Grade PK/K/1: Module 1: Lesson Demonstration

Concept: Counting on from 5 and Numbers to 10

2 Part Lesson
  Part 1: Fluency Work (12 minutes)
  Part 2: Content Lesson with Debrief (38 minutes)

Teacher

Part 1: Fluency Focus: Numbers to 10
Materials: 10 Unifix cubes, five-frames, 5 index cards for numerals 1-5

Fluency Activity #1: Finger counting with the magic (numbered) glove. (3 minutes)
T: Watch my magic glove and count with me. You can count on your fingers, too.
S: (counting with the teacher) 1, 2, 3, 4, 5.
T: Stay here at 5. Let’s count back to 1.
S: (counting with the teacher) 5, 4, 3, 2, 1.
T: You counted with me very well. Try it by yourselves now. Watch my magic glove and you’ll know just what to do.
S: 1, 2, 3, 4, 5.
T: Stay here at 5. Let’s count back to 1.
S: 5, 4, 3, 2, 1.
T: This time we’ll count up and down—like a roller coaster! Stay with me.
S: 1, 2, 3, 2, 1, 2, 3, 4, 5, 4, 3, 4, 5, etc.

Student Accommodations/Comments/Pictures

Students answer in choral response.

Variations:
 Pre-K - Stay within 3 or 5.
 K - Different starting numbers, start/stop numbers (i.e. “red light/green light”), imitate roller coaster motion with hands as numbers go up and down
 1 and later in K - By 2’s in short and long sequences, tens/ones “push-ups”

To the teacher: When counting on your fingers, the teacher begins (palm out) with the right hand (students begin from the left), pinky as 1, ring finger as 2, middle finger 3, etc. so that students see the number line progressing from left to right.
COMMON CORE CURRICULUM MAPS IN MATHEMATICS  A Story of Units • PreK-5

Grade PK/K/1, Module 1, Lesson Demonstration

Students begin standing in a circle, by the end of the game, all students will be seated.

Variations:
Pre-K - sit on 5 (each student say 1 or 2 numbers)
K-1 - sit on 10 and 20

Fluency Activity #2: 1, 2, 3, sit on 10 (5 minutes)
T: Now we’ll play a fast counting game. Each person says the next 3 numbers. So if I say 1, 2, 3, what would you say (point to the person standing next to you)?
S: 4, 5, 6.
T: And the next person (point to the next person)?
S: 7, 8, 9.
T: Right. Now here’s a change. The next person (pointing) only says 10. I call this game 1, 2, 3, sit on 10. Can you guess what you have to do if you say 10?
S: Sit down?
T: Yes. Should you be sad if you have to sit?
S: No.
T: By the end of the game, everyone will be sitting anyway—so it’s no big deal—just part of the fun. After you say 10, the next person starts over again with 1, 2, 3. Here we go.
S: 1, 2, 3.
S: 4, 5, 6.
S: 7, 8, 9.
S: 10! (sits down)
S: 1, 2, 3.
Continue playing until all students are sitting.

Fluency Activity #3: High Five (4 minutes)
Students will need 5 Unifix cubes, numeral cards 1-5, and a five-frame.
T: Now we’ll play a game called “High Five.” First give me a high five in the air!
S: (High fiving the air.)
T: Have you ever wondered why it’s called a “High Five?” Hmm...we use one hand ...let’s see how many fingers we have on one hand. Count with me (putting up fingers).
S: 1, 2, 3, 4, 5.
T: How many fingers do you have on one hand?
S: 5.
T: Maybe that’s why it’s called “High Five.” Bill and Janice are going to show us how to play.
Bill is Partner A. Partner A take a card. What number did he get?
S: 3.
T: Partner A put 3 cubes on the five-frame.
Partner A: (Puts 3 cubes on the five-frame.)
T: How many more do you need to make 5?
Partner A: 2.
T: We can say it like this: “I have 3. I need 2 more to make 5.”
Partner A: I have 3. I need 2 more to make 5.
T: Partner B, get 2 more, and put them on the five-frame.
Partner B: (Puts 2 cubes on the frame.)
T: Yay, you did it! High five!
(Partner A and B high five each other.)
T: Everyone ready to play? Let’s keep it fun—take turns, and high five gently.

### Part 2: Content Lesson and Debrief (37 minutes)

| Materials: 10 Unifix cubes, blank ten-frame (inserted into personal boards) |

<table>
<thead>
<tr>
<th>“I do” (8 minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T: I’ve noticed how you like to put these on your fingers. I thought I’d try it, too! Count with me as I put the cubes on my fingers.</td>
</tr>
<tr>
<td>S: 1, 2, 3, 4, 5.</td>
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<tr>
<td>T: How many cubes?</td>
</tr>
<tr>
<td>S: 5.</td>
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<tr>
<td>T: How many fingers on my hand—ooh wait—remember (make a high five motion in the air)?</td>
</tr>
<tr>
<td>S: 5!</td>
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<tr>
<td>T: (Remove all of the cubes.) Let’s do another one. Count with me (put 4 cubes on fingers, beginning with pinky of the right hand).</td>
</tr>
<tr>
<td>S: 1, 2, 3, 4.</td>
</tr>
<tr>
<td>T: How many cubes?</td>
</tr>
<tr>
<td>S: 4.</td>
</tr>
<tr>
<td>T: How many fingers do not have a cube?</td>
</tr>
<tr>
<td>S: 1.</td>
</tr>
<tr>
<td>T: How many fingers on my hand—ooh wait—remember (make a high five motion in the air)?</td>
</tr>
<tr>
<td>S: 5!</td>
</tr>
</tbody>
</table>

Repeat with 3 cubes for the combination of 3 and 2.
Continue with 2 cubes, then 1, and 0 if students have been introduced to 0.

T: (Show 5 cubes on the fingers of the right hand.) How many cubes?
S: 5.
T: (Put one more cube on the thumb of the left hand.) How many now? (Give them time to count.)
S: 6.
T: Did you count it like this: “1, 2, 3, 4, 5, 6?”
S: Yes.
T: That’s very good, but let me teach you a shortcut. How many are on this hand (show the hand with 5 cubes)?
S: 5.
T: If we already know there are 5, do we really need to count again and again?
S: No.
T: So, instead, we can start from 5, like this “5 (extend the hand with 5 cubes forward), 6 (extend the hand with 1 cube forward).” Try taking the shortcut. Ready? (Extend hands forward as before while students count.)
S: 5, 6.

Repeat to 10.

“We do” (12 minutes)
Give each student 10 cubes and a blank ten-frame (inserted into a personal board), and direct them to place the cubes on their name plate with the open sides facing up.
T: Everybody, put 5 cubes on the fingers of one hand, just like I did (demonstrate).
S: (Put 5 cubes on the fingers of one hand.)
T: How many cubes?
S: 5.
T: Great. Take them off your fingers and put them on the top row of the ten-frame, like this (demonstrate).
S: (Put 5 cubes on the top row of the ten-frame.)
T: Count them like this 5 (make a sweeping motion across the row of 5).
S: 5 (make a sweeping motion across the row of 5).
T: Put those 5 back on, and get one more. (Give students time to do this.) How many cubes do you have now?
S: 1, 2, 3, 4, 5, 6.
T: Do you know a faster way?
S: 5, 6.
T: You remember the shortcut! Now, take them off your fingers and start filling in the top row of the ten-frame, like this (demonstrate). Put the extra one on the bottom row.

“T: (Put one more cube on the thumb of the left hand.) How many now? (Give them time to count.)
S: 6.
T: Did you count it like this: “1, 2, 3, 4, 5, 6?”
S: Yes.
T: That’s very good, but let me teach you a shortcut. How many are on this hand (show the hand with 5 cubes)?
S: 5.
T: If we already know there are 5, do we really need to count again and again?
S: No.
T: So, instead, we can start from 5, like this “5 (extend the hand with 5 cubes forward), 6 (extend the hand with 1 cube forward).” Try taking the shortcut. Ready? (Extend hands forward as before while students count.)
S: 5, 6.

Repeat to 10.

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S: (Put 5 cubes on the fingers of one hand.)
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T: Great. Take them off your fingers and put them on the top row of the ten-frame, like this (demonstrate).
S: (Put 5 cubes on the top row of the ten-frame.)
T: Count them like this 5 (make a sweeping motion across the row of 5).
S: 5 (make a sweeping motion across the row of 5).
T: Put those 5 back on, and get one more. (Give students time to do this.) How many cubes do you have now?
S: 1, 2, 3, 4, 5, 6.
T: Do you know a faster way?
S: 5, 6.
T: You remember the shortcut! Now, take them off your fingers and start filling in the top row of the ten-frame, like this (demonstrate). Put the extra one on the bottom row.

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S: (Put 6 cubes on the ten frame.)
T: Count them like this 5 (make a sweeping motion across the group of 5), 6 (pointing crisply to the single cube).
S: 5 (make a sweeping motion across the group of 5), 6 (pointing crisply to the single cube).
T: Now, let’s put a dot everywhere we put a cube. Like this (demonstrate) pick it up, put a dot, pick it up, put a dot, pick it up, put a dot ...etc. (return each cube to nameplate to eliminate confusion).
S: (Removing cubes and replacing them with dots.)
T: How many dots?
S: 5 (make a sweeping motion across the group of 5), 6 (pointing crisply to the single dot).
T: Write the number 6 in the space below your ten-frame.

Repeat to 10.
As students begin to demonstrate mastery, invite them to show their partner “the shortcut” of counting on from 5.

“You do” (10 minutes)
Send out the Activity sheet.
T: What do you see on this paper?
S: Ten-frames.
S: Numbers.
T: What is the same about all of these ten-frames? Talk to your partner about it. (Circulate to listen in on conversations and invite students to share.)
S: They all have 5.
T: On the top row or the bottom row?
S: Top.
T: Very good. Now tell me about the bottom row.
S: There aren’t any dots there.
T: That’s exactly right. Put your finger on the star. What number do you see in the box with the star?
S: 6.
T: How many dots do you see?
S: 5.
T: What can we do to make 6? Talk to your partner about it. (Circulate to listen in on conversations and invite students to share.)
S: Draw another dot!
T: That’s right! Take one crayon and draw one more dot to make 6.
S: (Drawing one more dot.)
T: How can we check to make sure we did it right?
S: Count.
T: Like this, 1, 2, 3...?
S: No! Take the shortcut!
T: Show me what you mean.
S: 5, 6.
T: You’ve really been paying attention!

Give clear instructions for students to complete the activity independently.

Debrief (5 minutes)
T: (Show 7 fingers.) Remember when you used to count like this “1, 2, 3, 4, 5, 6, 7.” How would you count now?
S: 5, 6, 7.
T: Did you know how to count like that on the first day of school?
S: No.
T: So, you’re really learning! (Show completed examples of the Activity sheet.) What helped you show the numbers on these ten-frames so quickly?
S: 5 were filled in. So, we didn’t have to color as much.
S: We could just start with 5 and go 5, 6, 7.

Exit Ticket (3 minutes)
T: It’s time to show what you know. Do your very best!

Students sit on the rug in a large circle so they’re facing each other for discussion.