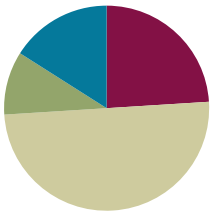
Lesson 39

Objective: Find the number that makes 10 for numbers 1–9, and record each with a 5-group drawing.

Suggested Lesson Structure

Fluency Practice	(12 minutes)
Application Problem	(5 minutes)
Concept Development	(25 minutes)
Student Debrief	(8 minutes)
Total Time	**(50 minutes)**



Fluency Practice (12 minutes)

- Core Fluency Differentiated Practice Sets **K.OA.5** (5 minutes)
- Growing Apples to 10 **K.OA.4** (4 minutes)
- 5-Group Peek-a-Boo **K.OA.4** (3 minutes)

Core Fluency Differentiated Practice Sets (5 minutes)

Materials: (S) Core Fluency Practice Sets (Lesson 29 Core Fluency Practice Sets)

Note: This activity assesses students' progress toward mastery of the required fluency goal for kindergarten: Add and subtract within 5.

Distribute the appropriate Practice Set based on student performance in Lesson 38. Students who correctly answered all questions on a Practice Set in the previous attempt should move to the next Practice Set. All other students should try to improve their scores on the same set they used in Lesson 38.

Students complete as many problems as they can in 96 seconds. Assign a counting pattern and start number for early finishers, or have them play an independent game like the Make 10 Memory Game (Lesson 28). Collect and correct any Practice Sets completed within the allotted time.

Growing Apples to 10 (4 minutes)

Materials: (S) Apple tree (Fluency Template), 10 red beans, die

Note: This activity prepares students for today's lesson by providing the opportunity to practice partners to 10 at the concrete level, before moving onto the pictorial and abstract.

Have students follow the directions below:

1. Roll the die.
2. Use the number on the die to determine how many red beans are placed on the apple tree. Arrange the beans in 5-groups.
3. Count how many more are needed to make 10.
4. Say, "I have ____. I need _____ more to make 10."
5. Do not remove the beans. Roll the die again. Count to see if there are enough spaces left over for that many beans. If the number goes over 10, and there are not enough spaces, roll again to get a smaller number. Then, place that many beans on the apple tree.
6. State the new amount and how many more it needs to make 10.

Continue until 10 is made. Remove the beans, and start again from 0 if time permits. This game can be played with a partner, and a spinner can be substituted for the die.

5-Group Peek-a-Boo (3 minutes)

Materials: (T) Large 5-group cards (Lesson 12 Fluency Template 2)

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: 9.

T: Raise your hand when you know how many more to make 10. (Wait for all hands to go up, and then, signal.) Ready?

S: 1.

Continue with the following possible sequence: 8, 5, 10, 7, 6, 1, 4, 3, 5, 2, 9, and 0.

Variation: Have students play with a partner. Give each pair of students a set of 5-group cards.

Application Problem (5 minutes)

Tim had 10 friends. Draw his friends.

Tim had 7 oranges. He wanted to give an orange to each of his friends. Does he have enough? Draw his 7 oranges. Now, draw more oranges so there are enough for all of his friends. Circle the new oranges. How many more oranges did he need?

Check your work by drawing a line to match each friend with an orange. Now, show your work to your friend. Did she do it the same way? Talk about what would have happened if Tim had started with 8 oranges.

Note: Thinking about *Are there enough?* and *How many more do I need?* serves as the anticipatory set for the lesson.

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Teach English language learners the meaning of *Are there enough?* and *How many more do I need?* by practicing their use. A possible conversation follows below:

- Are there enough pencils for 10 students?
- Let's count together.
- We only have 6 pencils. How many more do we need?
- Let's count: 1, 2, 3, 4.

Concept Development (25 minutes)

Materials: (S) 1 set of 5-group cards (Template), personal white board

T: Mittens the cat had 6 mice. She needed 10 mice in all to take home to her family for dinner. How many mice did she have?

S: 6.

T: How many did she need in all?

S: 10. → She doesn't have enough!

T: You are good listeners! Mittens will be happy for your help. What are some ways we could find out how many more mice she needs?

S: We could use a number path. → We could use our fingers and count up from 6. → We could make a picture.

T: Those are all good strategies. Today, let's make a picture. I will draw 6 in the 5-group way. (Demonstrate.) Now, count with me while I draw more empty circles until we have 10 in all. Tell me when to stop!

S: 1, 2, 3, 4 more. Stop! → Now we have 10.

T: Let me draw a ring around the extra circles that I drew. (Demonstrate.) How many extra circles?

S: 4.

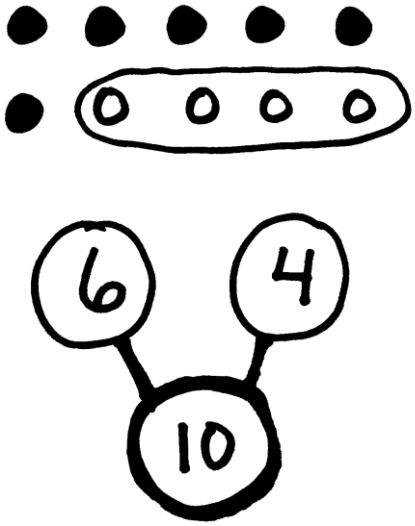
T: How many did we begin with?

S: 6.

T: Could we make a number bond about our picture?

S: Yes! → 10 is the whole. → 6 and 4 are the parts.

T: Let's draw that number bond by the picture. (Demonstrate.) 6 needs 4 to make 10.



T: I am going to tell this story again, but this time, you do the 5-group drawing on your personal white boards. Mittens has 7 mice, but she still needs 10 for dinner for her family. How many more mice will she need?

MP.7

T: With your partner, draw Mittens's mice the 5-group way. Finish the picture to find out how many more mice she will need. Circle the extra mice that you drew, and make a number bond to match your picture. (Allow students time for partner work, circulating to ensure accuracy and understanding.) How many more mice did she need this time?

S: 3.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Scaffold the lesson for students with disabilities by providing linking cubes to model the lesson. A 5-group template for their personal white boards may also allow them to follow along with the lesson more easily.

T: Yes! 7 needs 3 to make 10. What if Mittens had started out with 8 mice? Draw the new picture, and make the new number bond. (Allow students time to work with their partners.) How many more did she need this time?

S: 2.

Continue with this process, increasing Mittens's beginning number of mice by 1 each time until students have recorded all the ways to make 10 with 5-group drawings and number bonds. Allow pairs of students to present their work on the board or on chart paper, if desired.

T: Mittens is very grateful for your help! I'm going to let you play a game with your partner. Take out your 5-group cards. One partner will secretly choose a card to show his friend. The other partner will look at the card and use his board to make a picture about how many more he needs to make 10. Then, together you will make a number bond about your picture. When you are done, you can switch.

Allow students to play several iterations of the game. Circulate to ensure accuracy and understanding. Again, pairs of students may work on the board or chart paper.

Problem Set (10 minutes)

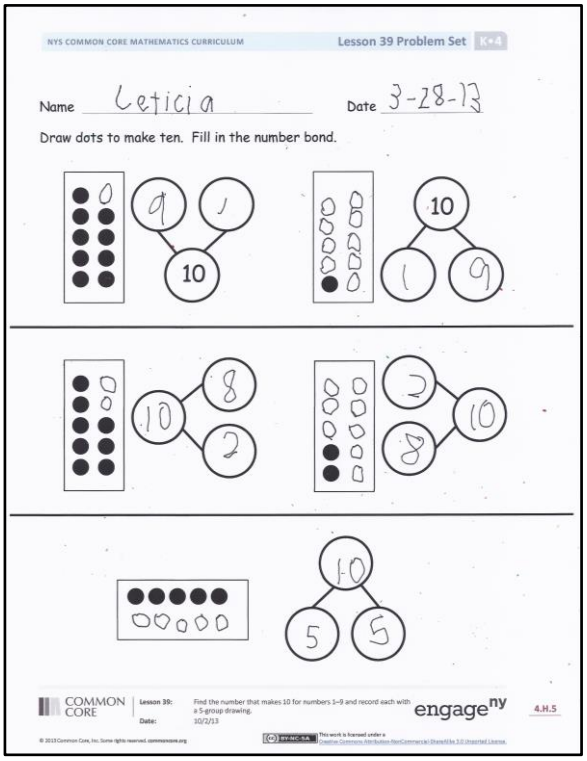
Students should do their personal best to complete the Problem Set within the allotted time.

Student Debrief (8 minutes)

Lesson Objective: Find the number that makes 10 for numbers 1–9, and record each with a 5-group drawing.

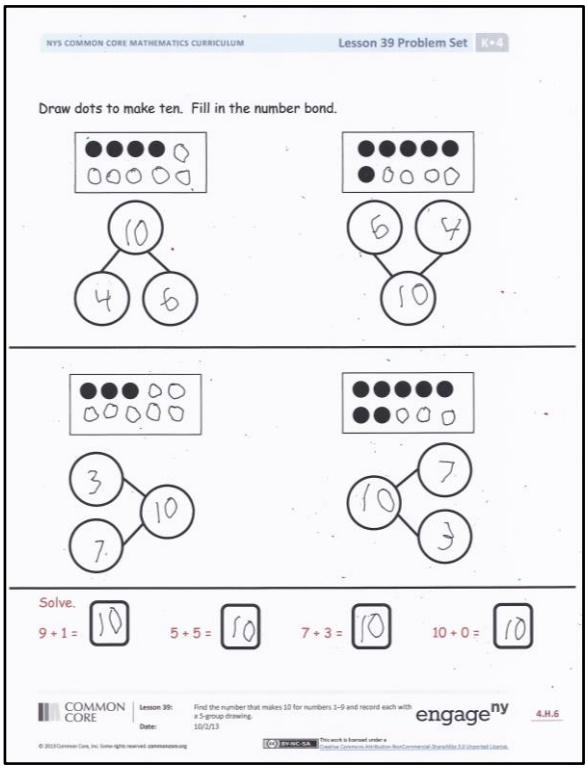
The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

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.


NYS COMMON CORE MATHEMATICS CURRICULUM Lesson 39 Problem Set K•4

Name Leticia Date 3-28-13

Draw dots to make ten. Fill in the number bond.


NYS COMMON CORE MATHEMATICS CURRICULUM Lesson 39 Problem Set K•4

Draw dots to make ten. Fill in the number bond.

Solve.

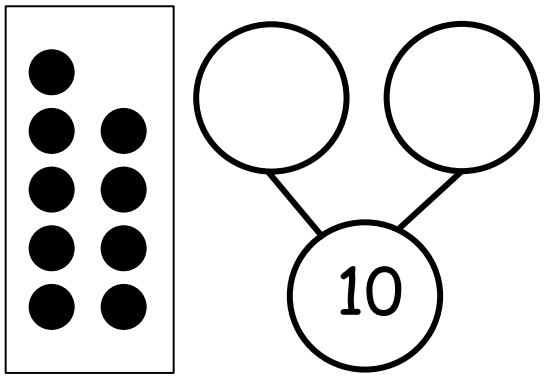
9 + 1 = 10 5 + 5 = 10 7 + 3 = 10 10 + 0 = 10

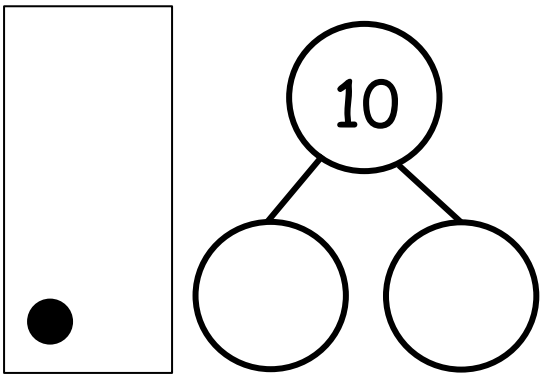
Any combination of the questions below may be used to lead the discussion.

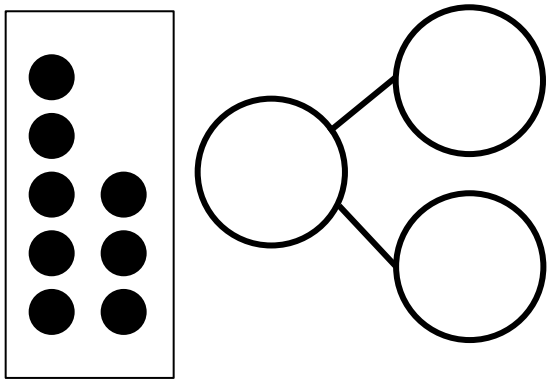
- Look at the first row of your Problem Set. What do the number bonds have in common?
- Do you see any patterns on your Problem Set?
- Pretend our alien friend is back again. Tell him how to make 10 with a number smaller than 10.
- How did you use 5-groups to find how to make 10?
- How did Tim's oranges from the Application Problem help you understand how to make 10?

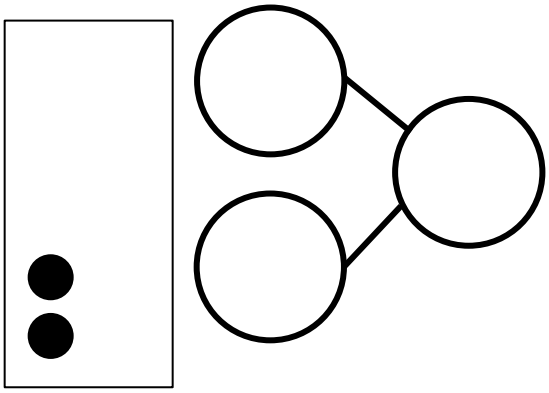
Name _____ Date _____

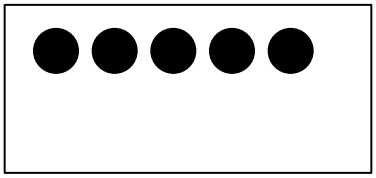
Draw dots to make 10. Fill in the number bond.

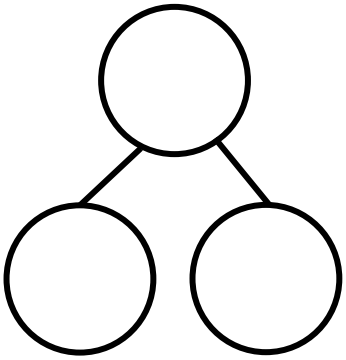




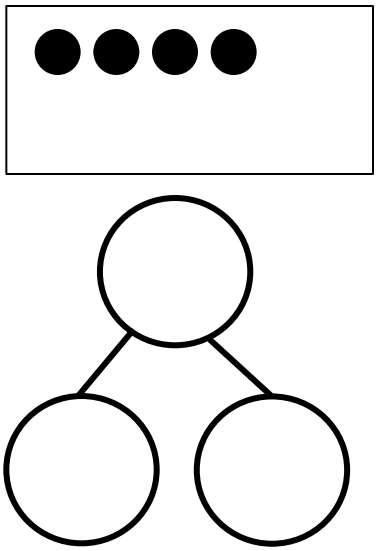


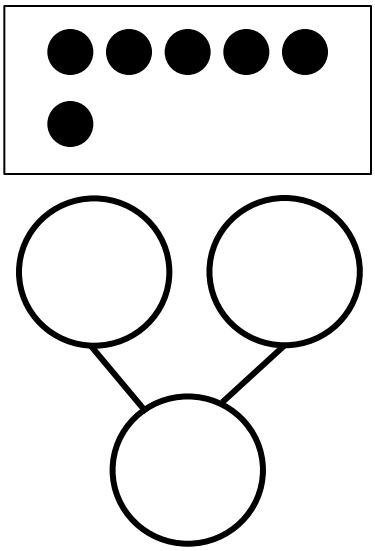


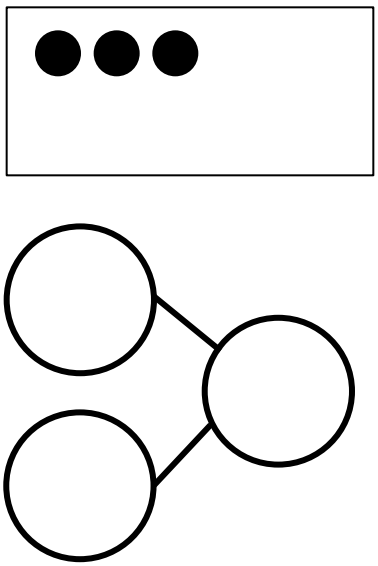


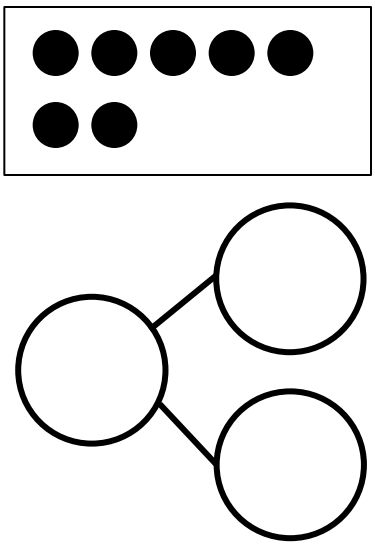


Draw dots to make 10. Fill in the number bond.







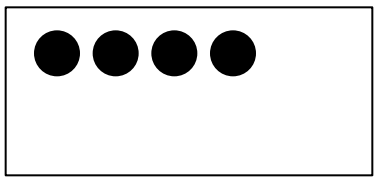


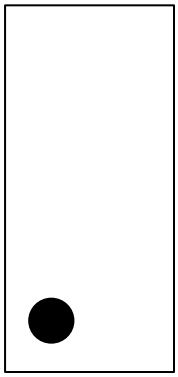
Solve.

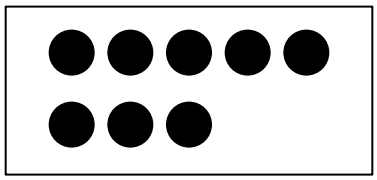
9 + 1 = ☐ 5 + 5 = ☐ 7 + 3 = ☐ 10 + 0 = ☐

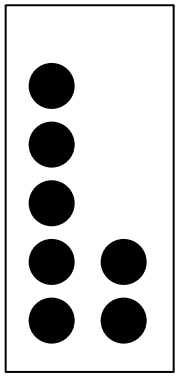
Name _____ Date _____

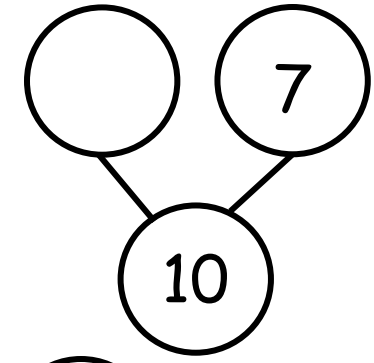
Draw dots to make 10. Finish the number bonds. Draw a line from the 5-group to the matching number bond.

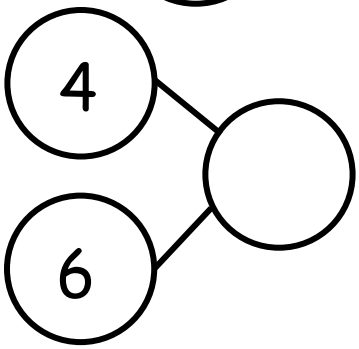


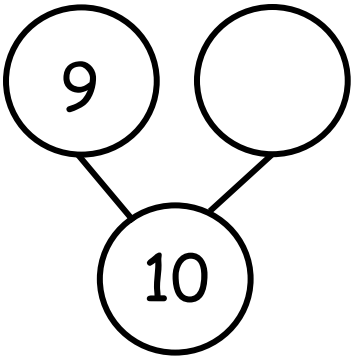


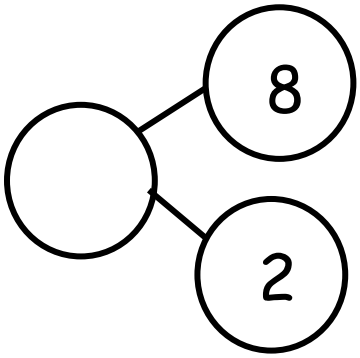


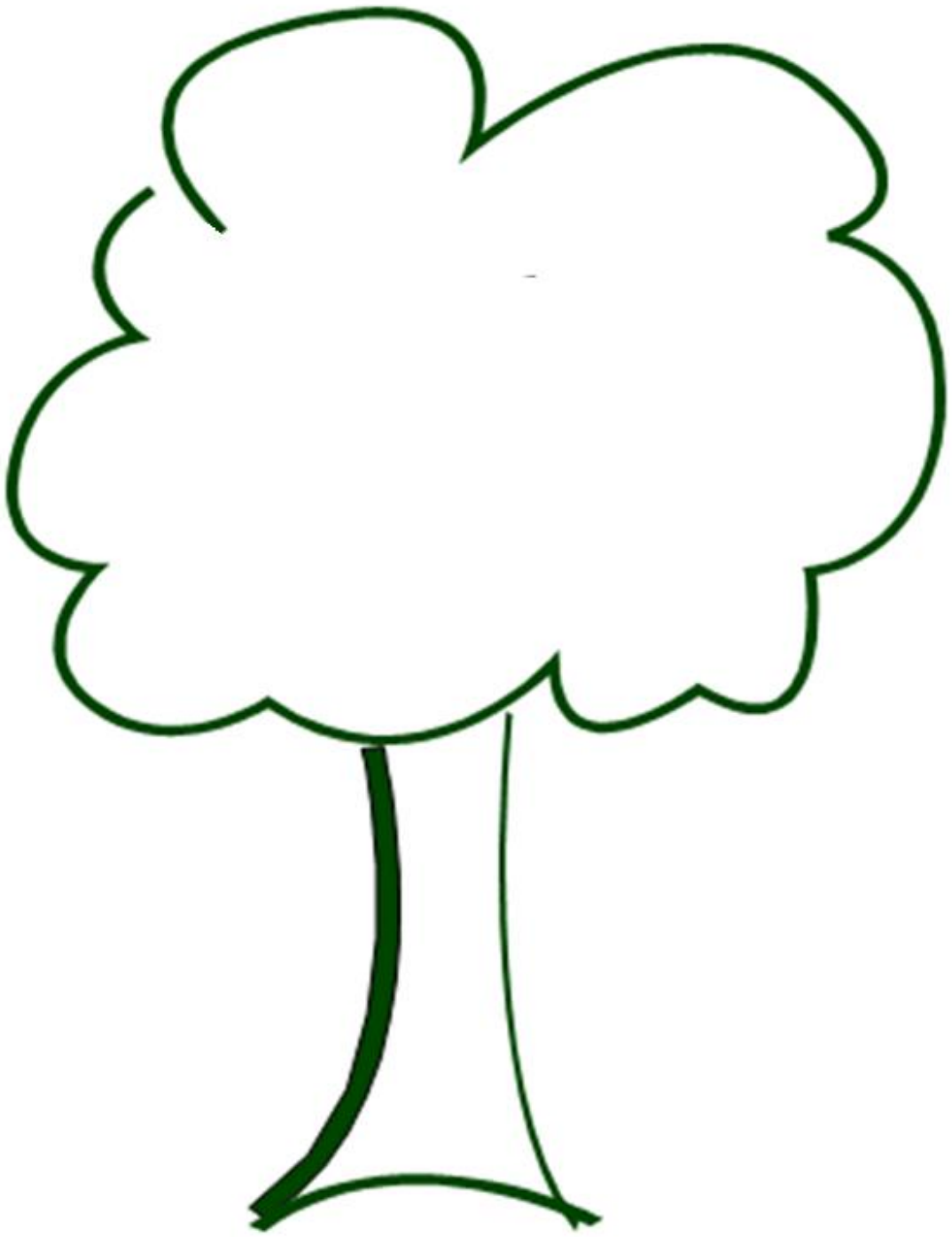








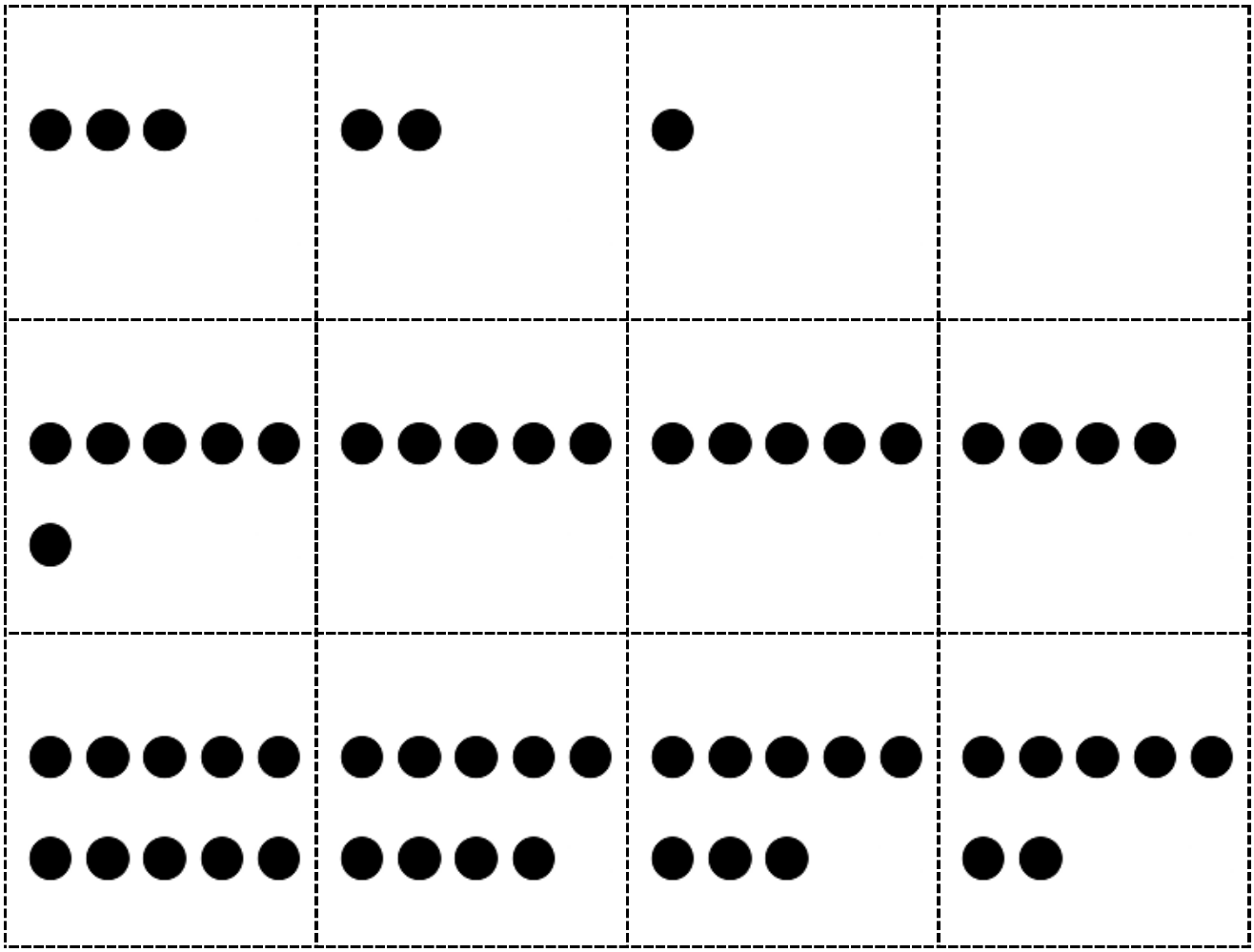




apple tree

0	1	2	3
4	5	5	6
7	8	9	10

5-group cards (numeral side) (Copy double-sided with 5-groups on card stock, and cut.)



5-group cards (5-group side) (Copy double-sided with numerals on card stock, and cut.)