Pre-K Math - Unit 4

- REMINDER: The remainder of the school year challenges students to apply the skills they learned with numbers 1-5 to make sense of and count groups of up to 10 objects. Students also continue their work with rote counting, one-to-one correspondence, cardinality, and number recognition.
- Note that this two-week lesson plan addresses multiple skills and has two separate objectives (1) arranging and count objects in a varied configurations and (2) application of skills (recognition, counting, quantity, etc.) related to the number 6.
- Pace these 10 activities at your discretion over the two-week period, based on children's abilities and interest.
- REMINDER: Some of this unit's content will be too complex for friends who have recently moved up to the Pre-K classroom; repeat learning centers from September through January for those students.

1 - Daily Fluency Practice - Clap and Count to 6 (Large Group or Small Group, about 2 minutes)

Note: Rote counting to 6 prepares students for the objective of touching and counting to 6 and 7 by adding 1 more.

- Let's clap 5 times, and count our claps! Join in when you are ready. 1, 2, 3, 4, 5. (Repeat until most students are either clapping, counting, or ideally, clapping and counting. Pause between counts.)
- Let's pat our heads 5 times, and count our pats! 1, 2, 3, 4, 5. (Follow the same process as above.)
- Let's clap 6 times, and count our claps! 1, 2, 3, 4, 5, 6.
- Let's pat our heads 6 times, and count our pats! 1, 2, 3, 4, 5, 6.

2 - Concept Development, Touch and Count (Small Group, about 3 minutes)

Materials: Each child needs a baggie with 6 identical objects (beans, pompoms, pennies, etc.).

This activity gives children practice counting out a new group of 5 objects, then creating a group of 6 by including 1 more. **The example notes pennies but use what you have.** Gather a group of 3-4 children and provide each child with a baggie with 6 objects. Ask them to:

- Put 5 pennies in a line. (Pause as students do so. Observe their strategies. Gently remove pennies from those who struggle to count to 5 accurately until they have a number they can touch and count with one-to-one correspondence.)
- (Discretely address students who are able to count to 5 correctly.) Jenny, Alexis, and Marta, put 1 more penny at the end of the line.
- Touch and count how many pennies you have now. (Pause as students touch and count. Observe carefully.) How many pennies do you have now?
- Have the students count until they have mastered counting 6 pennies.

3 – Fluency Activity, Make a Line of 6 (small group, about 4 minutes)

Each child needs 4 red beans and 2 white beans (note that you can substitute pompoms, blocks, or any manipulative for beans, as long as 4 are one color and 2 are another color) During this fluency activity, work with no more than 4 students so you can carefully watch students' counting strategies.

- Put your red beans in a line. (Pause.) Count them. Let me hear you counting! (1, 2, 3, 4.)
- Put your white beans in a different line. (Pause.) Count them! Let me hear you counting (1, 2)
- Move your line of white beans to the end of your line of red beans to make one long line of beans. Touch and count to find out how many beans are in your line now. (1, 2, 3, 4, 5, 6.)
- Show students the numerals from 1 to 6. Ask them which one shows the number 6.

4 – Concept Practice, Touch and Count to 6 (small group, about 4 minutes)

Each child a stick of 6 unifix cubes (or blocks), 2 of one color stacked on top of 4 of another color. By using the color change after the fifth cube, the number 6 becomes more accessible, comprised of two familiar numbers. In this activity, however, the composition of the parts is not analyzed, as students simply count past the color change to 6. Please work with no more than 4 students so you can closely observe their counting strategies.

- Touch and count the cubes in your stick. Use a whisper voice for the bottom color and a big voice for the top color. (Whisper voice) 1, 2, 3, 4, (big voice) 5, 6.
- Touch and count again, and use a big voice for the bottom color and whisper voice for the top color. (Big voice) 1, 2, 3, 4, (whisper voice) 5, 6.
- This time use a growling voice for the bottom color and a high voice for the top color. (Growling voice) 1, 2, 3, 4, (high voice) 5, 6. Show them the numerals 1–6, and ask them to say, "That's 8!" and trace the shape in the air with their fingers when the numeral 8 is pointed out.

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5 - Concept Development, 1 More (Small Group, about 5 minutes)

Gather a small group of friends in the blocks center (no more than 4). Have children count out a group of 5 blocks. Add 1 more block, and ask them to count how many. Finally, ask them to stack the blocks and count. Some students use conservation to understand that the number of blocks does not change when the blocks are rearranged.

6 - Concept Development, Circular Configurations (Small group, about 8 minutes) This example uses 6 apples – note that you can substitute any group of 6 identical items.

- Working with a group of 4 children, arrange 6 apples in a circle. Say, "These apples are on the table for a tea party. Let's count how many apples are on the table." Touch and count each apple. Instead of stopping at 6, continue around the circle until students notice a problem.
- Ask students for ideas about how to count things in a circle. Guide the discussion to help them identify how to mark the start. Repeat the count, using a small object to mark the start of the count.
- With numeral cards in hand or on display, ask children, "Point to the number that shows how many apples are on the table." Ask them, "This number? This number?"

7 – Concept Practice and Debrief (small group, about 5 minutes)

Provide children with a variety of items to arrange in a circle and count, as they did in activity #3. 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 can you remember where you started counting on the circle?
- Is it easier to count 6 things in a line or 6 things in a circle? Why?

8 - Fluency Practice, Build and Break a Stick (Small Group, about 3 minutes)

Materials: one set of numeral cards 1–6 per group, 4 stick of 5 cubes each (varied colors, 1 stick per child), 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.

Gather a group of 4 children and provide each child with a stick of 5 unifix cubes to:

- Touch and count the cubes of your stick. (Pause to allow for student response.) Now, let me hear you counting as you build! (1, 2, 3, 4, 5)
- Now, add 1 more!
- Touch and count the cubes of your stick now. (Pause to allow for student response.) Now, let me hear you counting as you build! (1, 2, 3, 4, 5, 6)
- 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.
- Be sure to show them the numerals from 1 to 6. Ask them which shows the number 6, to help connect their composition to the numeral.

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9 - Build it, roll it, write it: Writing Number 6

Consult the HWT Manual to learn the specific way that the numbers must be taught, then work with small groups of children to:

- Build the number 6 with wooden pieces. (Video support here.)
- Make the number 6 with Roll-A-Dough. (Video support here.)
- Write the number 6 in HWT journals. After children draw a picture related to the number, have them practice writing the number 6 on the page's HWT strip.

10 - Additional Learning Centers

Race to Fill the Cup

How to Play: To play this game, you need objects for counting (we used math linking cubes), a cup for each player (pick the size based on age and ability), and a die. Each player rolls the die and then adds that many cubes to their cup. The first one to fill the cup wins!

Circular Crowns

Make crowns in the art center to practice counting up to 6 in a circular configuration. Use a sentence strip or a long piece of construction paper to make the crowns. Give children up to 6 medium pieces of tissue paper to crumple into flowers or jewels to glue on the crown. Help them find ways to mark the start of their count once the flowers or jewels are glued to the crown.

