Lesson Plan

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Subject: Math

Grade: Three

Content: (Topic): Addition and Subtraction

Instructional Strategies: (Specific) Direct Instruction and Interactive Instruction

Outcomes: N3.2 Demonstrate understanding of addition of whole numbers with answers to 1000 and their corresponding subtractions (limited to 1, 2, and 3-digit numerals) including:
- representing strategies for adding and subtracting concretely, pictorially, and symbolically
- solving situational questions involving addition and subtraction
- estimating using personal strategies for adding and subtracting.

Indicators:
a) Describe personal mental mathematics strategies that could be used to determine a given basic fact, such as:
- doubles (e.g., for 6 + 8, think 7 + 7)
- doubles plus one (e.g., for 6 + 7, think 6 + 6 + 1)
- doubles take away one (e.g., for 6 + 7, think 7 + 7 – 1)
- doubles plus two (e.g., for 6 + 8, think 6 + 6 + 2)
- doubles take away two (e.g., for 6 + 8, think 8 + 8 – 2)
- making 10 (e.g., for 6 + 8, think 6 + 4 + 4 or 8 + 2 + 4)
- commutative property (e.g., for 3 + 9, think 9 + 3)
- addition to subtraction (e.g., for 13 – 7, think 7 + ? = 13)

Prerequisite Learning: There is no pre-requisite learning for this lesson. This lesson is meant to be a review to addition and subtraction. My coop teacher game the concepts of making ten/friends of ten and doubles.

Differentiated Learning/Adaptive Dimension:

- Enough room for all of the different aspects of the lesson.
- Make sure the students are listening and fully understand all aspects of the lesson.
- Speak clearly and loudly for student with hearing restrictions.

Preparation: (materials, resources, equipment)

Materials:

Dice, paper to fold, ten/twelve frame sheets, writing utensils.

Set (5 min) Do any of you play any games that use math at home? What are some examples of those? How are those math related? Today, we are going to learn two dice games using math. **Development (50 min)** Explain the concept of making ten/friends of ten. Will do this on the whiteboard with each equation 10= 1 to 9. Example, if you have 1 what number is the friend to make ten. Explanation of Making ten/friends of ten game Play Game 10 to 15 ish minutes Refer to attached game sheet: https://www.mathcoachscorner.com/2013/05/math-games-with-a-pair-of-dice/ Games require partners so will give each student a dice and if you have a red dice you need to find a partner with a blue dice. Depending how the groups are doing I may have one person rotate to the right, etc. Will pick partners right before they are going to play the game and tell them they need to take the worksheet and need two different colour writing utensils (pen and a pencil, two different colour pencil crayons, crayons, etc.) After students have played this game just tell them to leave their stuff where it is as we will come back to it after the new game is explained and come to the carpet. Explain the doubles concept (1 to 6) and plus, minus one. For example, 1+1=2, 2=1=3, 2-1=1 Explanation of doubles game Play game for 20 ish minutes Refer to attached game sheet: https://www.educationworld.com/a_tsl/archives/06-1/lesson005.shtml If there is extra time and they are done playing the second game go back to the first game a play the two dice version.	**Student Engagement/ Classroom Management Strategies** Ensure students understand what they are supposed to do. Ensure the partners are working together and playing the games are going well. If students become off task redirect them to what we are doing. Circle the room constantly.

If extra time after that pick their favourite game out of the three and play until the end of class. **Closure (5 min)** Not only can games be fun but they can also help you remember things you have learned at school. Who's going to go home and teach their family these games?	

Making Ten Game

https://www.mathcoachscorner.com/2013/05/math-games-with-a-pair-of-dice/

MAKE 10

Players: 2

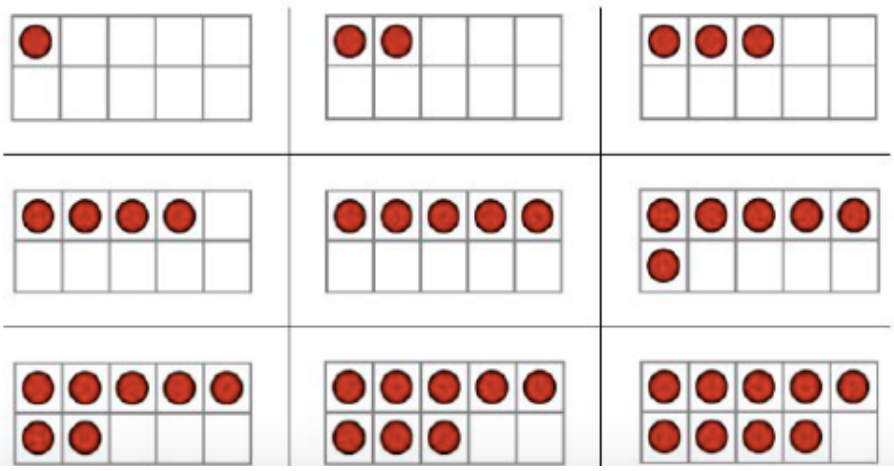
Materials: 1 or 2 dice, scratch paper (for keeping score)

Object: Make a 10 from the number rolled

One Die Version: One die is rolled. Players try to be the first player to shout what number needs to be added to the number on the die to make a ten. The number needed to make ten becomes the player's score for that round. For example, if a 3 is rolled, players would shout 7, because 3 and 7 make 10. The first player to answer correctly earns 7 points.

Two Die Version: Two dice are rolled. Players must now add or subtract to make ten. For example, if two 6s are rolled, players would shout 2, because 6 + 6 = 12 and 12 - 2 = 10.

Players can use the ten-frames below for additional support.



Doubles Game

https://www.educationworld.com/a_tsl/archives/06-1/lesson005.shtml

Before the Game

The gameboard for this game is simple to make. Fold a paper to create a 12-square gameboard; or draw a 12-square board on a sheet of paper.

In this game, students will be rolling a die, then doubling (or doubling and then adding 1) the number on that die.

- If you are using a die with the numbers 1 to 6, number the squares on the gameboard from 2 to 13, one number per square; be sure all twelve numbers appear on the gameboard.
- If you are using a die that has been doctored to have the numbers 4 to 9, number the squares on the gameboard from 8 to 19; be sure all twelve numbers appear on the gameboard.

Playing the Game

Introduce, then practice with your students, the concept of doubling. Then introduce and practice the concept of doubling *then* adding 1 to the answer.

- The number 4 doubled becomes 8.
- If you double 4, *then* add 1, the answer is 9.

Arrange students into pairs. Each pair can make their own 12-square gameboard (see instructions in the **Before the Game** section above). Provide a die for each pair of students.

- If you teach young students in grades 3 and under, you might use a regular game die, which is numbered from 1 to 6.
- If you teach students in grades 3 and above, you might "doctor" the die so that it has the numbers 4 to 9 on it.

The first player rolls the die and doubles the number that appears on it -- or that player can *doubles plus one* the number on the die.

For example, if a 3 is rolled on the die, the student has the choice of a doubling the 3 (for an answer of **6** or *doubling plus 1* for an answer of **7**. The player who rolled the 3 can choose to use her/his crayon to draw an X on the gameboard on either the number 6 or 7.

Next, the second player does the same thing.

As the game goes on, students will begin rolling a number for which the doubled number **and** the doubles-plus-one number are already X'd. That player is unable to X a number, so play turns over to the opponent.

The game ends when all twelve numbers on the gameboard are X'd. Each player counts up the number of X's made in his/her color. The winner is the player who has X'd the most numbered squares.