Grade: 1 Subject: Mathematics	Unit of Study: Unit 4 – Basic Ten-Structured Concepts
Big Idea/Rationale	• Using 10—sticks and circles to make the connection between the physical groupings and their numerical representations to 100. • Unit 4 reviews and builds on children's understanding of tens and extra ones. Children explore tens –and-ones groupings to one hundred with physical groupings. Activities provide repeated experience in building multi-digit numbers in a variety of contexts with strong visual support. Children then begin to make the connection between these groupings and their numerical representation. This connection will help them master the concept of place value. • Tens and teens • Place value to 100 • Addition strategies
Enduring Understanding	• Numbers can be used to tell how many. • Place value helps to organize ten and large numbers. • Grouping and counting by tens can help you find how many when there is a large number of items.
Essential Questions	• Why is it faster to count by tens when counting large numbers? • Why would we want to count large numbers faster? • Why do we regroup ones when we reach 10? • How does exchanging ones help us solve problems quicker, faster and more accurately? • Whose job is made easier by knowing tens and ones?
Content (Subject Matter)	• Count by tens and relate groups of ten to decade numbers. • Add 10 to a decade number and write the equation. • Relate teen numbers to a ten and extra ones. • Represent teen numbers in different ways. • Represent teen numbers and solve problems with tens and extra ones. • Demonstrate a quick method for drawing tens and extra ones. • Identify the unseen ten in equations with teen totals. • Recognize teen numbers as groups of ten and ones. • Solve problems with teen totals. • Use the Make a Ten strategy to find teen totals. • Develop spatial concepts. • Identify tens and ones in 2-digit numbers. • Represent 2-digit numbers. • Identify tens and ones in 2-digit numbers. • Represent 2-digit numbers. • Read and write word names for numbers.

	- Identify and represent tens and ones. - Add 2-digit and 1-digit numbers by counting on. - Combine groups of 10 ones and rename as 1 ten. - Add 2-digit and 1-digit numbers by counting on. - Solve story problems by adding 1-digit and 2-digit numbers. - Use the Make a Ten strategy to find teen totals. - Count tens and ones in 2-digit numbers. - Identify 2-digit numbers as numerals and as stick-and-circle drawings. - Add ones and the corresponding decade numbers. - Distinguish between tens and ones in addition exercises. - Read and write word names for numbers. - Add two 1-digit numbers. - Add two decade numbers. - Ad a 1-digit number and a decade number. - Use the Counting On strategy to add a 2-digit number and a 1-digit number. - Review Counting On strategies with any 1- and 2- digit number. - Count on into the next decade. - Practice counting by tens and ones jointly. - Consolidate understanding of tens and ones.
Standards	**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.[1] **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. **1.OA.A.5:** Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). **1.OA.A.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 $6 + 6 + 1 = 12 + 1 = 13$). **1.OA.A.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? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$. **1.OA.A.8:** Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine*

the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = _ − 3, 6 + 6 = _.

- **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.
- **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:
- **1.NBT.B.2.A:** 10 can be thought of as a bundle of ten ones — called a "ten."
- **1.NBT.B.2.B:** The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
- **1.NBT.B.2.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).
- **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 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.
- **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.
- **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.
- **1.MD.A.1:** Order three objects by length; compare the lengths of two objects indirectly by using a third object.
- **1.MD.A.2:** Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.*
- **1.MD.A.3:** Tell and write time in hours and half-hours using analog and digital clocks.
- **1.MD.A.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.
- **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.[1]

Materials and Resources	• First Grade Math Expressions, Math Journals, manipulatives, Math themed literature, IXL Mathematics