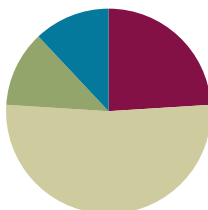


Lesson 13

Objective: Use linear configurations to count 8 in relation to 5.

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)

- Count to 8 **PK.CC.1** (2 minutes)
- Octopus Arms **PK.CC.3ab** (4 minutes)

Count to 8 (2 minutes)

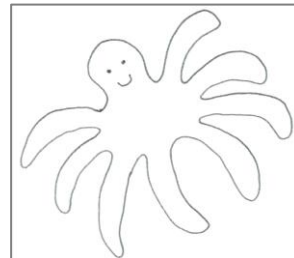
Note: Skill with rote counting gives students greater freedom to focus on the relationships between the numbers rather than struggling to retrieve the number words. By moving from loud to silent, students may start to realize they can count “inside their brains” without being heard.

- T: Count to 8 for me so that I can hear you across the room.
- T: Count to 8 for me so that I almost can’t hear.
- T: Count to 8 so I can’t hear.
- T: Close your eyes and count to 8 without moving your lips. (It is difficult to be sure if students are doing so, unless they are using their fingers. Give wait time.)
- T: It’s like a secret, yes? I can count in my mind and no one hears me or sees me counting.

Octopus Arms (4 minutes)

Materials: (S) Small Ollie card (Lesson 12 Template 2, cut apart), 8 pieces of macaroni

Note: This fluency activity encourages observing rather than directing student behaviors. Who takes the macaroni off one at a time? Four at a time? Who counts as he puts the macaroni back on his hands? Who notices there are 4 on each side?



- T: Put a piece of macaroni on each of Ollie's arms.
- T: Take the macaroni off one side of his body. (Pause to observe.)
- T: Put them back. (Pause to observe.)
- T: Take the macaroni off the other side of his body. (Pause to observe.)
- T: Put the macaroni back. Touch and count how many pieces of macaroni there are in all.

Application Problem (3 minutes)

Materials: (T) Backpack (S) Per pair: baggie containing 6–8 objects (e.g., 8 crackers)

Say, "A new explorer friend is packing her backpack for a hike. Line up and count the items in your baggie. Then, you can put it in her backpack." Partners should touch and count the items from their baggies. Have them share their count when they add the baggie to the backpack.

Note: Children need many opportunities to count larger groups of objects (6–8) within engaging contexts.

Concept Development (13 minutes)

Part 1: Concept Introduction

Materials: (T) Creek mat (Lesson 2 Template), 3 real or plastic dimes, explorer figurine (optional)

Gather children in a circle around the creek template.

1. Say, "A different explorer has reached the same creek that her friend crossed before." Point out the line of rocks. Ask a volunteer to move the explorer across each rock while the class counts, "1, 2, 3, 4, 5."
2. Ask, "Do you think the explorer could reach the other side if there was 1 more rock?" Say, "Pretend this is a rock." Add 1 dime counter to the line.
3. Ask, "How many rocks are there now?" Have another volunteer move the explorer across each rock while the class recounts 5 with 1 more, "1, 2, 3, 4, 5, 6. There are 6 rocks."
4. Say, "We had 5 rocks and we added...." Students respond, "1 more!" Say, "Now, we have 6!"
5. Ask, "Is she there yet?" (No.) "Let's put another rock." Repeat Steps 2–4 to count 7 and then 8 rocks.
6. Ask, "How many black rocks are there?" Challenge the students to ask a *how many* question about the new rocks.
7. Ask, "How many rocks did the explorer walk on to cross the creek?" Students recount to 8.



Part 2: Practice

Materials: (S) Creek mat (Lesson 2 Template), 8 play or real dimes

Note: If play dimes are used, be sure they are true to size. Use a counter that fits Step 3 well.

Send children to prepared tables.

1. Tell students, "It's your turn to help the explorer cross the creek."
2. Say, "First, take out your counters and cover the rocks in the creek." Tell your partner how many rocks are in the line.
3. Say, "Now, put 1 more rock in the line."
4. Guide students to count the covered black rocks, count the new rocks, and then count *all* the rocks each time they put 1 more in the line. Instruct them to ask and answer *how many* questions.
5. Repeat Steps 3 and 4 so that there are 7, and then 8, rocks. Celebrate the explorer's crossing.

MP.6



**NOTES ON
MULTIPLE MEANS
OF ENGAGEMENT:**

Provide opportunities for students to practice counting throughout the day. Students might enjoy acting as an explorer as they move around the classroom. During center time, "rocks" could be placed around the room and students could hop or step from rock to rock as they whisper-count.

Student Debrief (3 minutes)

Lesson Objective: Use linear configurations to count 8 in relationship to 5.

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.

- How many rocks were in the creek at first? What did you need to do to help the explorer to cross the creek?
- (Display creek mat with 8 rocks.) Count the black rocks. (Pause as students count.) Count the new rocks. (Pause.) Count *all* the rocks. (Pause.) How many did you count altogether?
- (If students are ready, you might ask the following question and demonstrate with linking cubes.) Listen to my pattern: 5 and 1 more is 6. 6 and 1 more is...? 7 and 1 more is...?
- (Show 5 black rocks and 3 dimes extending the line.) Let's count the rocks! What do you like about the number 8?



CENTER CONNECTION:

At the block center, give each child 5 of one type of block and 3 of a different type of block (e.g., 5 rectangular blocks and 3 triangular blocks). First, have them line up their 8 blocks and count. Then, have them build with their 8 blocks. Compare the structures and help the children count the number of blocks in each structure. Notice that all the structures are different but each has 8 blocks.