul style="list-style-type: none"> • Basic addition facts that are near-doubles can be found using a related doubles fact. • Ten can be shown in two parts in different ways and represented using addition number sentences. • Addition and subtraction have an inverse relationship. 	<ul style="list-style-type: none"> • How can you think of 10 to solve an addition problem with a 7, 8, or 9? • Is there a related addition fact for every subtraction fact? • How can math facts help me solve problems? 	<p>and 20 are composed of 1 ten and some ones.</p> <ul style="list-style-type: none"> • Model teen numbers. <p><u>Lesson 12</u></p> <ul style="list-style-type: none"> • When adding 2 one-digit numbers, understand the rationale for decomposing one addend to make ten. • Use the strategy of making ten to add numbers within 20. • Use and articulate mental math strategies to add. <p><u>Lesson 13</u></p> <ul style="list-style-type: none"> • Use strategies including counting on, doubles, doubles plus 1 and make a ten to solve 	<ul style="list-style-type: none"> • Find the missing addend • Interpret a number bond • Organize facts in a number bond • Read and write number sentences • Apply the commutative property of addition • Understand the relationship between addition and subtraction
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			<p>addition problems.</p> <ul style="list-style-type: none"> • Recognize different ways that addends can be decomposed and composed. • Write addition equations for doubles and doubles plus one facts. • Use properties to write a doubles plus one expression (3 addends) as an expression with 2 addends. <p><u>Lesson 14</u></p> <ul style="list-style-type: none"> • Write addition expressions with three addends to represent word problems. • Find the total of three addends, using strategies such as making a 	
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			<p>ten and using doubles by grouping any two addends.</p> <ul style="list-style-type: none">• Use the associative and commutative properties to group addends strategically in order to use known facts. <p><u>Lesson 15</u></p> <ul style="list-style-type: none">• Recognize that teen numbers can be decomposed and composed to subtract.• Choose strategies to subtract single-digit numbers from teen numbers.• Make a ten to subtract single-digit numbers from teen numbers.	
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			<p><u>Lesson 16</u></p> <ul style="list-style-type: none"> • Find the missing number in an addition or subtraction equation (missing number in all positions) • Use familiar number facts and strategies to help find a missing number in an addition or subtraction equation. • Use related addition and subtraction facts to solve for an unknown number in an equation. <p><u>Lesson 17</u></p> <ul style="list-style-type: none"> • Relate addition and subtraction equations to word problems and choose 	
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			<p>strategies to solve them.</p> <ul style="list-style-type: none"> • Solve addition and subtraction word problems with 20 with unknowns in all positions. 	
<p>Unit 3: Tens and Ones: Counting & Place Value</p>	<p>Students will understand that:</p> <ul style="list-style-type: none"> • Numbers have relative value. • There are many ways to represent a number. • Quantities can be counted and compared. • The numbers from 11 to 19 are unique since they don't follow the pattern of naming tens and then ones. • Grouping is a way to count, measure, and estimate. 	<ul style="list-style-type: none"> • How do addition and subtraction relate to each other? • How do I know which operation to use to solve a problem? • How do I determine which computational strategy to use? • What is significant about the teen numbers (related to 10)? • How is counting connected to quantity in a number? 	<p><u>Lesson 19</u></p> <ul style="list-style-type: none"> • Understand that the digits of a two-digit number represent numbers of tens and ones • Organize 10 ones into a group of ten. • Express 10 ones as 1 ten and 1 ten as 10 ones • Identify and write multiples of ten in terms of tens and ones <p><u>Lesson 20</u></p> <ul style="list-style-type: none"> • Count on from any number on the 120 chart. 	<ul style="list-style-type: none"> • Rename numbers as tens and ones • Compare two digit numbers • Represent 10 ones as 1 ten • Understand concepts of more than, less than, and same as • Understand the equal sign • Understand two-digit numbers as tens and ones

	<ul style="list-style-type: none"> • Place value is based on groups of ten (10 ones = 10 and 10 tens = 100). • Two-digit numbers are composed of units of tens and some ones. • Numbers can be represented in different ways to demonstrate tens and ones in a two digit number. • Comparison symbols ($<$, $>$, $=$) are used to show the relationship between numbers. 		<ul style="list-style-type: none"> • Identify missing numbers in a sequence within 120. • Count by 10s within 120. <p><u>Lesson 21</u></p> <ul style="list-style-type: none"> • Represent two-digit numbers as tens and ones • Decompose a two-digit number as some tens and some ones in multiple ways. • Model a two-digit number in multiple ways. <p><u>Lesson 22</u></p> <ul style="list-style-type: none"> • Understand the meaning of the symbols $<$ and $>$. • Compare the value of 2 two-digit numbers using tens and ones. 	
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			<ul style="list-style-type: none"> Write the symbols $<$, $>$, and $=$ to compare 2 two-digit numbers. 	
Unit 4: Operations with Tens & Ones: Addition & Subtraction	Students will understand that: <ul style="list-style-type: none"> Numbers have relative value. There are many ways to represent a number. Quantities can be counted and compared. Grouping is a way to count, measure, and estimate. Tens and ones can be added or subtracted from any number When adding two-digit numbers, add tens to tens 	<ul style="list-style-type: none"> How can two or more numbers be added together? What strategy will help me best to solve this problem? How do numbers represent and define value? What is the relationships between numbers? How does using the base ten system make it easier for me to count? How does the place value system work? How do I determine the most efficient 	<u>Lesson25</u> <ul style="list-style-type: none"> Count tens as 1 ten, 2 tens, 3 tens, ... or as 10, 20, 30... Use counting on, counting back, and strategies based on place value and properties to add and subtract multiples of 10. Relate adding tens to adding ones. <u>Lesson 26</u> <ul style="list-style-type: none"> Mentally add 10 to any number and subtract 10 from any 	<ul style="list-style-type: none"> Add tens to any number Add tens and ones Represent 10 ones as 1 ten Understand concepts of more than, less than, and same as Understand the equal sign Understand two-digit numbers as tens and ones

	<p>and ones to ones</p> <ul style="list-style-type: none"> • 10 ones are regrouped to make a ten when adding • Place value is based on groups of ten (10 ones = 10 and 10 tens = 100). • Mathematical expressions represent relationships. 	<p>way to represent a number (pictorial, symbolic, with objects) for a given situation?</p> <ul style="list-style-type: none"> • In what ways can items be grouped to make exchanges for unit(s) of higher value? • How does the position of a digit in a number affect its value? • In what ways can numbers be composed and decomposed? 	<p>number within 100.</p> <ul style="list-style-type: none"> • Recognize that adding or subtracting a ten results in a change in the tens digit, but the ones digit remains the same. <p><u>Lesson 27</u></p> <ul style="list-style-type: none"> • Add multiples of 10 to any two-digit number within 100 • Apply a strategy based on place value to add a two-digit number and a multiple of 10 and relate it to a written method. • Model adding a two-digit number and a multiple of 10 using place 	
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			<p>value understanding.</p> <p><u>Lesson 28</u></p> <ul style="list-style-type: none"> • Add two-digit and one-digit numbers with and without regrouping • Compose a ten when adding ones that total 10 or more 	
<p>Unit 5: Length: Comparing, Ordering & Measuring</p>	<p>Students will understand that:</p> <ul style="list-style-type: none"> • Objects can be sorted, described or built based on certain attributes. • Decomposing into more equal parts creates smaller parts. • You can measure an object with same-sized units to find its length. 	<ul style="list-style-type: none"> • Objects can be sorted, described or built based on certain attributes. • Decomposing into more equal parts creates smaller parts. • How can measurements be used to solve real world problems? • Why it is important to 	<p><u>Lesson30</u></p> <ul style="list-style-type: none"> • Directly compare the lengths of three objects. • Order three objects by length. <p><u>Lesson 31</u></p> <ul style="list-style-type: none"> • Recognize that sometimes it is not possible to compare lengths directly. 	<ul style="list-style-type: none"> • Order Objects by Length • Compare Lengths of Objects • Measure Lengths of Objects

		<p>line up one end of the objects when you order them by length?</p> <ul style="list-style-type: none"> • How can you tell which object is the shortest or the longest if they are not arranged in order? 	<ul style="list-style-type: none"> • Compare two objects by comparing their lengths to a third reference object. • Use logical reasoning to indirectly compare the lengths of objects. <p><u>Lesson 32</u></p> <ul style="list-style-type: none"> • Measure the length of an object using a whole number of nonstandard units of measure. • Understand that the number of iterated units from end to end is a measure 	
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			<ul style="list-style-type: none">• Iterate units with no gaps or overlaps• Understand that the length measure of an object is the number of units laid end to end with no gaps or overlaps	
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