

Common Core State Standards

K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$).

Objective

Compose or decompose a number to 10.

Larger numbers are made of smaller numbers. We see 10 fingers. How can you show 10 in different ways?

Making Numbers to 10

Children used their early understandings of counting and cardinality to investigate the composition of numbers to 5. Now they investigate the composition of numbers to 10, which is an important extension of the same ideas. This work lays a foundation for understanding addition and subtraction. And in this work children discover and internalize visual patterns that they will utilize in addition and subtraction strategies.

Vocabulary

Prepare trains of Snap Cubes®—a few red, 2-cube trains, and an equal number of blue, 3-cube trains. Put the trains in a bag. Select some children, and ask each one to take a train from the bag.

■ **Say:** *See how many cubes you have.*

Make sure children know to count all the cubes in the train.

■ **Say:** *Now find a partner to help you make 5. When you find a partner, put all your cubes together.*

Ask children how they made 5. Elicit that the red 2-train and the blue 3-train are partners; they work together to make 5.

In early-grades math, **partners** are numbers used to compose or decompose a larger number.



Set the Stage

Engage WHOLE CLASS

Show 3 blue Snap Cubes® and 2 red Snap Cubes.

■ **Say:** *This is one way to make 5.*

Count the Snap Cubes aloud from 1–5.

Switch one of the blue Snap Cubes with a red Snap Cube.

■ **Ask:** *How many cubes are there now?*

■ **Ask:** *What is another way to make 5?*

■ **Ask:** *How many cubes are there in all?*

■ **Ask:** *Is there another way you can make 5?*



Warm-Up

Use this short thinking exercise to jump-start the instructional session.

Name Answer Key

4

Here are some big circles. Draw the same number of small circles here.

ANSWER:



COMMENTS & EXTENSIONS: Again, children deal with one-to-one correspondence in this activity.

Draw five small circles.



Foundation Skill Practice

Use this VersaTiles® activity to help children activate their prior knowledge.

Count on It!

Count the dots. Find that number.

1 	2 	3 	4
5 	6 	7 	8

Answer Box

7	10	2	3
6	5	4	1





Introduce the Concept

Explore WHOLE CLASS

- **Say:** *I am going to count out 7 Snap Cubes.*
Count out 3 yellow Snap Cubes and 4 green Snap Cubes.
- **Say:** *I have 7 Snap Cubes, 3 are yellow and 4 are green. Three and 4 are partners that make 7.*
- **Say:** *Show me with the Snap Cubes another way you can make 6.*
- **Ask:** *How did you make 6? What partners did you make?*
- **Ask:** *Are there any more ways? Show me more ways to make 6.*

Work with additional numbers to 10.

Materials

- Snap Cubes®
- Crayons
- Paper



Explore & Explain

LESSON
4

Making Numbers to 10

Name _____ *Answer Key*



Possible answer: 4 green 2 brown; answers will vary



Possible answers: 1 green and 5 brown; 2 green and 4 brown; 3 green and 3 brown; answers will vary



3. Drawing should show 3 green leaves and 3 brown leaves. The parts should be labeled 3 and 3.

Directions

1. Read the problem: Elaina has 6 leaves. Some are brown and some green. Use Snap Cubes to show how many could be brown and how many could be green. Color the Snap Cubes to match your model. 2. Show three more ways to make 6 by coloring the three rows of leaves. 3. Elaina has 6 leaves. If 3 leaves are green, how many are brown? Draw a picture to show the leaves and write numbers to match your drawing.

Explore & Explain SMALL GROUPS

Prepare ahead Children will need Snap Cubes. Children show a number and color a Snap Cubes picture to match their model. Children then show different ways to make the number. The activity helps children see that numbers can be composed and decomposed into different sets.

Reinforce the Concept

Explain and Elaborate WHOLE CLASS

- **Say:** We explored ways to make numbers to 10.
- **Ask:** Can you make 8 into the partners 6 and 2? [No] Show me how you know.

Evaluate WHOLE CLASS

- **Say:** I will read you a problem. You can solve it by drawing a picture or using Snap Cubes.
- **Say:** I have 9 cups. Some are red. Some are blue. How many cups could be red and how many could be blue? Show me one way.

Once children have shown you one way to make 9, ask them to show you two more ways and write the numbers to match.

- **Ask:** If 5 cups are red, how many are blue? How do you know?



Independent Practice

















Use this VersaTiles® activity to give children more practice with the skills they learned in the lesson.

Partners

Find the partners that make the number.

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

Answer Box

 1	 2	 2	 4	 5	 4	 4	 1
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16 Objective: Decompose numbers up to 10.





Re-Engage

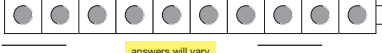
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LESSON 4 Making Numbers to 10 Name _____ Answer Key _____

1. 
 8 are gray. 2 are white.

2. 
 _____ are green. _____ are red.


 _____ are green. _____ are red.


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Directions
 Read to students—
 1. Model this cube train using Snap Cubes. How many are gray? Write the number. How many are white? Write that number. 2. Use Snap Cubes to make a train with red and green cubes. Show how you make 10 with two number partners. Color the train you made. Make two more trains to show different ways to make 10 with red and green cubes. Write a number for each partner in each train.






Online resources available at hand2mind.com/hosnumbergrK



Daily Routine

Create supportive math posters illustrating numbers from 0–10 to post on your classroom Math Word Wall. Have children find the number that matches the Ten Frame. You can snap pictures of each child holding their number pairs.

Children enjoy seeing themselves in the classroom and these posters provide visual support for struggling children.

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Independent Practice

















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Partners

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Answer Box

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 2	 2	 4	 4	 1	 1	 3	 4


16 Objective: Decompose numbers up to 10.





Re-Engage

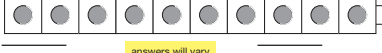
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Numbers to 20 ■ Lesson 4

Hands-On Standards® Number & Operations

Online resources available at hand2mind.com/hosnumbergrK



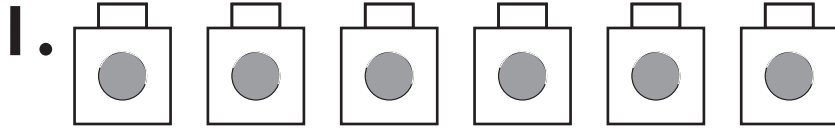
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●	
●	
●	
●	



3.

Directions







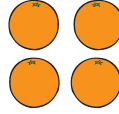









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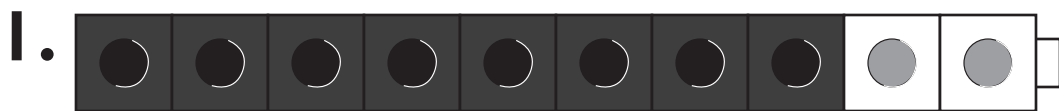
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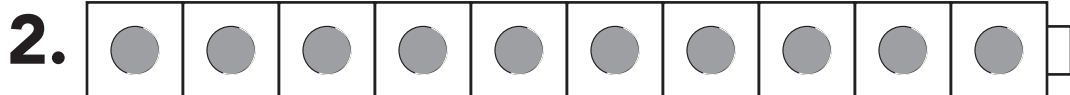
  1 2	  2 4	  5 4	  4 1
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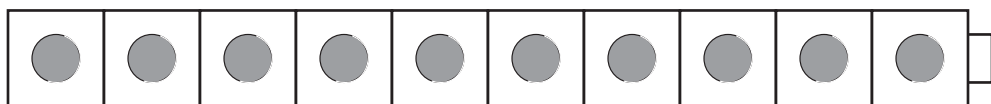
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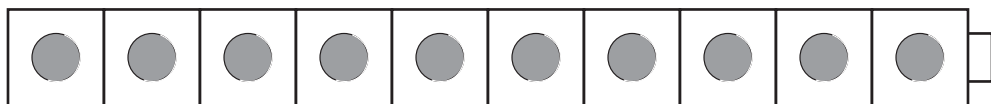
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