**1st Grade Module 1 Topic Analysis**

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| **Questions About the Topics** | **Answers from the Overview** | **Standards Addressed** |
| **Topic A- Embedded Numbers and Decompositions*** Students will work with “put together” situations using which numbers in particular? Why?
* How will number bonds be used in Topic A?
 | *There will be a special focus on 6, 7, 8, 9 since recognizing how much more is needed to make a 10 is a Kindergarten standard and is easier for most children.**Number bonds will be used to record how they decomposed the numbers in two parts.*  |  |
| **Topic B: Counting On From Embedded Numbers*** How are the “put together” situations in Topic B more complex than the “put together” situations in Topic A?
* How are the expressions written related to the stories and the number bonds?
 | *The students count on to make the numbers 6, 7, 8, 9, and 10.* *Expressions are another tool to model the stories and the number bonds.*  |  |
| **Topic C: Addition Word Problems*** What two types of word problems are reviewed from Kindergarten? Label and provide a sample.
* What new problem type is introduced? Label and provide a sample.
 | *Adding to with result unknown (I had 3 stickers. My sister gave me 2 more. How many stickers do I have now?) Putting together with result unknown. (There are 3 dogs and 4 cats in the yard. How many animals are in the yard?)**Add to with change unknown (I had 3 stickers. My sister gave me some more. I have 8 stickers now, how many stickers did I get from my sister?)* |  |
| **Topic D: Strategies for Counting On*** How would the described use of numerals and dot cards help students count on?
* How will the students move beyond the dot cards?
 | *Students can touch the dots as they count on from the first numeral.* *Students begin to internalize the content and count on using their fingers to track the number of counts.*  |  |

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| **Topic E: The Commutative Property of Addition and the Equal Sign*** Why does it make sense to limit the problems to the “addition to 10” context?
* How will the concepts developed in Topic E enable students to be more strategic when they add?
 | *Because make a 10 is the Level Three strategy that we are encouraging kids to use.* *Students can decompose and rearrange the numbers to make a 10. They can change the order of the numbers so that they count on starting from the larger number.*  |  |
| **Topic F: Development of Addition Fluency Within 10*** What types of addition patterns will students discover in this Topic?
* What tool will help students look for repeated reasoning patterns (MP8) and the structure of addition (MP7)?
 | *Doubles and doubles plus 1.* *The addition chart will help them make connections and understand the relationship between different addition facts.*  |  |
| **Topic G: Subtraction as an Unknown Addend Problem*** How does this topic expand upon the work done in Topic C and Topic D?
 | *Students will reinterpret “add to change unknown” problems as subtraction.*  |  |
| **Topic H: Subtraction Word Problems*** How does the modeling in the module differ from other modules?
* What are the reasons for this difference?
 | *They are less formal and they come from the students’ understanding of the stories.* *So they can relate their drawings to their number sentences and develop an understanding of subtraction.* |  |
| **Topic I: Decomposition Strategies for Subtraction*** How does Topic I expand upon the work of Topic H?
 | *It deals with special cases of subtraction. Subtracting 0 or 1, subtracting the whole number (you get 0), and subtracting 1 less than the whole number (you get 1). Students use familiar numbers to think about subtraction as finding the missing part.*  |  |
| **Topic J: Development of Subtraction Fluency Within 10*** What tool will help students look for repeated reasoning patterns (MP8) and the structure of addition (MP7)?
* How will these connections help the students build fluency?
 | *The addition chart helps students find related facts.* *Students can either know the sum without counting on or rearrange the addends to do minimal counting on.*  |  |