**Project Two Part one:**

**Foundational Big Ideas:** In this unit, the students will progress toward fluency with addition of numbers to 10. Learning addition will help the students with “decomposition of numbers” and composing addends and total amounts.

**Importance/ Relevance to the student’s lives:**

Learning addition will assist the students in decomposing numbers which is a necessary foundational skill for higher-level math tasks such as multiplication and division. Furthermore, addition is a crucial skill for several daily activities and learning this information will help the students complete these tasks in the future.

**Common Core Standards:**

CCSS.MATH.CONTENT.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,

CCSS.MATH.CONTENT.1.OA.B.3  
Apply properties of operations as strategies to add and subtract

CCSS.MATH.CONTENT.1.OA.C.5  
Relate counting to addition and subtraction

[CCSS.MATH.CONTENT.1.OA.C.6](http://www.corestandards.org/Math/Content/1/OA/C/6/)  
Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as 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

[CCSS.MATH.CONTENT.1.OA.D.7](http://www.corestandards.org/Math/Content/1/OA/D/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?

[CCSS.MATH.CONTENT.1.OA.D.8](http://www.corestandards.org/Math/Content/1/OA/D/8/)  
Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.

**Standard for Mathematical Practice:**

[CCSS.MATH.PRACTICE.MP5](http://www.corestandards.org/Math/Practice/MP5/) Use appropriate tools strategically.

I chose this practice because during my math unit, we will be introducing several math “tools” to the students. Examples include number bonds, fingers, number lines, dominos, dots, manipulative, etc. As I introduce a math tool, I will be explaining how to properly use this tool to arrive at the correct answer. Although the students won’t necessary be using **all** the tools **all** the time, I will be providing these as options as the children move forward in their math career.

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| **Section 2: Formative Assessments** |

**Did my students learn the mathematical concept(s) I intended for them to learn?**

**How will I know whether and what mathematics students learned?**

1. **Informal Observations**-
   1. **Small group interaction**- do they contribute to the conversation or are they disengaged
   2. **Whole group engagement**- do they contribute to the whole class conversations- offering their ideas?
   3. **Overall attitude**- when sitting down for individual practice, are they excited to try new problems or complaining about the work
   4. **Implementation of strategies**- are they trying out many strategies or sticking to the one they know?
   5. **Problem solving**- can they think through a problem when they get stuck?
2. **Exit slips**

* **Create a plan for keeping track of individual student growth based on your on-going use of formative assessment.**
* During each of my lessons, I will make small notes based on students that are struggling. For example, if \*Joe was struggling when I walked around and observed, I would write, “Joe seemed to struggle understanding that 2,3 were ‘parts’ of 5. Tomorrow, include him in small group with manipulatives.” I also plan on doing the same thing if a child seems to be getting the ideas very quickly. I will make small notes and challenge the student the following day by increasing the numbers in the story problem.
* Additionally, I will review exit slips to track individual growth and ensure that all of my students understand each concept. If I happen to notice that one is struggling, then I will modify the lesson to use easier numbers or give them physical manipulatives to use.
* **Describe how your formative assessments link to the summative assessment of the unit you are required to do. If there is not clear alignment, provide a rationale for formative assessment plan.**

- After looking over my notes and exit slips, I will monitor my student’s progress and keep track of whether or not the children are “getting” the concepts. As I progress though my lessons, if it seems that many students are not understanding the material, I will adjust my teaching and re-teach concepts if needed. The exit slips will be very informative because the questions will mirror the questions on my summative assessment (end of unit test). Therefore, if the children are struggling on the exit slips then it is very likely that they will fail the summative assessment at the end.

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| **Section 3: Meeting the Needs of Diverse Learners** |

1. Through my unit lessons, I will be pulling students into small groups based on how they are performing within the introduced math concepts. For example, if there is a student that is completely misunderstanding the new material, I will pull him/her to small table and provide manipulatives for the child to use to physically display the problem. However, if the child seems to understand the math concept without my individual assistance, I will have them go straight to their desk the follow day and try it by themselves. By doing this, it will prevent “tracking” and give all children an opportunity to be successful! Furthermore, if I do pull them out for individual assistance, I will not take away from their engagement in high-level tasks, but rather, provide **extra** math materials (counting bears, or red and white dots) for them to think critically about the task.
2. Because I have a lot of ELL learners in my class, I will be using various picture cues to get my point across. These pictures will help the children understand the math concepts and conceptualize the new material. I also know how to count in Chinese, French and Spanish (all the languages represented in my classroom). I will use this knowledge to enhance the pictures cues and explanation to the class.
3. For each of my lessons, I will differentiate the numbers into three groups, low, grade level, and high. For the low group, the children will be able to use math manipulatives and the numbers they will be working with will be smaller. For the grade level group, the children will be given a pencil and paper with larger numbers. For the high group the children will be given numbers 11-13 and asked to perform the same task.
4. In my class, the children have repeatedly expressed how much they like to work with their classmates, so I will be taking advantage of the “turn and talk” strategy. By doing this, it allows students to work with a partner (like they prefer) and gain exposure to multiple math strategies.