## Lesson 24

Objective: Strategize to count 9 objects in circular (around a paper plate) and scattered configurations printed on paper. Write numeral 9. Represent a path through the scatter count with pencil. Number each object.

## Suggested Lesson Structure

| $\square$ | Fluency Practice |
| :--- | :--- |
| (12 minutes) |  |
| Application Problem | (5 minutes) |
| Concept Development | (25 minutes) |
| Student Debrief | (8 minutes) |
| Total Time | (50 minutes) |



## Fluency Practice (12 minutes)

- Hide and See (5 as the Total) K.OA. 2 (4 minutes)
- Hands Number Line to 10 K.CC.4a (4 minutes)
- Roll, Count, Show the Number K.CC.4a (4 minutes)


## Hide and See ( 5 as the Total) (4 minutes)

Materials: (S) 5 linking cubes, personal white board
Conduct the activity as outlined in Lesson 11, but now have students write the expressions on their personal white boards. Challenge students to list all possible combinations.

## Hands Number Line to 10 (4 minutes)

Conduct the activity as outlined in Lesson 2, but now extend the number line to the right hand to show numbers 6-10. Recall that the teacher must start the number line on the pinky of the right hand so that the students do not view it in reverse. Students start from the pinky of the left hand, moving across to the pinky of the right hand without skipping any fingers.

Note: Although this method of finger counting may be tricky at first, the mathematical advantage of seeing the number line progress across the hands far outweighs the fine motor challenges.

## Roll, Count, Show the Number (4 minutes)

Conduct the activity as outlined in Lesson 9. Differentiate by providing different types and number of dice for each student. Some students may be ready to use a pair of dice. (Be sure to cover the 6 -dot side with a small piece of mailing label to represent 0 to ensure that the total number of dots does not exceed 10.)

## Application Problem (5 minutes)

Draw 5 silly shapes. Draw 4 more silly shapes. How many silly shapes do you have?
Note: This reinforces the concept that objects need not be exactly alike or in certain configurations to make a group of 9 , preparing students for today's lesson.

## Concept Development (25 minutes)

Materials: (T) Cardboard writing frame on board (S) Bag of 10 small counters (objects should vary from student to student), plastic cup, small paper plate, personal white board

T: Take out 5 counters. Count out 4 more. Put them all in your plastic cup. Shake them nine times, and pour them onto your desk. Count your objects. How many?
S: 9.
T: How many counters are left in your bag? Say the name of what we are counting.
S: 1 counter.
T: Look at your friend's objects and compare his group to yours. How are they alike? How are they different? (Allow time for observation.)
T: Pretend your finger is a pencil, and make imaginary lines connecting your objects one at a time as you count them. Show your partner how you counted. Did he count his the same way?
S: (Responses will vary. Allow time for sharing and discussion.)
T: Now, put your paper plate upside down on your desk. Arrange your counters around the edge of your paper plate and carefully lift it off. (Demonstrate.) What do you see?
S: A circle of counters!
T: Do you think you need to count them all again to know how many counters are on the circle? (Allow time for discussion. Guide students to realize that because of number conservation, they do not need to recount.)

## NOTES ON

MULTIPLE MEANS OF REPRESENTATION:
Teach students, especially those performing above grade level, to ask higher order questions. Practice sentence starters such as, "I know because..." with them so that they can carry out higher level conversations with each other in response to queries. Allow them to be creative (show, draw, or write) in how they respond to the question, "How do you know you didn't count one twice?"

T: Let's count your circle of 9 to test your idea. Show your friend how you counted. Did you both count the same way?
S : (Allow time for discussion.)
T: How did you make sure that you didn't count one twice? (Again, allow time for sharing and discussion. Point out relevant strategies such as marking the first one counted.)
T: Put 5 of your counters back in the bag. Now, put 4 counters back in the bag. How many counters did you put away? How many do you have left?
S: 9! There are 0 left.
T: Watch how I write the number 9. Follow along with your fingers in the air. "A hoop and a line. That's the way we make a nine!" (Demonstrate several times. Follow by having children write on the rug or other surface for tactile practice.) You are ready to practice writing nines on your personal white boards. When you are ready, you may take out your practice sheet and use your pencils. (Distribute penmanship practice sheets to students.)

## Problem Set (8 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

Follow the directions to practice counting and writing 9. Make clear to students that when counting 9 in circular configurations, they should show their strategy for counting the stars and objects (e.g., crossing objects out, numbering each object, connecting objects using a line, etc.).


## Student Debrief (8 minutes)

Lesson Objective: Strategize to count 9 objects in circular (around a paper plate) and scattered configurations printed on paper. Write numeral 9. Represent a path through the scatter count with pencil. Number each object.

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. 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.

You may choose to use any combination of the questions below to lead the discussion.

## NOTES ON <br> MULTIPLE MEANS OF ENGAGEMENT:

Help English language learners participate and articulate their strategies for counting 9 by providing sentence starters such as, "I counted my dots by..." and "My strategy was to...." Giving students a place to start will reduce their anxiety about using the language. Listen as they share and encourage them to continue by asking questions to probe their thinking.

- Talk to your friend about the two groups of circles. How are they the same? How are they different?
- With your neighbor, can you come up with another way to count the circles? How many different ways do you think we could count the circles?
- Was it easier to count the stars or objects? Why?
- How many black dots were in each group? Did all the groups of dots look the same? Can 9 be shown in different ways? How?
- What do you like about the number 9 ?


## Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help you assess the students' understanding of the concepts that were presented in the lesson today and plan more effectively for future lessons. You may read the questions aloud to the students.

Name $\qquad$ Date $\qquad$
Put this page into your personal white boards. Practice. When you are ready, use your pencil to write the numbers on the paper.

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$\qquad$
$\qquad$

Color 9 happy faces.
Circle a different group of 9 happy faces.


Name $\qquad$ Date $\qquad$

Draw lines to connect the circles starting at 1.

Number the dots 1-9 in a different way. Connect the circles with lines.


With your pencil, number the objects from 1 to 9 to show how you count the stars and objects. Write the total number of objects in the boxes.


Count the dots.
Write the number.


Draw more dots to make 9 in a circle. Number the dots from 1 to 9.

Count the dots. Write the number.
Circle a group of 5 .


Count the dots. Circle 9 of them.
Within your 9, circle a group of 5 .


## COMMON CORE

$\qquad$

Name $\qquad$ Date $\qquad$
Color 9 shapes.


Draw 9 beans on the plate.

$\qquad$
$\qquad$

Number the circles from 1 to 9.


Draw 9 beads on the bracelet.


Color 9 circles.


Count. Write the number in the box.


