### Standard - 1.NBT.2a

**CCSS:**

1.NBT.1 Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

1.NBT.2 Understand that the two digits of a two-digit number represent amounts of tens and ones.

**Common Misconceptions**

Students sometimes think that a number can only be made by showing its exact tens and ones. For example, 38 can only be represented by 3 tens and 8 ones. This representation is typical but numbers can be decomposed in different ways. 38 can also be recorded as 2 tens and 18 ones or even 38 ones. Students need to understand this concept in order to add and subtract later in first grade.

### Intervention Activity #4: How Many Cubes?

**Materials:**
40 cubes or counters, blank paper, pencil

**Enrichment:**

- Utilize problem solving and application of standard
- Decompose numbers in different ways (i.e., 46 can be 4 tens and 6 ones (identified in the standard) or it can be 3 tens and 16 ones, 2 tens and 26 ones, etc)
- Decompose numbers to 120 (linked to 1.NBT.1 "counting to 120")

**Directions:**

- Place 40 cubes on the table in a scattered arrangement. Say: *I have a pile of cubes. How many do you think there are? Count and see.*
- After the student counts, ask: "*How many cubes are in the pile?* Say: *Write that number on this piece of paper.*
- Then, circle the digit in the ones place (0). Say: *Show me with your cubes this amount.*
- After the student states that there would be zero cubes, point to the digit in the tens place (4) and say: "*Show me with your cubes this amount.*"
- If there are still cubes left over, point to the remaining cubes and ask: "*Why do you think there are still cubes leftover?"

**Look For:**

- Does the child count the collection of cubes incorrectly? (Developing Understanding)
- Does the child count the collection of cubes correctly? (Complete Understanding)
- Does the child incorrectly show the amount of cubes in the ones place? (Developing Understanding)
- Does the child correctly show the amount of cubes in the ones place? (Complete Understanding)
- Does the child incorrectly show the amount of cubes in the tens place? (Developing Understanding)
- Does the child correctly show the amount of cubes in the tens place? (Complete Understanding)
- Does the child have cubes leftover after showing both amounts? (Developing Understanding)
- Shows 0 cubes to represent the digit "0".
- Shows 40 cubes to represent the digit "4".
- Shows 4 cubes to represent the digit "4"

**Collecting Data:**

Student performance can be scored with a provided task rubric or a rubric created by the teacher. Data can be recorded on a score sheet.

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