**Math- Everyday Mathematics**

**7.4 Doubles and Halves**

**Monday, 3/01/10**

**Second Grade**

**Standard 2-3.3:** Analyze relationships to complete and extend growing and repeating patterns involving numbers, symbols, and objects.

**Objective:** The student will analyze a set of numbers and continue their pattern correctly.

**Materials:**

* Paper, pencils
* 10 sets of buttons (different numbers)
* 10 sets of bears (different numbers)
* Worksheet
* Doubles brainpop video

**Review:** “Boys and girls I know it was over a week ago at this point, but do you remember when we worked on that in and out problem and the rule was double?”

**Today:** “Today we are going to talk about what it means to double or halve a number. This is important because it will not only be on your test but it does in fact relate to your everyday life.”

**Presentation:** “Boys and girls, if there are three students standing at the front of the room and I said I wanted to double the amount of students, what would we have to do? (Add three) What if now I said I wanted to halve the number of students up there?” (Subtract three)

* The teacher will ask for three students to volunteer. As she asks the students about halving and doubling she will be sure to use more students to actually show it happening.
* The teacher will show the doubles video from brainpopjr beforehand.
* “When we double something we add an EQUAL amount to it and each ending number or object must be EQUAL. So if we have two cupcakes and want to double the amount, what do we have to do?” (Add two)
* “When we split something in half we want to put it into two EQUAL groups so that the ending number in each is an EQUAL amount. So if we have four cupcakes and we want to split that number in half, what would we do?” (Subtract two)
* As the teacher discusses this with the students she should be sure to draw pictures and write number models as well.
* The teacher will then put a group of numbers on the board and ask students how to complete it.

**Exercise:** “I am going to put you in pairs now and each of you will be given a bag with a certain number of objects in it. I will tell you if you have to halve or double the objects in your bag. Once you are told, begin adding or taking away objects, depending on what you have to do. Write a number model for what you did and be prepared to share as a group. Are there any questions? Where will you get the objects from? How will you know who your partner is? What will you do when you get your objects? ”

* The teacher will first give each group sets of buttons. Each group will get their own set with a different number and extras to double their number. Have them share what they did.
* The teacher will then give each student a bag of bears and ask them to half the number. Again they will share when they are finished.

**Summary:** “What does it mean to double a number or group of objects? What does it mean to halve a number or group of objects? When would you have to do this in real life?

**Adaptations:** The students will be paired according to their ability so that all students will work with equally challenging numbers.

**Assessment:** The student will complete a worksheet in which they have to continue a set of numbers by determining whether to double or halve them.

**Early Finishers:** Those students finished early may work on home link 7.4.