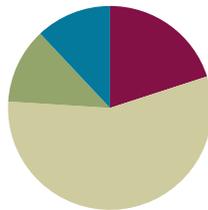


Lesson 28

Objective: Arrange and count 9 objects in varied configurations.

Suggested Lesson Structure

■ Fluency Practice	(5 minutes)
■ Application Problem	(3 minutes)
■ Concept Development	(14 minutes)
■ Student Debrief	(3 minutes)
Total Time	(25 minutes)



Fluency Practice (5 minutes)

- Drum 10 Times **PK.CC.1** (1 minute)
- Touch and Count to 9 **PK.CC.3.a** (4 minutes)

Drum 10 Times (1 minute)

Materials: (S) Drumsticks for each student

Note: This fluency activity, which asks students to drum once with each counting word to 10, prepares students for the upcoming objective of touching and counting to 10 Topic G. Be sure to include zero in the counting sequence.

- T: We are going to count to 10. I will say a number, and you drum that number of times.
- T: Zero
- S: (Drum 0 times.)
- T: One
- S: (Drum one time.)
- T: Two
- S: (Drum two times.)

Continue the counting sequence to 10.



NOTES ON MULTIPLE MEANS OF EXPRESSION:

On the way to go home, to snack, recess or lunch, the students' marching band can count to 10 over and over as they march. Say, "Wow, we counted to 10 seven times!" This hints at place value and multiplication. Have students make a bigger bang each time they get to ten to support their awareness of the repetition.

Touch and Count to 9 (4 minutes)

Materials: (S) Tower of 9 with 5 one color and 4 another color

Note: This fluency activity focuses on counting to 9 in anticipation of introducing the number 10 as 9 and 1 more in Topic G. By using the color change after the fifth cube, the number 9 becomes more accessible, comprised of 2 friendly numbers, 5 and 4. In this fluency activity, however, the composition of the parts is not analyzed as it was in Lesson 27. Students simply count past the color change.

T: (Guide students to be sure their tower is vertical.) Start at the bottom. Touch and count the cubes in your tower as you go up to the tippy top. Use a whisper voice for the bottom color and a big voice for the top color.

S: (Whisper voice) 1, 2, 3, 4, 5 (big voice) 6, 7, 8, 9.

T: Touch and count again, and use a big voice for the bottom color and whisper voice for the top color.

S: (Big voice) 1, 2, 3, 4, 5 (whisper voice) 6, 7, 8, 9.

T: This time use a growling voice for the bottom color and a high voice for the top color.

S: (Growling voice) 1, 2, 3, 4, 5 (high voice) 6, 7, 8, 9.

Show them the numerals 1–9, ask them to say “That’s 9,” and trace the shape in the air with their finger when the teacher points to the numeral 9.

Application Problem (3 minutes)

Materials: (S) 9 seeds in a small resealable bag

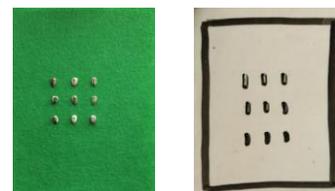
Tell the students that today they have another chance to plant seeds in different ways. Instruct them to try to count the seeds without taking them out of their plastic bags. Encourage them to manipulate the seeds so that they are easy to count. (They use the bags of seeds in the lesson.)

Note: This Application Problem gives students practice in manipulating objects into configurations that are easier to count.

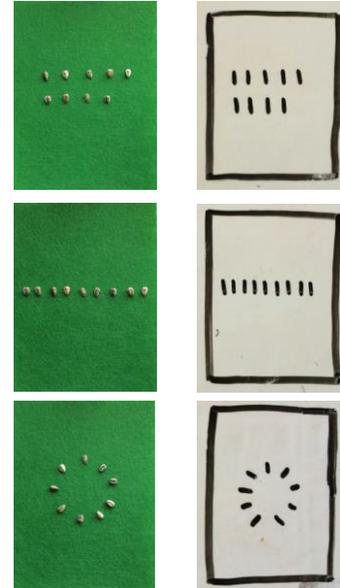
Concept Development (14 minutes)**Part 1: Concept Introduction**

Materials: (T) Green construction paper, 9 seeds, numeral card 9 (Lesson 6 Template 2), white board or chart paper

Note: Explain to students that a community garden is a garden that families in a neighborhood or community share. Choose seeds that are large enough for the whole group to see (e.g., sunflower, nasturtium, lima beans).



1. Gather students in a circle around the green construction paper. Say, “Ezra saw Maria’s community garden, and now he wants a garden in his neighborhood. Ezra brings 3 seeds to the garden.” Enlist a student to help count out 3 seeds, and line them up on the mat.
2. Say, “Two of Ezra’s neighbors each bring 3 seeds to the garden.” Add each neighbor’s seeds in their own line under Ezra’s seeds (3 by 3 array configuration), having students count the total number of seeds. Find the matching numeral (9).
3. Say, “Ezra and his neighbors work together to decide how to plant the seeds. They decide to draw each idea to remember it.” Draw the array idea, and have children count the seeds in the drawing from left to right to make sure there are 9.
4. Say, “Ezra suggests that they make 2 rows instead of 3 rows.” Repeat the sequence, moving the seeds, touching and counting, and finally drawing.
5. Say, “Ezra’s neighbor says to try making one long row.” Repeat the sequence, moving the seeds, touching and counting, and finally drawing.
6. Say, “All of the neighbors get excited when they think about planting the seeds in a circle.” Have a student make a circle with the seeds, touching each seed while the class counts. Draw this idea.



MP.4

Part 2: Practice

Materials: (T) Garden idea drawings (S) Green construction paper, bag with 9 seeds

1. Pair students, and send them to tables with construction paper and a bag.
2. Invite students to choose their favorite garden idea, and arrange their seeds to match. Encourage them to describe their seed layout to their partner.
3. Instruct partners to take turns counting and asking how many questions about each other’s seeds.
4. Have them try out a new idea for arranging the seeds. They can use an idea from the drawing or one of their own. Repeat Steps 2 and 3.



NOTES ON MULTIPLE MEANS FOR ACTION AND EXPRESSION:

Adjust the lesson structure for the needs of your students. Some students may need to work at a very concrete level and act out the garden scenarios, pretending to be seeds in Ezra’s garden and forming the various configurations. Others may need visual representations readily available while making their own gardens during the practice.

Student Debrief (3 minutes)

Lesson Objective: Arrange and count 9 objects in varied configurations.

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 toward 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.

Any combination of the questions below may be used to help students express ideas, make connections, and use new vocabulary.

- Which idea did you like best? Which one made it easiest to count the seeds?
- (Display 12 objects in a line.) Are my objects in a line or in a circle? (Move them into a circle.) Is the number of objects the same now? (Move them into a 2 by 6 array.) Is the number of objects the same now?
- (Move the objects into a 3 by 4 array.) Is the number of objects the same now? (Remove 1 object.) Is the number of objects the same now?

**CENTER CONNECTION:**

In the art center, have children choose their favorite garden layout and arrange their seeds. Replace each seed with a drop of glue. Have children create flowers by crinkling their tissue paper and placing one flower on each drop of glue. Have them count the seeds in the original drawing and the flowers in their final art work.