Lesson 6

Objective: Compose 6, and then decompose into two parts. Match to the numeral 6.

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)

- Tally 5 Apples PK.CC.3a (3 minutes)
- Count to 7 on Fingers PK.CC.3a (3 minutes)

Tally 5 Apples (3 minutes)

Materials: (T) 5 apples (S) paper, crayon

Note: Throughout Topic B, the foundation is being laid for tallying numbers to 10, an important representation as it is used in the classroom but also, more significantly, because it is another way to build Pre-Kindergarten students’ understanding of numbers in relationship to 5 and 10.

T: Let’s count the apples.
S: 1, 2, 3, 4, 5.
T: How many apples did you count?
S: 5.
T: Let’s draw one tally mark to stand for each apple. How many tally marks will I need?
S: 5.
T: Count while I draw. (Demonstrate drawing the last tally across, like was done yesterday.)
S: 1, 2, 3, 4, 5.
T: Now, you try. Count out loud as you draw your tally marks. Try again if you finish early.

NOTES ON MULTIPLE MEANS FOR ACTION AND EXPRESSION:

Hand dominance contributes to tally formations. Students who are right-handed dominant may be more comfortable forming the fifth tally from top left to bottom right, and students who are left-hand dominant may feel more comfortable making the fifth tally from top right to bottom left. Both ways of drawing the tally should be accepted.
Count to 7 on Fingers (3 minutes)

Note: As with Touch and Count Objects, this activity requires differentiation. Some students need to continue to work on the left hand alone for a while. To avoid stress, gently lead students unable to perform this activity back to counting interesting objects.

T: Let’s count to 7 in two different ways with our fingers. First, let’s drop our fingers as if we were playing the piano. Ready? (Hover hands above a surface as if about to play a piano. Drop each finger sequentially, starting with the left pinky. Unlike when playing the piano, leave the fingers dropped.)

S: 1, 2, 3, 4, 5, 6, 7.

T: Now, let’s start with our hands closed and pop our fingers up. Ready? (Put two fists on a surface, as was done in Topic A.)

S: 1, 2, 3, 4, 5, 6, 7.

T: Practice again! Softly count out loud as you move each finger so I can hear you.

Application Problem (3 minutes)

Materials: (T) 2 cans of tennis balls (each with 3 balls)

T: One morning, the teacher was surprised to find a can of tennis balls on her desk! (Invite a student to place the can of tennis balls on her desk.)

T: How many tennis balls are there? I’ll touch while you count!

S: 1, 2, 3.

T: The next morning, the teacher found another can of tennis balls right next to the first can on the desk! (Invite a student to place another can of tennis balls next to the first on the desk.)

T: How many tennis balls are there now? I’ll touch while you count!

S: 1, 2, 3, 4, 5, 6.

T: How many cans are there?

S: 2.

T: Do you remember how many balls there are?

S: Yes, 6. → No. I’ll count again.

T: Count them for me together while I point. As you count, say, “1 ball, 2 balls.” Okay?

S: 1 ball, 2 balls, 3 balls, 4 balls, 5 balls, 6 balls.

Note: This Application Problem is designed for students to count 6 in an array configuration while also seeing 6 composed of two groups within the story context. By stating the unit at each count, in this case balls, students learn a different way to count that carries forward throughout their K–5 experience, with different units (e.g., frogs, centimeters, hundreds, hundredths, quarts, fours, and fourths).
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Concept Development (13 minutes)

Part 1: Concept Introduction

Materials:  (T) 10 loose cubes (mixed colors), Partners of 6 Puzzle (4- and 2-stick, Template 1 cut apart) (S) Small resealable bag with 6-stick (mixed colors), 1 Partners of 6 Puzzle (Template 1 cut apart), numeral card 6 (Template 2 cut apart)

1. Place the 10 loose cubes on the floor. Invite two students forward. Tell each student to make a stick of 3 cubes to match a can of tennis balls.
2. Display the puzzle template. Invite students to place their sticks on the matching puzzle spaces.
3. Use self-talk while joining the two sticks. “Three is such a familiar number! We know it so well. I wonder what would happen if I put these two sticks together.” Join the sticks, and guide children to see that there is now 1 longer stick. Touch and count the 6 cubes as a class.
4. Introduce the numeral 6 using the numeral card. “This is how we show the number 6. Everyone trace it with your finger in the air.” Invite students to share their thoughts about the shape of the number 6 and what it reminds them of.
5. Ask, “Can I break this 6-stick so I have the same two small sticks again?” Invite a student to show and prove that they are the same by placing sticks on the puzzle.
6. Distribute a bag to each student. Invite children to touch and count the cubes in their sticks. Have them use the numeral card to trace 6 with a finger and say “six” as they do so.
7. Have children break their sticks to match their puzzles. Guide them to describe their work as they are able: “I made smaller sticks.” “I broke my 6 stick into two parts.” “I have some cubes here and some cubes here.” “I have 4 cubes here and 2 cubes here; they’re partners!” Instruct children to put their sticks back together to form the original stick. Every time they count and make 6 again, have them use the numeral card to trace 6 with a finger.

Part 2: Practice

Materials:  (S) 6-stick, Partners of 6 Puzzles (Template 1 cut apart), numeral card 6 (Template 2 cut apart)

Continue to work in the circle so children can easily pass the puzzles.

1. Distribute a new Partners of 6 Puzzle to each child. Demonstrate how to break the stick into two smaller parts to match the puzzle.
2. Give students a chance to break their stick and place it on a puzzle. Guide them to use their words to describe their work as they did in Part 1.
3. Have children put the parts together again. Guide them to count and tell how many are in their 6-sticks. Each time they make 6 again, have them trace the numeral.
4. Have children pass the puzzle to the right and repeat Steps 2 and 3.

**Student Debrief (3 minutes)**

**Lesson Objective:** Compose 6, and then decompose into two parts. Match to the numeral 6.

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.

- (Display the numeral 6.) Show me 6 fingers. Wiggle all 6 of them. Now, just wiggle one of them. (Repeat wiggling different numbers of fingers. Let them use their fingers in any way they wish.)
- Can you break your stick to match the total number of tennis balls in both cans (gesture clearly to both cans)? Can you use your fingers to show the total number of balls in both cans?
- (Show numeral card 6 and numeral card 1.) Let’s compare the number 6 with the number 1. How do they look different? (If there is time, repeat with 2, 3, and so on.)

**CENTER CONNECTION:**

Point out partners of 6 at centers. For example, in the block center, display 6 blocks with two different shapes (e.g., 3 rectangular blocks and 3 cylindrical blocks). Notice aloud that there are 6 blocks. Ask, “How many have rectangles on a side? How many have circles on a side?”
Cut along dashed lines to prepare Partners of 6 Puzzles.
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To create numeral cards: 1) Print.  2) Fold lengthwise so the outline on the numeral side matches the outline on the dot side.  3) While the paper is folded, cut out individual cards. Do not cut along the fold!  4) Laminate with cards folded so that numeral and dots match.

numeral cards (Only 1 and 6 are needed for this lesson. Set aside other cards for use in future lessons.)
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