**Math Task 2**

**Title:** My Double Ten-Frame Riddle

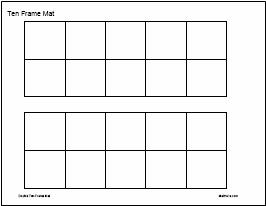
**Grade level:** Kindergarten

**Objectives:**

* Students will be able to represent numbers between 11-19 by using double-ten frame cards.
* Students will be able to use math vocabulary to describe the number they choose.
* Students will be able to understand the place value of ones and tens.

**Common Core Standard:** *Work with numbers 11-19 to gain foundations for place value. K.NBT1*

Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g. 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.



**Materials:**

* Double ten frames
* My Double Ten-Frame Riddle recording sheets
* Pencils
* Index Cards
* Counters
* Unfix Cubes
* Place value graphic organizer sheets
* Book: A place for Zero

**Word Bank**

* more than
* less than
* greater than
* counters
* skip count
* fewer than
* odd number
* even number
* full row

**Procedure:**

1. Start with reading the book to the students and pointing out the numbers 11-19.To get the students to stay focused ask the students to help you find the numbers throughout the book while being read to.
2. Begin the lesson by reviewing the ten-frame.
3. Introduce the double ten-frame.
4. Have the students practice by taking turns between partners on solving each other riddles.
5. The students will have manipulatives available because the students are going to review their place value understanding.
6. Make sure they start out with problems that review numbers 0-10. Then have them move to 11-19.
7. Students will be able to use the manipulatives (counters) as a guide to help with
8. Once the students have received enough time, go over some problems on the worksheet as a review to make sure everyone is on the same page!
9. The students will work on this activity with a partner.
10. I will explain to the students what they will be doing.
    1. The students will first choose a number between 10 and 20. Draw that number of counters on the double ten-frame.
    2. Cover the double ten-frame with an index card.
    3. Write four clues to describe the number of counters that you drew on the double ten-frame. They will use the vocabulary in the word bank to help them.
    4. Once they check to see if the riddle fits the number they chose then they can try their double-ten framed riddle with their partner.
    5. After the students’ partner gives an answer lift the flap so that she/he can check to see if the answer is correct.
11. Allow enough time for students to complete enough problems and participate in solving the riddles.
12. Once the students’ have finished and were able to write and solve a few riddles we will regroup and share our different riddles we came up with as a class.
13. We will then review the numbers 11-19. We will do this by using a place value graphic organizer.

|  |  |
| --- | --- |
| Tens | Ones |
|  |  |
|  |  |

* 1. I will show them different numbers with manipulatives and ask them how many ones and tens there are.
  2. Then we will look at numbers just written and discuss how many ones and tens there are.

**Assessment:**

To start out I will walk around while they are completing their riddles I will ask them different questions verbally about what vocabulary words they are going to use to describe their number. I will also have a check list with me to assess where each student is at with their understanding of the numbers 11-19 by using double-ten frame cards. Once I have an understanding of where the majority of the students are at I can look at what I need to go over with the class and explain better or in a different way. I will also ask the students many questions to make sure the students feel comfortable and I will make sure that the students are communicating with me and their partners during the activity. Along with the riddles that the children fill out during this activity they will also be filling out a place value graphic organizer, which I will collect to make sure they are understanding ones and tens. The students will complete the worksheet by writing in how many ones and tens there are in the numbers that they created throughout their riddle work sheet.

**Differentiation:**

* For the students that learn better with hands on manipulatives they would be able to use counters or unfix cubes, etc.
* For students that are more advanced, they can add on another ten-frame to make the riddles more challenging for them by using bigger numbers.

**Integration Activities:**

Place value could be integrated into language arts by creating a story in this activity from the riddle sentences that they have created and they could share them in a booklet. Another way you could tie this into language arts is by connecting to their vocabulary unit. It would be a great way to connect to the students’ vocabulary unit and have them learn math vocabulary to help them understand better. It would also be a way for the teacher to evaluate if the students are following the concepts in the two different subjects and making the connection between the two.

**Lesson Justification:** It is important that children learn the numbers 11-19 because understanding place value develops over several grades, helping children to compare and operate with numbers. In kindergarten it is key for the students to start to comprehend place value because it is a visible component that continues to extend when learning adding, subtracting, multiplying, and dividing larger numbers. Children must make sense of numbers and the ways in which numbers are used in and out of school and this activity and lesson will help them grasp the concept of the numbers 11-19 throughout place value. This activity will have the actively participating and working with partners to stay engaged. It will also help them start to make connections between the numbers 11-19 and what place value is. This supports learning for understanding because it will be reviewing the numbers and having the students explain what number they chose and what math vocabulary words they chose to describe their number. When the lessons are more students centered, the students take control and will learn more from the other students rather than the teacher using direct instruction.