

**MC2 Thinking Protocol   
Data Collection & Analysis Tool**

**Date:** Sample Date **District**: Sample District  **School**: Sample Elementary School\_

**Grade:** Kindergarten **Teacher**: Sample Teacher **# Students:** \_\_\_\_\_16\_\_\_\_\_\_\_\_\_\_

**Standard(s) or Evidence Statement:** K. NBT.A1 Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (such as 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

**Math Task:** Show (Represent) 16 students in your class with a number and picture.

**Enter number of students in the blanks below:**

**Think Individually:**

16 students got the correct response. (All could represent 16 as the number of students in their class)

**Think with a Partner:**

students changed to the correct response.

**Think with the Class:**

students turned in the correct response.

students turned in the correct response with accurate computation.

students had the correct operation(s) but had a computation error.

**Student Strategies Used to Solve Problem:**

• Half of the students drew objects in a line.

• One student drew 16 tally marks and circled a group of ten and a group of six.

• One student drew a ten frame with small circles.

• Some drew such intricate, detailed pictures that they did not complete drawing 16 objects.

**Student Strategies Used to Prove Answer was Correct:**

**Enter misconceptions observed and possible intervention needed to clarify each:**

|  |  |
| --- | --- |
| **Misconception** | **Intervention** |
| * Last number names the set. Students needed to recount (Table 8.1 p. 131) * Tracking; counting each object only once; one–to–one correspondence * Students who didn’t attempt to use ten frame need practice anchoring 5 and 10 (Van de Walle, p. 137, 138) | * Needs practice strengthening quantity to set. Practice counting a set between 5 & 10 using bags of objects at centers. Ask: *How many? Can you say how many without counting again? Write the number*. * Ask: *How do you keep track? Let’s double-check. Let’s touch each object and count.* Teacher models “keeping track” with numbers 5-10. * Five Frame Tell About, Figure 8.11, p. 138; Ten Frame Flash, p. 139; Teaching Channel Activity, *Beyond Fingers 11-19*, Make journals with scattered pictures. Ask students to circle 10 and write the number; Teaching Channel *Quick Images* |

**Comments:**