**Lesson Plan- First Grade Math**

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| **Stage 1 – Desired Results** | | | |
| **Content Standard:**  What state standard is the focus in this lesson?  **1.CA.3:** Create a real-world problem to represent a given equation involving addition and subtraction within 20. | | | |
| **Curricular Aim/Learning Goal:**  What should students be able to do by the end of this lesson?   * Students will be confident in their ability to create a story problem to represent an addition equation within 20. * Students will be confident in their ability to create a story problem to represent a subtraction equation within 20. * Students will feel accomplished through completing story problems on their own and encouraged to create them. | | | |
| **Stage 2 – Learning Activities** | | | |
| What will students do in order to reach the desired learning goal? What will the teacher do to support student learning? | | | |
| Activity Description | The students will… | The teacher will… | Anticipated Time |
| Students each have a whiteboard and a dry erase marker. They will be sitting in their desks during this activity and working individually. Once the teacher gives an addition or subtraction problem, the students will do the problem on their whiteboards and hold it up when they are finished. Then, the teacher will begin giving story problem examples. This is a way for the students to get an idea of the expectations for the next activity. There is no announcement of which students were correct and which were incorrect during this activity. | The students will listen to the equation that the teacher gives, working to solve them on their own and before holding up their white board when they are finished. As the questions progress into story problems, the students will listen for the numbers and solve the real-world (story) problem. The students will be able to see examples of these problems, so that they have a more clear understanding for the next activity. | The teacher will begin with simple addition or subtraction problems to ease the students into the more difficult task. Then, she will begin to create story problems for the students to solve. The teacher allows the students to figure out if it is an addition or a subtracting problem. She is aware of the answers that each student holds up, and takes note of which students consistently struggle and which students are quickly solving each problem. | 5-10 minutes |
| Students are partnered with the person that sits next to them (they sit at tables of four) and each partner set receives Clue Sheet #1. The sheet includes two separate equations, and the students must come up with story problems for them and then find the solution. The teacher introduces the scavenger hunt, explaining that in order to receive the treasure from the teacher, the correct number combination must be given to her. When Clue Sheet #1 is completed, partners bring it to the teacher and she checks to see if the story problem makes sense, and if the answer is correct. If all is correct, she gives them Clue Sheet #2. The same steps are taken with this second sheet. Once the teacher approves the answers for Clue Sheet #2, students have all of the numbers to unlock the “treasure.” They get a mini pack of Oreos, but cannot open them yet. | The students will work with their partner to create the two story problems for the equations on Clue Sheet #1, before checking the answers with the teacher. By working in partners, students will be able to explain the reasoning behind why they believe certain terms should be used to express addition or subtraction. They will also have the chance to work together and build their collaboration skills. Overall, this will strengthen their understanding of the concept. It will also build their creative thinking and help the students to understand how story problems can be applied to many situations. | The teacher will sit at her desk during this activity, so that students can come up to her when they need their work checked. However, students can raise their hands if they need her to come to their table. Though she does not give them the answers, she provides helpful aid and gives examples of story problem ideas. Additionally, when the teacher is checking work, she is sure to applaud students for very creative story problems and encourage their hard work. If answers are wrong, she does not punish the students. Instead, she encourages their effort and helps to clarify any content confusions. The teacher also allows other partner groups to help any group that may be struggling, though she is sure to be aware in case any students simply give away an answer. She has previously clarified that this is not allowed, because it benefits no one. Thus, students have been warned that their behavior will be reprimanded ONLY if they give no effort or give away answers instead of helping their peers. | 20-25 minutes |
| Students work with their table of four. They each open their packs of Oreos and count how many they each have. The teacher chooses two students (based off of behavior or effort from the last activity) to come to the board and create an addition problem with the number of Oreos they had in their bag (the average is 9, so the total should be 20 or below). After creating the equation, each table creates a real life problem using those values. The problem cannot involve the topic of Oreos, because it needs to be creative! Each group then presents their story problem to the class. Next, the teacher chooses another student to write the number of Oreos he has on the board. This number is used to create a subtraction equation. The groups again create a story problem and present. Then, they can eat the Oreos! | The students will be able to work as a group, encouraging group discussion and making the task seem more fun. The students will also get some freedom in this activity, since they have to be creative with their story problems. The students will feel more confident in this task, since it is very similar to the previous activity. However, any student that is confused will be able to have the support of their peers. Students will be engaged, since they know that creating a quality story problem and listening to the presentations will lead to eating Oreos afterwards. | The teacher will be actively walking around during this activity, listening to the ideas of each group and ensuring that students are getting along. She is also listening for all four voices in each group, and takes note on whether or not some students are silent during the activity. Later, she will pay close attention to their assessment in order to see if these students were quiet due to shyness, or because they do not know the concept. The teacher answers any questions, and helps the students come up with terms to express addition or subtraction. She recognizes groups and/or individual students that are particularly working hard and working well together. She tells students when it is almost time for presentations, in order to prepare them. | 15-20 minutes |
| **Stage 3 – Assessment** | | | |
| How will the teacher know if students have learned and what they have learned?  The teacher will talk to the students about what they just learned as they eat their Oreos, asking questions to create a mini discussion on the lesson. Since it is first grade, there will not be an in depth discussion by any means. However, it will enable the teacher to see how engaging and effective the learning activities seemed to be. The following day, the teacher will give students a mini quiz. She will explicitly state that it is not for a grade, but that students should give their full efforts. The quiz will have one addition equation within 20 and one subtraction equation within 20, and students must create a real-world problem for both. Through this quiz, the teacher will be able to better identify who has seemed to master the skill, who is getting there, and who seems to be lost. She will return these quizzes on the same day, and students will see how they performed. No quiz is labeled “F,” and notes for effort are made. However, students that got both problems right will have a sticker on their quiz. The teacher will use these quizzes in order to match math groups for the duration of the particular unit. That way, students will be grouped with peers that seem to be progressing at a like speed. | | | |