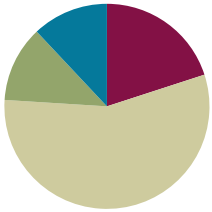
Lesson 38

Objective: Count up to 10 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)

- The Fingers on One Hand **PK.CC.3a** (2 minutes)
- Touch and Count to 10 **PK.CC.3a** (3 minutes)

The Fingers on One Hand (2 minutes)

Note: This is part of a sequence of four fluency activities in Lessons 38 through 41 that move from simple to complex. This fluency activity asks children to move between showing 4 and 5 fingers to revisit *1 more*. Put a stamp on their right hands in advance to help them find the left easily.

T: Let's only use one hand today! Put your right hand, the one with the stamp, behind your back. Show me all the fingers on your other hand.
S: (Show.)
T: Hide your thumb. (Pause.) Show your thumb. Hide it. Show it.
T: Show me 5 fingers.
S: (Show.)
T: Yes! It's the same. I just used different words.
T: Hide your thumb. (Pause.) When I give the signal, tell me how many fingers are showing. (Signal after observing which students are counting and how they are counting.)
S: 4.
T: Show me 1 more finger. How many fingers are showing now? (Pause.)
S: 5.

Playfully repeat this simple exercise a few times, moving back and forth between 4 fingers and 5 via 1 more and possibly *1 less* as they are ready.

Touch and Count to 10 (3 minutes)

Materials: (S) Tower of 10 (5 of one color and 5 of another color)

Note: This same fluency activity has been repeated with all numbers 6–10. Familiar with the logistics, students can focus more on the counting and the fact that the color change takes place after the fifth cube.

T: Touch and count the cubes in your stick. Use a whisper voice for the bottom color and a big voice for the top color.
S: (Use a whisper voice.) 1, 2, 3, 4, 5. (Use a big voice.) 6, 7, 8, 9, 10.
T: Touch and count again and use a big voice for the bottom color and whisper voice for the top color.
S: (Use a big voice.) 1, 2, 3, 4, 5. (Use a whisper voice.) 6, 7, 8, 9, 10.
T: This time, use a growling voice for the bottom color and a high voice for the top color.
S: (Use a growling voice.) 1, 2, 3, 4, 5. (Use a high voice.) 6, 7, 8, 9, 10.

Show students the numerals 1–10, and ask them to say, "That's 10." Then, the teacher traces the shape in the air with one finger while pointing to the number 10.

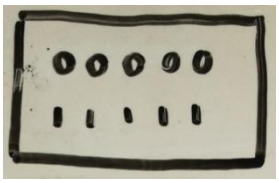
Application Problem (3 minutes)

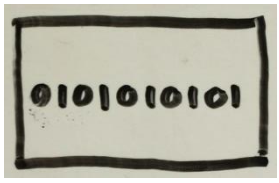
Materials: (S) 10 sunflower seeds

Tell students to notice as much as they can about their seeds. Which ones are big, and which ones are small? Which ones have a different shape? Which ones are rounder? Longer? After spending time observing the seeds, have them count to see how many there are.

Note: This fluency gives students an opportunity to compare informally in anticipation of Module 4's work with comparison.

Concept Development (14 minutes)



Part 1: Concept Introduction

Materials: (T) Long rectangle of green construction paper, 10 seeds, numeral card 10 (Lesson 6 Template 2), white board or chart paper

Note: Choose seeds that are large enough for the whole group to see, (e.g., sunflower, nasturtium, lima bean). For this lesson, having two different types of seeds is helpful.

1. Gather students in a circle around the green construction paper. Say, "Maria and Ezra's class wants to plant flowers outside their classroom window. They each bring 5 seeds." Enlist 2 students to count out 5 seeds each and bring them to the teacher.

2. Say, "Maria suggests that they make a line using her seeds and another line using Ezra's seeds." Place the seeds in 2 lines (5-group configuration), and have students count the total number of seeds.
3. Say, "The class works together to think about other ideas. They decide to draw each of their ideas to remember it." Draw the 5-group idea, and have children count the seeds in the drawing from left to right and top to bottom to make sure there are 10.

4. Say, "Joshua thinks they should make a pattern in 1 long line. He shows his idea, saying, 'Ezra's seed (place a seed), Maria's seed (place a seed), Ezra's seed (place a seed)…' as he places each seed." Have children count the seeds and draw this idea.

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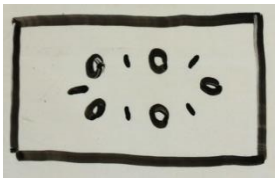
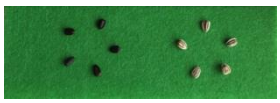
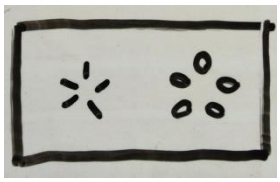


5. Say, "Ezra shares that they planted the seeds in a circle in his garden." Try to make a circle with the seeds, and help children see that there is only room for an oval, or the plants will be too crowded. Repeat the sequence of touching and counting, and then draw.



6. Say, "Kelly says that they could break the seeds into 2 groups and make 2 small circles." Have 2 students break the seeds into 2 groups and make 2 small circles. Repeat the sequence of touching and counting, and then draw.



Part 2: Practice

Materials: (T) Garden idea drawings (S) Long rectangle of green construction paper, bag with 10 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.

A NOTE ON MULTIPLE MEANS OF REPRESENTATION:

While circulating and listening to partners share, encourage students to connect the math they are learning to real world situations. For example, ask students if they have seen arrangements similar to their seed pattern on the playground, in the classroom, or in the cafeteria. Making connections helps students who may be struggling with comprehension.

Student Debrief (3 minutes)

Lesson Objective: Count up to 10 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 Student 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?
- (Show the idea drawings.) What is the same about the seeds in all of these drawings?
- (Display numeral cards 8–10.) Which number tells how many seeds you counted in each drawing?

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 place one piece of paper on each drop of glue. Have them count the seeds in the original drawing and the flowers in their final artwork.