

Vertical Progression:

TS Gold	<p>20. Uses number concepts and operations.</p> <p>20b. Quantifies.</p> <p>8. Uses a variety of strategies (counting objects or fingers, counting on, or counting back) to solve problems with more than 10 objects.</p> <p>20c. Connects numerals with their quantities.</p> <p>8. Identifies numerals to 20 by name and connects each to counted objects.</p>
Kindergarten	<p>K.NBT.A Work with numbers 11-19 to gain foundations for place value.</p> <ul style="list-style-type: none"> ○ K.NBT.A.1 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 (e.g., $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.
1st Grade	<p>1.NBT.B. Understand place value.</p> <ul style="list-style-type: none"> ○ 1.NBT.B.2 Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: ○ 1.NBT.B.2.a 10 can be thought of as a bundle of ten ones — called a “ten.” ○ 1.NBT.B.2.b The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. ○ 1.NBT.B.2.c The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).

Students will demonstrate command of the ELG by:

- Composing and decomposing numbers from 11-19.
- Using objects or drawing to show how many tens and ones are in a number 11-19.
- Recording compositions and decompositions using an equation or a drawing.

Vocabulary:

- compose
- decompose
- equation
- leftovers
- ones
- tens

Sample Instructional/Assessment Tasks:

1) Standard(s): K.NBT.A.1

Source: <https://gradeKcommoncoremath.wikispaces.hcpss.org/Assessing+KNBT1>

Item Prompt: Snap cube numbers

Setup:

Make or have students make a tens stick by snapping together snap cubes. Have some other loose snap cubes to represent ones. Distribute one “ten” and nine “ones” to a pair of students. As a pair, draw a number card and represent that number using snap cubes. Provide paper (a template or chart) for students to use to record their number sentences. Students can draw the number sentence or write the number. Be sure to model what one example would be. For example, if they drew 14, they would record: $10 + 4 = 14$; $14 = 10 + 4$. Repeat with the other number cards. You may want to place the recording chart in a sleeve.

Correct Answer:

Students accurately create the given numbers with the snap cubes. Students demonstrate counting on from ten. (Students do not show proficiency if they must go back to one to start counting.) Students can state how many tens and ones are in number they create. Students know how many if they only had ones.

2) Standard(s): K.NBT.A.1

Source: Illustrative Mathematics

<https://www.illustrativemathematics.org/content-standards/K/NBT/A/1/tasks/1404>

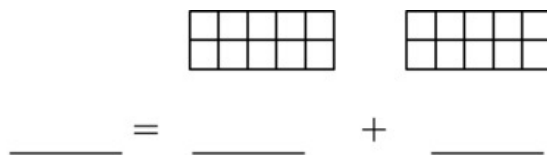
Item Prompt: What Makes a Teen Number?

Setup:

Decompose teen numbers using 10-frames and a number equation. Materials: Number cards 11-19; pencil, crayon, or marker; attached student worksheet (see 10-frame and equation format below)


Actions:

This activity can be done individually, in partners, or in small groups. The students have a teacher-made sheet and a writing implement. The cards are shuffled and placed face down.



The student picks a card off of the top of the pile. The student then says the number and draws that many dots beginning with the first 10-frame. When the first 10-frame is filled, the student continues drawing the remaining dots in the next 10-frame. The student then fills in the blank equation with the corresponding numbers.

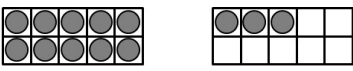
Example:



$$\underline{13} = \underline{10} + \underline{3}$$

The student continues to pick cards and illustrate numbers in this way until all cards are used or the sheet is filled.

Solution:



$$\underline{13} = \underline{10} + \underline{3}$$

The solutions for 11-19 follow the same pattern.