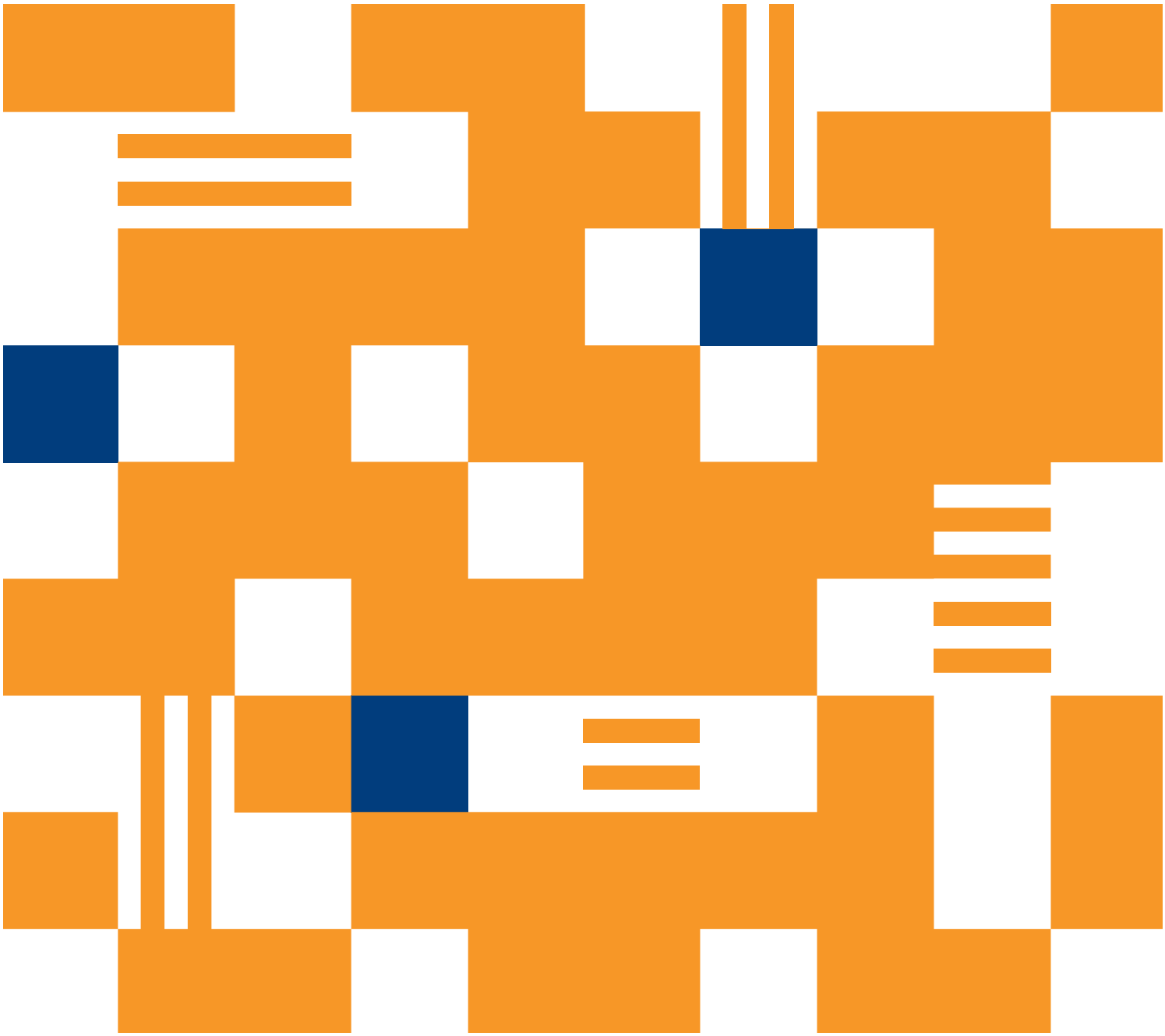


Kindergarten – Unit 3 – Module 3
Teachers Guide Sample

bridges® in mathematics

bridges®
in mathematics

Module 3
Add, Subtract & Double It!

Session 1 Writing Equations 5
Session 2 Solving Problem Situations 11
Session 3 Grab Bag More or Less: Introducing Work Place 3D 19
Session 4 Bicycle Race: Introducing Work Place 3E 23
Session 5 Build It to Ten! 29

Print Originals

Pages renumber with each module.

Five Dots P1
Work Place Guide 3D Grab Bag More or Less P2
Work Place Instructions 3D Grab Bag More or Less P3
Work Place 3D Grab Bag More or Less Observational Assessment Record Sheet P4
Work Place Guide 3E Bicycle Race P5
Work Place Instructions 3E Bicycle Race P6

Home Connections Pages

Page numbers correspond to those in the Home Connections books.

Equations & Doubling 23

Module 3

Add, Subtract & Double It!

Overview

In this module, students revisit 5-frames and 10-frames and practice connecting the quantities of dots shown in the frames with equations. The *Fall Friends* book provides a shared context for joining, separating, and part-part-whole problem situations that students represent using a variety of tools. They work with the teacher to generate equations to describe the situations. Later in the module, students practice comparing trains of cubes to determine which cube train has a greater number of cubes and which has less cubes. Students continue to work on connecting representations between quantity and written notation as they play games that provide opportunities to show quantities on 10-frames and double quantities presented as numerals.

Sessions	WU	P&I	WP	A	HC
Session 1 Writing Equations After a dot talk warm-up, the teacher engages students in the quick image routine, and students model the number of dots on 5-frame display cards with their fingers. The teacher connects the quantity of dots in each color to its written notation and shows students how to write an equation that represents and describes the 5-frame. The class discusses the meanings of the plus sign, equal sign, and minus sign. Students generate addition and subtraction equations for the dots on 5-frame display cards. Students spend the rest of the session at Work Places.	●	●	●		
Session 2 Solving Problem Situations After a warm-up of choral counting, students choose math tools to represent and solve problem situations involving addition and subtraction. They work with the teacher to generate equations for each problem situation. Students spend the rest of the session at Work Places.	●	●	●		
Session 3 Grab Bag More or Less: Introducing Work Place 3D This session begins with a warm-up where students count and compare quantities in the book, *Fall Friends*. Then the class plays a new game in which teams take turns grabbing cubes out of a container, counting the cubes of a single color, and making a train with them. Teams compare their trains and spin the Greater Than or Less Than Spinner to determine the winner. Students spend the rest of the session at Work Places.	●	●	●		
Session 4 Bicycle Race: Introducing Work Place 3E After a warm-up activity that provides practice with doubling quantities, the class plays a new game. Teams take turns rolling a 0–5 die, doubling the number, and checking to see whether that double is on the next bicycle wheel on the game board. If so, they advance their bicycle (game marker) to the next wheel. The first team to reach the fifth wheel is the winner. The class reviews Grab Bar More or Less, then the game becomes a Work Place. Students spend the rest of the session at Work Places.	●	●	●	*	
Session 5 Build It to Ten! After the warm-up activity, You Have … You Need, students build and add numbers using Unifix cubes and Numbers to 10 counting mats. The teacher guides them in generating equations to match their work. The class reviews the new Bicycle Race Work Place before students go to Work Places. At the end of the session, the teacher introduces and assigns the Equations & Doubling Home Connection.	●	●	●		●

WU – Warm-Up, **P&I** – Problems & Investigations, **WP** – Work Places, **A** – Assessment, **HC** – Home Connection
* Optional assessment introduced

Materials Preparation

Each session includes a complete list of the materials you'll need and notes about any preparation you'll need to do. If you would like to prepare materials for the entire module ahead of time, you can use this to-do list.

Copies & Display

- [ ] Visit the Bridges Educator Site to review the Interactive Display Materials for this module. Decide whether you will use digital materials for display or copies of print originals and student pages. Make copies as needed.

Work Places

- [ ] Prepare the materials for Work Places 3D and 3E using the Work Place Guides.

Module 3 Optional Assessment Opportunities

One new observational assessment is available, to be used when students engage in Work Place 3D. Continue to use the Work Sample Checklist for Work Place 2E.

Skills & Concepts Assessed	Assessment Name	Type
Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another for groups within 10	**PO P4** Work Place 3D Grab Bag More or Less (Unit 3, Module 3)	**OA**
Compose simple shapes to form larger shapes	**PO 21** Work Place 2E Pattern Block Puzzles (Unit 2, Module 4)	**WS**

OA – Observational Assessment Record Sheet, **WS** – Work Sample Checklist
Shaded cells indicate newly introduced assessments.

Concepts, Skills & Practices	Sessions					Work Places					
	1	2	3	4	5	2E	3A	3B	3C	3D	3E
K.CC.2 Count forward from a given number, rather than starting at 1		**WU**		**P&I**							
K.CC.3 Write numbers from 0 to 10 to represent a number of objects									●		
K.CC.4b Identify the number of objects as the last number said when counting a group of objects							●	●	●		
K.CC.5 Count up to 10 objects arranged in a line, rectangular array, or circle to answer "how many?" questions			**WU P&I**		**HC**			●	●	●	
K.CC.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group for groups of up to 10 objects			**WU P&I**	**A***	**HC**					●	
K.OA.1 Represent addition and subtraction with fingers, objects, verbal explanations, or equations	**P&I**	**P&I**			**P&I HC**						
K.OA.2 Solve addition and subtraction word problems		**P&I**									
K.OA.2 Add with sums to 10				**P&I**							●
K.OA.3 Decompose numbers less than or equal to 10 into pairs in more than one way							●				
K.OA.4 For any number from 1 to 9, find the number that makes 10 when added to that number					**WU P&I**						
K.MD.2 Directly compare the lengths of two objects			**P&I**							●	
K.G.2 Identify shapes, regardless of orientation or size						●					
K.G.6 Compose simple shapes to form larger shapes (e.g., compose triangles to form a rectangle)						●					
K.MP.1 Make sense of problems and persevere in solving them		**P&I**			**P&I**						
K.MP.2 Reason abstractly and quantitatively	**P&I**			**P&I**							
K.MP.4 Model with mathematics		**P&I**			**P&I**						
K.MP.6 Attend to precision	**WU P&I**		**WU P&I**								
K.MP.7 Look for and make use of structure				**P&I**							

WU – Warm-Up, **P&I** – Problems & Investigations, **A** – Assessment, **A*** – Optional Assessment, **HC** – Home Connection

Session 1

Writing Equations

Summary

After a dot talk warm-up, the teacher engages students in the quick image routine, and students model the number of dots on 5-frame display cards with their fingers. The teacher connects the quantity of dots in each color to its written notation and shows students how to write an equation that represents and describes the 5-frame. The class discusses the meanings of the plus sign, equal sign, and minus sign. Students generate addition and subtraction equations for the dots on 5-frame display cards. Students spend the rest of the session at Work Places.

Module 3 Learning Goals

Students learn about representing, adding, and subtracting numbers within 10.

- ■ **Students explore and connect representations for combinations of 5.**
- □ Students represent and solve addition and subtraction problem situations.
- □ Students build and compare quantities within 10.
- □ Students double quantities within 10 using 10-frames or number racks.
- □ Students explore and connect representations for combinations of 10.

Materials

Warm-Up Dot Talk	
Copies & Display	**PO P1** Five Dots (see Preparation)
Problems & Investigations Writing Equations	
Kit Materials	• Two-Color 5-Frame display cards • Numbers to 10 counting mats (optional, for support)
Classroom Materials	• chart paper (optional, see Preparation) • Unifix cubes in 2 colors (optional, for support) • markers in red and blue (1 of each color; optional, for support)
Work Places in Use	
2C Which Bug Will Win? (introduced in Unit 2, Module 3, Session 4) **2D** Beat You to 10 (introduced in Unit 2, Module 3, Session 6) **2E** Pattern Block Puzzles (introduced in Unit 2, Module 4, Session 5) **3A** Grab Bag Doubles (introduced in Unit 3, Module 1, Session 5) **3B** Butterfly Race (introduced in Unit 3, Module 2, Session 1) **3C** Five & More (introduced in Unit 3, Module 2, Session 2)	

PO – Print Original, **SB** – Student Book, **HC** – Home Connection

Vocabulary

**Word Resource Card available*

equal*
equation*
in all
minus
number*
plus
subtract*
symbol

Preparation

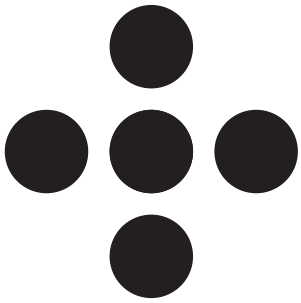
Make at least one copy of the Five Dots print original to annotate as students share their thinking during the warm-up. Alternatively, draw the dot formation several times on a whiteboard or chart paper and record student thinking there.

Warm-Up

Dot Talk

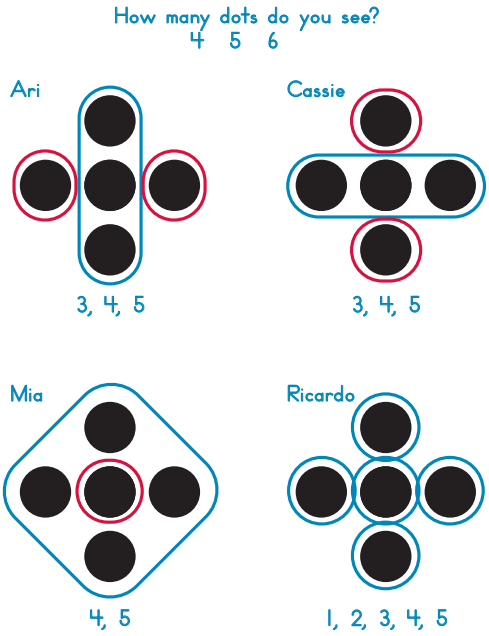
1 Engage students in the dot talk routine by displaying one set of five dots on the Five Dots print original.

- Ask: *How many dots do you see?*
- Invite students to give a thumbs-up when they have a response.
- Record quantities that students name.



2 Next ask: *How did you see the dots?*

- Invite students to give a thumbs-up when they have an idea to share.
- Call on a volunteer to share their thinking.
- Loop and label the dot arrangement to reflect the student's explanation as accurately as possible.
- Ask: *Did anyone see it the same way?*
- Then encourage others to share by asking whether anyone saw it a different way.



3 Discuss the different ways students saw the arrangement.

Students *I saw 3 dots down the middle and 1 on each side; that's 5 dots.*

Mine was kind of the same as that. I saw 3 across the middle and 1 on the top and 1 on the bottom.

I thought it looked like a die on its side. There are 4 dots around the outside and 1 in the middle.

I saw 1, 2, 3, 4, 5 [pointing to the dots while counting]. *That's 5 dots.*

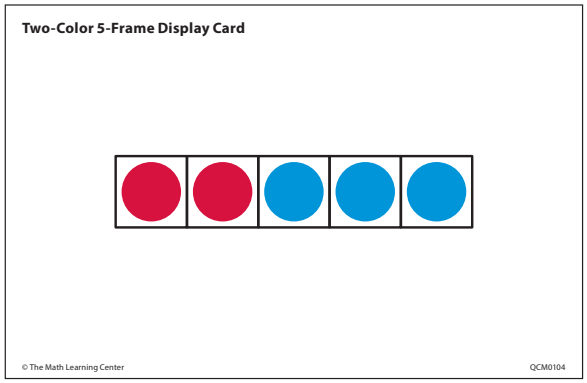
4 Explain that today students will work with other combinations of dots and use numbers to show their thinking.

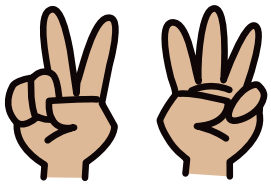
Problems & Investigations

Writing Equations

5 Engage students in the quick image routine with the Two-Color 5-Frame display card that shows 2 red dots and 3 blue dots.

- Remind students that you will flash the 5-frame and they will show the number of red dots with their fingers on one hand and the number of blue dots with their fingers on the other hand.
- Flash the display card for 2 or 3 seconds.
- Ask students: *How many red dots? Show me on your fingers.*
- Then ask: *How many blue dots? Show me with the fingers on your other hand.*





- Show the 5-frame again and give students time to check their fingers.
- While continuing to show the 5-frame, ask students: *How many dots are there in all?*
- Invite students to share how they determined the total number of dots on the card.

Teacher *How many dots are there in all?*

Students *Five!*

Teacher *How did you see the five dots?*

Students *I saw 2 red dots and 3 blue dots.*

I saw 2 and then 3 more.

SUPPORT To provide additional support with one-to-one correspondence or subitizing, invite students to build what they see with Unifix cubes in two colors on the 5-frame side of a Numbers to 10 counting mat. This might be especially helpful for students who need support showing quantities on their fingers.

6 Paraphrase the students' words to illustrate how this can become an equation. Write the equation on the whiteboard or chart paper and read it aloud, saying: *5 is the same amount as 2 plus 3.*

Instructional Routine

Quick image

Using the quick image routine to introduce equation writing helps students connect the familiar visual and physical representations with a new symbolic representation for combinations of 5.

Teacher *We have 5 dots in all and that is the same amount as 2 dots and 3 dots. I can write this as an equation: 5 is the same amount as 2 plus 3.*

Invite students to repeat the equation as you point to each number and symbol.

You might hear some students say, "equals," as they repeat the equation. Assure them that this is acceptable.

7 Explain to the class that you are using numbers and symbols to write the number of dots of each color as an equation. This is another way to show your thinking.

- Write 2 + 3 = 5 on the board or chart paper under the first equation, aligning the equal signs vertically.
- Read the equation: *Two plus 3 is the same amount as 5.*
- Read the equation aloud together.

SUPPORT Show the connections between the dots and the numbers by using colored markers to record the equations. Use a red marker for the number of red dots and a blue marker for the number of blue dots.

$$5 = 2 + 3$$

$$2 + 3 = 5$$

8 Focus on the *plus* sign in the equation. Invite students to say its name, and then explain what it means.

- Explain that the *plus* sign in this context means that we are putting two groups of objects together to form a larger group.
- Display the Two-Color 5-Frame card again and ask: *What two groups are we adding or putting together?*

Students *We are putting together the 2 red dots and the 3 blue dots.*

MLL Use the ASL sign for *plus* by making your two index fingers into a *plus* sign. You can also demonstrate adding by holding a train of two Unifix cubes in one hand and a train of three cubes in the other hand. As you put the two trains together, say: *2 plus 3.*

9 Next, focus on the *equal* sign in the equation, inviting students to say its name. Explain what the sign means.

- Let students know that they can say either *equals* or *is the same amount as.*
- Share that *equal* or *is the same amount as* means that the amounts on each side of the sign have the same value.

MLL Use the ASL sign for *equal* as you review the term.

10 Revisit the equations that described the first 5-frame. Have the class read the equations together as you point to each symbol.

11 Display the Two-Color 5-Frame card again and have students show finger formations as you ask:

- *How many red dots are there?*
- *How many blue dots are there?*
- *How many dots are there in all?*
- *How many dots would be left if we took away the blue dots?*

Math Practices in Action

Reason abstractly and quantitatively

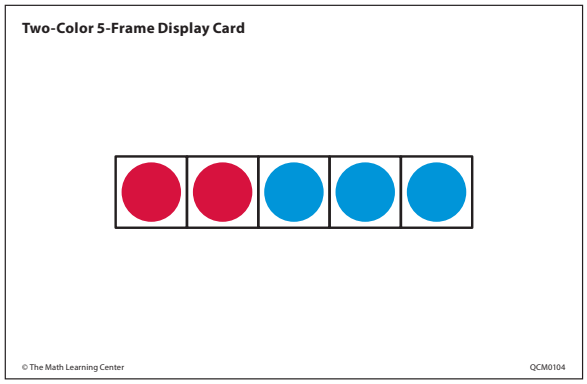
As they begin to reason abstractly, young students need to connect the written symbols in the equation to the quantities (the red and blue dots in this case). As students get more comfortable reasoning in this way (over a period of years), they will reason abstractly and quantitatively as needed to make sense of and solve problems.

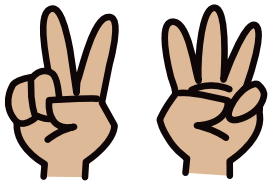
Students *There are 5 dots in all.*

There are 3 blue dots.

There would be 2 dots left if we took away the blue dots.

I took away 3 fingers, and I just have 2 fingers showing now.





12 Write an equation to match the student responses and read it aloud, saying: *Five minus 3 is the same amount as 2.*

- Have the class read the equation together as you point to each symbol.
- Write 2 = 5 – 3 below the first subtraction equation, aligning the equal signs vertically.

$$5 - 3 = 2$$
$$2 = 5 - 3$$

13 Point to the *minus* sign, and explain that this is a symbol to show that we are taking some away from another amount, or subtracting. In this equation, we are taking 3 away from 5 or subtracting 3 from 5.

MLL Using the cube train you made earlier, break off 3 cubes as you say: *Five minus 3.*

14 Flash another Two-Color 5-Frame display card and ask students to raise fingers for the red dots and the blue dots.

Ask them how many dots there are in all.

15 Have students use the think-pair-share routine to generate an equation to describe this 5-frame with numbers and symbols. Provide think time, and then have partners share their ideas.

- Invite several students to share their equations with the class.
- Record the equations on the board or chart paper.
- Have students read the equations together.

16 Repeat steps 11 and 12 to write subtraction equations for the card.

17 Close this part of the session by inviting students to think-pair-share the following:

- *What does the* plus *sign mean?*
- *What about the* equal *sign?*
- *What about the* minus *sign?*

Work Places

18 Invite students to spend the rest of the session at Work Places.

- Shuffle the name cards.
- Call students' names and have them place their cards in the Work Places chart.

While students are at Work Places, circulate to make observations and provide differentiation. The Work Place Guides include suggestions for differentiating the activities to meet students' needs.

19 Close the session.

- Give students a few minutes of warning before cleanup time.
- Have students clean up and put away the Work Place materials.

Session 2

Solving Problem Situations

Summary

After a warm-up of choral counting, students choose math tools to represent and solve problem situations involving addition and subtraction. They work with the teacher to generate equations for each problem situation. Students spend the rest of the session at Work Places.

Module 3 Learning Goals

Students learn about representing, adding, and subtracting numbers within 10.

- ☐ Students explore and connect representations for combinations of 5.
- ■ **Students represent and solve addition and subtraction problem situations.**
- ☐ Students build and compare quantities within 10.
- ☐ Students double quantities within 10 using 10-frames or number racks.
- ☐ Students explore and connect representations for combinations of 10.

Materials

Warm-Up Choral Counting	
Classroom Materials	markers in assorted (1 of each color)
Problems & Investigations Solving Problem Situations	
Kit Materials	• Numbers to 10 counting mats (class set) • demonstration number rack • *Fall Friends* book
Classroom Materials	• Unifix cubes (10 per student) • student number racks (class set)
Work Places in Use	
2C Which Bug Will Win? (introduced in Unit 2, Module 3, Session 4) **2D** Beat You to 10 (introduced in Unit 2, Module 3, Session 6) **2E** Pattern Block Puzzles (introduced in Unit 2, Module 4, Session 5) **3A** Grab Bag Doubles (introduced in Unit 3, Module 1, Session 5) **3B** Butterfly Race (introduced in Unit 3, Module 2, Session 1) **3C** Five & More (introduced in Unit 3, Module 2, Session 2)	

PO – Print Original, **SB** – Student Book, **HC** – Home Connection

Vocabulary

**Word Resource Card available*

double
equal*
equation*
in all
minus
number*
plus
subtract*
symbol

Warm-Up

Choral Counting

This choral count supports starting a count with a number other than one, while also focusing on patterns that occur in numbers greater than 10.

1 Display page 9 of *Fall Friends*. Ask: *How many foxes are on the page?*

- Invite students to give a thumbs-up when they have an idea to share.
- Ask several students to share how many foxes they see and how they see them.

Students *I see 5 foxes.*

I see 5 foxes too. There are 3 small ones and 2 big ones.

I see 5 also. There are 2 at the doorway and 3 in the window.

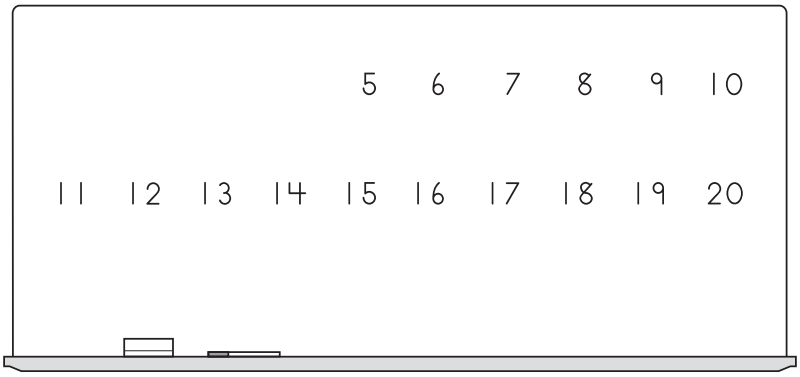
2 Tell students they are going to choral count from the number of foxes they see (5) up to 20, and as they count, you are going to write the numbers on the board.

3 Write the numeral 5 on the board and have students think about what number comes next and how they know.

- Have them give a thumbs-up when they have an idea.
- Then invite students to whisper the number to a neighbor.
- On your signal, invite the whole class to tell you what number to write after 5.

4 When there is consensus the number is 6, remind students to state the number when you point to the board, making sure that they are counting together and not rushing ahead.

5 Record the count in two rows, with the 15 directly below the 5.



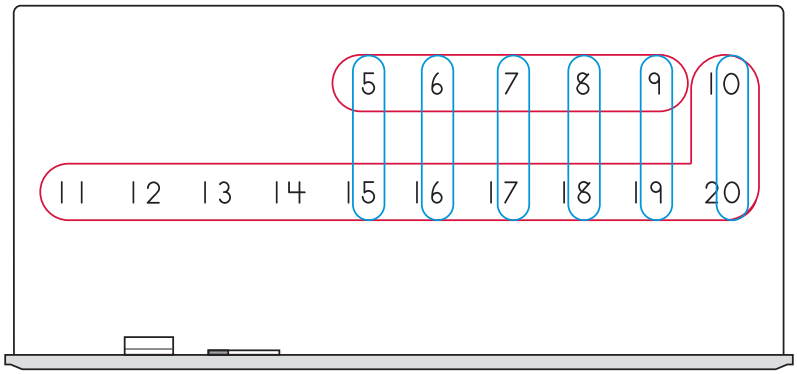
Digital Resources

You can access the Number Chart app with share code 31YT-0Z2T to annotate the patterns and relationships between the numbers that students notice.

Apps are available at apps.mathlearningcenter.org.

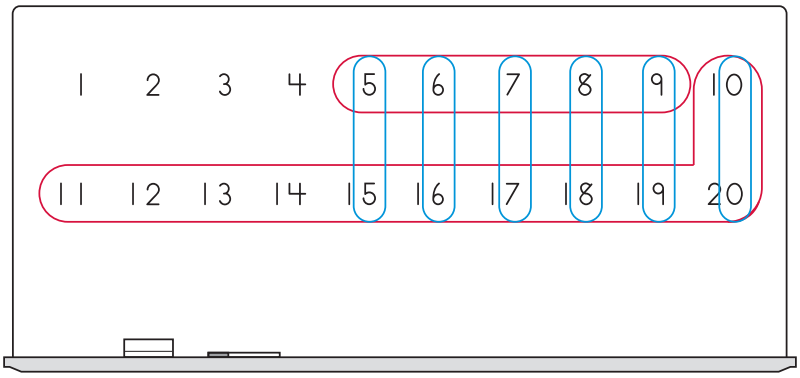
6 When the count is done, facilitate a discussion about what students notice. Use colored markers to highlight patterns and relationships among the numbers. Consider some of the following questions to support the discussion, if needed:

- *Do you see any patterns?*
- *Can you point to the pattern you found and tell us about it?*
- *Why do you think that pattern works?*



Students *The numbers in the top row, except for 10, have one number.*
The numbers in the second row and 10 all have two numbers.
The last number is the same for any column that has two numbers in it.
That's the same in all the columns!

7 Ask: *What numbers come before 5?* With student input, record the numbers 1–4 on the board in place in the sequence. Invite students to make final observations about the numbers written on the board.



Problems & Investigations

Solving Problem Situations

8 Display page 10 of *Fall Friends* and ask: *What do you notice about this picture?*

- After a few students share their observations, ask: *What can we count?*
- Have students count in unison the objects that are named.

9 Explain that today students will use what they've learned about adding and subtracting to solve some problem situations.

Show students a counting mat and cubes, along with a student number rack. Explain that they will have the opportunity to choose one of these tools to show and solve the problems.

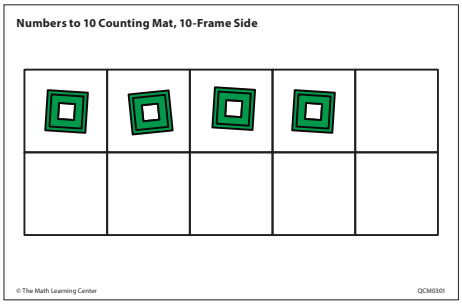
10 Share the following problem situation: *There are 3 baby foxes and 1 adult fox at the huckleberry bush. How many foxes are there in all?*

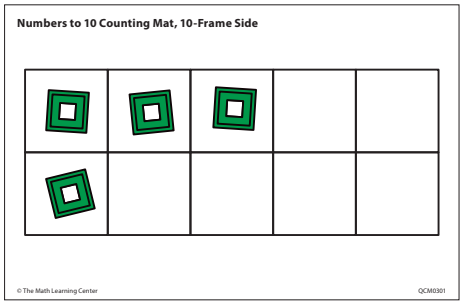
11 Have students think independently about how they might show this problem and which tool they want to use.

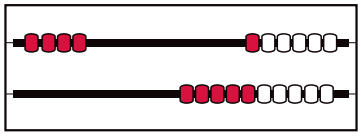
Distribute counting mats and cubes or number racks as requested by students.

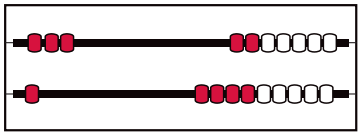
12 Invite students to use their chosen tool to solve the first problem situation.

Have several students share how they solved the problem, making sure to highlight the use of different tools and strategies.









Students *I put down 3 cubes for the baby foxes and 1 more for the grown-up fox. That's 4 foxes in all.*

I slid over 3 beads on the top row and 1 more on the bottom row of my number rack. I got 4 too!

My cubes look like your number rack; I have 3 cubes on the top and 1 on the bottom.

13 Work with students to generate two equations to match this problem. As needed, use the following questions to support the discussion:

- *What number can I write for the baby foxes? What about the adult fox?*
- *Does this problem ask us to add or subtract? How do you know?*
- *What symbol do we use to show addition, or joining two groups together?*
- *How many foxes are there in all?*
- *What is another way we can write this equation?*

$$3 + 1 = 4$$

$$4 = 3 + 1$$

14 Invite students to think-pair-share about how the problem situation matches the numbers and symbols in the equation.

Students *The 3 is for the baby foxes and the 1 is for the grown-up fox. If you put them all together, you get 4 foxes.*

Three foxes and 1 more fox is the same amount as 4 foxes.

15 Now tell a subtraction problem situation about the same page of *Fall Friends: There are 4 foxes around the huckleberry bush. One fox goes inside the den. How many foxes are left around the bush?*

16 Repeat steps 12–14 with the subtraction situation.

17 Display page 17 of *Fall Friends* and ask: *What do you notice? What can we count in this picture?*

Equity-Based Practice

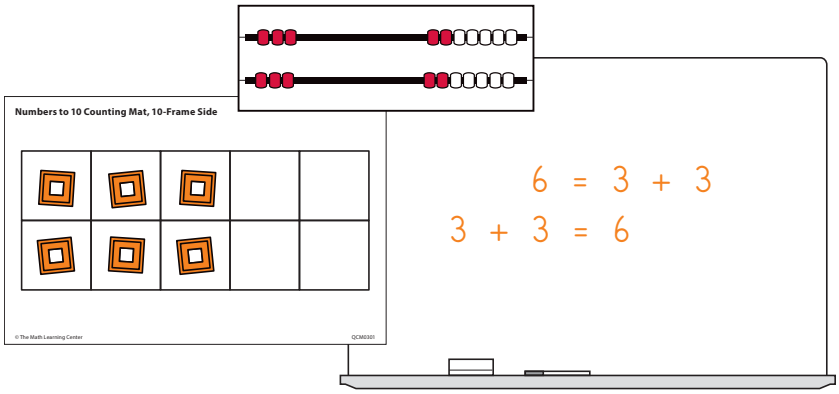
Affirming mathematics learners' identities

Providing students with a choice in the tools and strategies they use to solve the problem situation encourages them to see themselves as confident problem solvers capable of making important mathematical decisions.

18 Share the following problem situation: *There are 3 light brown squirrels and 3 dark brown squirrels. How many squirrels are there in all?*

19 Invite students to use their tools to represent and solve the problem. Work with input from the class to generate at least one equation to represent the problem, and record each one on the board.

Use the think-pair-share routine to discuss the question: *What is the problem called when there are two equal groups?* (A double)



20 Repeat this procedure with other problem situations, limiting this activity to 20–25 minutes. Use the images in *Fall Friends* as a context for generating problem situations.

Use the suggested problems below or invite students to help you create more from the book.

Page	Image	Problem Situation
14		There were 3 pieces of yarn on the ground. The friends used 1 piece to fix the sign. How many pieces of yarn are left on the ground?
19		There are 7 birds flying in the sky. One bird is in a nest. How many birds are there in all?
4		There are 5 white books on the top shelf and 5 white books on the bottom shelf. How many white books are there in all?
6		Six birds sat on top of the tree house. Four birds flew away. How many birds are left on top of the tree house?
10		There were 5 bunches of berries on the bush. The friends picked 4 bunches. How many bunches of berries were left on the bush?

CHALLENGE For each addition problem situation, invite students to think of a subtraction problem situation they could pose about the same image.

Work Places

21 Invite students to spend the rest of the session at Work Places.

- Shuffle the name cards.
- Call students' names and have them place their cards in the Work Places chart.

While students are at Work Places, circulate to make observations and provide differentiation. The Work Place Guides include suggestions for differentiating the activities to meet students' needs.

22 Close the session.

- Give students a few minutes of warning before cleanup time.
- Have students clean up and put away the Work Place materials.

Session 3

Grab Bag More or Less: Introducing Work Place 3D

Summary

This session begins with a warm-up where students count and compare quantities in the book, *Fall Friends*. Then the class plays a new game in which teams take turns grabbing cubes out of a container, counting the cubes of a single color, and making a train with them. Teams compare their trains and spin the Greater Than or Less Than Spinner to determine the winner. Students spend the rest of the session at Work Places.

Module 3 Learning Goals

Students learn about representing, adding, and subtracting numbers within 10.

- ☐ Students explore and connect representations for combinations of 5.
- ☐ Students represent and solve addition and subtraction problem situations.
- ■ **Students build and compare quantities within 10.**
- ☐ Students double quantities within 10 using 10-frames or number racks.
- ☐ Students explore and connect representations for combinations of 10.

Materials

Warm-Up More or Less?	
Kit Materials	• *Fall Friends* book • demonstration number rack (optional, for support)
Problems & Investigations Grab Bag More or Less	
Kit Materials	• Numbers to 10 counting mat • Greater Than or Less Than Spinner
Classroom Materials	• opaque container or cloth bag (see Preparation) • Unifix cubes in 2 colors (10 of each color)
Work Places in Use	
2C Which Bug Will Win? (introduced in Unit 2, Module 3, Session 4) **2D** Beat You to 10 (introduced in Unit 2, Module 3, Session 6) **2E** Pattern Block Puzzles (introduced in Unit 2, Module 4, Session 5) **3A** Grab Bag Doubles (introduced in Unit 3, Module 1, Session 5) **3B** Butterfly Race (introduced in Unit 3, Module 2, Session 1) **3C** Five & More (introduced in Unit 3, Module 2, Session 2)	

PO – Print Original, **SB** – Student Book, **HC** – Home Connection

Vocabulary

**Word Resource Card available*

compare*
greater than*
less*
less than*
long/longer/longest*
more*
short/shorter/shortest*

Preparation

Put 20 loose Unifix cubes (10 of one color and 10 of another) into an opaque container.

Warm-Up

More or Less?

1 Display *Fall Friends* page 15, and point out the collection of acorns shown next to each friend.

2 Ask: *How many acorns did Amara collect? What about Min? What about Dalvin?*

3 Engage students in the think-pair-share routine with the following questions:

- *Who collected more acorns, Amara or Min? How do you know?*
- *Who collected fewer, or less, acorns? How do you know?*

SUPPORT As students make comparisons, have the demonstration number rack available to model the different quantities of acorns on each row.

CHALLENGE Ask: *How many more acorns did Min collect than Amara?*

MLL Use ASL signs as you say *more* and *less*.

4 Repeat step 3, inviting students to compare Amara's acorns to Dalvin's.

5 Explain that just like comparing the numbers of acorns, students will be comparing groups of cubes in a new game today.

Digital Resources

On the Number Rack app, you can use 3 separate rows for each friend's acorns to allow for comparison of the differences in the quantities.

Apps are available at apps.mathlearningcenter.org.

Problems & Investigations

Grab Bag More or Less

6 Introduce the game Grab Bag More or Less.

- Tell students that in this partner game, players take turns grabbing a handful of Unifix cubes from a container. They each count the cubes that match their color, and snap them together into a train. Then players compare their cube trains to see who has more and who has less. One player spins the Greater Than or Less Than Spinner to find out who gets the point. The first player to get five points wins the game.
- Explain that you will play the game as a whole class today. In the next session, the game will be available as a Work Place.

7 Show students the materials for the game.

- As you display the container with Unifix cubes, explain that it has 10 cubes in each of two colors. Each team will pick a color. When they reach into the container for each turn, they will build a train using only their color of cubes.
- Place the Numbers to 10 counting mat where students can see it.
- Invite students to share observations about the Greater Than or Less Than Spinner.

8 Have a volunteer reach into the container and pull out one cube. Explain that the color they grabbed is the class's color for the game and your color will be the other one.

> ***Teacher*** *You pulled a yellow cube. You'll build your train with the yellow cubes that you grab, but you'll put back the blue ones. I'll build my train with blue cubes and put back the yellow ones.*

9 Reach in and grab a handful of cubes from the container. Put back the cubes that do not match your color.

- Have students count the remaining cubes by 1s as you place them on the Numbers to 10 counting mat in five-wise formation.
- Count the cubes again, reinforcing the five and more structure if you have more than five cubes.

10 Join the cubes into a train, then set it down near the counting mat.

11 Invite a student to grab some Unifix cubes out of the container, putting back the ones that don't match their color.

- Have the student lead the class in counting the cubes as they are placed on the 10-frame in five-wise formation.
- Then ask the student to make a train with the cubes.

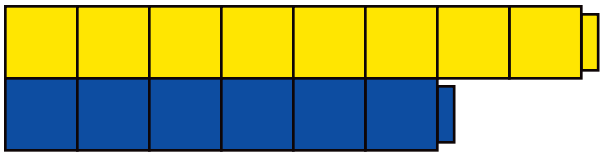
12 Lay the two trains side by side (or stand them up) so students can compare the lengths and the numbers of cubes. Ask: *Who has more? How do you know?*

Revoice student comments, using the vocabulary of *greater than* and *less than*.

Math Practices in Action

Attend to precision

By lining up the trains of cubes, students can say with precision which quantity is greater and which is less. Some students will also be inclined to say exactly how much more (or less) one quantity is than the other.



Teacher *Let's compare trains. Do you see how I put the trains side-by-side, even at one end? Who has more, you or me?*

Students *We do!*

Teacher *How do you know?*

Students *Because our train is longer than yours.*

There are 2 extras on our train.

Eight is bigger than 6.

Teacher *Yes, 8 is greater than 6. Six is less than 8. Now let's see who wins this round.*

MLL Indicate visually what you mean by *greater than*, *less than*, *longer than*, and *shorter than*. Consider using ASL signs with your discussion of these terms.

13 Spin the Greater Than or Less Than Spinner to determine who wins the round — the team with the greater number or the team with less. Keep track of points by recording tally marks on the board.

14 Discuss and come to a consensus about what might happen if both trains are equal. Do both teams get a point or does neither team get a point?

15 Take the trains apart, put the cubes back in the container, and continue to play until one team has five points.

16 Have students briefly reflect on the game by inviting them to think-pair-share with the following question: *How do you know when a number is greater than or less than another?*

Let students know they'll review the game and it will be available as a Work Place in the next session.

Work Places

17 Invite students to spend the rest of the session at Work Places.

- Shuffle the name cards.
- Call students' names and have them place their cards in the Work Places chart.

While students are at Work Places, circulate to make observations and provide differentiation. The Work Place Guides include suggestions for differentiating the activities to meet students' needs.

18 Close the session.

- Give students a few minutes of warning before cleanup time.
- Have students clean up and put away the Work Place materials.

Equity-Based Practice

Affirming mathematics learners' identities

When you revoice student responses using mathematical language, such as "greater than" for bigger, you are acknowledging their contribution to the discussion and providing them with an opportunity to connect their words to math vocabulary.

Session 4

Bicycle Race: Introducing Work Place 3E

Summary

After a warm-up activity that provides practice with doubling quantities, the class plays a new game. Teams take turns rolling a 0–5 die, doubling the number, and checking to see whether that double is on the next bicycle wheel on the game board. If so, they advance their bicycle (game marker) to the next wheel. The first team to reach the fifth wheel is the winner. The class reviews Grab Bar More or Less, then the game becomes a Work Place. Students spend the rest of the session at Work Places.

Module 3 Learning Goals

Students learn about representing, adding, and subtracting numbers within 10.

- ☐ Students explore and connect representations for combinations of 5.
- ☐ Students represent and solve addition and subtraction problem situations.
- ☐ Students build and compare quantities within 10.
- ■ **Students double quantities within 10 using 10-frames or number racks.**
- ☐ Students explore and connect representations for combinations of 10.

Materials

Warm-Up Double It!	
Kit Materials	demonstration number rack
Classroom Materials	student number racks (class set)
Problems & Investigations Bicycle Race	
Kit Materials	• *Fall Friends* book • Bicycle Race game board • game markers in red and blue (1 of each color) • 1 die numbered 0–5
Classroom Materials	student number racks (class set)
Work Places Reviewing Grab Bag More or Less	
Copies & Display	**PO P2** Work Place Guide 3D Grab Bag More or Less **PO P3** Work Place Instructions 3D Grab Bag More or Less **PO P4** Work Place 3D Grab Bag More or Less Observational Assessment record sheet
Kit Materials	• Work Place menu card for 3D Grab Bag More or Less • Greater Than or Less Than Spinner
Classroom Materials	• opaque container of Unifix cubes from Session 3 • student whiteboard, marker, and eraser (1 set)
Work Places in Use	
2D Beat You to 10 (introduced in Unit 2, Module 3, Session 6) **2E** Pattern Block Puzzles (introduced in Unit 2, Module 4, Session 5) **3A** Grab Bag Doubles (introduced in Unit 3, Module 1, Session 5) **3B** Butterfly Race (introduced in Unit 3, Module 2, Session 1) **3C** Five & More (introduced in Unit 3, Module 2, Session 2) **3D** Grab Bag More or Less (introduced in this session)	

PO – Print Original, **SB** – Student Book, **HC** – Home Connection

Vocabulary

**Word Resource Card available*

compare*
double
equal*
equation*
greater than*
less than*
plus
strategies

Preparation

- In today's session you'll make Grab Bag More or Less available as a Work Place. Before this session, gather three opaque containers or bags and place 20 loose Unifix cubes (10 of one color and 10 of another) in each. Review the Work Place Guide and Instructions, and assemble the bin using the materials listed on the Guide. The Guide also includes suggestions for differentiating the activity to meet students' needs.
- In the Work Place pocket chart, replace the menu card for 2C with the menu card for 3D.
- There is an optional observational assessment for Grab Bag More or Less. Consider which students you'd like to assess for progress with comparing quantities. You can use this assessment during Work Place time while this game remains in play.

Warm-Up

Double It!

1 Introduce the warm-up by engaging students in the think-pair-share routine with the question: *What is a double?*

Reinforce the idea of a double being two equal groups, such as 1 and 1 or 5 and 5.

2 Distribute student number racks. Explain that you'll play a quick game to practice making doubles using both rows of the number rack. State the directions:

- You'll build a number on the top row of your number rack and show it to students.
- Students will double the number by showing the same amount in the top row and bottom row of their number rack. Then they'll determine how many there are in all.

3 Begin the game by building 3 on the top row of the demonstration number rack. Have students do the same on their number racks.

- Say: *Double it!* and have students build 3 on the bottom row of their number racks.
- Ask: *How many are on the top row? How many are on the bottom row? How many are there in all?*

4 Repeat step 3 several times with other quantities within 5.

Have students keep their number racks to use as needed during the Problems & Investigations portion of the session.

Problems & Investigations

Bicycle Race

5 Display page 6 of *Fall Friends* and ask students: *How do Min, Amara, and Dalvin get around to visit their animal friends?*

Confirm that the friends ride their bicycles. Explain that today students will learn a new game called Bicycle Race where they can imagine they are riding bicycles, just like the friends in the story.

6 Introduce the game Bicycle Race.

In this partner game, players race their "bicycles" (game markers) through five wheels to the finish. Each player rolls a die numbered 0–5, doubles their number, and determines whether that number appears in the next wheel on the game board. If so, they can advance to that wheel. The first player to land on the fifth wheel is the winner. This game helps students practice doubling numbers.

Explain that you will play the game as a whole class today. In the next session, the game will be available as a Work Place.

7 Show students the Bicycle Race game board. Give them a minute to think-pair-share observations, then invite several students to share with the class.

- If it doesn't come up, be sure to point out the double dominoes at the bottom of the game board. The double dominoes will help students double the numbers they roll. Review the term *double*, meaning two equal groups, as needed.
- Point to each wheel and name its ordinal position with the class: *first*, *second*, *third*, *fourth*, and *fifth*.

8 Place one red and one blue game marker on the game board to the left of the first wheel. Explain that the blue marker is your bicycle, and the red one is the bicycle for the class.

9 Roll a die numbered 0–5, ask students what the number is, then have them double the number.

- Invite students to use their student number racks, the dominoes at the bottom of the game board, or finger formations to double the quantity shown on the dice.
- Invite students to share their strategies as you write equations on the whiteboard to represent their solutions.

Teacher *What number did I roll?*

Students *Three!*

Teacher *And what do we get if we double 3?*

Inés *I used my fingers. Three here and 3 here make 6.*

Teacher *3 + 3 = 6.* [Writes the equation on the whiteboard.] *Did anyone use the game board to figure it out?*

Miguel *I did. I saw the 6 domino with 3 on one side and 3 on the other side.*

Teacher *Yes, the dominoes are very handy when you're playing this game.*

10 Draw students' attention to the equations on the whiteboard and discuss what is the same about them.

$$6 = 3 + 3$$
$$3 + 3 = 6$$

Math Teaching Practice

Use and connect mathematical representations

Recording equations connects student strategies and visual representations to symbolic representations. This helps students interpret the meaning of the symbols as they relate to the action of doubling a quantity.

11 Move your bicycle to the first wheel if your doubled number appears there.

12 Invite a student to roll the die for the class. Have the class work together to double the number and then determine whether the total is on the next wheel.

Encourage students to share their strategies for doubling the number.

13 Continue to take turns with the class until one team has reached the fifth wheel. Explain that you'll play the game once more in the next session and then it will be available as a Work Place.

Work Places

Reviewing Grab Bag More or Less

14 Take some time to review procedures for partner games: taking turns, choosing who goes first, helping each other, playing fair, and so on. Refer to the Looks Like/Sounds Like Chart created in Unit 1.

15 Let the class know that Grab Bag More or Less is available to play today with a partner, and briefly review the game.

Each player reaches into the container and grabs some cubes, counts out the ones that match their color, and builds them into a train. Then the players compare trains to see who has more and less. They spin the Greater Than or Less Than Spinner to see who

gets a point. The first player to get five points wins. This game helps students practice comparing quantities.

- Demonstrate how students will determine their color by having one partner draw out a cube and claim that color. Remind students that they'll return the cubes that don't match their color to the container.
- Model how to set up the score board for the game on a student whiteboard. Write the names of two student volunteers next to each other on a student whiteboard and draw a line down the middle of the board. Explain that each student will use tally marks to record their points under their name on the whiteboard.
- They can check and recheck their counting, and help each other when necessary.

16 Invite two students to model a quick game, following the directions on Work Place Instructions 3D Grab Bag More or Less. If your students appear to have the idea, you need only play for a few rounds.

17 Show students the contents of the Work Place bin and the new Work Place menu card.

18 Invite students to spend the rest of the session at Work Places.

If there is a limited amount of time for Work Places, send students out without using the name cards.

Optional Assessment: Grab Bag More or Less

19 As the class engages in Work Places, use the Grab Bag More or Less observational assessment to gather more information on students' proficiency with comparing quantities.

- The observational assessment can be used during any Work Place time when students are playing Grab Bag More or Less.
- Record your observations on the Work Place 3D Grab Bag More or Less Observational Assessment record sheet.

20 Close the session.

- Give students a few minutes of warning before cleanup time.
- Have students clean up and put away the Work Place materials.

Session 5

Build It to Ten!

Summary

After the warm-up activity, You Have … You Need, students build and add numbers using Unifix cubes and Numbers to 10 counting mats. The teacher guides them in generating equations to match their work. The class reviews the new Bicycle Race Work Place before students go to Work Places. At the end of the session, the teacher introduces and assigns the Equations & Doubling Home Connection.

Module 3 Learning Goals

Students learn about representing, adding, and subtracting numbers within 10.

- ☐ Students explore and connect representations for combinations of 5.
- ☐ Students represent and solve addition and subtraction problem situations.
- ☐ Students build and compare quantities within 10.
- ☐ Students double quantities within 10 using 10-frames or number racks.
- ■ **Students explore and connect representations for combinations of 10.**

Materials

Warm-Up You Have … You Need	
Kit Materials	• 10-Frame Five-Wise display cards for 5–9 • 10-Frame Pair-Wise display cards for 5–9 (optional)
Problems & Investigations Build It to Ten!	
Kit Materials	• *Fall Friends* book • Numbers to 10 counting mats (class set) • Numerals to 10 display cards
Classroom Materials	Unifix cubes in single-color trains of 10 (class set)
Work Places Reviewing Bicycle Race	
Copies & Display	**PO P5** Work Place Guide 3E Bicycle Race **PO P6** Work Place Instructions 3E Bicycle Race
Kit Materials	• Work Place menu card for 3E Bicycle Race • Bicycle Race game board • game markers in red and blue (1 of each color) • 1 die numbered 0–5
Work Places in Use	
2E Pattern Block Puzzles (introduced in Unit 2, Module 4, Session 5) **3A** Grab Bag Doubles (introduced in Unit 3, Module 1, Session 5) **3B** Butterfly Race (introduced in Unit 3, Module 2, Session 1) **3C** Five & More (introduced in Unit 3, Module 2, Session 2) **3D** Grab Bag More or Less (introduced in Unit 3, Module 3, Session 4) **3E** Bicycle Race (introduced in this session)	
Home Connection	
Copies & Display	**HC 23–24** Equations & Doubling

PO – Print Original, **SB** – Student Book, **HC** – Home Connection

Vocabulary

**Word Resource Card available*

add*
addition
equal
in all
plus
strategies

Preparation

- In today's session, you'll make Bicycle Race available as a Work Place. Before this session, review the Work Place Guide and Instructions, and assemble the bin using the materials listed on the Guide. The Guide also includes suggestions for differentiating the activity to meet students' needs.
- In the work Place pocket chart, replace the menu card for 2D with the menu card for 3E.

Warm-Up

You Have … You Need

1 Introduce a new game in which students will help you name combinations of 10. Explain the directions:

- You'll hold up a 10-Frame Five-Wise display card and ask students: *How many dots do I have?*
- Students will respond: *You have ___ dots.*
- You'll ask: *How many more do I need to have 10?*
- Students will respond: *You need ____ more.*

MLL Consider writing the sentence frames on the board and practicing them several times before beginning the game to familiarize students with the language of the game.

2 Play the game using the 10-Frame Five-Wise display cards showing the cards in any order.

3 Keeping the warm-up brief, consider playing the game again with the 10-Frame Pair-Wise display cards.

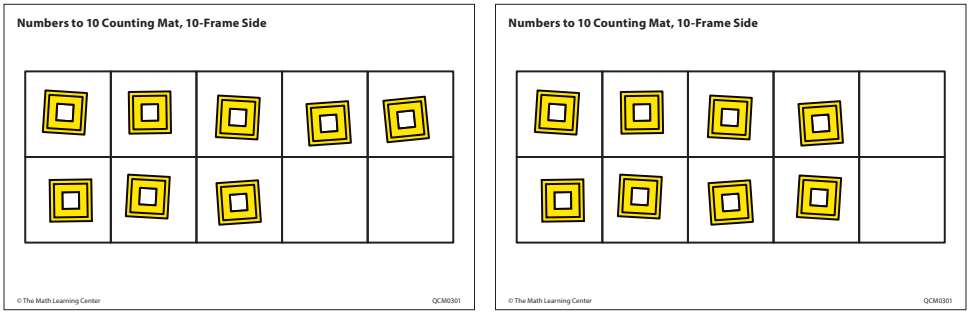
Problems & Investigations

Build It to Ten!

4 Distribute Numbers to 10 counting mats and trains of 10 Unifix cubes to students. Explain that they will use these tools to make combinations of 10 and help you write the matching equations.

5 Display page 1 of *Fall Friends* and invite students to think-pair-share: *How many birds do you see in the trees? How do you see them?*

- Invite students to show the number on their counting mats.
- Have students briefly compare their counting mats and the different ways they represented 8.



Students *There are 8 birds. I filled in the top row of my counting mat and then added 3 more on the bottom row.*

I showed 4 in each row, just like there are 4 birds on each tree.

6 Write 8 + ☐ on the whiteboard and ask the following:

- *How many more cubes would you need to fill the mat? How do you know?*
- *How many cubes would you have then? How do you know?*
- [Add 2 more cubes to your 10-frame.] *How many do you have in all?*

MLL Use hand gestures to indicate what you are talking about. For example, point to the empty spaces on the 10-frame when asking how many more to fill the mat, or make a circular gesture around the entire mat when asking how many in all.

7 Ask students to help you complete the equation on the whiteboard.

Teacher *So how many did we add to 8?*

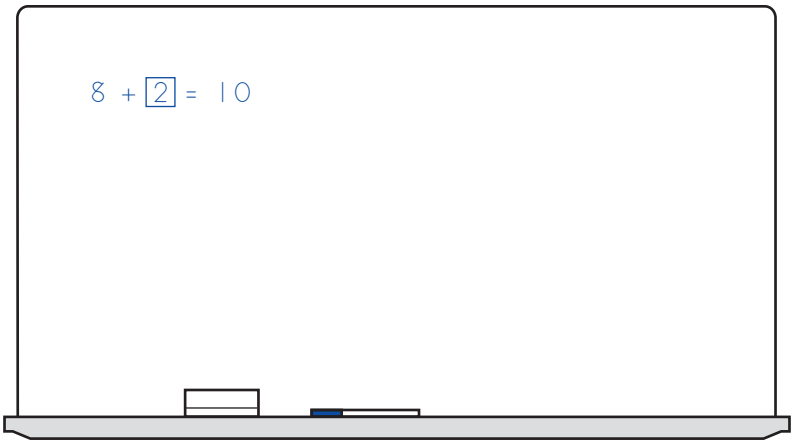
Students *2!* [Teacher writes a 2 in the square.]

Teacher *And how many do we have in all?*

Students *10!* [Teacher writes "= 10" to finish the equation on the board.]

Teacher *Let's read our equation together.*

When reading equations, read the equal sign as "equals" sometimes and as "is the same amount as" other times. This will reinforce the meaning of the equal sign.



8 Display page 9 of *Fall Friends* and ask: *How many foxes are in the fox family? How can you show the number of foxes with cubes?*

Invite students to briefly compare their counting mats and the ways they represented 5.

9 Have students imagine another fox family joining this one. Now there are 10 foxes in all. Ask students to think-pair-share: *If there are now 10 foxes, how many foxes are in the second fox family? How do you know?*

- Invite several students to share their solutions and explain their thinking.
- Have everyone use their cubes and counting mats to confirm that there are 5 in the second fox family.

10 Write the equation $5 + \square = 10$. Ask students to help you complete the equation on the board, and then read it together.

11 Repeat steps 8–10 with a few more scenarios from the book:

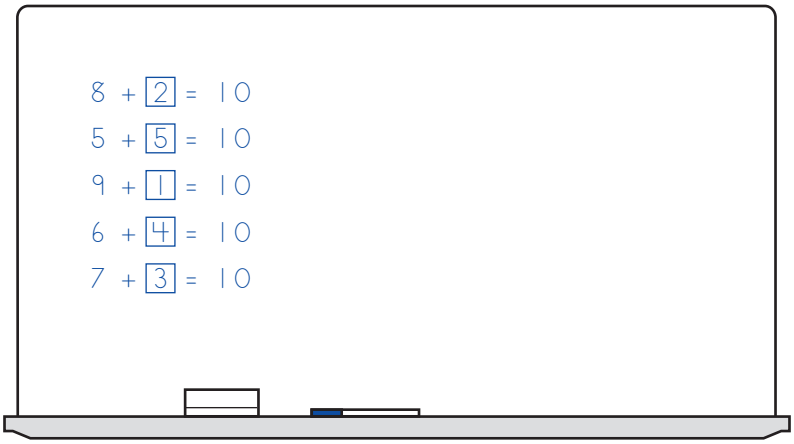
Page	Problem Situation
4	There are 9 books on the top shelf. How many more books are needed to have 10 on the shelf?
18	There are 6 squirrels with acorns. Imagine some more squirrels join them and now there are 10. How many squirrels joined them?
16	**CHALLENGE** The squirrels live at Tree Number 7. How many trees away is Tree Number 10?

12 Close this part of the session by inviting students to share their observations about the equations you've recorded. Ask: *What do you notice about these equations?*

Math Teaching Practice

Pose purposeful questions

Asking students, "How do you know?" encourages them to justify their thinking and to engage in mathematical dialog with their classmates. This helps students to not just answer a question but to explain their reasoning.



Students *They all have 10.*

They have different numbers, but they all equal 10.

I see a double: 5 and 5.

Work Places

Reviewing Bicycle Race

13 Remind students of the game Bicycle Race, played in the previous session, and summarize.

Partners race their "bicycles" (game markers) through five wheels to the finish. Each player rolls a die numbered 0–5, doubles their number, and determines whether that number appears in the next wheel on the game board. If so, they can advance to that wheel. If not, they have to wait until their next turn to try again. The first player to land on the fifth wheel is the winner.

14 Play a few rounds of Bicycle Race with a student, following the steps on Work Place Instructions 3E Bicycle Race.

Play just until students understand the procedures.

15 Show students the contents of the Work Place bin and the new menu card.

16 Have students spend the rest of the session at Work Places.

If there is a limited amount of time for Work Places, send students out without using the name cards.

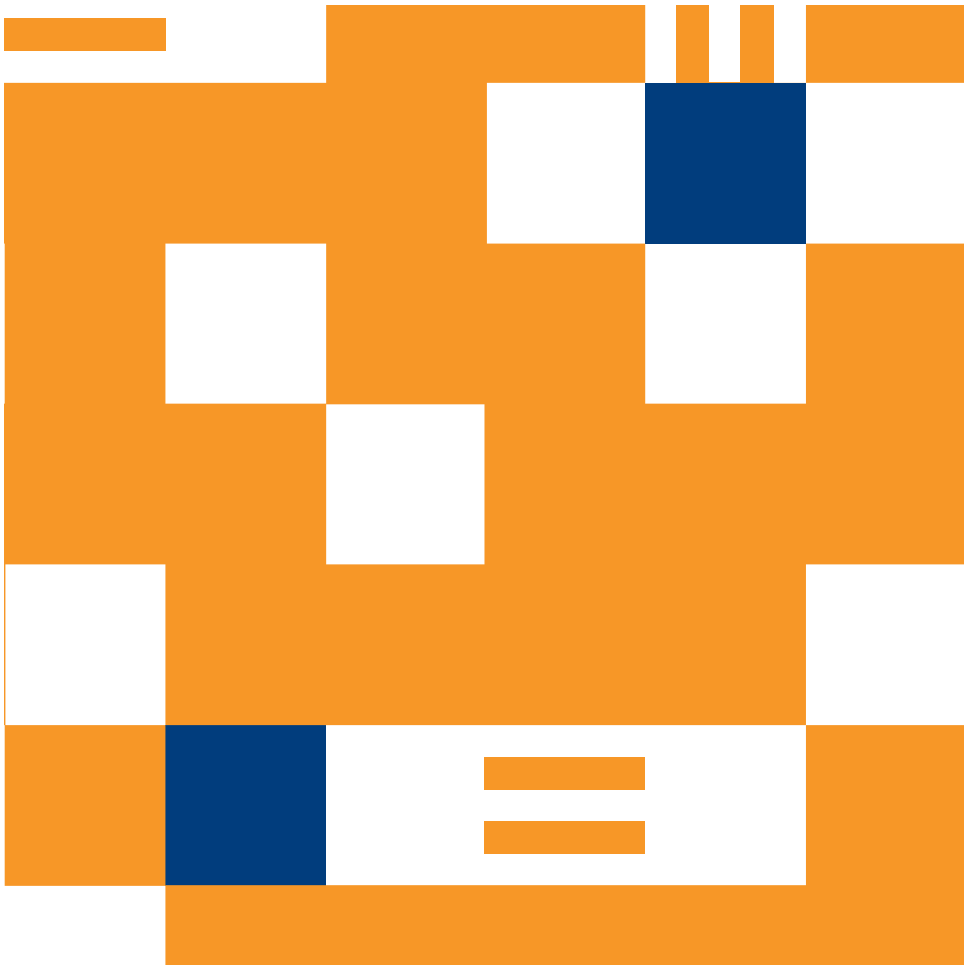
17 Close the session.

- Give students a few minutes of warning before cleanup time.
- Have students clean up and put away the Work Place materials.

Home Connection

18 Introduce and assign the Equations & Doubling Home Connection, which provides more practice with the following skills:

- Represent addition and subtraction with objects, fingers, verbal explanations, or equations
- Count up to 10 objects arranged in a line, rectangular array, or circle to answer "how many?" questions
- Identify whether the number of objects in a group is greater than less than, or equal to the number of objects in another group



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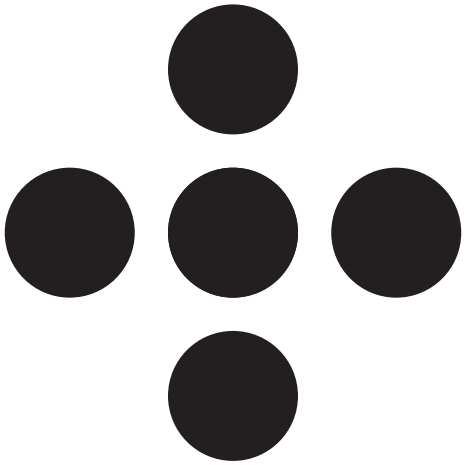
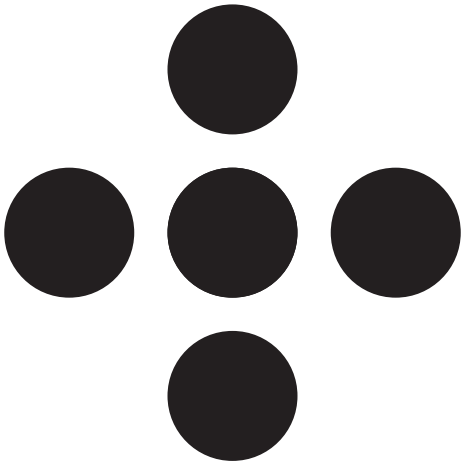
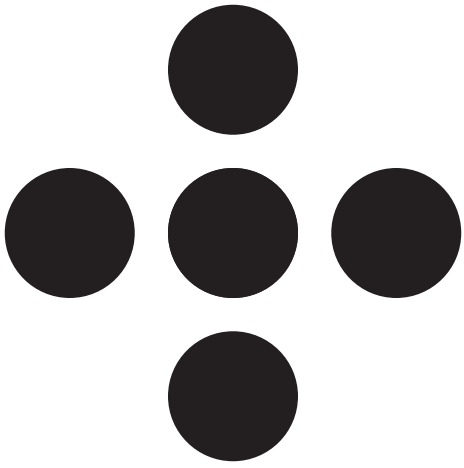
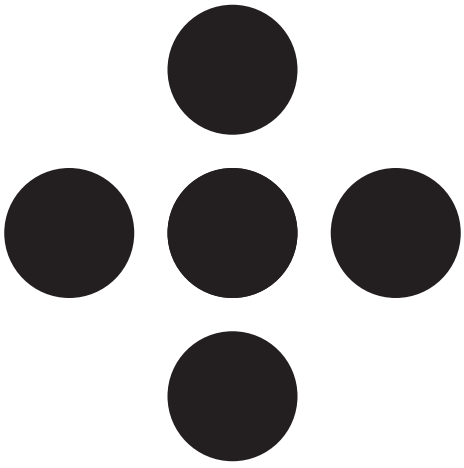
Five Dots









Work Place Guide 3D Grab Bag More or Less

Summary

In this partner game, players take turns grabbing a handful of Unifix cubes from a container. They each count the cubes that match their color, and snap them together into a train. Then players compare their cube trains to see who has more and who has less. One player spins the Greater Than or Less Than Spinner to find out who gets the point. The first player to get five points wins the game.

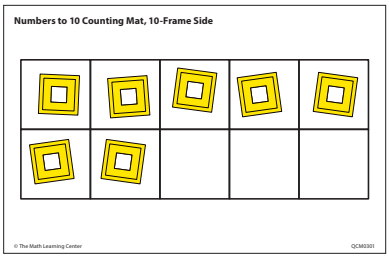
Skills & Concepts

- Count up to 10 objects arranged in a line, rectangular array, or circle to answer "how many?" questions
- Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group for groups of up to 10 objects
- Directly compare the lengths of two objects

Materials

Copies	Kit Materials	Classroom Materials
PO P2 Work Place Guide 3D Grab Bag More or Less **PO P3** Work Place Instructions 3D Grab Bag More or Less	Greater Than or Less Than Spinners (3)	• opaque containers of 20 Unifix cubes (3, each with 10 cubes of one color and 10 of a different color) • additional Unifix cubes (10 of each color per container; optional for game variation) • student whiteboards, markers, and erasers (3) • Numbers to 10 counting mats (optional, for support)

Assessment & Differentiation

If you see that …	Differentiate	Example
A student needs support counting with one-to-one correspondence	**SUPPORT** Invite the student to use a 10-frame to count out the cubes.	 *1, 2, 3, 4, 5, 6, 7, 8*
Students efficiently count and compare the amounts of cubes	**CHALLENGE** Invite students to play one of the game variations. • If students can compare quantities without building trains, have them play game variation B.	

Multilingual learners

- Indicate visually what you mean by *greater than*, *less than*, *longer than*, and *shorter than,* using ASL signs introduced in Unit 2.
- Use the Work Place Sentence Frames, located on the Bridges Educator site, to support student dialog during the game.

Work Place Instructions 3D Grab Bag More or Less

Object of the Game

Pull cubes out of a container and build trains with the cubes that match your color. Count how many cubes you have and how many your partner has. Then compare the cube trains. Spin the Greater Than or Less Than spinner to find out who gets the point. The first player to get five points wins the game!

Get Ready to Play

- Each pair of players needs **1 container of 20 Unifix cubes** (10 of one color and 10 of another color), a **whiteboard and a marker** for keeping score, and a **Greater Than or Less Than Spinner**.
- Each player writes their name on the whiteboard, one on each side of a dividing line.
- One player reaches into the container and pulls out one cube. The color of the cube they pick is their color for the game. The other color of cube is their partner's color.

Play

1 Use one hand to grab some cubes from the container.

2 Count out the cubes in your color and make them into a train. Put any cubes that don't match your color back in the container. Wait for your partner to do the same.

3 Lay the two trains next to each other to compare them.
- Whose is longer? Whose is shorter?
- Who has more cubes? Who has less?

4 Spin the Greater Than or Less Than spinner.
- If it says, "Greater than," the person with more cubes gets a point and records a tally mark under their name on the whiteboard.
- If it says, "Less than," the person with fewer cubes gets the point.

5 Separate the cubes and put them back in the container.

Ending the Game

The first player to get five points wins!

Variations

A Players add 10 more Unifix cubes of each color to their container, for a total of 20 cubes of each color. They play as usual.

B Players determine who has more and who has less by counting the cubes and comparing numbers without making trains.

Work Place 3D Grab Bag More or Less Observational Assessment Record Sheet

Use this checklist to gather information about students' progress toward comparing quantities within 10. Focus your observations on the students you'd like to learn more about. With each student, indicate the action observed with a check in the matching column. Record additional notes as needed. We do not expect every student to demonstrate every indicator. Listed indicators are examples of some ways students can show their understanding and learning.

If you want more information about how students	Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group within 10.		
Observe them during	**Work Place 3D Grab Bag More or Less (introduced in Unit 3, Module 3, Session 4)**		
Watch for these actions	Prompt students by asking: *What did the spinner land on? Who gets the point? Why?* Watch and listen for language that indicates an understanding of greater than or less than (e.g., more/less, bigger/smaller, longer/shorter).		
Student name	Points to and/or verbalizes which train has more cubes (using language such as *more, bigger, longer*).	Points to and/or verbalizes which train has fewer cubes (using language such as *less, fewer, smaller,* or *shorter*).	When prompted, uses formal vocabulary to describe the cubes.

Work Place Guide 3E Bicycle Race

Summary

Partners race their "bicycles" (game markers) through five wheels to the finish. Each player rolls a die numbered 0–5, doubles their number, and determines whether that number appears in the next wheel on the game board. If so, they can advance to that wheel. If not, they wait for their next turn to try again. The first player to land on the fifth wheel is the winner.

Skills & Concepts

- Add with sums to 10

Materials

Copies	Kit Materials	Classroom Materials
PO P5 Work Place Guide 3E Bicycle Race **PO P6** Work Place Instructions 3E Bicycle Race	• Bicycle Race game boards (3) • 3 dice numbered 0–5 • game markers in red and blue (3 of each color) • Numbers to 10 counting mats (optional, for support)	• Unifix cubes (optional, for support) • number racks (optional, for support) • student whiteboards, markers, and erasers (optional, for challenge)

Assessment & Differentiation

If you see that …	Differentiate	Example
A student could use visual support with doubling	SUPPORT • Encourage the student to use the dominoes at the bottom of the game board. • Encourage the student to use Unifix cubes on a counting mat or their number racks.	If the number rolled is 3: • *Find 3 dots on one side of a domino and count out the dots by 1s, or count on from 3.* • *Count out 3 cubes and add 3 more.*
Students efficiently read and double the numbers	CHALLENGE Invite students to write a doubles equation for each number rolled.	If the number rolled is 3, they write $3 + 3 = 6$ or $6 = 3 + 3$ on a student whiteboard.
Multilingual learners		
Use Work Place Sentence Frames, located on the Bridges Educator Site, to support student discussion during the game.		

Work Place Instructions 3E Bicycle Race

Object of the Game

Take turns rolling a die and doubling the number to race "bicycles" from wheel to wheel on the game board. The first player to land on the fifth wheel is the winner!

Get Ready to Play

- Each pair of players needs **1 Bicycle Race game board**, **1 die numbered 0–5**, **1 red game marker**, and **1 blue game marker**.
- Roll the die and then watch as your partner rolls the die. The player that rolled the greater number goes first and will use the red game marker.
- Put both game markers ("bicycles") to the left of the first wheel, near the word START.

On Your Turn

1 Roll the die, and double the number.

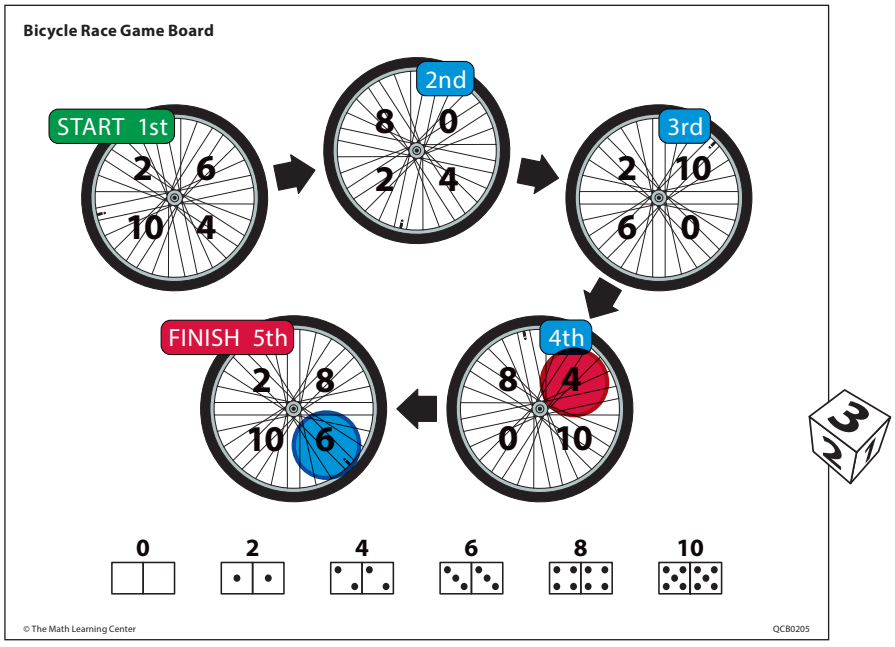
- *Can you use the double dominoes at the bottom of the game board to help?*
- *Can you use your fingers, cubes, or a number rack to double the number?*

2 Look to see whether the doubled number is in the next wheel on the game board.

- If it is, move your game marker to the next wheel.
- If it isn't, wait for your next turn to try again.

Ending the Game

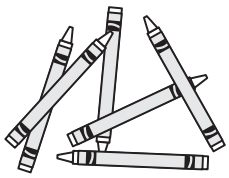
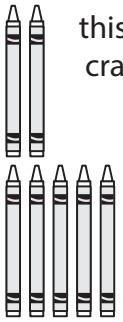
The first player to move to the last wheel is the winner!



Equations & Doubling page 1 of 2

Note to Families

In Module 3, we practiced writing equations, doubling numbers within 10, and using the words *greater than* and *less than* to compare groups of objects.

Art	Move with Math	Think & Talk About Math
Draw a picture on the next page to match this equation: 2 + 3 = 5 Extension: Tell an adult what each of the symbols in the equation means.	Play this game with an adult: The adult will call out a number from 1 to 5. You'll show the number on one hand and then double it using your other hand. Then work with the adult to say an equation to match your fingers. For example, if an adult calls out 5, you'll show 5 fingers on one hand and 5 fingers on the other hand. Then you'll say together, "5 + 5 = 10."	Would you rather color with … this set of crayons?  or this set of crayons?  Explain your choice to an adult. Then ask them which set they would choose and why.

(continued on next page)

NAME | DATE

Equations & Doubling page 2 of 2

Directions: Draw a picture to match this equation.

2 + 3 = 5

Extension: Tell an adult what each symbol in the equation means.

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