## **Illustrative Mathematics**

# K.CC Number After Bingo 1-15

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

Each student will need a different Number After Game Board (a 5x5 grid with numbers from 2 through 15 randomly arranged, one in each square), 15 each of two different color counting chips and a set of 2-3 each of number cards with the numbers 1 through 15 on them.

Begin whole group by discussing what "number after" means. Next have the students identify and point out on a large number line the number after various numbers selected by the teacher. Initially keep these numbers in the range of 1-15. After the group seems to have an understanding of what "number after" means and how to locate them on the number line, have students play Number After bingo on the 5x5 bingo board in pairs. Students will take turns drawing a number card, stating the number after and placing his/her counter on that number on the game board. The first student with 3 counters in a row on the grid is the winner. As students progress the practice range should be increased by changing the numbers on the grid and the corresponding numbers on the cards.

### Commentary:

- Student work with number after is important because it increases student flexibility with the number sequence and the ability to start counting sequences at various points.
- Initially students may need a number line to locate the number after; students may also do some "sub-vocal" counting (sort of like counting under their breath) from another number to give them a "running start" which helps them carry on the sequence.
- Sub-vocalization is a common student strategy that should be noted when assessing a student's facility with number after. The students should reach a point when they "just know" the number after orally and do not need the number line support or the additional counting. This should occur naturally through targeted and repeated exposure and practice.
- · Repeating the initial whole group activity daily by having students identify the number after a given number as a sponge activity will be very supportive for students.
- Once students have become facile with the number after, it is important to work on number before following a similar process.
- If the students have not played games much, they may need the teacher to model what "3 in a row" on the game board looks like. If students are struggling with the "3 in a row" concept, they can also play blackout and just cover the board completely, which is often easier for young students to understand initially.

### Solution: 1

Possible ranges for practice identifying the number after: 1-15, then 1-21, then 10-31, then 20-40 and 50-80, initially, the whole class can work on the same range, but over time some students may still need to work on 1-15 while others will be ready to move on to 1-21 etc. In this way, all students can be doing the same activity but it is differentiated for individual student needs.

Possible ranges for practice identifying the number before: 1-10, then 1-15, then 1-21, then 10-31, then 20-40 and 50-80.

This game can also be modified to support crossing into the next family or "crossing the decade" forward or backward by doing the number after " 9" numbers or number before " 0" numbers. You would need to have 19, 29, 39, 49, 59, 69, 79, 89, 99 on cards and 20, 30, 40, 50, 60, 70, 80, 90, 100 on the 5x5 grid to practice crossing the decade forward. The teacher would need to have 20, 30, 40, 50, 60, 70, 80, 90, 100 on cards and 19, 29, 39, 49, 59, 69, 79, 89, 99 on the 5x5 grid to practice crossing the decade backward.



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