



Topic C

Decompose Numbers 11–20, and Count to Answer “How Many?” Questions in Varied Configurations

K.CC.4bc, K.CC.5, K.NBT.1, K.CC.3, K.CC.4a

Focus Standards:	K.CC.4	Understand the relationship between numbers and quantities; connect counting to cardinality. <ul style="list-style-type: none"> b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. c. Understand that each successive number name refers to a quantity that is one larger.
	K.CC.5	Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.
	K.NBT.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.
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Instructional Days:	GPK–M5	Addition and Subtraction Stories and Counting to 20
Coherence	-Links from:	G1–M2
	-Links to:	Introduction to Place Value Through Addition and Subtraction Within 20

Topic C opens in Lesson 10 with students building a Rekenrek to 20, which they will use to count and model numbers for the balance of the year. They deepen their understanding of the composition and decomposition of teen numbers as 10 ones and some more ones (**K.NBT.1**) by showing, counting, and writing (**K.CC.3**) the numbers 11 to 20 using a variety of configurations: vertical towers, linear, array, and circular configurations. In each configuration, students count to answer “how many?” questions (**K.CC.5**) and realize that whatever the configuration, a teen number can be decomposed into 10 ones and some ones.



Lessons 11 and 12 represent each teen number as a part of a set of number stairs to 20. Each vertical tower is set within the ordered continuum. This configuration allows students to see each teen number in relationship to the others, as one larger than the number before it (**K.CC.4c**), in relationship to 10, and in relationship to numbers 1–9 since the lesson’s Problem Set has a color change after 10 ones. Next, in Lesson 13, students move teen quantities back and forth between linear and array configurations, practice counting strategies, and recognize that when they answer “how many?” the total has not changed. Finally, the topic culminates with the most challenging configuration, the circle. Students circle 10 and see that, yes, the circle is composed of 10 ones and some ones, too. They become proficient at counting in all configurations to answer “how many?” questions (**K.CC.5**).

A Teaching Sequence Toward Mastery of Decomposing Numbers 11–20, and Counting to Answer “How Many?” Questions in Varied Configurations

Objective 1: Build a Rekenrek to 20.
(Lesson 10)

Objective 2: Show, count, and write numbers 11 to 20 in tower configurations increasing by 1—a pattern of 1 larger.
(Lesson 11)

Objective 3: Represent numbers 20 to 11 in tower configurations decreasing by 1—a pattern of 1 smaller.
(Lesson 12)

Objective 4: Show, count, and write to answer *how many* questions in linear and array configurations.
(Lesson 13)

Objective 5: Show, count, and write to answer *how many* questions with up to 20 objects in circular configurations.
(Lesson 14)