## Lesson 7

Objective: Compose 7, and then decompose into two parts. Match to the numeral 7 .

## Suggested Lesson Structure

| $\square$ Fluency Practice | (6 minutes) |
| :--- | :--- |
| $\square$ Application Problem | (3 minutes) |
| $\square$ Concept Development | $(13$ minutes) |
| $\square$ Student Debrief | (3 minutes) |
| Total Time | $(\mathbf{2 5}$ minutes) |



## Fluency Practice ( 6 minutes)

- Tally 5 Pine Cones PK.CC.3a (3 minutes)
- Build and Break a Stick PK.CC.3a (3 minutes)


## Tally 5 Pine Cones (3 minutes)

Materials: (T) 5 pine cones (S) Paper, crayon
Note: With practice, students gain confidence. Make specific observations about ways in which their tallying has improved, e.g., "Today your tally marks are straighter (the same length, evenly spaced, etc.)." Possibly show a student's tally from the day before to compare and celebrate improvement.

Repeat the fluency activity from Lesson 6, tallying pine cones or a different object, something the students find interesting. As you circulate, use position words such as next to, beside, on, and under. For example, "I see you drew your tally next to the other one." "Yes, we draw the tally mark for 5 on the others." "Yes, there are 4 tally marks under that tally mark!"

## Build and Break a Stick (3 minutes)

Materials: (T) Numeral cards 1-6 (Template 2) (S) 1 stick of 5 cubes (varied colors), loose cubes
Note: This fluency activity allows students to have another experience of composition, putting together, and decomposition, breaking apart. Some students may be ready to count the cubes in each part, others may be at the level of simply noting that the bigger tower can be broken into two smaller parts. Encourage each child to his or her highest level with sensitivity.

T: Touch and count the cubes of your stick. (Pause to allow for student response.) Now, let me hear you counting as you build!
S: $1,2,3,4,5$.
T: Now, add 1 more!
T: Touch and count the cubes of your stick now. (Pause to allow for student response.) Now, let me hear you counting as you build!
S: 1, 2, 3, 4, 5, 6 .
T: Break your stick apart in different ways and then put it back together again. (Circulate and provide support as students work.) How many cubes are in your stick when you put it back together?
Have the students break their sticks again in a different way. Show them the numerals from 1 to 6 . Ask them which shows the number 6 .

## Application Problem (3 minutes)

## Materials: ( $T$ ) Class calendar

T: Count the number of days in a week on our calendar for me. I'll touch. You count.
S: 1, 2, 3, 4, 5, 6, 7 .
T : How many days are there in one row?
S: 7.
T: Does anyone know what days we don't come to school?
S : Saturday and Sunday.
T: I'll cross them off. Count those days for me. I'll cross off. You count.
S: 1, 2.
T: Count the number of days we usually go to school for me. I'll touch. You count.
S: $1,2,3,4,5$.
T : Count the number of days in a whole week again!
S: $\quad 1,2,3,4,5,6,7$.
Note: Young students are becoming aware of time as they begin to attend school. The number 7 is often associated with number of days in a week. This brief counting activity simply begins to activate that awareness without the complexity of analysis. Note that the teacher's voice is omitted from the count. This is done to encourage student leadership in counting. Possibly have a student or set of students model counting while the teacher or someone else touches to heighten student awareness that these two skills must come together.

## Concept Development (13 minutes)

## Part 1: Concept Introduction

Materials: (T) 10 loose cubes (mixed colors), Partners of 7 Puzzle (5-and 2-stick, Template 1)
(S) Baggie with 7-stick (mixed colors), 1 Partners of 7 Puzzle (Template 1 cut apart), numeral card 7 (Template 2)

1. Place the 10 loose cubes on the floor. Invite two students forward. Tell one student to make a stick of 5 cubes and the other to make a stick of 2 cubes.
2. Display the 5 - and 2 -stick puzzle. Invite the students to place their sticks on the matching puzzle places.
3. Use self-talk while joining the two sticks, "Those are such familiar numbers, and we just saw them in the calendar, too! We love 5 and 2 and know them so well that they are like good friends. I wonder what would happen if I put these two sticks together." Just as in Lesson 6, guide children to see that there is now 1 longer stick. Count the 7 cubes as a class.
4. Introduce the numeral 7. "This is how we show the number 7!


Everyone, trace it with your finger in the air." Invite students to share thoughts about its shape and what it reminds them of.
5. Ask, "Can I break this 7-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 baggie to each student. Invite children to touch and count the cubes in their sticks. Have them use the numeral card to trace 7 with a finger and say "seven" 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 7 stick." "I made two parts." "I have some cubes here and some cubes here." "I have 4 cubes here and 3 cubes here. It's like they are partners." Instruct children to put their sticks back together to form the original stick. Every time they count and make 7 again, have them use the numeral card to trace 7 with a finger.

## NOTES ON

MULTIPLE MEANS OF ENGAGEMENT:

As students are verbalizing their actions, call attention to students who are making attempts to use their own words to explain composing and decomposing 7. Encourage English language learners to say the numbers in their native language. Having students model language both encourages persistence and celebrates success.

## Part 2: Practice

Materials: (S) 7-stick, Partners of 7 Puzzles (Template 1 cut apart), numeral card 7 (Template 2 cut apart)

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

1. Distribute a new Partners of 7 Puzzle to each child. Demonstrate how to break the stick into two 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 7-stick. Each time they make 7 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 7, and then decompose into two parts. Match to the numeral 7.
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.

- Show me 7 fingers. Wiggle all 7 fingers. Wiggle just 2 of your fingers. (Repeat wiggling different numbers of fingers. Let students use their fingers in any way they wish.)
- (Show Partners of 7 Puzzles.) What was the same about all of your puzzles today?
- (Show a stick of 7.) How many are in this stick? (Break the 7-stick into two smaller sticks. Then, put it back together.) How many are in this one stick? Do we have to count?
(Show numeral card 7 and numeral card 6.) Let's compare the number 7 with the number 6 . How do they look the same? How do they look different? (Repeat with 1, 2, 3, etc.)


## CENTER CONNECTION:

Add the Partners of 7 Puzzles to the block or puzzle center. Create puzzles for numbers $3,4,5$, and 6 to add variety. Use a coding system so children are able to find the puzzles that go with each number (e.g., all Partners of 7 Puzzles on yellow paper).

Cut along dashed lines to prepare Partners of 7 Puzzles.
$\qquad$

partners of 7 puzzles

Lesson 7:

Date:

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

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8/21/14


## numeral cards

## COMMON <br> CORE"



## numeral cards

