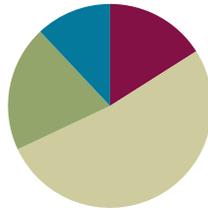


Lesson 37

Objective: Arrange and count 10 objects in circular configurations.

Suggested Lesson Structure

■ Fluency Practice	(4 minutes)
■ Application Problem	(5 minutes)
■ Concept Development	(13 minutes)
■ Student Debrief	(3 minutes)
Total Time	(25 minutes)



Fluency Practice (4 minutes)

- Ten Teddy Bears **PK.CC.4** (4 minutes)

Ten Teddy Bears (4 minutes)

Materials: (S) 5 large teddy bear counters, 5 small teddy bear counters

Note: If different-sized teddy bear counters are unavailable, use another type of manipulative, (e.g., red and blue counters).

Note: During this fluency activity, circulate and watch students' counting strategies.

- T: Put your big teddy bears in a line. (Pause.) Put the small teddy bears in a line right across from the big teddy bears. (Demonstrate.)
- T: Count all the teddy bears.
- S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
- T: Count how many teddy bears are big.
- S: 1, 2, 3, 4, 5.
- T: Count how many teddy bears are small.
- S: 1, 2, 3, 4, 5.
- T: Move your line of big teddy bears to the end of your line of small teddy bears to make one long line of teddy bears.
- T: Touch and count to find out how many teddy bears are in your line now.
- S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.



A NOTE ON MULTIPLE MEANS OF REPRESENTATION

Some children may benefit from acting out the 5-group and linear configurations using their own bodies first. This provides a different perspective than working with the bear counters.

Show students the numerals from 1 to 10. Ask them which one shows the number 10.

Application Problem (5 minutes)

Materials: (T) 1–5 white board or poster from M1 Lesson 22, 6–9 white board or poster from Lesson 27, 10 puppies (Template 1), magnetic numerals 1–10

Gather children in a circle. Say the following rhyme, gesturing to each object on the chart:

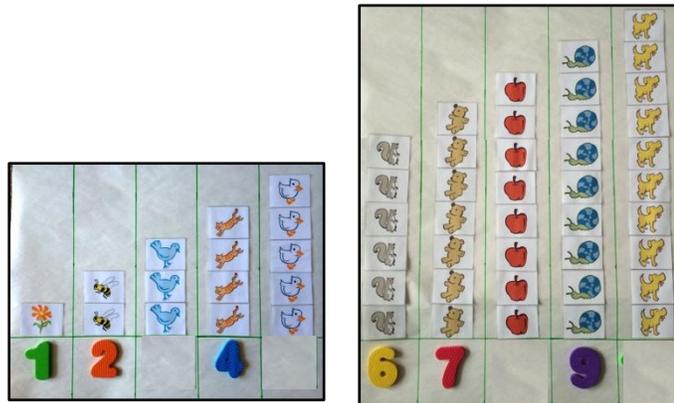
One little flower, 2 little bees,
 3 little birds in a tree.
 Nice warm sun shines down on me.
 I can count! 1, 2, 3.

4 little kittens come out to play,
 On this warm and sunny day.
 Five little ducks take a dive.
 Count them: 1, 2, 3, 4, 5.

6 little squirrels, quick as can be,
 Climbing up the old oak tree.
 In its shade sit 7 chairs,
 1, 2, 3, 4, 5, 6, 7 bears.

8 little apples up in the tree,
 Some for you, and some for me.
 9 little snails in a line,
 1, 2, 3, 4, 5, 6, 7, 8, 9.

10 little puppies scampering past,
 Running very, very fast,
 We count over and over again,
 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.



Pass out the magnetic numerals 3, 5, 8, and 10. Ask, “Who has the number to show how many birds (ducks, apples, and puppies) there are?” Have students put the magnetic numerals on the chart to match. Say, “Clap when I touch the number 10.” Point to each number in order starting from 1. Students should be completely silent to encourage *internal* counting, clapping only once when the number 10 is touched.

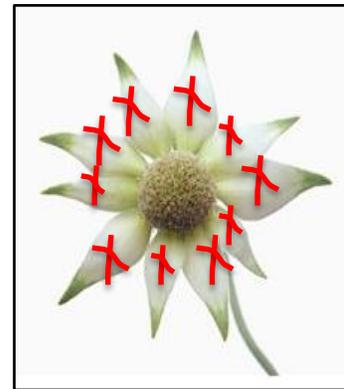
Note: Post these charts in the classroom so children can periodically count the objects. The stair-like configuration helps children internalize the *1 more* pattern in the counting sequence.

Concept Development (13 minutes)

Part 1: Concept Introduction

Materials: (T) Magnetic numerals 0 and 6–10, 10 puppies (Template 1), flower image (Template 2)

1. Take the puppies off the board, and put them in a circle. Say, “These puppies are chasing one another’s tails around and around in a circle. Let’s count how many puppies are in the circle.” Touch and count each puppy. Instead of stopping at 10, continue around the circle until students notice a problem.
2. Ask children to remember how to count things in a circle. Repeat the count, perhaps drawing a collar on one puppy to mark the start of the count.
3. Ask children, “Point to the number that shows how many puppies are chasing each other.” Ask them, “This number? This number?”
4. Display the flower template. Say, “One puppy found a pretty flower. Can you help the puppy count the petals?” Call a student forward to touch and count each petal. Show him how to make a dot or cross on each petal after it has been counted.
5. Say, “Count how many blue petals are on the flower.” Guide children to see that there are 0 blue petals, and ask them to find the matching numeral.



Part 2: Practice

Materials: (S) Per pair: Numeral cards 8–10 (Lesson 6 Template 2, cut apart), small resealable bags containing circular configuration cards (Template 3, cut apart), sticker or linking cube (to mark start)

1. Match the children with a partner and tell them, “Let’s play school! One of you will be the teacher, and one of you will be the student.”
2. Say, “Teachers, pick a bag, and choose a card. Ask your student how many things are in the circle.”
3. After the children have done so, say, “Teachers, find the number that matches.”
4. The children switch roles, repeating Steps 2 and 3.
5. Circulate among groups, and support as necessary. In particular, watch to see that the children are marking a starting point for the count or marking off each object as they count. If they mark only the first object, make sure the marked object is the first object counted and does not get recounted at the end of the count.

Student Debrief (3 minutes)

Lesson Objective: Arrange and count 10 objects in circular configurations.

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.

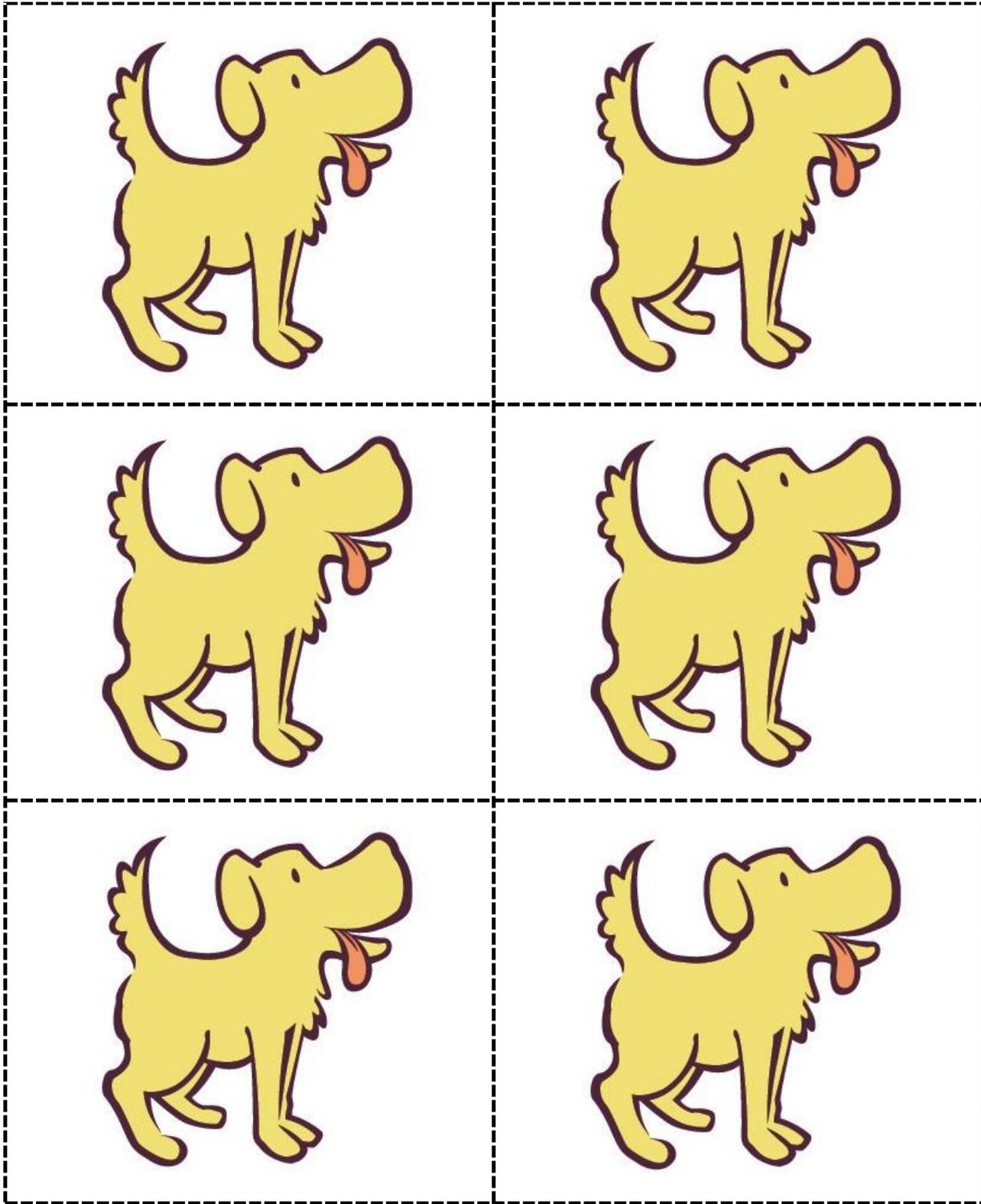
As students complete the Practice portion of the Concept Development, listen for misconceptions or misunderstandings that can be addressed in the Student Debrief.

Any combination of the questions below may be used to help students express ideas, make connections, and use new vocabulary.

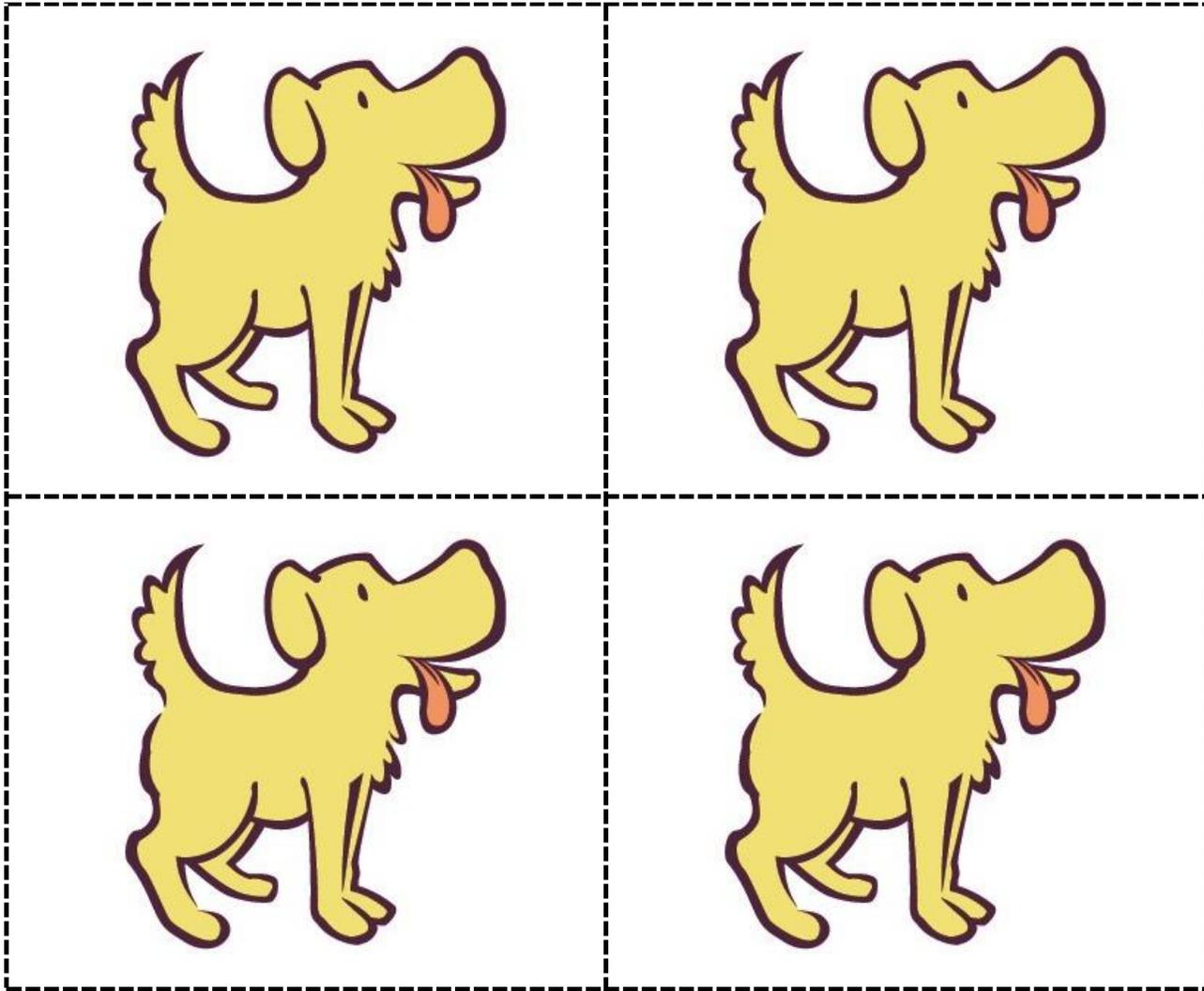
- When counting the puppies, what did you do? How did that help you to know the place to stop counting?
- (Draw or display 5 objects in a circle. Display numerals 5–10 on the carpet.) Which number tells how many objects I have? (Pause, as students need time to count.) What if I put 1 more in the circle? (Continue adding 1 more until there are 10 objects.)
- (Show 1–5 and 6–10 charts.) Remember when we made stairs using our linking cubes? What is the same about these pictures and our linking cube stairs?
- (Show the single flower from the circular configuration cards.) Tell students that some of them matched this card to the number 1, and some matched it to 10. Ask them which is right. Guide them to see both perspectives (one flower and ten petals).

**CENTER CONNECTION:**

In the art center, provide children with a circle template and 10 ball or bone cut-outs. Have children count and place the balls/bones around the circle. If children are ready, glue the circle to a larger piece of paper, and invite them to draw a puppy for each ball/bone.



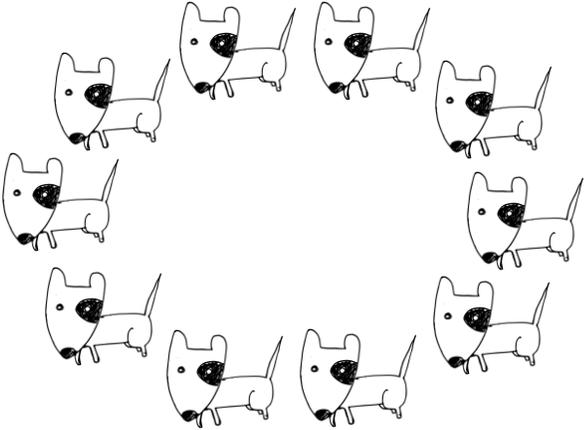
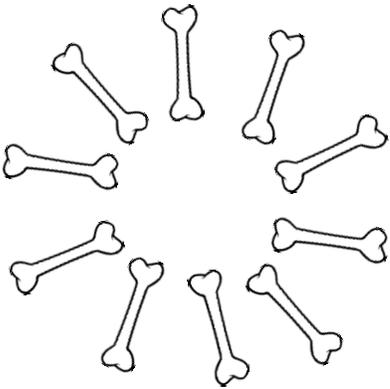
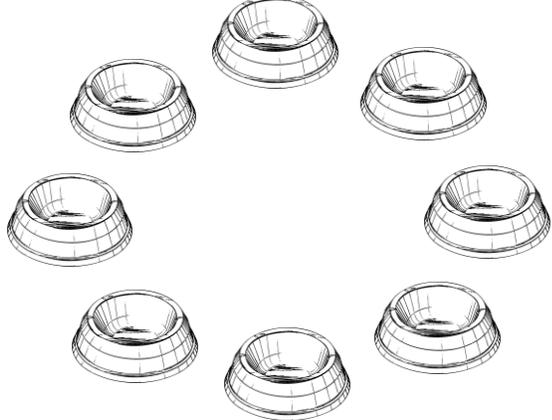
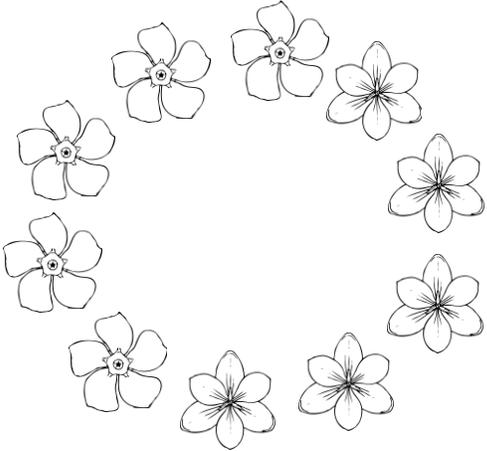
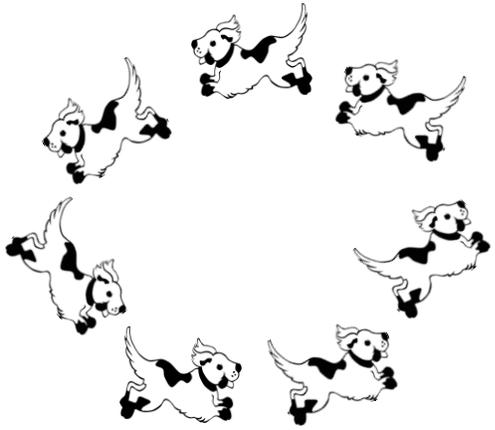
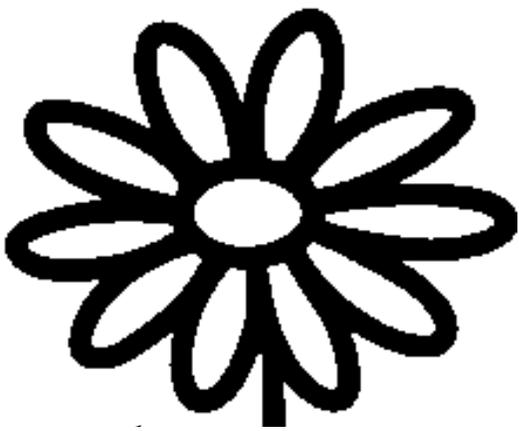
10 puppies



10 puppies



flower image

circular configuration cards