Unit 2
Introduction to Place Value Through Addition and Subtraction Within 20

Grade 1
Math

Description: Students add and subtract within 20. Work begins by modeling "adding and subtracting across ten" in word problems and with equations. Students transition to conceptualizing ten as a single unit (using 10 linking cubes stuck together, for example), which is a key foundational step in understanding place value.

Louisiana Student Standards for Mathematics (LSSM)
Instructional Outcomes

Operations and Algebraic Thinking	
1.OA.1	Use addition and subtraction within 20 to solve word problems involving situations of adding to, take 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.OA.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.3	Apply properties of operations as strategies to add and subtract. *Examples: If 8 + 3 = 11 is known, then 3 + 8 =11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, , the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12 (Associative property of addition.)*
1.OA.4	Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.*
1.OA.5	Relate counting addition and subtraction (e.g., by counting on 2 to add 2).
1.OA.6	Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use mental 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.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.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.2	Understand that the two digits of a two-digit number represent amounts of tens and ones.

Enduring Understandings:

- Students will understand the relationship between addition and subtraction.
- Students will understand the part and whole relationships within numbers.
- Students will compose and decompose the numbers 1 to 10.
- Students can solve various types of word problems using objects, drawings, and symbols.
- Students will develop fact fluency for addition and subtraction within 10.

Essential Questions:

- How do we show that numbers work together?
- How can we show and explain our thinking?
- How does understanding numbers help me?
- How does drawing pictures and words help me understand numbers?
- How can a problem be solved in a different way?