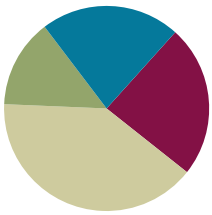
Lesson 9

Objective: Within linear and array dot configuration of numbers 3, 4, and 5 find *hidden partners.*

Related Topics: More Lesson Plans for the Common Core Math

Suggested Lesson Structure

Fluency Practice	(12 minutes)
Application Problems	(7 minutes)
Concept Development	(20 minutes)
Student Debrief	(11 minutes)
Total Time	**(50 minutes)**



Fluency Practice (12 minutes)

- Hands Number Line to 5 **K.CC.4a** (4 minutes)
- Five Frame Peek-a-Boo **K.CC.5** (4 minutes)
- Roll, Count, Show **K.CC.4a** (4 minutes)

Hands Number Line to 5 (4 minutes)

Conduct activity as outlined in Lesson 2.

Continue this process to 5. Then, guide students to recognize the group of 5 on one hand. Ask questions like: Are you showing me all of your fingers on one hand? How many is that? So then, how many fingers do you have on the other hand?

Five Frame Peek-a-Boo (4 minutes)

Materials: (T) 5-group cards

T: I'm going to show you my 5-group cards, but only for a second! Like this… (hold up the card briefly, and then quickly take it out of view). Quickly count the dots, and raise your hand when you know how many. Remember to wait for the snap. (Wait for all students to raise hands, and then give the signal.)

S: 1!

Work within numbers to 3 at first, and as students demonstrate mastery, introduce 4 and 5. Here is a possible sequence: 1, 2, 1, 2, 3, 2, 3, 4, 3, 2, 3, 2, 3, 4, 5, 4, 5, 4, 3, then random.

Roll, Count, Show (4 minutes)

Materials: (S) Dice with the 6 dot side replaced with 0 (by covering with a piece of mailing label), numeral cards

1. Roll the die.
2. Touch and count the dots.
3. Find the numeral card with that many dots.
4. Repeat (or verify with partner).

Application Problem (7 minutes)

Draw a caterpillar pet that has 4 different parts. Show your pet to a friend.

Note: This is a classic sequence of concrete to pictorial. They *made* a caterpillar yesterday with cotton balls and today they draw one.

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

When giving directions for the application problem, show a picture of a caterpillar to assist your English language learners and special needs students in understanding your directions.

Concept Development (20 minutes)

Materials: (S) Two linking cube sticks of 5, Hidden Partners template for each pair of students.

T: We are going to be builders today! Count with me as I build this tower. (Build a tower of 5, one block at a time with the linking cubes.)

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

T: This is a tall tower. I'm going to break it to find **hidden partners** inside. (Break off two.)

T: What do you notice? Talk to your partner.

S: One tower is has 2 small. → One of the towers has 3 cubes. → There is a 3 tower and a 2 tower inside the 5 tower! → Those must be the hidden partners. → They were hiding inside the 5!

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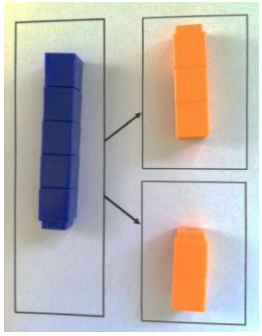
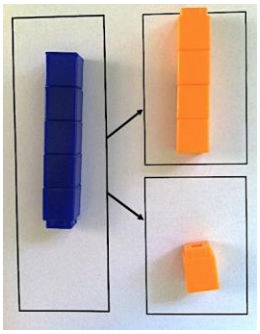
T: Here is a tower of 5 for you. Break it the same way I broke mine. (Let them investigate.)

T: Put your tower together again. Can anyone find different hidden partners inside the 5?

S: If you take 1 block off the top you will partners of 4 and 1.





Continue finding hidden partners with 4 blocks and 3 blocks.

Have students go back to their seats and pass out another linking cube tower of 5 and activity work mat for each pair of students.

T: Build a tower of 5 and put it inside the large box on the left. Take your other linking cube tower of 5. Is it the same number as the other?

S: Yes.

T: Break it into 2 hidden partners that together are 5.

Guide them to then do the same with two towers of 4 and two towers of 3. Circulate and encourage them to notice the hidden partners.

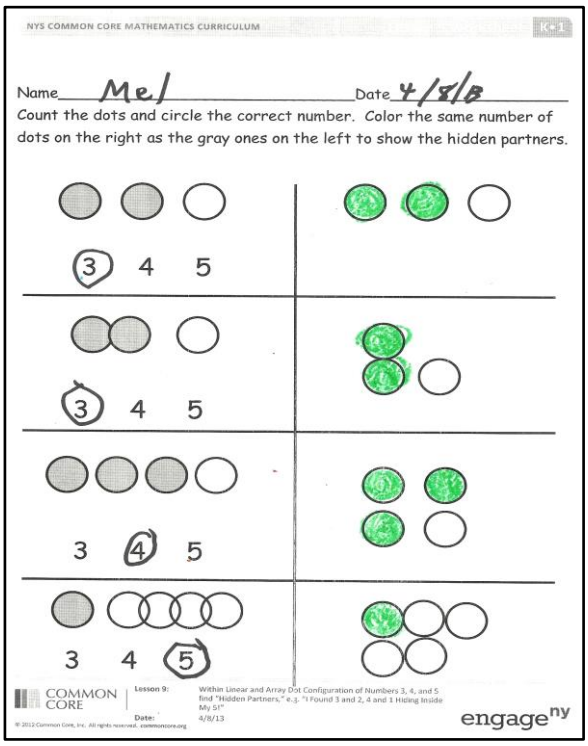
NOTES ON MULTIPLE MEANS FOR ACTION AND EXPRESSION:

For students performing at or above grade level who finish early, challenge them to try the same exercise with a tower of six.

Problem Set (5 minutes)

Students should do their personal best to complete the Problem Set within the allotted 5 minutes. For some classes, it may be appropriate to modify the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students solve these problems using the RDW approach used for Application Problems.

Go over the directions one step at a time. Remind students to count all of the dots (not just the gray ones).


NYS COMMON CORE MATHEMATICS CURRICULUM K•1

Name Me! Date 4/8/13

Count the dots and circle the correct number. Color the same number of dots on the right as the gray ones on the left to show the hidden partners.

3 4 5

3 4 5

3 4 5

3 4 5

COMMON CORE Lesson 9: Within Linear and Array Dot Configuration of Numbers 3, 4, and 5 find "Hidden Partners." e.g. "I Found 3 and 2, 4 and 1 Hiding Inside My 5!" Date: 4/8/13

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Student Debrief (11 minutes)

Lesson Objective: Within linear and array dot configuration of numbers 3, 4, and 5 find *hidden partners.*

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner before going over answers as a class. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson. You may choose to use any combination of the questions below to lead the discussion.

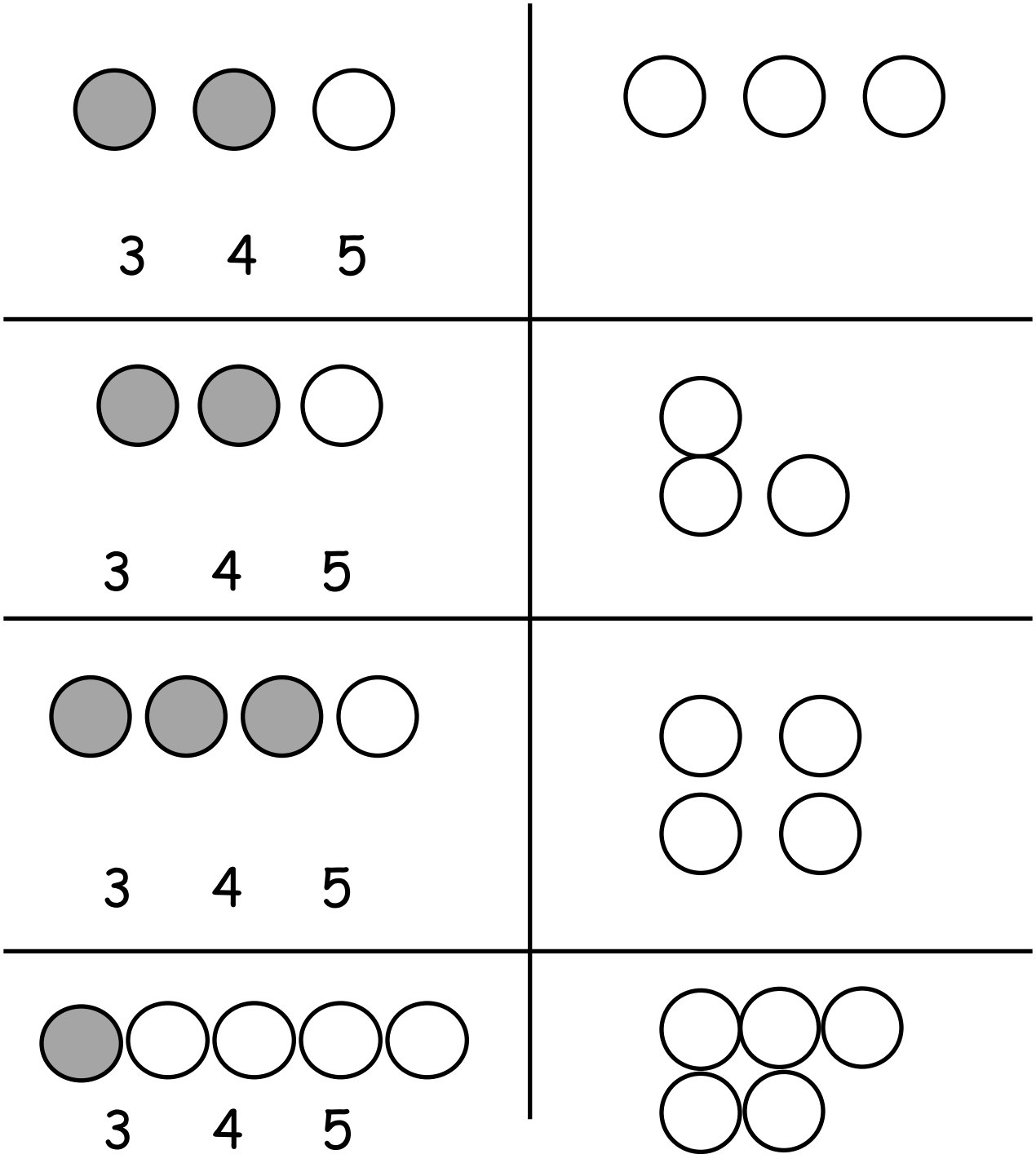
- What **hidden partners** of three do you see inside the first example on the Problem Set? (Go through each example.)
- What numbers are hiding inside 5?
- Show me 5 the Math Way. Show me three fingers inside. 4 fingers.
- Talk to your partner about our lesson today. What did you learn?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help you assess the students' understanding of the concepts that were presented in the lesson today and plan more effectively for future lessons. You may read the questions aloud to the students.

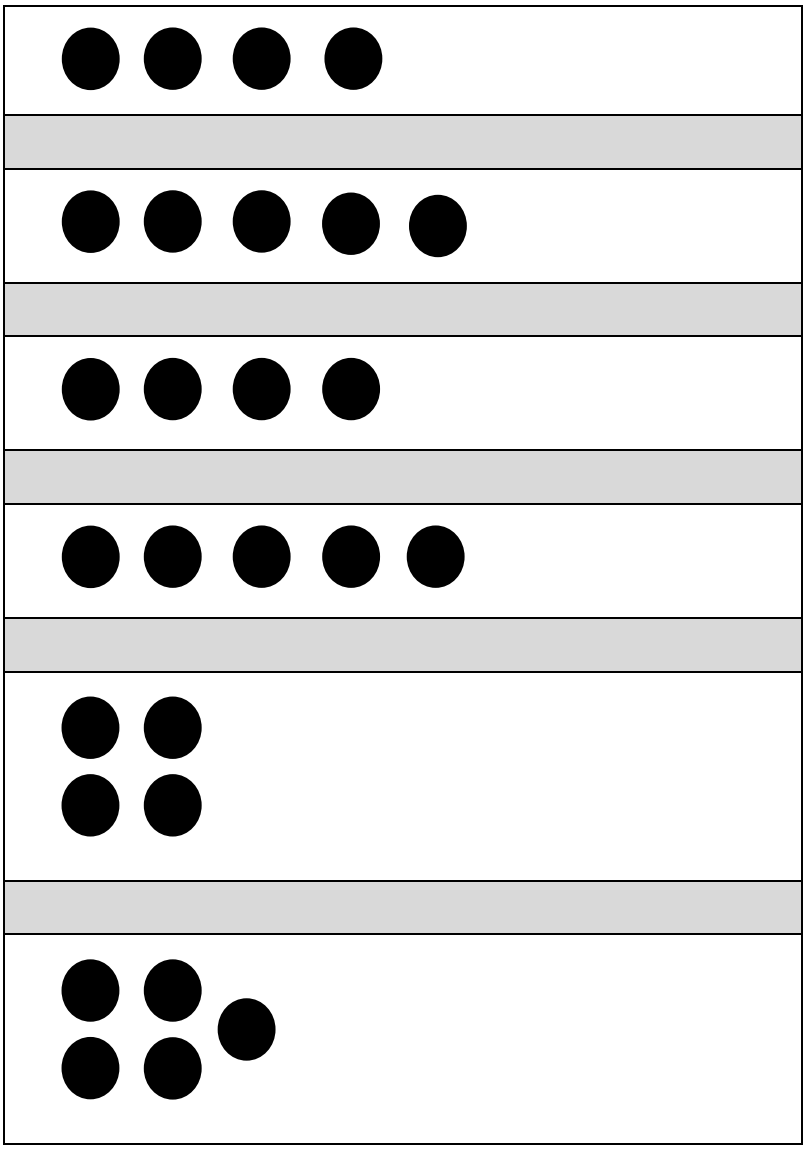
Name _____ Date _____

Count the dots and circle the correct number. Color the same number of dots on the right as the gray ones on the left to show the hidden partners.



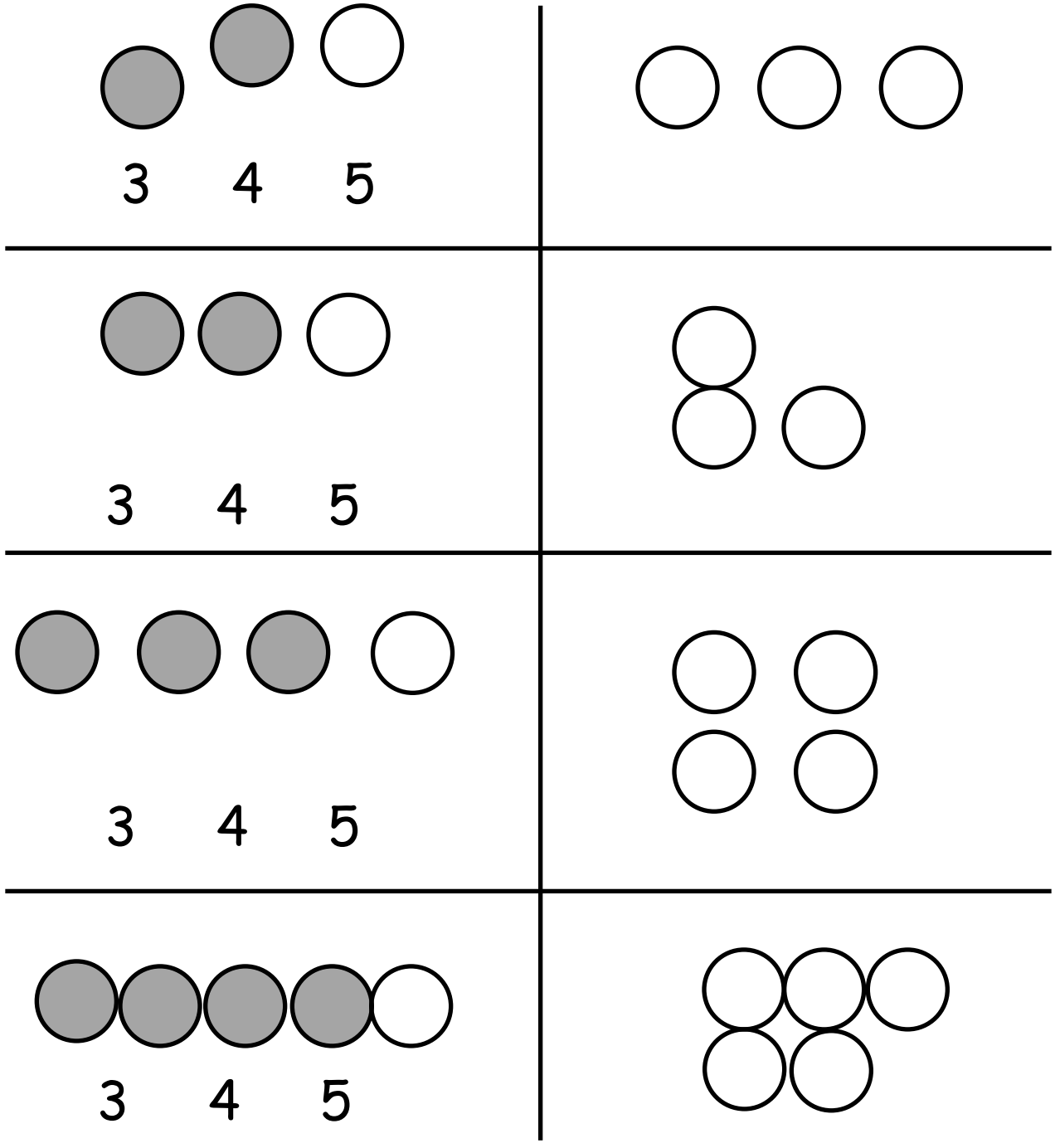
Name _____ Date _____

Circle 3 to Show the Hidden Partners



Name _____ Date _____

Count the circles and box the correct number. Color in the same number of circles on the right as the shaded ones on the left to show hidden partners.



Hidden Partners Template