PRACTICE TASK: Take 100

Approximately 1 Day

STANDARDS FOR MATHEMATICAL CONTENT

MCC.2.OA.2 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

MCC.2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

STANDARDS FOR MATHMATICAL PRACTICE

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

*****Mathematical Practices 1 and 6 should be evident in EVERY lesson. *****

BACKGROUND KNOWLEDGE

Students should have some prior experiences with basic computation strategies allowing them to calculate quickly and reliably. Examples include counting on, doubling, making tens, and using benchmark numbers.

Students should have had practice developing strategies to make combinations of one hundred easily using mental math. If you feel like your students need further practice with mental math strategies be sure to attend to the ideas and suggestion in the previous task Mental Mathematics.

ESSENTIAL QUESTIONS

- How can we solve problems mentally?
- What strategies will help me add multiple numbers quickly and accurately?
- How can mental math strategies, for example estimation and benchmark numbers, help us when adding?

MATERIALS

- A deck of cards containing **two** of each of the following numbers: 10, 20, 30, 40, 50, 60, 70, 80, 90, 50, 5, 95, 15, 85, 25, 75, 35, 65, 45, 55. (Copy 2 game cards sheets for each deck of cards)
- "Take Ten Game" Student Recording Sheet

GROUPING

Partners

TASK DESCRIPTION, DEVELOPMENT AND DISCUSSION

Gather students in the meeting area to model the "Take 100" game. Use the think-aloud strategy to model ways students can think about pairs to 100. Then allow time for students to complete the game in pairs. They should select only 2 cards that total 100.

Players place a shuffled deck of cards (see attached cards) between them. Player 1 turns over the top card and lays it to one side of the deck so that the number shows.

Player 2 turns the next card, laying it to the other side of the overturned deck so that the numbers are showing. If the 2 cards total one hundred, the first student to say "one hundred!" gets those two cards. If the cards do not total 100, each player turns over another card placing it beside the cards turned over previously. This allows students to choose 2 cards that total 100 from a set of numbers. Both players look to see if a sum of 100 can be made. The first player to find a pair of cards that totals 100 and says "one hundred!", gets the two cards. Play continues until all the cards have been used.

As students play, ask them to record their pairs of 100 as an addition number sentence. This gives students an opportunity to focus on the pairs that make 100 and provides a record of the game.

This game can be adapted to eliminate the speed aspect to the game. Students can take turns turning over two cards and placing them face up next to the deck of cards. If the sum of the numbers is 100, the student gets to take those cards and any others that have been turned over. If the numbers do not equal 100, then the cards are left face up and the student's turn ends. Play continues until all of the cards have been turned over. The player with the most cards at the end of the game wins.

After ample time playing the game bring students back together to discuss what they were thinking about while playing the game.

FORMATIVE ASSESSMENT QUESTIONS

- What do you do to help you remember the number combinations that make up one hundred? Are you thinking of number combinations that make ten? How does this help?
- What can you do to find the answer quicker than your partner?
- Why doesn't 63 + 47 equal 100?

DIFFERENTIATION

Extension

- Have students create number cards using numbers that are not multiples of 5.
- To determine a winner have each student take all the cards he or she won and add them. Students will trade cards and let their partner add the cards with a calculator. When the amounts agree, the student with the larger total wins the game.
- To determine a winner have each student estimate to the nearest 100 the sum of the cards earned. The student with the larger total wins the game.
- Have students play game again, but this time have them look for combinations of 3 cards or more.

Intervention

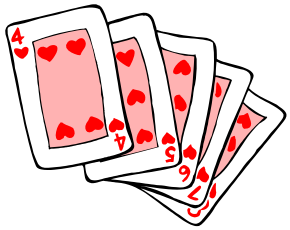
- Play a "Pairs to Twenty Game" using two of each of the following cards: 1, 19, 2, 18, 3, 17, 4, 16, 5, 15, 6, 14, 7, 13, 8, 12, 9, 11, 10, 10.

5	10	15	20
25	30	35	40
45	50	55	60

65	70	75	80
85	90	95	50

Name _____ Date _____

Take 100 Game



Number of Players: 2

Materials: Deck of 40 Cards

Directions:

1. Shuffle the cards well and lay them face down in a pile on the desk.

2. Turn the top card over and set it to the side where both partners can see it. Now turn the next card over and set it to the side of the first overturned card.

3. Your goal in this game is to make sets of one hundred.

4. If the first two overturned cards equal one hundred when added together, try to be the first one to say, "One hundred!" loudly enough for your partner to hear you. If you are first to notice, you may take the cards. If your partner is the first to notice, he or she gets to take the cards.

5. If the first two cards do not make a set of one hundred, keep turning cards over and setting them next to the first overturned cards. When someone spots a combination of one hundred, they can take the two cards that total 100. Keep playing this way until all cards have been claimed or until no cards are left and the overturned cards do not make a set of one hundred.

6. The player with the most cards at the end of the game is the winner.