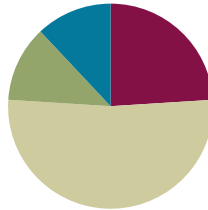


Lesson 33

Objective: Build descending number stairs at the concrete and pictorial levels.

Suggested Lesson Structure

Fluency Practice	(6 minutes)
Application Problem	(3 minutes)
Concept Development	(13 minutes)
Student Debrief	(3 minutes)
Total Time	(25 minutes)



Fluency Practice (6 minutes)

- *1 More Chant* **PK.CC.3c** (3 minutes)
- *Snowball Toss* **PK.OA.2** (3 minutes)

1 More Chant (3 minutes)

Note: This activity solidifies students' knowledge of the 1 more pattern in the counting sequence.

Divide the class in half.

Side A:	1.
Side B:	1 more is...
Side A:	2.
Side B:	1 more is...
Side A:	3.
Side B:	1 more is...
Side A:	4.
Side B:	1 more is...
Side A:	5.

Consider choosing more advanced students to call out the numbers. Struggling students can say the *1 more is...* response, that way they remember to say the same thing each time. If time permits, switch sides, and repeat.

Snowball Toss (3 minutes)

Materials: (S) $8\frac{1}{2}'' \times 11''$ scrap paper cut in quarters

Note: This activity prepares students to compare counting up and counting down, while also encouraging part-whole thinking.

Students make 3 snowballs each from a quarter of a sheet of scrap paper. They toss their “snowballs” into the center of the rug at the teacher’s signal, one by one, pausing to answer, “How many have you thrown?” and “How many snowballs do you still have?” Once the snowballs are thrown, have them calmly get 3 snowballs and go back to their seats. Repeat the fun.

Application Problem (3 minutes)

Materials: (T) *Anno’s Counting Book* by Mitsumasa Anno (S) 5 loose cubes of different colors

Open *Anno’s Counting Book* to the page highlighting 1. Have volunteers show examples of 1 in the picture. Ask children to show 1 cube as shown in the book. Repeat with numbers 2–5. As children build their towers, encourage them to count, “1. 1 more is 2. 2. 1 more is 3...”

Note: Students review the pattern of 1 more in anticipation of learning the pattern of 1 less in the Concept Development.

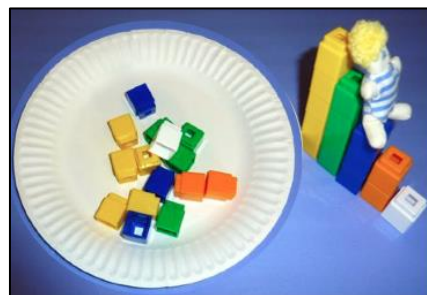


Concept Development (13 minutes)

Part 1: Concept Introduction

Materials: (T) 15 linking cubes preassembled in different colors for each number stair 5–1, 1 “friend” (e.g., small doll or Lego person)

Note: In this lesson, students build stairs for each number 5–1. Each stair should be a different color to help students distinguish each number.



1. Show students the doll and the stair of 5 cubes. Tell students, “Before, we made stairs for the bear to go up to his tree house. Now, let’s make stairs so our friend can go down from her classroom. She has played and worked hard at school and is ready to go home!”
2. Ask students to count the cubes. “1 cube, 2 cubes, ...5 cubes.”
3. Tell students, “Yes, there are 5 cubes. The last number we said tells how many there are.”
4. Comment and then ask an open question, “This tower of 5 cubes is so high! How can we help our friend go down? How can we make the next stair?” Guide students to see that you can make a stair with 4 cubes.

5. Show the 4-cube tower and place it next to the 5-cube tower in descending order. Tell students, “Now the stair is smaller! How did we make it smaller?” Guide students to say, “It’s missing one,” or “It’s without 1 cube,” or “It’s **1 less**,” or “It has 4 instead of 5.” Then have them count 4 cubes. Guide children to repeat, “**1 less** than 5 is 4.”
6. Repeat the process until all stairs are assembled and arranged in descending order.
7. Have students count the number in each stair, “5 stairs, 4 stairs, 3 stairs, 2 stairs, 1 stair.” Tell them, “You made a great staircase! Now our friend can climb down and go home!”



NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Some students may need to build two equal towers (of 5 cubes) alongside each other and then practice the action of removing one cube from one tower. The action helps children to see that it is made smaller by 1 fewer cube. Continue this pattern with two towers of 4, again removing 1 cube from one tower to make a tower of 3, and so on, creating the descending number stairs.

Part 2: Practice

Materials: (S) 15 linking cubes in different colors for each number stair 5–1, 1 “friend” (optional)

1. Send students to prepared tables and tell them, “Build stairs like mine that your friend can climb down.” As students build the staircase, encourage them to talk about what is happening to the size of each stair.
2. When they finish their staircases, encourage them to touch and count, “5, 4, 3, 2, 1.”
3. If possible, take students to a staircase and allow them to climb down and count. Or, give them a “friend” and encourage them to move the friend down the stairs as they count aloud.

Student Debrief (3 minutes)

Lesson Objective: Build descending number stairs at the concrete and pictorial levels.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience. It is also an opportunity for informal assessment. Consider taking anecdotal notes or using a simple checklist to note each child’s progress towards meeting the lesson objective.

As students complete the Practice portion of the Concept Development, listen for misconceptions or misunderstandings that can be addressed in the Debrief. You may choose to use any combination of the questions below to help students express ideas, make connections, and use new vocabulary (**1 less**).

- Last week, we used our stairs to show 1 more. What did we show with our stairs today? (1 less.)
- (Show descending number stairs.) Where did we start counting when our friend went down the stairs? Where did we stop?
- What did we do to make each stair smaller? How many cubes did we take away?



CENTER CONNECTION:

Encourage students to create a tree house for their friends in the block center, including a set of stairs. Have them practice counting forward to 5 as the friend walks up the stairs and backwards from 5 as she walks down.