

Name: Betty Kincannon

Grade Level/Subject: 1st Grade Math

Topic: The Whale Game—a “cool” tool to help students understand the concepts of addition and subtraction.

Objectives:

Students will be able to verbally define the terms addition and subtraction.

Students will be able to identify the plus sign and the minus sign.

Students will be able to begin to identify which operation is needed to solve addition or subtraction word problems.

Objectives (P.A.S.S.):

Standard 3: Number Operations and Computation

1. Develop and apply the concepts of addition and subtraction.
 - a. Use models to construct addition and subtraction facts through 10.
 - b. Perform addition by joining sets of objects and subtraction by separating and by comparing sets of objects.

Materials: Goldfish

Cups

Individual Marker Boards

Markers

Socks for erasers

Introduction:

Begin by asking students if they know what addition means. List their ideas on the board. Ask them to write the sign that shows you are to add on their individual marker boards and assess if they are correct by checking their boards. Then ask students if they know what subtraction

means and list their ideas on the board. Lastly, ask them to write the sign that shows you are to subtract on their individual marker boards and assess if they are correct by checking their boards.

Instruction process:

1. Define the term addition. I do this by relating it to helping their mother make cookies or a cake and “adding” ingredients to your batter. As first graders we define addition as putting in more, getting more, or putting together. Put the correct sign for addition on the board and let students practice making this sign a few times on their marker boards. Then define the term subtraction. I talk about subtraction being the opposite of addition and relate it to sharing gum or candy with a friend. As first graders we define subtraction as taking apart, giving away, or taking away. Put the correct sign for subtraction on the board and let students practice making this sign a few times on their marker boards. Discuss that when you add you usually end up with more and when you subtract you usually end up with less. Discuss their lists that you recorded on the board and revise them so that only correct information remains on the board.
2. Discuss the rules of “The Whale Game”. I tell the students that we are going to pretend that we are whales and that we like to eat fish. Then I say that I am going to make up a story about us whales and we are going to eat fish as I tell the story. We are also going to think about what we are doing and see if we can decide if we added or subtracted. And we are going to see if we can record on our marker boards what we do.
3. Distribute cups of 20 Goldfish to each student. I usually have the students pour the Goldfish on their desks and count them to make sure they have 20. At this time we also discuss briefly that it is easier to count them if we put them in sets of five.
4. Begin the game by saying, “Once upon a time we were swimming in our ocean” and cup my hands together and slowly move them to and fro to show my ocean. “What are we?” and the students

respond, “Whales!” and “What do we like to do?” and the students respond, “We like to eat fish!” I use these questions often throughout the story because it keeps the students involved more and they enjoy shouting it out. Then I continue by saying, “There are no little Goldfish swimming in my ocean. What is the number for none?” The students respond, “Zero” and I continue, “Then 3 little Goldfish jumped into my ocean and started swimming around, splashing and having a good time.” The students put 3 Goldfish in their hands. And we talk about what we have done and write a number sentence for it. I continue the story by having more Goldfish jump into the ocean and we discuss what we are doing each time and write a number sentence for it. As the story continues, I say, “And then you came along and what are you?” Students respond, “Whales!” and I say, “And what do you like to do?” Students respond, “Eat fish!” Then I say, “You gobbled up 3 of those little Goldfish!” The students then eat 3 Goldfish and we discuss what we have done and write a number sentence for what we did. The story continues in the same manner until they have eaten all their Goldfish.

Closure:

Review the definitions for addition and subtraction and the corresponding signs.

Assessment:

Ask various students to tell you what addition means and what subtraction means. Ask the students to write the correct sign for addition on their marker board and assess their answers by checking their marker boards and do the same for the sign for subtraction.

Modifications:

All students can play the game together. All students are free to write their own number sentences on their marker boards whenever they feel they are ready to do so. No students are pressured to write their

own number sentences until they are ready to do so. Students volunteer to participate in the discussion about what we are doing. Special needs students may require close proximity to keep on track and to keep from eating their Goldfish before the Goldfish are to be eaten. Advanced students can be encouraged to play the game on their own at a later time using other types of manipulatives and making up their own stories.

Reflection:

The students really enjoyed playing the game. The longer we played the louder their response to “What are you?” and “What do you like to do?” became. When we were through they talked about how much fun they had and wanted to know when we could play it again.

In the introduction, when I had the students write the correct sign for the specific operation only two students responded correctly on addition and on subtraction. When I assessed them at the end of the lesson 14 out of 19 responded with the correct sign on addition and 11 out of 19 responded with the correct sign for subtraction. The next day as a review I assessed them in the same manner and got the same results. I was very pleased with this lesson and felt it was successful because the majority of my students achieved the desired goals of the lesson.

I would not distribute the Goldfish until I had explained the rules for the game if I did this again because my special needs students had their Goldfish eaten before we had even started the game. Note: In the actual lesson that I did in class I did number 3 of the instruction process first instead of third and learned from it.