## Lesson 37

Objective: Culminating Task
Decide how to classify the objects in your bag into two groups. Count the number of objects in each group. Represent the greater number in various ways. Next, remove the card from your pack that shows the number of objects in the smaller group. Put your remaining cards in order from smallest to greatest. Your friends will have to figure out what card is missing when they visit your station!

## Suggested Lesson Structure

| $\square$ Fluency Practice | (7 minutes) |
| :--- | :--- |
| Concept Development | (35 minutes) |
| Student Debrief | (8 minutes) |
| Total Time | (50 minutes) |



## Fluency Practice (7 minutes)

- Building 1 More and 1 Less Towers K.CC.4c
- 5-Group Finger Counting K.CC. 2
(4 minutes)
(3 minutes)


## Building 1 More and 1 Less Towers (4 minutes)

Materials: (S) 10 linking cubes
Guide students through the process of building a tower while stating the pattern as 1 more. Maintain consistency in the language: "1. One more is 2. 2. One more is 3. 3. One more is 4." Continue to 10. Disassemble the tower while stating the pattern as 1 less. Again, the language is crucial to students' conceptual understanding: "10. One less is 9. 9. One less is 8.8 . One less is 7." Continue to 0.

## 5-Group Finger Counting (3 minutes)

T: Quick! Show me 5!
S: (Extend an open left hand to show 5, without having to count.)
T: Show me 1 more.
S: (Show an open left hand for 5, and the thumb of the right hand for 6.)
T: We can count from 5 like this: 5 (push out the left hand), 1 more (push out the thumb of the right
hand) is... (push both the left hand and the thumb of the right hand) 6! Try it with me. Ready?
S: 5 (push out the left hand), 1 more (push out the thumb of the right hand) is... (push both the left hand and the thumb of the right hand) 6 !
T: Stay there at 6 . Now, show me 1 more.
S: (Show an open left hand for 5 and the thumb and the index finger of the right hand for 7.)
T: How many fingers are you showing on your left hand?
S: 5.
T : And your right hand?
S: 2.
T : How many fingers are you showing in all?
S: 7.
T: So, this time we'll say 5 (push out the left hand), 2 more (push out the thumb and index finger of the right hand) is... (push out both the left hand and the thumb and index finger of the right hand) 7! Try it with me. Ready?
S: 5 (push out the left hand), 2 more (push out the thumb and index finger of the right hand) is... (push out both the left hand and the thumb and index finger of the right hand) 7 !

Continue to 10 if students are ready, but do not rush-this is a challenging counting activity. As students begin to note the pattern, steadily remove the scaffold until they can state the relationship to the 5 group without guidance. It would be better for students to achieve mastery to 7 than to mimic the teacher to 10 .

## Concept Development (35 minutes)

Materials: (S) 10 paper "mystery" bags, each containing a set of loose linking cubes such that the first bag has 1 , the second, 2 , and so on up to 10 ; materials for each station: 1 set of 5 -group cards (Lesson 7 Template), pipe cleaner, bag with 5 red and 5 white beads, 1 bag of 10 lima beans, 1 bag of 10 popsicle sticks, 2 bags of other various counters ( 10 each), personal white board and markers, Rekenrek, 2 work mats inscribed with a large circle, 25 -group mats, paper plate, plastic cup, crayons, paper, other materials as desired

Prior to class, set up stations so that each has one complete set of the materials outlined above. Create a decorative, welcoming sign on the board that says Number Fair. Due to the nature of this lesson, there is no Problem Set or Exit Ticket. It is best to record observations of student work during the Concept Development.

T: We are going to have a Number Fair today! Your job will be to make an exhibit for your mystery number at our fair. You will want to show your number in as many ways as you can, using anything you choose at your station. You will discover your mystery numbers in a minute.

T: Look at our stations. Considering the materials at each station, do you have some ideas for ways you might show your number?
S: We could find the 5-group card for our number! $\rightarrow$ We could make a bracelet, or draw a picture. $\rightarrow$ We could use our 5-group mats. $\rightarrow$ We could make it with beans around our cup!
T: Those are all good ideas. Use as many of them as you can. There is one idea you must use, though, and this will be the very first job at your station. You will put your 5-group cards in order from smallest to greatest, and then hide the card that shows your mystery number. Your friends will have to figure out what card is missing when they visit your station!
T : (Distribute mystery bags to students working singly or with a partner of similar ability, depending on class size.)
T: In the mystery bag, there are some objects. Shake your bag and listen. How many do you think you have?
S: (Answers will vary.)
T: When I give the signal, you and your partner may count how many objects are in your bag to find out your mystery number. Are you ready to count and begin your exhibit? Go!
S: (Count objects and find a station. Begin sorting 5-group cards and creating representations of their number.)
T: I will give you time to work on your exhibit. After 20 minutes, I will give you a chance to visit the other exhibits in our Number Fair.

Use this time as an informal assessment tool for the close of the module. Circulate to observe student discussions and work. What representations are easiest and most familiar to the students? Are there some that might need review? What vocabulary and language do the students use in their discussions? Do they exhibit thorough understanding of the numbers?)

T: (When preparation time is up, allow students to rotate through the other exhibits.) Now, you may look at the rest of the Number Fair. Talk with your partner about what you see at each station. What is the number shown at the exhibit? How do you know? In what ways did your friends show the number?

Suggestion: This would be a wonderful opportunity to have some other teachers, older students, parents, or administrators come into the classroom to view the exhibits at the end of class. Students could explain their work to the visitors as an extension of the lesson (MP. 3 and MP.4).

## Student Debrief (8 minutes)

Lesson Objective: Culminating task—Decide how to classify the objects in your bag into two groups. Count the number of objects in each group. Represent the greater number in various ways. Next, remove the card from your pack that shows the number of objects in the smaller group. Put your remaining cards in order from smallest to greatest. Your friends will have to figure out what card is missing when they visit your station!

Have the students gather on the rug to discuss the Number Fair. The following is a list of suggested questions to invite reflection and active processing of the total lesson experience. Use those that resonate for you as you consider what will best support your students' ability to articulate the focus of the lesson.

- In what ways did you decide to represent your number?
- What method did you choose first? Why?
- Did you see any new ways to make numbers today?
- Can you think of a way to represent your mystery number at home tonight?


## Exit Ticket (3 minutes)

Rather than having an Exit Ticket for this lesson, the teacher is encouraged to record observations as students work with their partner as described at the closing of the Concept Development.

Name $\qquad$ Date $\qquad$
Count how many are in each group. Write the number in the box. Circle the smaller group.



