Grade 2 Mathematics	Unit 1 – Understanding Addition and Subtraction
Big Idea/Rationale:	The goal of Unit 1 is to explore numbers to 18 by breaking apart each total into two smaller numbers called "partners". Understanding the concept of two partners embedded in a number is a precursor to adding and subtracting multi-digit numbers and to understanding the inverse relationships of addition and subtraction. • Explore Addition and Subtraction Concepts • Break Apart Numbers ≤ 10 • Add and Subtract Using 10 • Relate Addition and Subtraction • Understand Equations and Inequalities
Enduring Understandings:	Students will understand that: • Addition number sentences can be used to show parts of a whole and joining parts of a whole. • Subtraction number sentences can be used to show separating parts from a whole or to compare subtraction situations. • The inverse relationship between addition and subtraction can be used to find subtraction facts (every subtraction fact has a related addition fact).
Essential Questions:	• How can you represent a joining story with an addition number sentence? • How can you solve a story about separating and comparing using models, manipulatives and writing a number sentence? • How can you write related addition and subtraction facts? • How can using objects help you decide whether to add or subtract to find the correct answer?
Lesson Objectives:	• Paraphrase, represent and solve story problems. • Recognize math as part of daily life. • Create story problems. • Solve addition and subtraction problems involving 0 or 1. • Construct and verbalize rules for adding and subtracting 0 or 1. • Explain how to solve story problems. • Show numbers in different ways. • Represent numbers 6-10 as 5 and some more. • Recognize teen numbers as, ten and some ones. • Introduce word names for numbers to 20. • Identify the break-aparts of 10. • Identify the break-aparts of the numbers 2-9. • Visualize various number groupings. • Identify the break-aparts of number 2-10. • Count on to solve addition and subtraction problems. • Add two numbers that make a teen total.

	- Use the strategy "Make a Ten" to add two numbers that make a teen total. - Compare finger, written and mental strategies of making a ten to add numbers. - Solve real world addition and subtraction problems. - Add or subtract by counting on, using a number line. - Understand what the equal sign means and recognize the symbol for "is not equal to". - Write equations chains. - Write equations in vertical form. - Write equations involving a total and two partners. - Create and solve story problems. - Generate equations from math mountains. - Compare two numbers using the < or > symbol. - Order three numbers.
Common Core State Standards:	**2.OA.A.1:** Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, talking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. **2.OA.B.2:** Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. **2.NBT.B.5:** Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. **2.NBT.B.6:** Add up to four two-digit numbers using strategies based on place value and properties of operations. **2.NBT.B.8:** Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900. **2.MD.B.5:** Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units. **2.MD.B.6:** Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0,1,2,… and represent whole-number sums and difference within 100 on a number line diagram. **Mathematical Practices**
Materials and Resources:	Grade 2 Math Expressions, Math Journals, manipulatives, IXL Mathematics