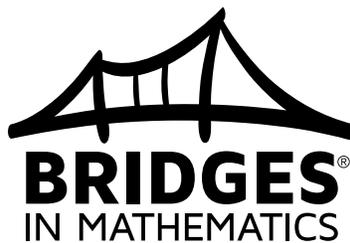


Teachers Guide

GRADE 1 – UNIT 2 – MODULE 3

Preview



Module 3

Introducing Fact Strategies

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Session 2 Dot Doubles.....	7
Session 3 Introducing Work Place 2E Spin & Add.....	11
Session 4 Introducing Work Place 2F Spin & Subtract.....	15
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Teacher Masters

Pages renumber with each module.

Domino Pictures	T1
Double Dominoes.....	T2
Double the Domino Dots.....	T3
Work Place Guide 2D Double It.....	T4
Work Place Instructions 2D Double It	T5
Work Place Guide 2E Spin & Add	T6
Work Place Instructions 2E Spin & Add.....	T7
Spin & Add Spinner.....	T8
Work Place Guide 2F Spin & Subtract.....	T9
Work Place Instructions 2F Spin & Subtract.....	T10
Spin & Subtract Spinner	T11
2F Spin & Subtract Record Sheet.....	T12
Unit 2 Assessment.....	T13

Student Book Pages

Page numbers correspond to those in the consumable books.

Domino Addition Combinations	6
Spin & Add Record Sheet.....	7
Spin & Subtract Record Sheet.....	8

Home Connections Pages

Page numbers correspond to those in the consumable books.

Dots, Apples & Shapes	25
Dots & Dollars	27

Module 3

Introducing Fact Strategies

Overview

The focus of Module 3 is on developing addition and subtraction strategies, particularly doubling, counting on, and counting back to solve combinations within 12. Students work with the number rack and then learn games in which they add, subtract, and record their results on graphs. Students who are still counting by 1s to add and subtract are encouraged to count on and count back instead, and those who have moved beyond counting by 1s are encouraged to develop strategies that make use of well-known facts to solve less familiar combinations. Three new Work Places are introduced, and two Home Connections are assigned. The module ends with a unit assessment.

Planner

Session & Work Places	P&I	WP	A	HC
<p>Session 1 Domino Flash</p> <p>This session focuses on helping students recognize, represent, and solve addition combinations to 12 and also provides practice with subitizing. The teacher shows the students dominoes (first the top half, then the bottom half, then the whole domino) and asks them show on their own number racks the number of dots they see. Students then write an equation to represent the total.</p>	•	•		
<p>Session 2 Dot Doubles</p> <p>During this session, students work with dominoes to learn doubles addition facts through $6 + 6$. After sharing observations about a set of doubles dominoes, they work in pairs to practice drawing and recording doubles addition combinations. Lastly, the teacher introduces a new Work Place and assigns a Home Connection.</p> <p>Work Place 2D Double It</p> <p>This is a game for two players, who take turns rolling a 1–6 dotted die. Each rolls a number, doubles it, and covers the total on their half of the game board. The first player to cover all the doubles sums from 2 to 12 wins.</p>	•	•		•
<p>Session 3 Introducing Work Place 2E Spin & Add</p> <p>After an counting initial warm-up, the teacher introduces a new addition game. Players spin a 5–10 numbered spinner and then a 1–3 dotted spinner, and count on to get the sum. They record the sums on a record sheet graph. Students play in pairs, and then the game becomes Work Place 2E Spin & Add.</p> <p>Work Place 2E Spin & Add</p> <p>This game is intended for two players, but one player may work alone. In partner play, one player spins the top spinner and the other player spins the dotted-number spinner below. They work together to count on, and each records just the sum in the correct column on their record sheet, starting at the bottom. Play continues until one column (or more, if desired) is full.</p>		•		
<p>Session 4 Introducing Work Place 2F Spin & Subtract</p> <p>After an initial counting warm-up, the teacher introduces a new subtraction game. Players spin a 5–10 numbered spinner and then a 0–3 dotted spinner. They count back from the larger number to find the difference between the two spins, then record it on a record sheet graph. Students play in pairs, and then the game becomes Work Place 2F Spin & Subtract.</p> <p>Work Place 2F Spin & Subtract</p> <p>This game is intended for two players, but a player may choose to work alone. In partner play, one player spins the first spinner, the other player spins the second spinner. They work together to find the difference between the two numbers spun, counting back from the first number. Then each player records just the difference in the correct column on their record sheet, starting at the bottom. Play continues until one column (or more if desired) is full.</p>		•		
<p>Session 5 Unit 2 Assessment</p> <p>During this session, the teacher conducts a written assessment of some of the major skills covered in Unit 2. As students finish the final story problem on the assessment, they turn in their papers and go to Work Places. Finally, the teacher introduces and assigns the Dots & Dollars Home Connection.</p>		•	•	•

P&I – Problems & Investigations, **WP** – Work Place, **A** – Assessment, **HC** – Home Connection

Materials Preparation

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

Task		Done
Copies	Run copies of Teacher Masters T1–T14 according to the instructions at the top of each master.	
	Run a single display copy of Student Book pages 6–8.	
	If students do not have their own Student Books, run a class set of Student Book pages 6–8.	
	If students do not have their own Home Connections books, run a class set of the assignments for this module using pages 25–28 in the Home Connections Book.	
Work Place Preparation	Prepare the materials for Work Places 2D, 2E, and 2F using the list of materials on the Work Place Guides (Teacher Masters T4, T6, and T9).	
Charts	Prepare an addition strategies chart similar to the illustration in Session 1.	
Paper Cutting	Cut in half copies of Teacher Master T8.	
Special Items	Get adding machine tape used for differentiation in Work Place 2F prior to Session 4 (optional).	



Additional Resources

Please see this module's Resources section of the Bridges Educator site for a collection of resources you can use with students to supplement your instruction.

Preview

Session 1

Domino Flash

Summary

This session focuses on helping students recognize, represent, and solve addition combinations to 12. The activity also encourages students to subitize, or quickly recognize a quantity without having to count every item. The teacher shows the students dominoes (first the top half, then the bottom half, then the whole domino) and asks them show on their own number racks the number of dots they see. Students then write an equation to represent the total.

Skills & Concepts

- Solve addition problems by counting on (1.OA.5)
- Add fluently with sums to 10 (1.OA.6)
- Add with sums to 20 (1.OA.6)
- Use strategies to add with sums to 20 (e.g., counting on, make ten, derived facts) (1.OA.6)
- Model with mathematics (1.MP.4)
- Use appropriate tools strategically (1.MP.5)

Materials

Copies	Kit Materials	Classroom Materials
Problems & Investigations Domino Flash		
TM 1 Domino Pictures (see Preparation) SB 6* Domino Addition Combinations	<ul style="list-style-type: none"> • Double-Six Dominoes (1 set, see Preparation) • Double-Nine Dominoes (1 set, optional for Challenge suggestion) 	<ul style="list-style-type: none"> • student number racks • piece of chart paper (see Preparation) • 3" × 5" index card • 1 ½" × 2" sticky notes (see Preparation)
Work Places in Use		
1G Ten & More (introduced in Unit 1, Module 2, Session 5) 1H Which Coin Will Win? (introduced in Unit 1, Module 3, Session 3) 1I Measuring with Unifix Cubes (introduced in Unit 1, Module 4, Session 2) 2A Domino Top Draw (introduced in Unit 2, Module 1, Session 2) 2B Domino Add & Compare (introduced in Unit 2, Module 1, Session 4) 2C Sort the Sum (introduced in Unit 2, Module 2, Session 3)		

HC – Home Connection, **SB** – Student Book, **TM** – Teacher Master
Copy instructions are located at the top of each teacher master.

**Run 1 copy of this page for display.*

Vocabulary

An asterisk [*] identifies those terms for which Word Resource Cards are available.

add*

equal*

equation*

Preparation

- Select two dominoes that each have 4 or fewer dots total (e.g., 1 dot on the left, 2 dots on the right; double 2).
- Cover each of the dominoes on the Domino Pictures Teacher Master with a 1.5" × 2" sticky note.
- Turn the piece of chart paper sideways and label it across the top as shown here to create a recording chart for this activity. Post the chart on the board.

Addition Strategies We Use					
Count Every Dot	Count On from Smaller Number	Count On from Larger Number	Doubles	Doubles Plus or Minus 1	Know It by Memory



Problems & Investigations

Domino Flash

- 1 Open today's session by letting students know they will practice writing and solving some addition combinations together, and then they'll have time to go to Work Places.
- 2 Place a domino (with 4 or fewer total dots) on the projector, face-up. Orient the domino vertically. Cover the domino with an index card so that students cannot see the number of dots on the domino. Tell students that you will remove the card for 1 or 2 seconds, and that their job is to determine how many dots are on the domino.

Rather than to remove and then quickly replace the piece of paper so that students only have 1–2 seconds to see the domino, it might be easier to simply turn on (and off) the projector. In either case, make sure that students do not have time to individually count every dot they see.

Teacher Are you ready? You have to pay attention here because I am only going to show you this domino for a second or two. You have to tell me how many dots there are on the domino. Raise your hand as soon as you know how many dots there are. Ready?

Students Yes!

Teacher OK... here we go. (Flashes the domino for 1–2 seconds.)

Teacher Wow! Look at all those hands in the air! OK, together now, how many dots did you see?

Students Three!

Teacher That must have been easy! I have another question, though. How many dots were on the top part of the domino?

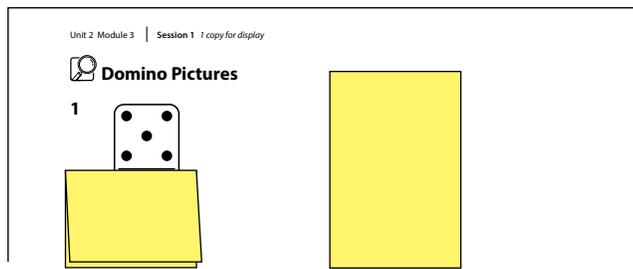
Students I think it was 1.
Yes, I saw 1 on the top.

Teacher And how many did you see on the bottom of the domino?

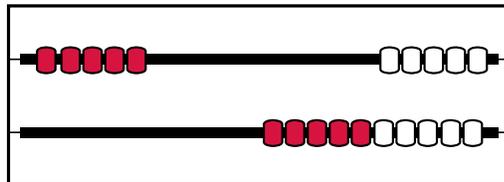
Students I saw 2!

Yes, it has to be 2 because there was 1 on top, and 1 plus 2 is 3.

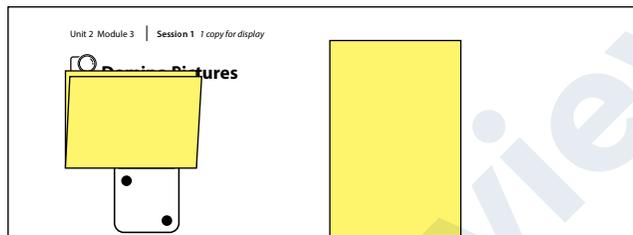
- 3 Repeat this activity with a second domino. Again, select a domino that has 4 or fewer dots.
- 4 Display the Domino Pictures Teacher Master with a sticky note covering each domino. Explain that in a minute, you are going to remove the first sticky note from the teacher master to show the top and then the bottom half of another domino. This time, students will each use their number rack to show how many dots they see on each half. Then they'll record an addition equation to match.
 - Have students each get out their number rack, their Student Book, and a pencil in preparation for this part of the activity.
 - Ask them to set the number rack down on their table or desk right in front of them where they can reach it easily, and set their book and pencil to the side for the moment.
- 5 When students are ready, gently fold down the top part of the sticky note so they can see the top half of the first domino for a second or two.



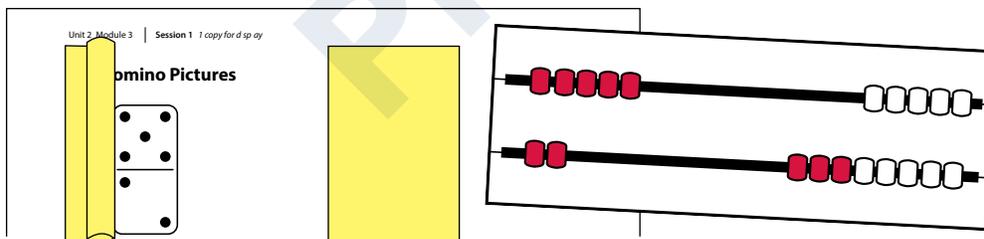
- 6 Then cover the top half of the domino again and ask students to show the number of dots they saw using beads on the top string of their number rack.



- 7 Repeat, this time showing only the bottom of the domino. Have students use the beads on the bottom row of their rack to represent the number of dots they saw.

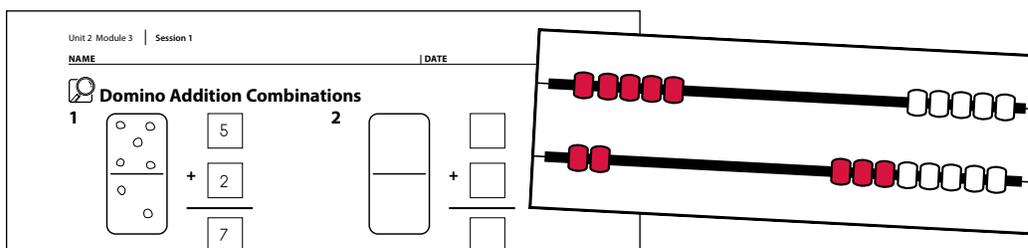


- 8 If some students are uncertain about what they have seen, flash the entire domino one last time, again for 1 to 2 seconds, and have them check their number racks for accuracy.



- 9 Now have students find the Domino Addition Combinations page in their Student Books. Place your copy of the sheet on display, and show them how to use the arrangement on their number rack to draw dots on the first domino and write an addition combination to match.

- 10 When students understand what to do, give them a minute to work.



- 11 Call on two or three students to share their strategies for adding the two numbers. Record the equation on the chart under each strategy the students mention.

Student A I went 5... 6, 7.

Teacher So, you counted on from the larger number, didn't you? I'm going to write the combination underneath that strategy on our chart. Did someone find the total a different way?

Student B I just already know that 5 and 2 makes 7.

Addition Strategies We Use					
Count Every Dot	Count On from Smaller Number	Count On from Larger Number	Doubles	Doubles Plus or Minus 1	Know It by Memory
	$5 + 2 = 7$				$5 + 2 = 7$



Math Practices in Action 1.MP.5

When they consider which strategy makes the best sense to them for a given fact, students are practicing using appropriate tools strategically. At times, students will select from among physical or technological tools, but selecting from a variety of strategies is a form of selecting the appropriate tool for a given task.

- 12 Repeat steps 5 through 11 for the other seven dominoes on the Domino Pictures Teacher Master.

- Have students slide all the beads on their number racks to the far right between each problem.

SUPPORT Some students might need slightly more time to take a mental “snapshot” of the dot arrangements on the dominoes. For these students, it is not an unreasonable step to flash the domino again, or for a slightly longer duration. Again, try to avoid instances in which students are simply counting dots. Rather, work toward recognition of the configuration of dots.

CHALLENGE If most of your students are handling this activity with ease, set the Domino Pictures Teacher Master aside after the first 3 or 4 problems, and switch over to actual dominoes from the Double-Nine set. Use the index card to screen the top and bottom of each domino, and choose dominoes with combinations of dots that total more than 12.



Work Places

- 13 Remaining class time may be spent in Work Places.

While students do Work Places, circulate around the room. The Work Place Guides include suggestions for differentiating the activities to meet students' needs.

- 14 Close the session.

- Have students clean up and put away the Work Place bins.
- Show several dominoes at the projector, one at a time. Each time, cover one-half of the domino with your hand or your thumb. Tell students what the total number of dots on the domino is, and have them hold up their fingers to show how many dots must be under your thumb.

Session 2

Dot Doubles

Summary

During this session, students work with dominoes to learn doubles addition facts through $6 + 6$. First, they share observations about a set of doubles dominoes. Then they work in pairs to practice drawing and recording doubles addition combinations. The teacher shares a new Work Place game called Double It and also introduces and assigns the Dots, Apples & Shapes Home Connection.

Skills & Concepts

- Recognize the number of objects in a collection of 6 or fewer, arranged in any configuration (supports K.CC)
- Use strategies to add with sums to 20 (1.OA.6)
- Reason abstractly and quantitatively (1.MP.2)
- Model with mathematics (1.MP.4)
- Look for and make use of structure (1.MP.7)

Materials

Copies	Kit Materials	Classroom Materials
Problems & Investigations Dot Doubles		
TM T2 Double Dominoes	<ul style="list-style-type: none"> • dice numbered 1–6 (one die per pair of students) • Double-Six Dominoes (1 set, see Preparation) 	
TM T3 Double the Domino Dots		
Work Places Introducing Work Place 2D Double It		
TM T4 Work Place Guide 2D Double It	<ul style="list-style-type: none"> • 2D Double It Game Board • 2D Double It Challenge Game Board • 1 die dotted 1–6 • 2 dice numbered 0–5 • 12 game markers; 6 in one color, 6 in a second color 	
TM T5 Work Place Instructions 2D Double It		
Work Places in Use		
1H Which Coin Will Win? (introduced in Unit 1, Module 3, Session 3) 1I Measuring with Unifix Cubes (introduced in Unit 1, Module 4, Session 2) 2A Domino Top Draw (introduced in Unit 2, Module 1, Session 2) 2B Domino Add & Compare (introduced in Unit 2, Module 1, Session 4) 2C Sort the Sum (introduced in Unit 2, Module 2, Session 3) 2D Double It (introduced in this session)		
Home Connection		
HC 25–26 Dots, Apples & Shapes		

HC – Home Connection, **SB** – Student Book, **TM** – Teacher Master
 Copy instructions are located at the top of each teacher master.

Preparation

- Go through a set of Double-Six Dominoes and pull out all of the doubles dominoes ($0 + 0$, $1 + 1$, $2 + 2$, and so on up through $6 + 6$). Place these dominoes near your projector; set the rest of them aside.
- In today's session, you'll introduce Work Place 2D Double It, which replaces 1G Ten & More. Before this session, you should review the Work Place Guide and Work Place Instructions and assemble the bin for Work Place 2D using the materials listed. The Work Place Guide includes suggestions for differentiating the game to meet students' needs.

Vocabulary

An asterisk [*] identifies those terms for which Word Resource Cards are available.

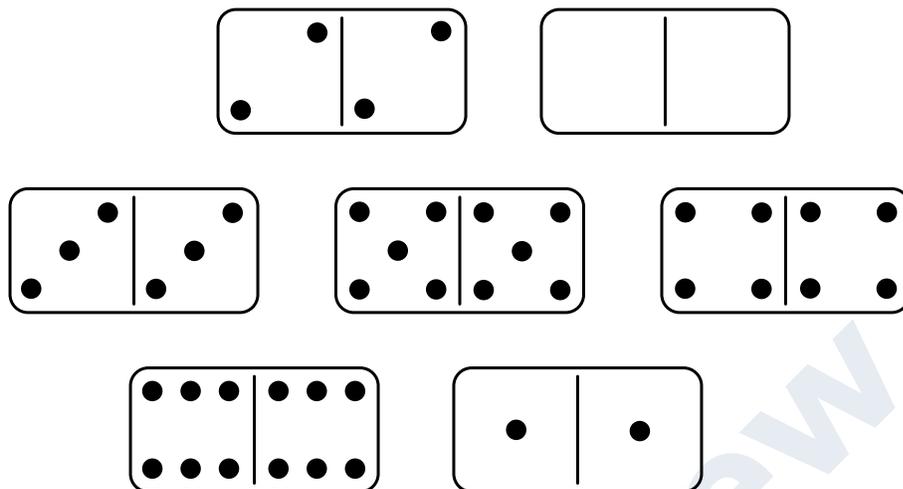
double
 even number*
 odd number*



Problems & Investigations

Dot Doubles

- 1 Begin by displaying all the double dominoes from the double-six set on the projector. Do not arrange them in any sort of order. Ask students to share, first in pairs, any mathematical observations they can make about the display. What do they notice?



- 2 After a minute or so, call on students to share their observations with the group.

Students Those are all the doubles.

I love 5 and 5!

My favorite is 3 and 3 because that's how old I am.

You could put them in a line with 0 and 0, then 1 and 1, then 2 and 2, and it keeps going up to 6 and 6.

The one with 6 and 6 is 12.

The one with 1 and 1 looks like eyes.

- 3 Once students have had a chance to share, press their thinking with some additional questions:

- What is the highest total in the collection? (12) What is the lowest total in the collection? (0)
- What is alike about all of these dominoes? What is different? (Students' comments might include the fact that all of the dominoes are doubles, they're all even numbers, they all have matching sides, you can split them all in half, and so on.)
- Do these dominoes show odd or even numbers? (Even) How do you know? (Students' explanations will vary, but likely someone will mention the fact that on all the dominoes, every dot has a partner.)

- 4 Next, display the Double Dominoes Teacher Master where all the students can see it. Work with input from the class to fill in the two boxes beside each domino.

As you fill in the chart, discuss with students the relationship between the total number of dots on a domino and the number of dots on one side of that domino. How do the two quantities compare? Does it work the same way for every domino on the chart? Why? (The total is always two times the number of dots on one side. The number of dots on one side is always half of the total. It works that way for every domino on the chart because they're all doubles.)

About This Session

Doubles are key anchors for students developing early number sense as well as computational fluency. Not only are the Doubles facts themselves important, but they also serve as links to the "Near Doubles" facts. They are also helpful in developing understanding of even and odd numbers. Using double dominoes can help students recognize that all doubles are multiples of 2—so both an even plus an even, as well as an odd plus an odd, result in answers that are even.



Math Practices in Action 1.MP.7

Students look for and make use of structure when they consider this collection of dominoes. The structure supports their exploration of doubling to add, as well as their developing sense about odd and even numbers, which they will explore in greater depth in later grades.

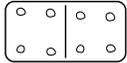
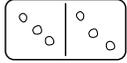
- 5 Then explain that you are going to have the students work in pairs to fill in another sheet about dominoes.
- Assign each student a partner, or let the students pair themselves.
 - Give each student pair a copy of the Double the Domino Dots Teacher Master and a die numbered 1–6.
- 6 Display a copy of the Double the Domino Dots Teacher Master and choose a student to be your partner. Use the two rows on the sheet to model the following steps:
- Player A rolls the die and records the number in the first column.
 - Player B draws that number of dots on the left side of the blank domino.
 - Player A draws the same number of dots on the right side of the domino.
 - Player B writes an equation in the last column to match the domino.
 - Students take turns being Player A and B, so they switch jobs each row.

Unit 2 Module 3 | Session 2 *ha f class set plus a few extra*

NAME _____ | NAME _____

 **Double the Domino Dots**

Work with your partner to fill in the chart below.

Roll the die and record the number in the box.	Draw the number of dots you rolled on each side of the domino.	Write an equation to match your domino.
4		$4 + 4 = 8$
3		$3 + 3 = 6$

- 7 When students understand what to do, let them go to work. As they finish, have them turn in their sheets, get their Work Place folders, and go out to Work Places.



Work Places

Introducing Work Place 2D Double It

- 8 When most students have finished the written assignment and started Work Places, reconvene the group briefly in the discussion area to introduce a new Work Place game.
- Explain that the game is called Double It, and it's all about doubles facts.
 - Choose one of the students to be your partner for a quick demonstration.
- 9 Show students the 2D Double It Game Board and summarize the game. Players take turns rolling a 1–6 dotted die. They double the number they roll and cover the total on their half of the game board. The first player to cover all the doubles sums from 2 to 12 wins.

- 10 On your first turn, ask students how they could find the double of the number you have rolled.

Teacher I just rolled a 4. How can I find the double for 4?

Students I know already! Four and 4 is 8!

You could use your fingers—4 on one hand and 4 on the other and that's 8.

You could count something else, like cubes.

You could just say 4 in your head and then count 4 more: 5, 6, 7, 8.

Teacher Good problem solving! Can you come up and show us how you would find the double with Unifix cubes?

- 11 Play the game with your partner according to Work Place Instructions 2D Double It. If time is short, play just until students understand the procedures.
- 12 Show students the Double It Challenge Game Board and tell them that this is an option for students who have played the first game successfully.
If some of your students are already proficient with doubles through $6 + 6$, you might invite them to start with the challenge version of the game when they return to Work Places.
- 13 Explain that Double It has replaced Ten & More and is available starting now. Have students return to Work Places for the remainder of the session.
- 14 Close the session.
- Remind students to mark their Work Place folders to indicate which games or activities they completed today.
 - Have students put away the Work Place materials and hand in their Work Place folders.
 - Take a moment for students to review some doubles facts: What's the double of 2? 5? 3?



Home Connection

- 15 Introduce and assign the Dots, Apples & Shapes Home Connection, which provides more practice with the following skills:
- Solve addition story problems with sums to 20 involving situations of adding to and putting together, with unknowns in all positions (1.OA.1)
 - Apply the commutative property of addition to add (1.OA.3)
 - Solve subtraction problems by finding an unknown addend (e.g., Solve $10 - 8$ by finding the number that makes 10 when added to 8) (1.OA.4)
 - Add and subtract fluently within 10 (1.OA.6)
 - Use the relationship between addition and subtraction to add and subtract within 10 (1.OA.6)
 - Solve for the unknown in an addition or subtraction equation involving 3 whole numbers (1.OA.8)
 - Create a composite shape by composing two-dimensional shapes (1.G.2)

Session 3

Introducing Work Place 2E Spin & Add

Summary

After an initial counting warm-up, the teacher introduces the new game, Spin & Add. Players spin a 5–10 numbered spinner and then a 1–3 dotted spinner, and count on to get the sum. They record the sums on a record sheet graph until one column is full. Students play in pairs, and then the game becomes a Work Place.

Skills & Concepts

- Solve addition problems by counting on (1.OA.5)
- Add with sums to 20 and use strategies to add (1.OA.6)
- Organize, represent, and interpret data with up to 3 categories (1.MD.4)
- Look for and make use of structure (1.MP.7)
- Look for and express regularity in repeated reasoning (1.MP.8)

Materials

Copies	Kit Materials	Classroom Materials
Work Places Introducing Work Place 2E Spin & Add		
TM T6 Work Place Guide 2E Spin & Add TM T7 Work Place Instructions 2E Spin & Add TM T8 Spin & Add Spinner SB 7* Spin & Add Record Sheet	<ul style="list-style-type: none"> • 1 Spin & Add Spinner • spinner overlays, half-class set 	<ul style="list-style-type: none"> • 3" sticky notes, half-class set (see Preparation)
Work Places in Use		
1I Measuring with Unifix Cubes (introduced in Unit 1, Module 4, Session 2) 2A Domino Top Draw (introduced in Unit 2, Module 1, Session 2) 2B Domino Add & Compare (introduced in Unit 2, Module 1, Session 4) 2C Sort the Sum (introduced in Unit 2, Module 2, Session 3) 2D Double It! (introduced in Unit 2, Module 3, Session 2) 2E Spin & Add (introduced in this session)		

HC – Home Connection, **SB** – Student Book, **TM** – Teacher Master
Copy instructions are located at the top of each teacher master.

* Run 1 copy of this page for display.

Preparation

- In today's session, you'll introduce Work Place 2E Spin & Add, which replaces Work Place 1H Which Coin Will Win? Before this session, you should review the Work Place Guide and Work Place Instructions and assemble the bin for Work Place 2E using the materials listed. The Work Place Guide includes suggestions for differentiating the game to meet students' needs.
- Write the numerals 6–13 along the bottom of the whiteboard. Students will be placing 3" sticky notes above the numerals, graph-style, later in the session.



Vocabulary

An asterisk [*] identifies those terms for which Word Resource Cards are available.

add*
addition
double
equal*
plus
strategies
sum or total*



Work Places

Introducing Work Place 2E Spin & Add

- 1 Open today's session by writing 37 on the board. Ask students to read the number and then whisper to the person next to them what number comes after 37. On your signal, have all the students report the number that comes directly after 37 and keep on counting with you until they get to 57.
- 2 Then introduce the day's activities.
 - Explain that you have a new game called Spin & Add to share with the class today.
 - This game will help them learn addition facts and practice counting on.
 - First you'll play the new game against the class, then they play in pairs, and then it becomes a workplace.
- 3 Display a copy of the Spin & Add Record Sheet Student Book page, along with the Spin & Add Spinner. Give students a few moments to examine the sheet and the spinner quietly, and have them share observations with a neighbor. Then summarize the game:
 - One player spins the top spinner, the other player spins the dotted number spinner below. They work together to count on from the number on the first spinner.
 - Each player records just the total in the correct column on his or her record sheet, starting at the bottom.
 - Play continues until one column (or more if desired) is full.
- 4 Before beginning to play, ask students whether they think any of the numbers has a better chance of being first to fill a column. Repeat this question several times as you work, asking children to explain their thinking each time.

There are 18 different combinations that could come up on the double spinner for this game. Only one of these combinations totals 6 ($5 + 1$), and only one totals 13 ($10 + 3$). There are two combinations each for 7 and 12. There are three combinations each for 8–11. Theoretically, then, players are likely to get sums of 8, 9, 10, or 11 more often than they get sums of 6, 7, 12, or 13. While it would be the rare first-grader who could take the theoretical probabilities of this situation into account, the question of whether or not some totals are more or less likely to be spun is intriguing to 6-year-olds, some of whom may intuit, or at least observe, that the middle columns generally fill faster than the outer columns.
- 5 Play the game according to Work Place Instructions 2E Spin & Add. Play until one column is filled.
 - Call a different student up to spin the dotted spinner each time you spin the numbered spinner.
 - Work with the class to count on from the number to the dots to find the sum of the spins each time.

Teacher I got a 6 this time. Now it's your turn to spin the dotted spinner. I see that the 9 column is almost filled. What will you have to spin in order to fill that column?

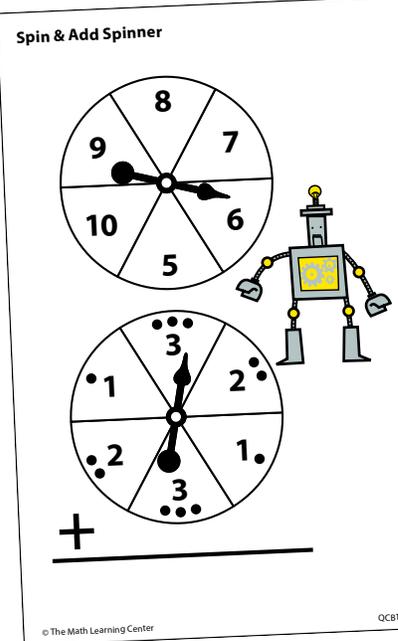
Students Nine!

No, it's 3 because Mrs. Roberts already has a 6.

Yeah, if he gets a 3, because 6 and 3 more is 9.

Teacher Let's see you spin next for us. OK, it's a 3. Let's count on from 6 to find the total, ready?

Class 6... 7, 8, 9.
 It's 9!
 The 9s are all filled up now!



Spin & Add Spinner

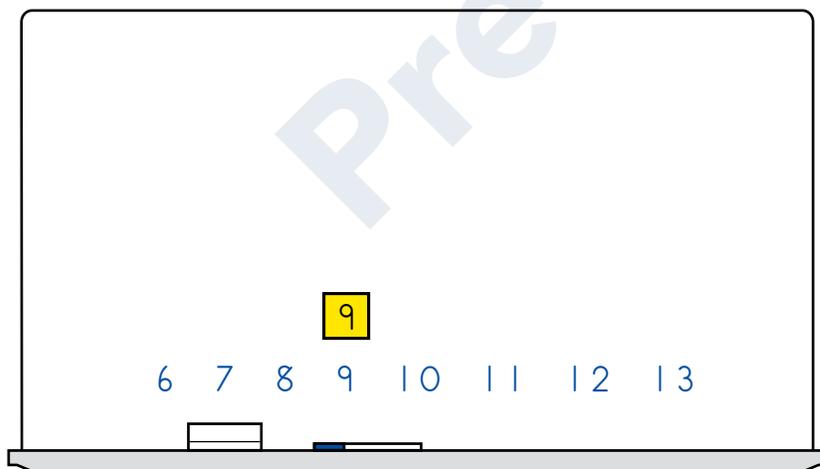
The spinner has two sections. The top section is divided into 10 equal sectors labeled 1 through 10. The bottom section is divided into 6 equal sectors labeled 1 through 6. A robot character is standing next to the spinner. Below the spinner is a plus sign and a blank line for writing the sum.

NAME _____ | DATE _____

Spin & Add Record Sheet

			9				
		8	9	10	11		
		8	9	10	11	12	
6	7	8	9	10	11	12	13
6	7	8	9	10	11	12	13

- 6 At the end of the game, talk with students about the column that filled first. Are they surprised about the results? Why or why not? Then record the winning number on a 3" x 3" sticky note and post it on the board above the appropriate number.



- 7 Then give each pair of students a Spin & Add Spinner from the teacher master and a spinner overlay. Ask students to find the Spin & Add Record Sheet page in their Student Books and play the game in pairs. Explain that when they finish, you will give them a sticky note on which to record their winning number, and they will post it on the board along with yours.
- Each student pair also needs a copy of the Spin & Add Spinner Teacher Master, a clear spinner overlay, and their pencils.
 - Before they start playing, ask each student to put a star above the column for the number they believe will fill first. (Students do not have to agree with their partners and are free to place the star where they want.)

- Ask a few students to share the column they marked with the class and explain their choice.

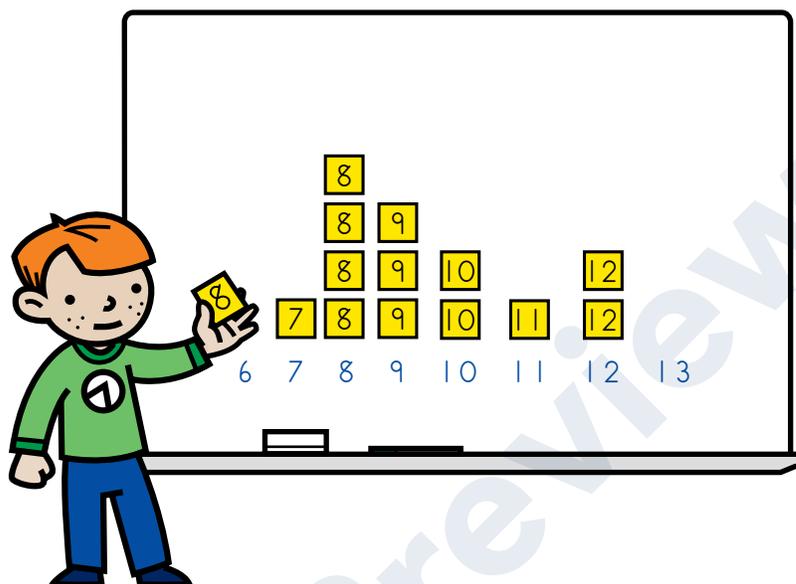
Students I picked 9 because that's the number that won in the game we just played.

I picked 8 because it's my best number, and it almost won last time.

I picked 6 because that's how old I am.

I picked 13 because it's the biggest, so it should get the most.

- 8 Circulate as students are playing the game in pairs, and give assistance as needed. Focus on the students who need the most support learning to count on to find the sum of two numbers.
- 9 As they finish, give each pair a 3" sticky note on which to write their winning number, and have them post it above the corresponding number on the board.



- 10 Once their sticky note is posted, have each pair get their Work Place folders and spend the remainder of the session at Work Places, including 2E Spin & Add, which some of them might want to visit again right away.
- 11 Close the session about 5 minutes earlier than usual today. After students have put away their materials and turned in their Work Place folders, take a few minutes to examine the display on the board together.
 - What do students notice about the data?
 - Did some numbers come up as first-place winners more often than others?
 - Which number came up as the winner most often?
 - Were there some numbers that didn't come up at all? What were they?
 - Would you get the very same results if everyone played the game again? Why or why not?
 - Why are some numbers more likely to win than others?

CHALLENGE The last question couple of questions on this list are meant to pique students' interest and engagement. You do not need to answer or explain them. If you pose questions in an open-ended way and leave them dangling, chances are good that at least a few of your students will be interested in collecting more data. You can support their interest by giving them a piece of paper onto which to transfer the class results from this session, and allowing them to add information to the graph as pairs and individuals play Spin & Add during Work Places over the next couple of weeks.

Session 4

Introducing Work Place 2F Spin & Subtract

Summary

After an initial counting warm-up, the teacher introduces a new game, Spin & Subtract. Players spin a spinner numbered 5–10 and then a spinner dotted 0–3. They count back from the larger number to find the difference between the two spins. Then they record the differences on a record sheet graph until one column is full. Students play in pairs, and the game becomes a Work Place.

Skills & Concepts

- Represent subtraction on a number line (supports 1.OA)
- Solve subtraction problems by counting back (1.OA.5)
- Use strategies to subtract with minuends to 20 (e.g., counting back, adding up to 10, derived facts) (1.OA.6)
- Organize, represent, and interpret data with up to 3 categories (1.MD.4)
- Look for and make use of structure (1.MP.7)
- Look for and express regularity in repeated reasoning (1.MP.8)

Materials

Copies	Kit Materials	Classroom Materials
Work Places Introducing Work Place 2F Spin & Subtract		
TM T9 Work Place Guide 2F Spin & Subtract TM T10 Work Place Instructions 2F Spin & Subtract TM T11 Spin & Subtract Spinner SB 8* Spin & Subtract Record Sheet	<ul style="list-style-type: none"> • 1 Spin & Subtract Spinner • spinner overlays, half-class set 	
Work Places in Use		
2A Domino Top Draw (introduced in Unit 2, Module 1, Session 2) 2B Domino Add & Compare (introduced in Unit 2, Module 1, Session 4) 2C Sort the Sum (introduced in Unit 2, Module 2, Session 3) 2D Double It! (introduced in Unit 2, Module 3, Session 2) 2E Spin & Add (introduced in Unit 2, Module 3, Session 3) 2F Spin & Subtract (introduced in this session)		

HC – Home Connection, **SB** – Student Book, **TM** – Teacher Master
Copy instructions are located at the top of each teacher master.

* Run 1 copy of this page for display.

Vocabulary

An asterisk [*] identifies those terms for which Word Resource Cards are available.

difference*
equal*
minus
subtract*
subtraction
strategies

Preparation

- In today's session, you'll introduce Work Place 2F Spin & Subtract, which replaces Work Place 1I Measuring with Unifix Cubes. Before this session, you should review the Work Place Guide and Work Place Instructions and assemble the bin for Work Place 2F using the materials listed. The Work Place Guide includes suggestions for differentiating the game to meet students' needs.



Work Places

Introducing Work Place 2F Spin & Subtract

- Open today's session by writing 68 on the board. Ask students to read the number and then whisper to the person next to them the number that comes after 68. On your signal, have all the students report the number that comes directly after 68, and keep on counting with you until they get to 90.
- Then introduce the day's activities.
 - Explain that you have a new game called Spin & Subtract to share with the class today.
 - This game will help them learn their subtraction facts and practice counting backward to subtract.
 - First you'll play the new game against the class, then they play in pairs, and then it becomes a Work Place.
- Display a copy of the Spin & Subtract Record Sheet Student Book page, along with the Spin & Subtract Spinner. Give students a few moments to examine the sheet and the spinner quietly, and have them share observations. Then summarize the game:
 - One player spins the first spinner, the other player spins the second spinner. They work together to count backward from the larger number to find the difference between the two.
 - Then each player records the difference in the corresponding column on their record sheet, starting at the bottom.
 - Play continues until one column (or more, if desired) is full.
- Explain that counting backward is one way to subtract when you don't know the answer and there isn't an easier way. This is a useful strategy when subtracting small amounts like 1, 2, and 3. Use the numbers along the bottom of the record sheet to demonstrate the action of hopping backward several times.

2	3	4	5	6	7	8	9	10	

SUPPORT. Although primary students often use a counting backward strategy to tackle subtraction problems, they don't always succeed in finding the correct answers. This is partly because the student has to keep track of how many times she has counted backward, as well as counting backward. In effect, she has to count forward and backward at the same time. This is the reason we encourage students to use the counting back strategy only for subtracting very small amounts. Another difficulty some students encounter is that they count the first number rather than the first hop, so that they're consistently off by one. These students might conclude that $6 - 2 = 5$ because they counted 6, 5 rather than 6...5, 4. If this proves to be an issue with more than a few of your students, you might fasten about 5 feet of adding machine tape to the floor, number it from 1 to 10 (numbers about 6 inches apart), and have the students take turns physically hopping along the line to solve such combinations as $7 - 2$, $8 - 3$, $9 - 1$, and so on, as the others watch and comment from the sidelines.

5 Demonstrate the game for a few turns according to Work Place Instructions 2F Spin & Subtract. Have students come up to take turns making the second spin each time.

- Stress the subtraction strategy of counting back to get the difference.
- Continue to use the numbers at the bottom of the record sheet to help students better understand the strategy.

Teacher First I spun the number 8 and now you spun a 3 on the other spinner. That means we have to figure out the answer to 8 minus or take away 3. How can we do that?

Students You could use Unifix cubes, like we did with adding.

I just know it's 5, because $8 - 3 = 5$.

I can count backward on my fingers—here's 8, now 7, 6, 5.

I did the same thing, but I got 6. I went 8, 7, 6, so that's the answer, right?

Teacher Let's use the numbers at the bottom of the record sheet. I'm going to put a Unifix cube on 8, and then hop backward 3 times. Help me read the numbers I land on each time—ready? Seven, 6, 5. Where did I land?

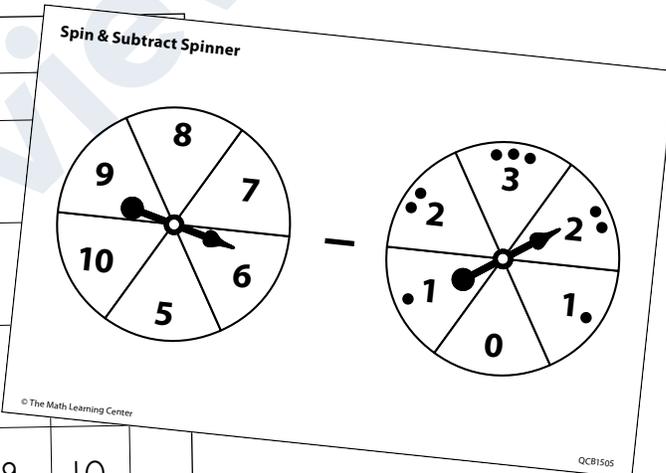
Students Five!

- Emphasize naming the first number and jumping backward from that number, as on a game board, rather than counting the number itself.

NAME _____ DATE _____

Spin & Subtract Record Sheet

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



The image shows two spinners. The first spinner is divided into 8 equal sectors with numbers 8, 7, 6, 5, 10, 9, and an unlabeled sector. The second spinner is divided into 6 equal sectors with numbers 3, 2, 1, 0, 1, and 2. A minus sign is placed between the two spinners. The record sheet is partially visible behind the spinners.

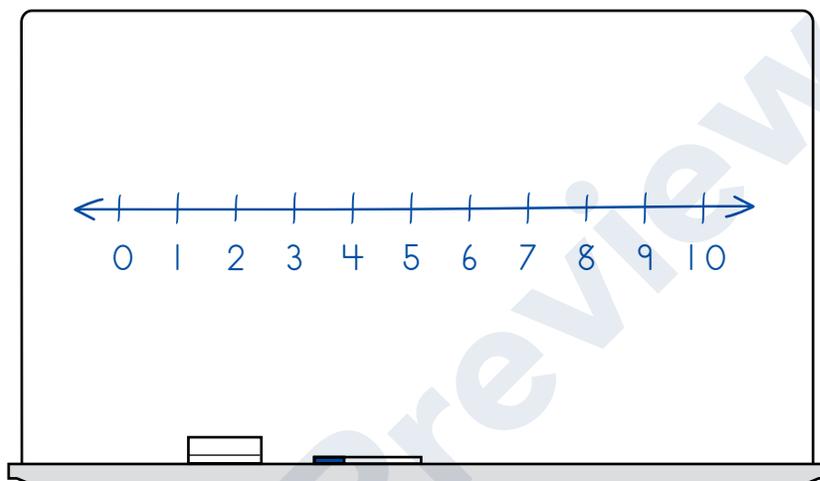
- 6 Play until you are sure students understand the procedures.
- 7 Then have students find the Spin & Subtract Record Sheet page in their Student Book and play the game in pairs.
- Each student pair also needs a copy of the Spin & Subtract Spinner Teacher Master, a clear spinner overlay, and their pencils.
- 8 Circulate as students play, and give assistance as needed. Focus on the students who need the most support in learning to count backward to subtract small quantities.

Encourage these students to each use a Unifix cube as they might a game marker to hop backward along the line of numbers at the bottom of their record sheet as they solve the subtraction combinations they spin.

9 As they finish their games, have student pairs get their Work Place folders and spend the rest of the session at Work Places, including 2F Spin & Subtract.

10 Close the session.

- Remind students to mark their Work Place Logs to show any games or activities they completed today.
- Have students put away the Work Place materials and hand in their Work Place folders.
- Draw a line on the board and work with input from the class to quickly mark and label the numbers from 0–10 along the line. Then ask students to imagine they are standing on the number 6. If they took 2 hops backward along the line, where would they land? Have them hold up their fingers to show. What if they started on the number 9, and took 3 hops backward along the line—where would they land? Have them hold up their fingers to show. Pose several more problems like this before moving on to your next activity.



Session 5

Unit 2 Assessment

Summary

During this session, the teacher conducts a written assessment of some of the major skills covered in Unit 2. As students finish the final story problem on the assessment, they turn in their papers and go to Work Places. Finally, the teacher introduces and assigns the Dots and Dollars Home Connection.

Skills & Concepts

- Recognize the number of objects in a collection of 6 or fewer, arranged in any configuration (supports K.CC)
- Solve subtraction story problems with minuends to 10 involving situations of taking from and taking apart, with unknowns in all positions (1.OA.1)
- Apply the commutative property of addition to add (1.OA.3)
- Solve subtraction problems by finding an unknown addend (1.OA.4)
- Add fluently with sums to 10 (1.OA.6)
- Solve for the unknown in an addition or subtraction equation involving 3 whole numbers (1.OA.8)
- Make sense of problems and persevere in solving them (1.MP.1)
- Model with mathematics (1.MP.4)

Materials

Copies	Kit Materials	Classroom Materials
Assessment Unit 2 Assessment		
TM T13–T14 Unit 2 Assessment		<ul style="list-style-type: none"> • chart paper or space on the board in the discussion area • Unifix cubes (see Preparation) • privacy screens (1 per student; see Unit 1, Module 2, Session 5) • scratch paper (1 sheet per student)
Work Places in Use		
2A Domino Top Draw (introduced in Unit 2, Module 1, Session 2) 2B Domino Add & Compare (introduced in Unit 2, Module 1, Session 4) 2C Sort the Sum (introduced in Unit 2, Module 2, Session 3) 2D Double It! (introduced in Unit 2, Module 3, Session 2) 2E Spin & Add (introduced in Unit 2, Module 3, Session 3) 2F Spin & Subtract (introduced in Unit 2, Module 3, Session 4)		
Home Connection		
HC 27–28 Dots & Dollars		

HC – Home Connection, **SB** – Student Book, **TM** – Teacher Master
 Copy instructions are located at the top of each teacher master.

Preparation

- Place several handfuls of Unifix cubes in a basket for each table or cluster of desks so students who want to use them during the assessment can access them easily.

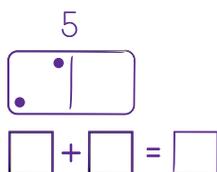


Assessment

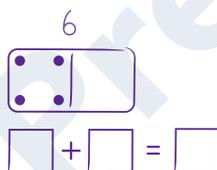
Unit 2 Assessment

- 1 Ask students to join you in the discussion area. Let them know that you're going to begin today's session with an assessment to see how they're doing with some of the skills you've been working on over the last few weeks. As students finish the assessment, they will get their folders and go out to Work Places.
- 2 Do a short series of warm-up exercises to preview the types of problems that appear on the assessment.

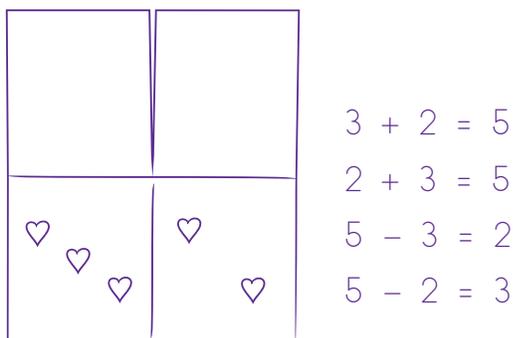
- On the board or on a piece of chart paper, write the number 5 and draw a domino with 2 dots on one-half, and no dots on the other, along with the boxes and symbols needed to record an equation for the domino.



- Read the number above the domino together, and ask students to whisper to the person next to them how many more dots you'd need to draw on the other half of the domino to make a total of 5.
- On your signal, have all the students report the missing number aloud (3). Draw the number of dots they suggest into the right side of the domino, have students check to make sure the total is 5, and work with input from the class to write an equation that matches the domino ($2 + 3 = 5$).
- Repeat these steps with a domino labeled 6 at the top and 4 dots on the left side.



- 3 Draw a double-flap card with 3 hearts or other small easy-to-draw figures on the left side and 2 on the right side. Work with students to write four equations to match the card, two addition and two subtraction equations.
- As you work with students to generate the subtraction equations, screen half of the double-flap card at a time to help everyone understand what's being subtracted.



- Tell a story problem to match one of the subtraction equations:

Teacher I had 5 valentines, but my dog ate 3 of them. How many valentines do I have left?

- Have students each tell a story problem that matches one of the equations to the person sitting next to them. Then call on several students to share their story problems with the class. After each tells his or her problem, ask the rest of the students to identify which equation it matches.
- 4 Have students return to their tables or desks and get out their pencils in preparation for completing the assessment.
Remind them that when you conduct an assessment like this, you need to see what they can each do on their own. Change the seating arrangements to spread students apart if necessary, and give them each a privacy screen. Show them how to use the screen to shield their work, and explain that even though you usually ask them to work together, this time, they need to do their own work.
 - 5 When students are situated with their pencils and privacy screens, give them each a copy of the Unit 2 Assessment Teacher Master, along with a piece of scratch paper. Place a copy of the teacher master on display.
 - 6 Give students a few moments to look over the assessment quietly. Use your copy of the Unit 2 Assessment Teacher Master to show them how to label the sheet with their name and date, and then do the practice problem at the top of the first page together.
Note with students that the practice problem is similar to some of the problems you just did together in the discussion area. Work with students to read the number above the domino, determine how many dots to draw on the right side, and write an equation to match.
 - 7 After you've completed the practice problem together, have students complete the next three problems (1a, 1b, and 1c). Tell them that if they finish before others around them, they should double-check their work. Then they can set their pencil down and wait quietly, or draw on their piece of scratch paper until the others are ready.
 - 8 When it appears that most students have finished the first problem, draw their attention to the second problem, which features a double-flap card with drawings of dogs.
 - Explain that the equations beside the card are supposed to match the display, but each one of them is missing a number. The students need to work on their own to write the missing numbers into the boxes and then write a story problem to match one of the equations.
 - Remind the students to pose a question at the end of their story problem so someone looking at it knows what to solve.
 - When students understand what to do, let them go to work. Circulate and assist as needed.
 - Remind students to check their work as they finish and then set their pencil down and wait quietly or draw until everyone is ready to move along to the next problem.
 - 9 When it appears that most students have finished the second problem, use your copy of the assessment to help them locate the third problem, a set of addition combinations to complete. Look over the set together, answer any questions the students have, and ask them to begin.
Let students know it's OK to use Unifix cubes to help solve these combinations, and give students a few moments to get the cubes from the basket at their table if they want to use them.

- 10 Let the students work for three minutes and then quietly and calmly ask them to stop wherever they are. Then show them how to make a vertical mark between the last combination they completed and the next if they didn't finish all 14 combinations in the set, and let them know that it's fine if they weren't able to complete the entire set.

This is intended to be a very gentle timed test. While there are combinations to 10, they're all either doubles or combinations that can be solved by counting on 1, 2, or 3. Some of the students who aren't able to complete the set within 3 minutes are either counting both quantities by 1s initially and then again by 1s to find the total. Others might not yet have developed the processing or fine motor skills needed to read the combinations, determine the solutions, and record the answers in such a short time. Chances are, you're well aware of those students who are still relying on counting by 1s to solve single-digit addition combinations. You might want to meet privately with any of the other students not able to complete the set in 3 minutes to take a closer look at what's going on.

- 11 Finally, read the fourth problem with the class. Clarify as needed, answer any questions the students have, and encourage them to use Unifix cubes or sketches to help.
- Remind students to show all of their work and to write the answer on the line at the bottom of the work space.
 - When students understand what to do, let them go to work and take as much time as they need to solve the problem.

Note

You will find resources for scoring students' work and recording the class set of results in the Grade 1 Assessment Guide.



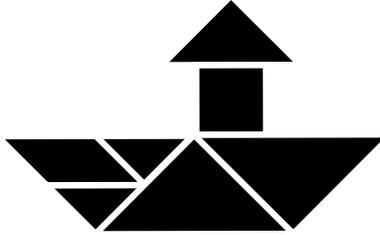
Work Places

- 12 As students finish the fourth problem on the assessment, have them turn it in, get their Work Place folders, and find a Work Place to do quietly until the rest of the class is finished, at which time the level of conversation can return to normal.
- 13 Close the session.
- Have students clean up and put away the Work Place bins.



Home Connection

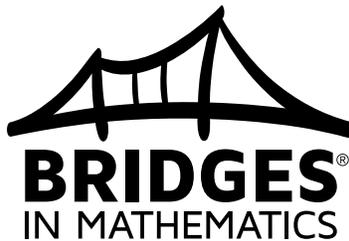
- 14 Introduce and assign the Dots & Dollars Home Connection, which provides more practice with the following skills:
- Solve addition story problems with sums and minuends to 20 involving situations of adding to, putting together, and comparing with unknowns in all positions (1.OA.1)
 - Apply the commutative property of addition to add (1.OA.3)
 - Solve subtraction problems by finding an unknown addend (1.OA.4)
 - Add and subtract fluently with sums and minuends to 10 (1.OA.6)
 - Solve for the unknown in an addition or subtraction equation involving 3 whole numbers (1.OA.8)



Teacher Masters

GRADE 1 – UNIT 2 – MODULE 3

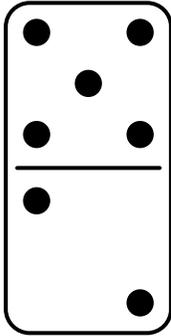
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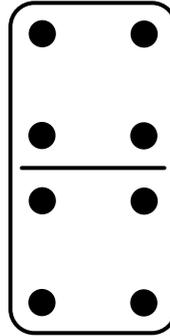


Domino Pictures

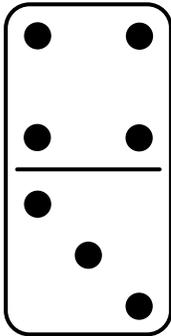
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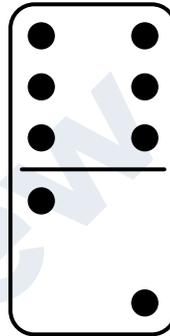
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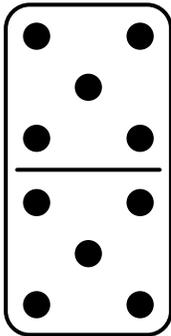
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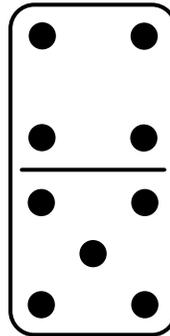
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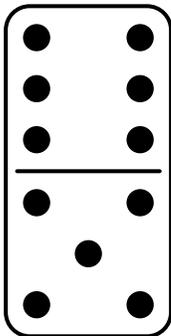
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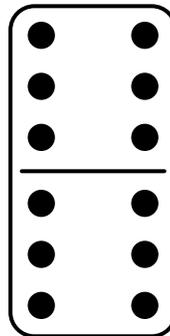
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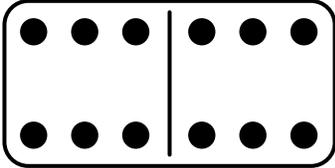
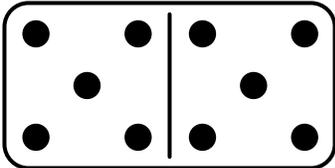
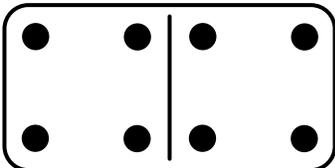
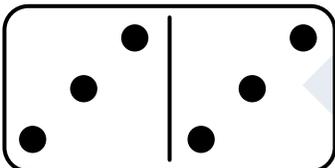
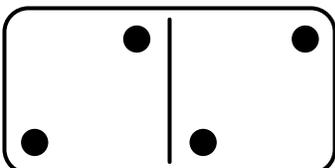
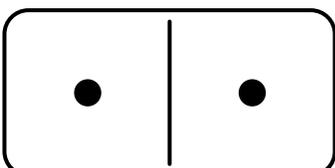


8





Double Dominoes

Double Domino	Total Dots, Both Sides	Dots on One Side Only
		
		
		
		
		
		

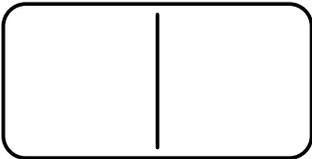
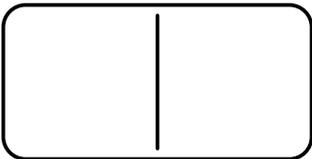
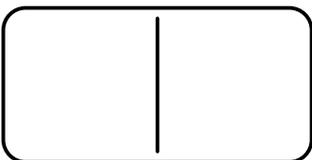
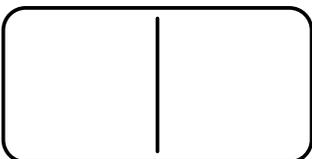
NAME _____

NAME _____



Double the Domino Dots

Work with your partner to fill in the chart below.

Roll the die and record the number in the box.	Draw the number of dots you rolled on each side of the domino.	Write an equation to match your domino.
<input type="text"/>		<input type="text"/> + <input type="text"/> = <input type="text"/>
<input type="text"/>		<input type="text"/> + <input type="text"/> = <input type="text"/>
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<input type="text"/>		<input type="text"/> + <input type="text"/> = <input type="text"/>



Work Place Guide 2D Double It

Summary

This is a game for two players, who take turns rolling a 1–6 dotted die. Each rolls a number, doubles it, and covers the total on their half of the game board. The first player to cover all the doubles sums from 2 to 12 wins.

Skills & Concepts

- Add with sums to 20 (1.OA.6)
- Use strategies (doubling) to add with sums to 20 (1.OA.6)

Materials

Copies	Kit Materials	Classroom Materials
TM T4 Work Place Guide 2D Double It TM T5 Work Place Instructions 2D Double It	<ul style="list-style-type: none"> • two 2D Double It Game Boards • 2 dice dotted 1–6 • two 2D Double It Challenge Game Boards • 4 dice numbered 0–5 • 60 game markers; 30 in one color, 30 in a second color 	

Assessment & Differentiation

Here are some quick observational assessments you can make as students begin to play this game on their own. Use the results to differentiate as needed.

If you see that ...	Differentiate	Example
A student is struggling to double the numbers.	SUPPORT Give the student Unifix cubes to use for doubling. Another technique is to count the dots on the die and then count on with the same dots.	If the student rolls a 3 on the die, set out 3 Unifix cubes and then 3 more, and count them to get the total. If the student rolls a 3 on the die, count “1, 2, 3” and then keep counting “4, 5, 6,” pointing to the same dots again.
Two students are able to double the numbers 1–6 and complete the game with ease.	CHALLENGE Invite the students to play the Game Variation.	

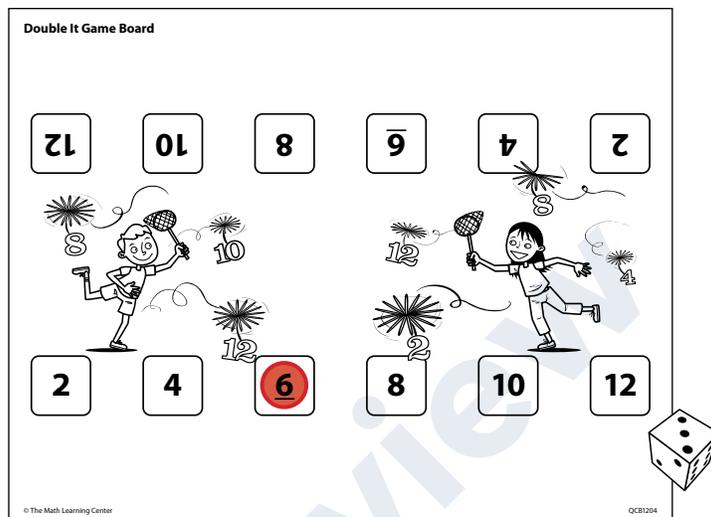
English-Language Learners Use the following adaptations to support the ELL students in your classroom.

- Demonstrate the meaning of “double” by setting out Unifix cubes (e.g., if the number rolled is 2, set out 2 cubes and then 2 more, and count them to get the total).
- Pair each ELL student with a supportive partner (an English-speaking student or another ELL student with more command of English) who can offer support and explain the instructions while they play.



Work Place Instructions 2D Double It

- 1 Players share a game board, a die dotted 1–6, and 12 game markers (6 in each of the two different colors).
- 2 Players set the game board between them and choose the color of game markers they will use.
- 3 Each player rolls the die once. The player with the higher number of dots starts first.
- 4 The first player rolls the die, doubles the number of dots, and covers that sum on her side of the game board.



I got 3! Three and 3 is 6, so I get to cover the 6 on my side of the board.

- 5 The second player takes a turn to roll the die, double the number of dots, and cover the sum on his side of the game board.
- 6 Players take turns rolling, doubling, and covering numbers on their side of the board. If a player rolls a number that he or she has already covered, the player needs to wait until their next turn to try again.
- 7 The first player to cover all six of the numbers on their side of the board is the winner!

Game Variation

- A Play as usual but use the Double It Challenge Game Board (that goes up to 20) and two dice numbered 0–5. Players take turns rolling the two dice, adding the numbers they rolled, and then doubling the result. For instance, if a player rolls a 4 and a 3, she adds the two numbers to get 7, and then doubles the 7 to get 14. Then she covers the 14 on her board.



Work Place Guide 2E Spin & Add

Summary

This game is intended for two players, but one player may work alone. In partner play, one player spins the top spinner and the other player spins the dotted-number spinner below. They work together to count on, and each records just the sum in the correct column on their record sheet, starting at the bottom. Play continues until one column (or more, if desired) is full.

Skills & Concepts

- Solve addition problems by counting on (1.OA.5)
- Add with sums to 20 and use strategies to add (1.OA.6)
- Organize, represent, and interpret data with up to 3 categories (1.MD.4)

Materials

Copies	Kit Materials	Classroom Materials
TM T6 Work Place Guide 2E Spin & Add TM T7 Work Place Instructions 2E Spin & Add TM T8 2E Spin & Add Record Sheet	<ul style="list-style-type: none"> • 3 Spin & Add Spinners 	

Assessment & Differentiation

Here are some quick observational assessments you can make as students begin to play this game on their own. Use the results to differentiate as needed.

If you see that...	Differentiate	Example
A student struggles with counting on.	SUPPORT Have the student say the first number spun and then point to the dots of the second number and count on.	If the first number is 5 and the second is 3, the student says, "5" and then points to the dots one at a time and says, "6, 7, 8."
One or more students have difficulty filling in the record sheet.	SUPPORT Gather students in a small group to play the game together and guide them in filling out the record sheet.	
Two students are able to complete the activity with ease and are beginning to know their addition facts.	CHALLENGE Invite the students to play one of the Game Variations.	

English-Language Learners Use the following adaptations to support the ELL students in your classroom.

- Demonstrate counting on by pointing to the first number spun and asking, "How many?" Then point to each dot on the second spinner individually while counting on.
- Pair each ELL student with a supportive partner (an English-speaking student or another ELL student with more command of English) who can offer support and explain the instructions while they play.



Work Place Instructions 2E Spin & Add

- 1 Each player needs a record sheet and a pencil. Players share a Spin & Add Spinner.
- 2 One player spins the top spinner and the other spins the bottom spinner.
- 3 Players count on from the first number to get the sum.
- 4 Each player records the sum in the correct column on his or her record sheet, starting at the bottom.
- 5 Players continue to spin and record until one column is full. If they choose to play until two or three columns are full, that's fine.
- 6 It's possible to play this game individually or in pairs. If students choose to work alone, they may need to share a spinner with someone else.

NAME _____ DATE _____

Spin & Add Record Sheet

			9				
		8	9	10	11		
		8	9	10	11	12	
6	7	8	9	10	11	12	13
6	7	8	9	10	11	12	13

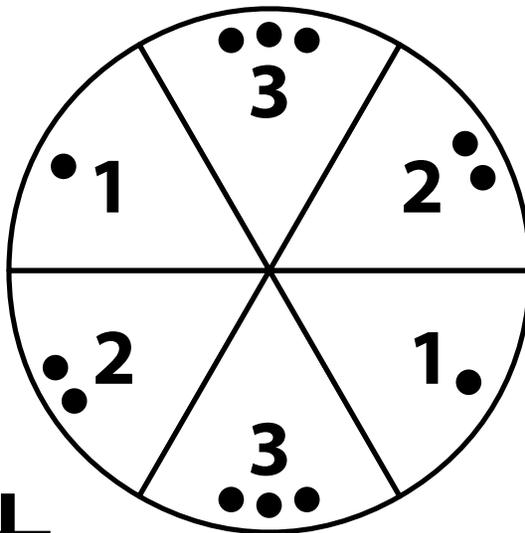
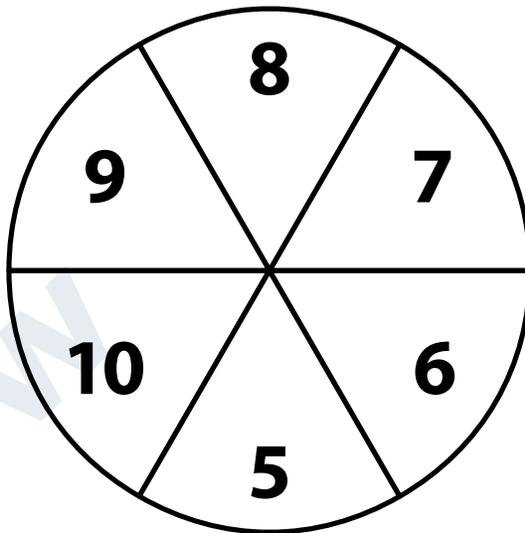
The spinner consists of two circles. The top circle is divided into six sectors labeled 5, 6, 7, 8, 9, and 10. The bottom circle is divided into six sectors labeled 1, 2, 3, 1, 2, and 3. A plus sign (+) is shown below the bottom spinner.

Game Variations

- A Players write the addition equation on the graph on each turn (e.g., $5 + 4 = 9$, rather than just the sum).
- B Players fill three columns instead of just one and mark them 1st, 2nd, and 3rd.
- C After completing the game, players add up the numbers in one or more columns.



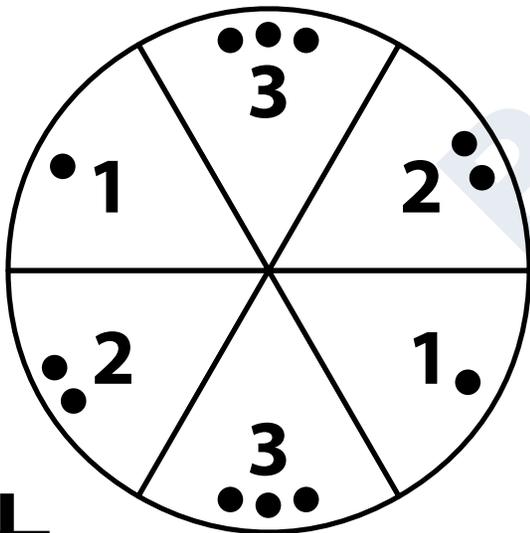
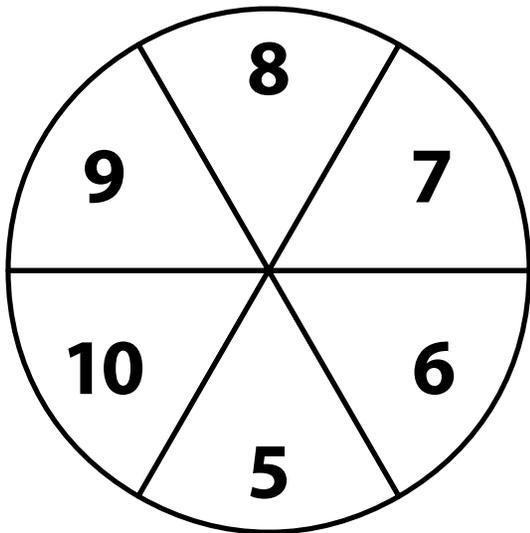
Spin & Add Spinner



$$\begin{array}{r}
 + \\
 \hline
 \end{array}$$



Spin & Add Spinner



$$\begin{array}{r}
 + \\
 \hline
 \end{array}$$



Work Place Guide 2F Spin & Subtract

Summary

This game is intended for two players, but a player may choose to work alone. In partner play, one player spins the first spinner, the other player spins the second spinner. They work together to find the difference between the two numbers spun, counting back from the first number. Then each player records just the difference in the correct column on their record sheet, starting at the bottom. Play continues until one column (or more if desired) is full.

Skills & Concepts

- Represent subtraction on a number line (supports 1.OA)
- Solve subtraction problems by counting back (1.OA.5)
- Use strategies to subtract with minuends to 20 (e.g., counting back, adding up to 10, derived facts) (1.OA.6)
- Organize, represent, and interpret data with up to 3 categories (1.MD.4)

Materials

Copies	Kit Materials	Classroom Materials
TM T10 Work Place Guide 2F Spin & Subtract TM T11 Work Place Instructions 2F Spin & Subtract TM T12 2F Spin & Subtract Record Sheet	<ul style="list-style-type: none"> • 3 Spin & Subtract Spinners 	<ul style="list-style-type: none"> • adding machine tape (optional, see Differentiation suggestion)

Assessment & Differentiation

Here are some quick observational assessments you can make as students begin to play this game on their own. Use the results to differentiate as needed.

If you see that...	Differentiate	Example
Some students count the beginning number twice in counting backward to subtract. These students are one off in their answers, because to solve $6 - 2$, they count 6, 5 instead of 6... 5, 4.	SUPPORT. Have these students physically demonstrate hopping and counting backward from various numbers less than 10.	Fasten a length of adding machine tape to the floor, and mark it with numbers from 0–10, each spaced about 6 inches apart along the tape. Meet with a small group of students and have them take turns standing on a number such as 7 and taking away 1, 2, or 3 by hopping back that many times. Point out that the hop isn't counted until it's complete. Once they have all had a turn enacting the process of counting backward, have them each place a cube on one of the numbers along the bottom of the record sheet and work with them to hop the cube backward 1, 2 or 3 hops. Finally, play Spin & Subtract with the group, and have the students continue to move the cube to find the answer to the subtraction combination each time.
Two students are able to complete the activity with ease and are beginning to know their subtraction facts.	CHALLENGE Invite the students to play one of the Game Variations.	

English-Language Learners Use the following adaptations to support the ELL students in your classroom.

- Demonstrate counting back by pointing to the first number spun, asking, "How many?" and placing some kind of marker on the same number on the number line. Indicate the number spun on the second spinner and hop back that many while counting aloud.
- Pair each ELL student with a supportive partner (an English-speaking student or another ELL student with more command of English) who can offer support and explain the instructions while they play.



Work Place Instructions 2F Spin & Subtract

- 1 Each player needs a record sheet and a pencil. Players share a spinner.
- 2 One player spins the first spinner, numbered 5–10, and the other spins the second spinner, dotted 0–3.
- 3 Players count back from the first number to get the difference.
- 4 Each player records the difference in the correct column on their record sheet, starting from the bottom and working upward.
- 5 Players continue to spin and record until one column is full. If they choose to play until two or three columns are full, that's fine.
- 6 It's possible to play this game individually or in pairs. If students choose to work alone, they may need to share a spinner with someone else.

Spin & Subtract Record Sheet

NAME _____		DATE _____						
		5						
		4	5	6				
	3	4	5	6	7	8		
2	3	4	5	6	7	8	9	10
2	3	4	5	6	7	8	9	10

Spin & Subtract Spinner

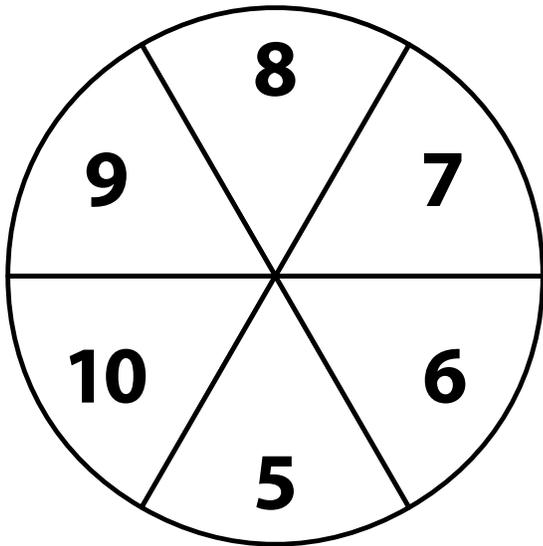
The spinner consists of two circular wheels. The first wheel is divided into six sectors labeled 5, 6, 7, 8, 9, and 10. The second wheel is divided into six sectors labeled 0, 1, 2, and 3, with dots representing the numbers.

Game Variations

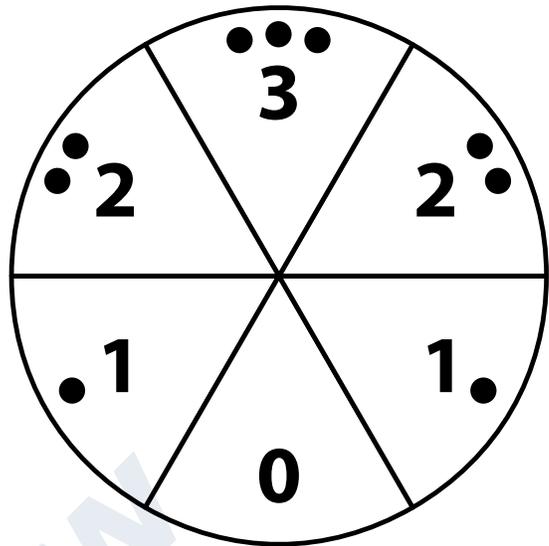
- A Play as usual but write the subtraction equation on each turn (e.g., $9 - 4 = 5$, rather than just the difference).
- B Play as usual, but fill three columns instead of just one and mark them 1st, 2nd, and 3rd.
- C After playing, add up the numbers in some of your columns.



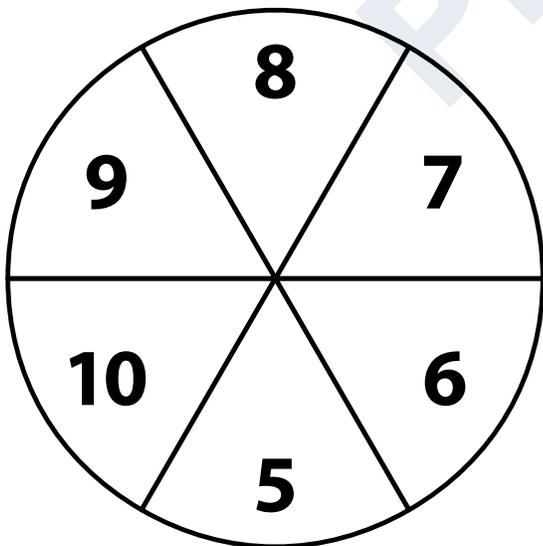
Spin & Subtract Spinner



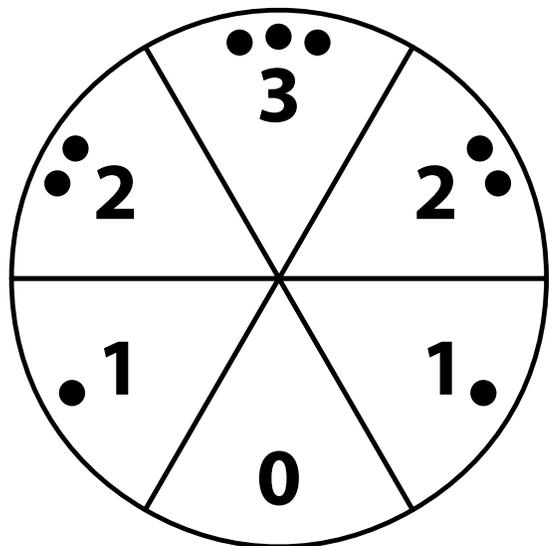
—



Spin & Subtract Spinner



—



NAME _____

DATE _____



2F Spin & Subtract Record Sheet

2	3	4	5	6	7	8	9	10

Preview

NAME _____

DATE _____



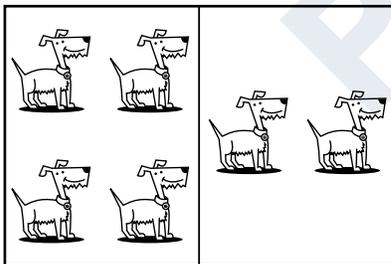
Unit 2 Assessment page 1 of 2

1 Draw the missing dots on the blank half of each domino. Then write an equation to match the domino.

<p>Practice 5</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; border-radius: 10px; width: 100px; height: 60px; display: flex; align-items: center; justify-content: center;"> <div style="border-right: 1px solid black; width: 50%; height: 50%; display: flex; flex-direction: column; justify-content: space-around; align-items: center;"> 3 </div> <div style="width: 50%; height: 50%;"></div> </div> </div> <div style="text-align: center; margin-top: 10px;"> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> + <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> = <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> </div>	<p>a 5</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; border-radius: 10px; width: 100px; height: 60px; display: flex; align-items: center; justify-content: center;"> <div style="border-right: 1px solid black; width: 50%; height: 50%; display: flex; flex-direction: column; justify-content: space-around; align-items: center;"> 4 </div> <div style="width: 50%; height: 50%;"></div> </div> </div> <div style="text-align: center; margin-top: 10px;"> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> + <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> = <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> </div>
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<p>b 6</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; border-radius: 10px; width: 100px; height: 60px; display: flex; align-items: center; justify-content: center;"> <div style="border-right: 1px solid black; width: 50%; height: 50%; display: flex; flex-direction: column; justify-content: space-around; align-items: center;"> 3 </div> <div style="width: 50%; height: 50%;"></div> </div> </div> <div style="text-align: center; margin-top: 10px;"> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> + <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> = <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> </div>	<p>c 7</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; border-radius: 10px; width: 100px; height: 60px; display: flex; align-items: center; justify-content: center;"> <div style="border-right: 1px solid black; width: 50%; height: 50%; display: flex; flex-direction: column; justify-content: space-around; align-items: center;"> 5 </div> <div style="width: 50%; height: 50%;"></div> </div> </div> <div style="text-align: center; margin-top: 10px;"> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> + <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> = <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> </div>
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2 Complete the fact family for the double-flap card shown. Then write a story problem to match one of the equations.



$$4 + 2 = \square$$

$$\square + 2 = 6$$

$$6 - 4 = \square$$

$$6 - \square = 4$$

(continued on next page)

NAME _____

DATE _____

Unit 2 Assessment page 2 of 2**3** Add.

$$\begin{array}{r} 6 \\ + 0 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ + 4 \\ \hline \end{array}$$

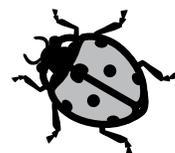
$$\begin{array}{r} 8 \\ + 2 \\ \hline \end{array}$$

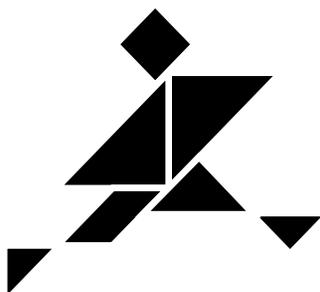
$$\begin{array}{r} 7 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ + 2 \\ \hline \end{array}$$

- 4** Jack put 7 bugs in a jar. Some of them got away. Now there are only 3 bugs left in the jar. How many bugs got away? Use numbers, pictures, or words to solve the problem. Write the answer on the line.

_____ bugs got away.

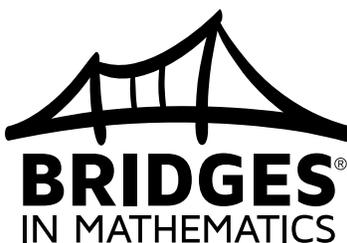




Student Book

GRADE 1 – UNIT 2 – MODULE 3

Preview



NAME _____

DATE _____



Domino Addition Combinations

1

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	+ <input type="text"/>
	<hr/> <input type="text"/>

2

	<input type="text"/>
	+ <input type="text"/>
	<hr/> <input type="text"/>

3

	<input type="text"/>
	+ <input type="text"/>
	<hr/> <input type="text"/>

4

	<input type="text"/>
	+ <input type="text"/>
	<hr/> <input type="text"/>

5

	<input type="text"/>
	+ <input type="text"/>
	<hr/> <input type="text"/>

6

	<input type="text"/>
	+ <input type="text"/>
	<hr/> <input type="text"/>

7

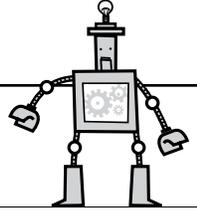
	<input type="text"/>
	+ <input type="text"/>
	<hr/> <input type="text"/>

8

	<input type="text"/>
	+ <input type="text"/>
	<hr/> <input type="text"/>

NAME _____

DATE _____



 **Spin & Add Record Sheet**

6	7	8	9	10	11	12	13

NAME _____

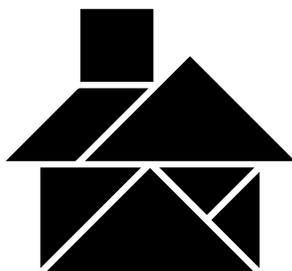
DATE _____



Spin & Subtract Record Sheet

2	3	4	5	6	7	8	9	10

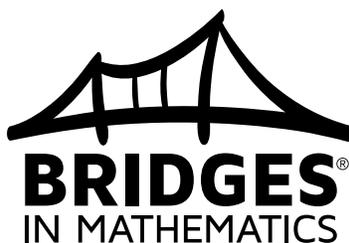
Preview



Home Connections

GRADE 1 – UNIT 2 – MODULE 3

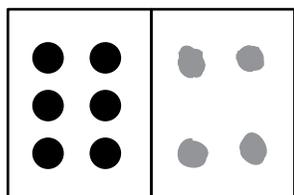
Preview



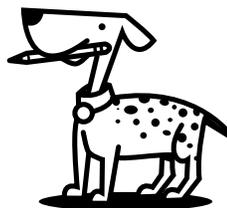
 **Dots, Apples & Shapes** page 1 of 2

1 Draw the dots on the right side of each card to make 10.
Then write a fact family to match.

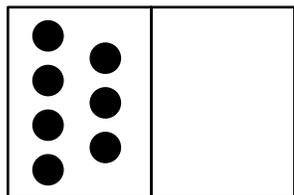
ex



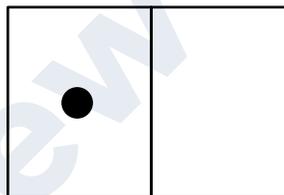
$$\begin{array}{r} 6 + 4 = 10 \\ 4 + 6 = 10 \\ 10 - 6 = 4 \\ 10 - 4 = 6 \end{array}$$



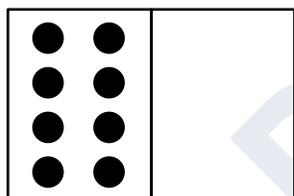
a



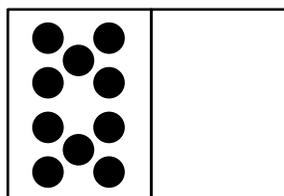
b



c



d



2 Fill in the missing numbers.

$9 + \square = 10$

$\square + 1 = 10$

$4 + 6 = \square$

$10 + \square = 10$

$10 - 6 = \square$

$10 - 7 = \square$

$10 - 1 = \square$

$10 - 8 = \square$

$10 - \square = 6$

$\square - 1 = 9$

$10 - 4 = \square$

$10 - \square = 8$

(continued on next page)

NAME _____

DATE _____

Dots, Apples & Shapes page 2 of 2

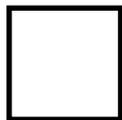
- 3** There were 3 apples on the table. Jan put 6 more apples on the table. How many apples were on the table in all? Show your work.

There were _____ apples on the table in all.



- 4 CHALLENGE** Make a picture that is worth 14¢. You can use as many as you like of these shapes. Label your picture. Prove that it is worth 14¢.

Square: 5¢



Circle: 2¢



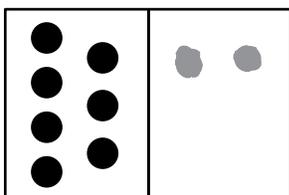
Triangle: 1¢



 **Dots & Dollars** page 1 of 2

1 Draw the dots on the right side of each card to make 9.
Then write a fact family to match.

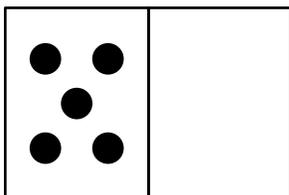
ex



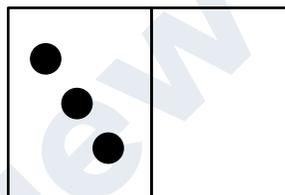
$$\begin{array}{l} 7 + 2 = 9 \\ 2 + 7 = 9 \\ 9 - 7 = 2 \\ 9 - 2 = 7 \end{array}$$



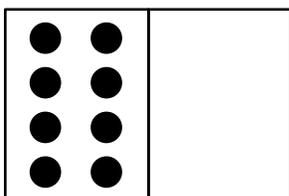
a



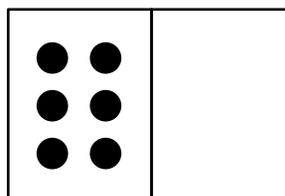
b



c



d



2 Fill in the missing numbers.

$9 + \square = 9$

$\square + 7 = 9$

$6 + 3 = \square$

$9 + \square = 9$

$9 - 3 = \square$

$9 - 6 = \square$

$9 - 4 = \square$

$9 - 5 = \square$

$9 - \square = 0$

$\square - 2 = 7$

$9 - 8 = \square$

$9 - \square = 5$

(continued on next page)

NAME _____

DATE _____

Dots & Dollars page 2 of 2

- 3** Marco has 6 dollars. How many more dollars does he need to have 10 dollars in all?
Show your work.

Marco needs _____ dollars to have 10 dollars in all.



- 4 CHALLENGE** Katy and her two friends have 5 dollars each. They want to buy a game that costs 18 dollars. How much more money do they need? Show your work.

Katy and her friends need _____ more dollars to have 18 dollars in all.