## lllustrative Mathematics

## K.CC "One More" Concentration

## Alignment 1: K.CC.A. 2

This game is a version of the traditional memory or concentration game.

## MATERIALS

- One set of number cards from 1 to 9 in one color (say blue). These are the "one less" cards.
- Another set of number cards from 2 to 10 in another color (say red). These are the "one more" cards.


## ACTIONS

- Students work in pairs or trios. The students place all the number cards that are "one less" face down in an $3 \times 3$ array on the left and all the number cards that are "one more" face down in a $3 \times 3$ array on the right.
- The first student selects a card from the left array, stating the number name and the counting number that follows. For example, if the student selects the number 2, s/he would say, "I have 2 so I need 3."
- S/he then picks one card from the array on the right (the "one more" numbers), hoping to find the target number. If the student finds a matching pair, s/he keeps that pair of cards. If the student does not find a pair, both cards are replaced face down in their original spots.
- It is now the second student's turn to choose a card from the "one less" array and to try to find the appropriate "one more" card. Students should try to remember where each number is located. (The game is called "Concentration" not "Guessing.")
- Play continues until all cards have been matched. The student with the most matched pairs wins.


## Commentary:

- This game can be introduced whole group on the board by making slightly larger cards and using a sentence pocket chart (or magnetic tape on a magnetic board) to arrange the cards in two arrays face down against the board. The teacher then plays against the rest of the class, modeling the process of picking from the left to begin, stating the number name and the number after and then picking from the right.
- To simplify this task, the teacher could use large cards and display the array on the board with cards FACE-UP. Then students choose a number (which they can see), name it, and state the number that is 1 more. Then they choose/find that number in the other array. Practice identifying "1 more" (or "1 less") with numbers revealed may give needed practice to students struggling with this concept.
- It is very important for the students to draw a card from the left and state what they need before they draw from the right. This will encourage them to think about and work to figure out the number that is "one more." When the students get in the habit of picking up two cards simultaneously the game become much more about luck (although they do have to confirm that it is a pair, so do get some practice) and students are less likely to internalize the information and use it when counting.
- Students who become proficient with playing the game to support counting forward can gain experience in backward counting by picking from the right array first (the one more numbers) and then looking for the correct number that is "one less."

