**Near Twenty**

**Grade Level:** 1st grade

**Objectives:**

* Students are able to solve problems up to 20 by understanding their numbers up to 10 first.
* Students are able to calculate the sums in the near 20 game by using the numerical cards.

**Common Core Standards Addressed:**

* 1.OA.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, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

**Materials:**

* 20 Snap cubes
* Pack of numeral cards (1-9)
* Paper and pencil

**Introduction:**

* Tell students we will be learning about math facts up to 20 today. (students should have an complete understanding of their math facts to 10 before moving onto 20)
* Have the snap cubes available, make a train of 11 cubes and cover 9 of the cubes. Ask the students how many are still showing? (Students should answer 2)
* Ask the students what two facts can you write with those numbers? (9, 11 and 2). Students should respond with: 9+2=11 and 11-2+9 (if students do not get the answer right away prompt with questions such as: “What numbers are we looking for? Let’s pick a number, would this plus this equal one of the three numbers we have?”
* Tell students that we can make a fact family by using those three numbers. Have students work with a partner to come up with the 4 fact families.
* Ask the students: “What fact families did you and your partner comes up with?”
	+ Some examples of answers are: 9+2=11;2+9=11;11-2+9;11-9-2
* Tell students that since we know what doubles are, we can use our doubles to help us find near doubles.
	+ Ask students questions such as: “What is 5+5?”
* When students answer a question of what doubles are tell students we will now be able to help use that knowledge to find what 5+6 is.
* Explain that 6 is one more than 5 so 5+6 is one more that 5+5.
* Ask students what 5+5 is, students should respond with 10. Then ask students what one more that 10 are? Students should respond with 11.
* Continue using other doubles and doubles plus one combination.

**Guided Practice/Activity:**

* Ask students to get out a piece of paper and a pencil.
* Shuffle a pack of numeral cars and deal five to each player
* Each player chooses three cards that add to 20 or as near to 20 as possible and explain they are going to record the equation.
* Students will find their score by calculating the difference between the sum of their cards and 20.
	+ Example: Mario picks the cards 9, 6 and 4 and writes 9+6+4=19. He subtracts 19 from 20 for a score of 1 because 20-19=1.
	+ Another example: Lisa picks the cards 8, 9 and 5 and writes 8+9+5=22. She subtracts 20 from 22 for a score of 2 because 22-20=2.
* Have students play 10 rounds. At the end of the game students will add the scores for each player.
* The player with the lowest total is the winner.

**Conclusion:**

* We will come back together as a class.
* Students will be able to share some of their equations they came up with when they were using their numeral cards.
* When the students share, some students may have the same equations.
	+ By going over equations together, students will be able to see all the different ways their classmates came up with numbers.

**Assessment:**

* Do the students have a basic understanding of numbers through 10 and are able to answer questions through 20?
	+ Students are able to identify doubles and answer them correctly
	+ Students are able to answer doubles plus or minus one.
* Are the students able to calculate the sums of their numerical cards?
	+ Students can pick numbers that add up to or near 20.
	+ Students can add the number sentence and subtract to calculate their score.

**Differentiation:**

* Advanced students:
	+ Students can choose numbers that add up higher than 20 to challenge their number sense.
	+ Students can create word problems using their number sentence from the numerical cards.
* Struggling students:
	+ Students can choose numerical cards that equal 10 to work on their numbers 1-10.
	+ Students can work on their understanding of doubles by using flash cards or manipulatives given by the teacher.

**Integration Activities:**

* Read the book: “Oliver’s Party” by Jenny Fry
* This book would be good to review numbers 1-10 before moving onto 20.
* Summary: Kids join Oliver at his birthday party. Children add numbers together when each party guest arrives at Oliver’s birthday. When the kids are leaving Oliver’s birthday party, the children are able to subtract as each kid is leaving. The book allows for students to see the numbers written and there all illustrations to go along with the numbers.

**Lesson Justification:**

* My lesson supports teaching for understanding because it begins by reviewing the numbers 1-10 to then move onto 1-20. We first review 1-10 by using prior knowledge of doubles and the students are able to visualize the numbers with the use of snap cubes. Once we have learned our numbers through 20 and number sentences we will move onto our game called near 20. The students will be able to use numerical cards to see the numbers and help write their number sentences to find out their score for the game while repeating this several times to continue practice.

**Websites used:**

* <http://www.eduplace.com/math/mathsteps/1/a/1.addsubfacts.develop.html>
* <http://www.k-5mathteachingresources.com/support-files/near-20.pdf>