Curriculum Map

Course Title: Math **Grade:** 2nd

Unit (Name/Number): Algebraic Concepts	**Pacing:** Refer to Pacing Guide in RCC manual.
Essential Question(s): How can you represent and solve problems involving addition and subtraction? How can you work with equal groups of objects to understand multiplication?	

Content/Key Concepts	Standards	Key Vocabulary	Learning Activities/Resources	Evidence of Learning (Assessments; Performance Tasks)
Use mental strategies to add and subtract within 20. ● Fluently add and subtract within 20 using mental strategies ● Realize that doing mathematics involves solving problems and discussing how the problems were solved. ● Explain the meaning of a problem and look for ways to solve it. ● Practice mathematical communication skills. **Represent and solve problems involving addition and subtraction within 100.** ● Use addition and subtraction within 100 to solve one- and two-step word problems by using drawings and equations with a symbol for the unknown number to represent the problem. ● Solve word problems that call for addition of three whole numbers whose sum is less than or equal to	Common Core 2.OA.B.2 **PA Core Standards** **CC.2.2.2.A.3** **CC.2.2.2.B.2** Common Core 2.OA.A.1 **PA Core Standards** **CC.2.2.2.A.1**	**Imperative to use exact vocabulary** ● doubles ● near doubles ● addend ● 0-more-than ● 1-more-than ● 2-more-than **Imperative to use exact vocabulary** ● part ● whole ● add ● join ● sum ● addition sentence ● symbol ● plus (+) ● equal (=)	RCC Lesson 1: Understand Mental Math Strategies (M)(Fact Families) RCC Lesson 3: Understand Mental Math Strategies (M)(Make a Ten) sample assessment questions RCC Lesson 2: Solve One-Step Word Problems (M) RCC Lesson 6: Solve Two-Step Word Problems (M) sample assessment questions	**Assessment Options:** RCC Lesson Quizzes RCC Mid Unit Assessment (after Lesson 3) RCC Interim Assessment **District Assessment:** RCC Unit Assessment **Enrichment Activity:** RCC Math in Action Unit 1 (allow calculators) ***Standards for Mathematical Practice:*** **(SMP)** 1. ***Make sense of problems and persevere in solving them.*** 2. ***Reason abstractly and quantitatively.*** 3. ***Construct viable arguments and critique the reasoning of others.*** 4. ***Model with mathematics.***

20. ● Add and subtract within 20 using various strategies. (e.g., counting on, making ten, decomposing a number leading to a ten, using the relationship between addition and subtraction, and creating equivalent but easier or known sums) ● Apply properties of operations as strategies to add and subtract. (e.g., commutative property of addition, associative property of addition) ● Make sense of a word problem and understand what it is asking for. ● Understand subtraction as an unknown addend problem. (e.g., subtract 10 – 8 by finding the number that makes 10 when added to 8) ● Look for patterns. (e.g., making ten, fact families, doubles) ● Practice mathematical communication skills. **Work with equal groups of objects to gain foundations for multiplication** ● Determine whether a group of objects (up to 20) has an odd or even number of members. ● Write an equation to express an even number as a sum of two equal addends. ● Use addition to find the total number of objects arranged in rectangular arrays with up to five	<u>Common Core</u> 2.OA.C.4, 2.OA.A.1 **<u>PA Core Standards</u>** **CC.2.2.2.A.2**	● subtract (-) ● difference ● subtraction sentence ● minus ● separate ● more ● fewer ● related ● fact family ● equation ● addend **Imperative to use exact vocabulary** ● array ● column ● row ● repeated addition	RCC Lesson 4: Understand Even and Odd Numbers (S/A) RCC Lesson 5: Add Using Arrays (S/A) <u>sample assessment questions</u>	***5. Use appropriate tools strategically.*** ***6. Attend to precision.*** ***7. Look for and make use of structure.*** ***8. Look for and express regularity in repeated reasoning.***

rows and up to five columns; write an equation to express the total as a sum of equal addends. ● Identify and describe the rule for a pattern. ● Use a rule to extend a pattern. ● Understand multiplication as repeated addition and arrays. ● Use concrete objects and pictures to help solve problems. ● Realize that doing mathematics involves solving problems and discussing the solutions. ● Use concrete objects or pictures to help conceptualize and solve problems. ● Decide to solve a problem by drawing a picture rather than writing an equation				

M = lessons that have a **major emphasis** in the Common Core Standards
S/A = lessons that have **supporting/additional** emphasis in the Common Core Standards