

## TOPIC: *Near Tens Strategy*

### COMMON CORE STANDARDS

- **1st Grade** - CCSS.Math.Content.1.OA.C.6
- **2nd Grade** - CCSS.Math.Content.2.OA.B.2

### OBJECTIVE

- Children will learn and practice using the *near tens strategy* when adding two numbers together.

### MATERIALS

- Rekenreks- enough sets for partners to share
  - To make your own class set: <http://bit.ly/N8sk1b>
- Chart paper and markers/Whiteboard
- Recording sheets (attached)
- Pencils

### LESSON

- Review: combinations of ten
- Mini-lesson:
  - Explain ***near tens strategy*** (also referred to as ***tens +1/+2***)
  - Model ***near tens strategy*** with the Rekenrek.
  - Demonstrate how to complete recording sheet
- Practice: Partner work
  - Partners will determine which 10's combination to use to solve a near tens problem and will model these problems using the Rekenrek. Students will record the tens fact and near tens fact equations and solutions on the recording sheets.
- Conclusion: Math talk- Share your thinking
  - 2-3 children share how they created and solved a ***near tens*** problem.

## TOPIC: *Near Tens Strategy*

### COMMON CORE STANDARDS

- **1st Grade**
  - CCSS.Math.Content.1.OA.C.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g.,  $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$ ); decomposing a number leading to a ten (e.g.,  $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$ ); using the relationship between addition and subtraction (e.g., knowing that  $8 + 4 = 12$ , one knows  $12 - 8 = 4$ ); and creating equivalent but easier or known sums (e.g., adding  $6 + 7$  by creating the known equivalent  $6 + 6 + 1 = 12 + 1 = 13$ ).
- **2nd Grade**
  - CCSS.Math.Content.2.OA.B.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.

### I. INTENDED LEARNING OUTCOMES FOR THE SESSION

1. Students will review combinations of tens.
2. Students will learn a novel strategy, ***near tens***, when adding.
3. Students will record and share their thinking.

### II. LANGUAGE OBJECTIVES

- Students will review the concepts of ***strategy***, ***addends***.
- Lesson introduces the following vocabulary: ***efficient***.

### III. MATERIALS AND PREPARATION

- Rekenreks – class set or enough for partners. You can make your own class set following the instructions found here: <http://bit.ly/N8sk1b>
- Chart paper and markers/ Whiteboard
- Recoding sheets
- Pencils

### IV. OPENER

*“Today we are going to learn about a new addition strategy. We will build on what we already know about what great math thinkers do when they add.”*

*“Before we begin, let’s review our **combinations of ten** or our **tens facts**. Remember, a tens fact is when*

the **addends**, or numbers you are adding together, combine to make ten. Tens are a powerful tool in our number system and it is important to be able to make combinations of 10 easily. Let's go around the circle. The first person will choose a number between 1 and 10 and the second person will say the partner that goes with that number to make 10. For instance, the first person might say '4' and then following person would say '4 and 6 equals 10.' If you get stuck, you can use your ten fingers to help you. You could put 4 fingers down and see that there are 6 fingers left. (Go around the circle. If you anticipate that some students may not have the tens combinations memorized, have a chart visible for reference. You may also want to model each fact on a Rekenrek as they are said aloud).

"Since tens facts are so important and may be easier to remember for some people, we can use these facts to help solve other problems called **near tens facts**. If I know that  $7+3 = 10$ , that helps me know that  $7 + 4$  will be just one more, that's 11."

## V. PROCEDURE

"Today we will use our Rekenreks to practice solving **near tens** problems. To begin, you will slide all the beads to the right side of the Rekenrek. Then, read the near tens problem on your recording sheet with your partner. The first partner will brainstorm what is the closest tens fact. She will model the tens fact by sliding the correct number of beads to the left on the top of the Rekenrek. The other partner will then model the **near tens** problem on the Rekenrek by moving one or two beads on the bottom row to the left. Then you will record the 10's fact and its solution and the near tens fact and its solution on the recording sheet. Let's have two volunteers come up to demonstrate (Call on 2 children). Let's look at the board. The near tens problem says  $2+9$ . First, one partner will determine what is the closest 10's fact ( $2+8$ ). Watch how our volunteer moves 2 beads and then 8 beads on the top row of the Rekenrek to the left, that's 10. The other partner will then slide one more bead on the bottom over to the left. You can see that  $2+9$  is just one more than  $2+8$ , so it is 11. You and your partner will record your tens and **near tens** equations and solutions on the recording sheet (Model how to complete the recording sheet). When you complete your sheet, you can make up 1 problem to solve together."

## VI. CONCLUSION

Have 2-3 children share how they solved a near tens problem.

"Today and everyday, great math thinkers use **strategies** to help them solve problems. They use **efficient** strategies, for example using facts they know like tens facts, to help solve closely related problems, such as **near tens** problems."

**RECORDING SHEET:** *Near Tens Strategy***Name:** \_\_\_\_\_**Directions:** *Determine the closest tens fact. Then solve the tens fact and near tens fact.*

	Near 10's problem	10's fact	Near 10's fact
1)	$4 + 7$	$4+6=10$	$4+7=11$
2)	$2 + 9$		
3)	$3 + 8$		
4)	$5 + 6$		
5)	$9 + 3$		
6)	$7 + 5$		
7)	$8 + 4$		
8)	$6 + 5$		
9)			

**RECORDING SHEET: Near Tens Strategy****Name:** \_\_\_\_\_

**Directions:** Determine the closest tens fact. Then solve the tens fact and near tens fact.

	Near 10's problem	10's fact	Near 10's fact
1)	$4 + 7$	$4+6=10$	$4+7=11$
2)			
3)			
4)			
5)			
6)			
7)			
8)			
9)			