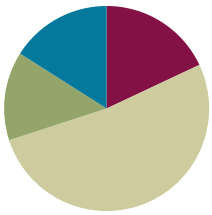
Lesson 11

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

Suggested Lesson Structure

Fluency Practice	(9 minutes)
Application Problem	(7 minutes)
Concept Development	(26 minutes)
Student Debrief	(8 minutes)
Total Time	**(50 minutes)**



Fluency Practice (9 minutes)

- Counting on a Rekenrek **K.CC.5** (4 minutes)
- One More **K.CC.2** (3 minutes)
- Saying Teen Numbers the Say Ten Way **K.NBT.1** (2 minutes)

Counting on a Rekenrek (4 minutes)

Materials: (S) Personal Rekenrek (Built in Lesson 10)

Note: Encourage students to show teen numbers in both horizontal (e.g., 13 as 10 on the top row and 3 on the bottom) and vertical (e.g., 13 as 10 red and 3 white) orientations. Students might also show numbers in 2 parts (e.g., 5 as 3 and 2).

T: Take out the Rekenrek that you made yesterday. I'm going to call out a number, and I want you to show it on your Rekenrek. (Wait while students prepare their Rekenreks.)

Possible sequence: 1, 2, 5, 6, 10, 11, 12, 13, 14, 15, 16, 15, 16, 17, 18, 19, 20, 19, 18, 17, 16, 15, 10, 5, 4, 3, 2, 1.

One More (3 minutes)

Materials: (T) 20-bead Rekenrek

Note: Students make use of the pattern of 1 more in numbers 1–9, to determine 1 more with teen numbers. Knowing that 4 ones are part of 14, for example, allows them to determine that 1 more is 15, just as 1 more than 4 is 5.

T: I want you to say one more than the number that you see on the Rekenrek. (Show 3.)
S: 4.
T: (Show 13.)
S: 14.

Continue with the following possible sequence: 5, 15, 1, 11, 4, 14, 7, 17, 8, 18, 9, 19, 6, 16.

Saying Teen Numbers the Say Ten Way (2 minutes)

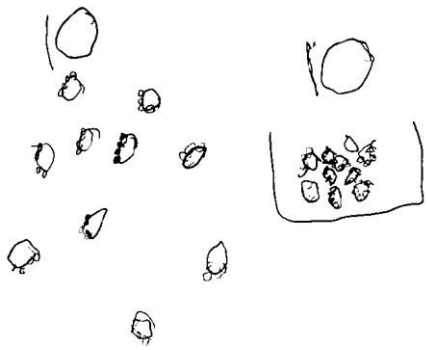
Note: Now that students have had ample experience with counting the Say Ten way, the goal is to build speed and accuracy.

T: I'm going to say a number. You say it the Say Ten way. Eleven.
S: Ten 1.
T: Twelve.
S: Ten 2.

Repeat process for possible sequence: 13, 17, 19, 14, 16, 18, 15, 20.

Application Problem (7 minutes)

Mary has 10 toy trucks. She told her mom she likes to spread them out on the floor. She said she doesn't like to put them away neatly in the little toy box because then there are fewer toys. Draw a picture to prove to Mary that the number of toy trucks is the same when they are all spread out as when they are in the little toy box.



Note: This Application Problem provides an opportunity for students to model conservation. Students draw to prove that the number of objects remains the same, despite the perceptual change.

Concept Development (26 minutes)

Materials: (S) Two sets of 10 linking cubes (10 in one color and 10 in another color), sentence frame (Template)

Note: Notice that we are not saying "20 is 1 more *than* 19." This is very complex linguistically for many kindergarten students who can say "19 is more than 18" without quantifying the difference. They simply are seeing and analyzing that each successive number is one larger (**K.CC.4c**).

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Focus on academic vocabulary to help English language learners with the Application Problem. Provide students with a template for their work. Adapt the template so that one side has a graphic or a picture to represent the floor and one side has a graphic to represent the toy box.

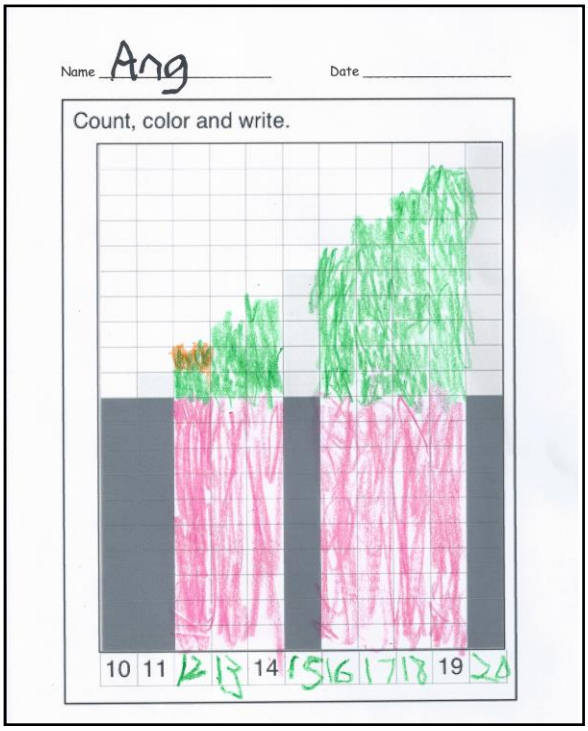
T: Show me a tower of 10 cubes using one color.
T: (Students show a tower of 10.) How many cubes are you holding?
S: Ten.
T: How many ones is that?
S: 10 ones.
T: How many more cubes do you need to put on you tower to make 11?
S: 1 more!
T: Show me 11. (Point to the first sentence frame.) While you do that, say, "10. 1 more is 11."
S: 10. 1 more is 11.
T: And how do we say 11 the Say Ten way?
S: Ten 1.
T: Good! Put one more cube on your tower.
S: (Show 12.)
T: How many cubes do you have now?
S: 12.
T: Repeat with me, "11. 1 more is 12."
S: 11. 1 more is 12.

Use the sentence frames to help students express the relationship of each number to the preceding number. Continue adding one more cube for each number up to 20. Release as many students as possible to continue the pattern with a partner: "13. 1 more is 14." Continue releasing students as they demonstrate skill and understanding.

Problem Set (7 minutes)

Students should do their personal best to complete the Problem Set within the allotted time. As students color the squares and write the numbers to complete the pattern, have them continue to say the relationship of each number to its preceding number. Example: Fourteen. 1 more is 15. Fifteen. 1 more is 16, etc.

Note: Have students use a different color crayon after they color 10 ones.



Student Debrief (8 minutes)

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

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner before going over answers as a class. They can count on or count all, as needed. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- What do you notice when you look at your paper?
- How is your drawing like the towers you made?
- How many cubes did you put on your tower each time?
- Did the number get larger or smaller when you put on one more?
- How is the number tower you made the same as the Rekenrek you made? How is it different?
- Fold your paper in half, and look just at the green stairs. How are they the same and different from the stairs for the larger numbers?

NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

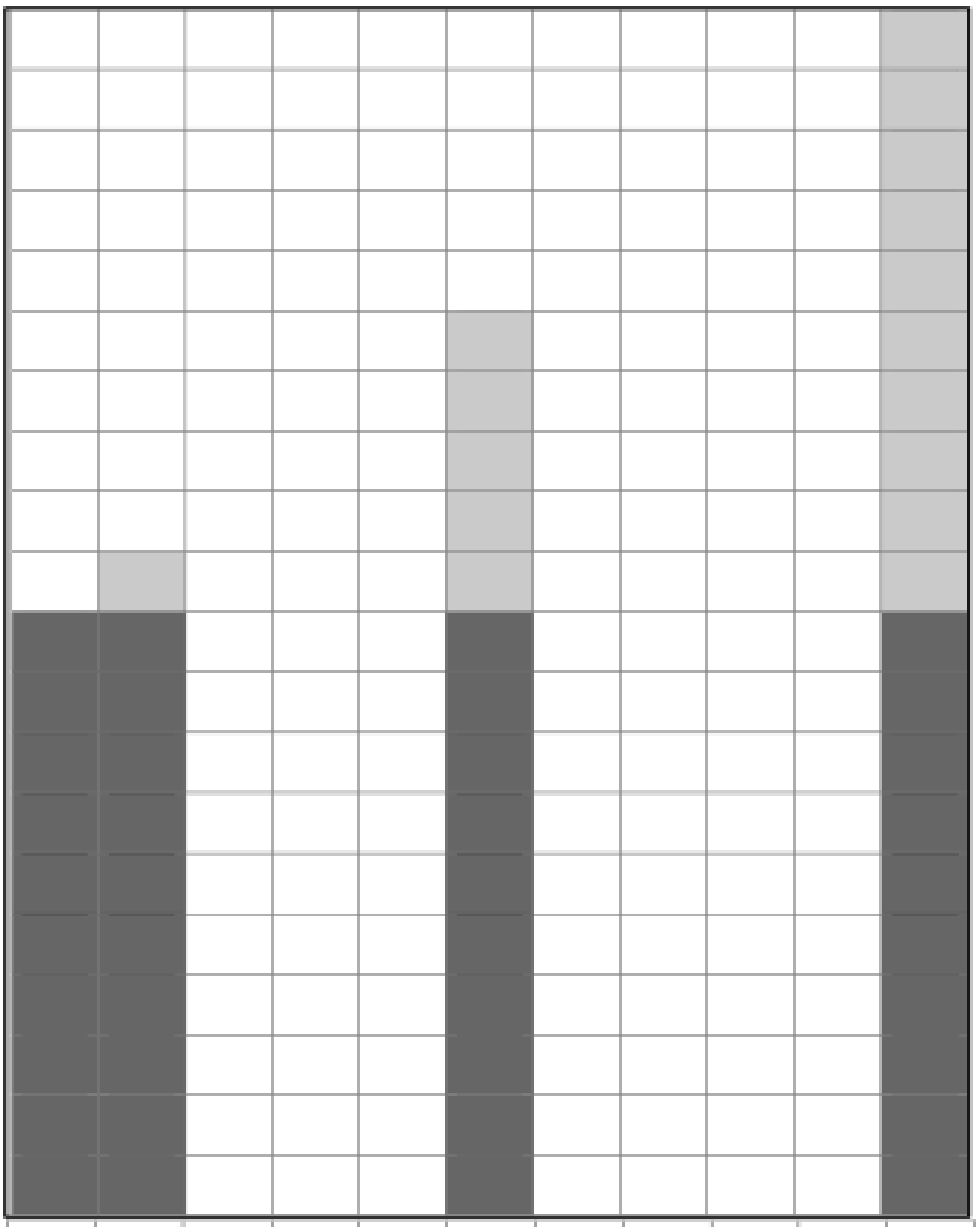
For students working below grade level, have them regularly work with you when they come to the carpet rather than with a partner. This provides them with much-needed extra time with the teacher.

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name _____ Date _____

Count, color and write.



Name _____ Date _____

Start at the bottom. Draw lines to put the numbers in order on the tower. Then, write the numbers in the tower. Say each number the regular way and the Say Ten way as you work.

12 •

19 •

16 •

14 •

17 •

20
18
15
13
11
10

Name _____ Date _____

Write the missing numbers. Then, count and draw X's and O's to complete the pattern.

O O O O O O O O O O	X O O O O O O O O O		X X X O O O O O O O O O		X X X X O O O O O O O O O				X X X X X X X X O O O O O O O O O	
10		12		14		16	17	18		20

1 more is ____.

sentence frame