## Teachers Guide Volume 1 Module 3

## Module 3

## Structuring Five

## Major Instructional Targets

- Count forward to 38 and back by 1 s
- Count forward from a given number, rather than starting at 1
- Write numerals to 31
- Count objects one by one, saying the numbers in the standard order and pairing each object with only one number name
- Identify the number of objects as the last number said when counting a group of objects
- Add with sums to 10
- Identify combinations of 5


## Planner

| Session | Warm-Up 1 | Warm-Up 2 | Activity |
| :---: | :---: | :---: | :---: |
| 11 Collect Five Dots | Counting on a Line | How Many More to Five? | Collect Five Dots |
| 12 Win Five | Start \& Stop Counting | Cups \& Cubes to Five | Win Five |
| 13 Win Five with Dots \& Numerals |  |  | Win Five with Dots \& Numerals |
| 14 Pair It Up, Fives |  | Cups \& Cubes Other than Five | Pair It Up, Fives |
| Assessment Skills \& Concepts Assessed |  |  |  |
| Session 15 <br> Progress Monitoring 1-3 | - Count forward from a given number, rather than starting at 1 <br> - Represent a number of objects with a written numeral 0-20 <br> - Count objects one by one, saying the numbers in the standard order and pairing each object with only one number name <br> - Identify the number of objects as the last number said when counting a group of objects <br> - Demonstrate that each successive number name refers to a quantity that is one larger than the previous number name <br> - Given a number $0-5$, identify the other number needed to make a sum of 5 <br> - Write numerals to 30 or more |  |  |

## Materials Preparation

You can use this to-do list to prepare materials ahead of time for the entire module.

| Type | Items \& Notes | Done |
| :--- | :--- | :--- |
| Copies | Make copies of each print original according to the instructions at the top of the <br> page. |  |
|  <br> Spinners | Ifyou are making cards, mats, and spinners from the collection of component <br> originals, refer to pages noted below for information about copying and assembly. <br> Dot Pattern Cards C1 (6s removed) <br> Game Number Cards C2-C3 <br> Student pairs will need decks made of Game Number Cards for 0-5 mixed with Dot <br> Pattern Cards for 0-5 in Session 13. You can prepare the Game Number Card decks <br> ahead of time by removing cards for 6-14 from each deck. Then, just before Session 13, <br> you can mix each deck of 0-5 number cards with a the Dot Pattern Cards (6s removed). <br> Numeral Cards C2-C14 <br> Five-Frame Display Cards C15-C17 <br> Numbers to Ten Counting Mat, Five-Frame Side C24 (optional, for support) <br> Blank Number Line to Ten Mat C26 |  |
| Other <br> Materials | You'll need a single small cup that will hold 5 Unifix cubes for activities in this <br> module. |  |

[^0] game supplies, and math manipulatives needed for activities in this and other modules.

## Recommended

Grade Level for Starting Intervention

- Late kindergarten

I See also Volume 2, Module 1 and Volume 4, Module 1

## Session 11

## Collect Five Dots

## Materials

| Cards, Mats \& Spinners | Other Materials | Print Originals |
| :--- | :--- | :--- |
| - Dot Pattern Cards (1 deck) | • $12^{\prime \prime} \times 18^{\prime \prime}$ piece of <br> construction paper | P1-P2 What's Missing? |
| - Five-Frame Display Cards |  |  |
| - Numbers to Ten Counting Mats, Five-Frame Side |  |  |
| (optional, for support) |  |  |
| - Blank Number Line to Ten Mats (2 mats) marker |  |  |$\quad$|  |
| :--- |

Copy instructions are located at the top of each print original.

## Warm-Up 1 Counting on a Line

1 Write the numeral 10 on the far-right side of a laminated Blank Number Line to Ten Mat using a dry-erase marker, and invite students to count back to 1 as you fill in the numbers. Ask them to read the written numbers.

2 On a second Blank Number Line to Ten Mat, write the numeral 20 on the far-right side and invite the students to count back to 11 as you fill in the numbers.

3 Lay the number line mats one above the other. Ask the students what they notice about the numbers on the two number lines.


## Warm-Up 2 How Many More to Five?

1 Randomly mix up the Five-Frame Display Cards. Flash a card and ask students to identify the number of dots. Then ask them how many more dots would be needed to make 5 .

Teacher (Flashes five-frame card) How many dots?
Students Three.
Teacher How many more to make 5?
Students Two.
2 As a checkpoint, you may flash cards to individual students and ask them to explain how they figured out the number of dots needed to make 5 .
Some students will likely count the empty boxes. Others may count on their fingers, and a few may begin to respond from memory.

Instructional Goals<br>Count forward from a given number, rather than starting at 1<br>Write numerals between 1 and 30<br>Identify combinations of 5

## Activity Collect Five Dots

Remove the 6 from a deck of Dot Pattern Cards. Shuffle the remaining 18 cards.
1 Place the prepared deck of Dot Pattern Cards face-down in a single stack. Set the piece of construction paper out of the way, within reach. Then explain that you're going to work together to find sets of cards that have 5 dots in all. Each time you find a set, you'll put those cards on the construction paper.

2 Turn over the top card for all to see. Ask:

- How many dots are there on this card?
- Do we have 5 dots?
- How many more would we need to make 5?

If there are 5 dots on the card, move it to the construction paper. If not, leave the card where it is.

3 Invite a student to turn over the next card and place it face-up next to the first card. Ask if there are 5 dots on the two cards combined. If so, move that pair of cards to the construction paper. If not, leave them where they are.

4 Have another student turn over the next card and place it face-up near the stack. Ask students: Are there 5 dots on the card? Are there any other face-up cards it can be combined with to make 5 in all? If so, move those cards to the construction paper. If not, leave them where they are.
When appropriate, let students know it's OK to combine more than 2 cards (e.g., 2,2 , and 1 , or 4,1 , and 0 ) to make a total of 5 dots.

5 Continue to take turns around the circle drawing cards and looking for combinations of 5 . Encourage students to share what card they'd like to draw next and why.


Teacher Gabriel, it's your turn to draw. What are you hoping for?
Gabriel One! I could put 1 with 4 to make 5.
Students Or if you get a 2 , we can put it with the 3 .
Or maybe you could get a 5 all by itself.
6 When no more sets of 5 can be made, have students read all the combinations that have been placed on the construction paper.

## Practice Page What's Missing?

Assign a What's Missing? Practice Page, and continue to explore student thinking about how they know which numbers are missing from the grid.

## Session 12

## Win Five

## Materials

| Cards, Mats \& Spinners | Other Materials | Print Originals |
| :--- | :--- | :--- |
| - Dot Pattern Cards (1 deck per 2-3 students) | - Unifix cubes, 5 same <br> color | P3-P4 Before \& After |
| - Numeral Cards (selected 1-36; see Warm-Up 1) |  |  |
| - Numbers to Ten Counting Mats, Five-Frame Side |  |  |
| (optional, for support) |  |  |
| - Blank Number Line to Ten Mats (optional, for support) | Unifix cubes the 5 |  |$\quad 1$|  |
| :--- |

Copy instructions are located at the top of each print original.

## Warm-Up 1 Start \& Stop Counting

Before conducting this warm-up, locate the Numeral Cards for 1, 6, 9, 10, 11, 15, 16, 19, 25, and 36.
1 Let students know that in this warm-up, they'll look at two numbers, and count from the number shown on one card to the number shown on the other.

## Instructional Goals

Count forward and backward within 36

Count forward from a given number, rather than starting at 1

Write numerals to 20
Count objects one by one, saying the numbers in the standard order and pairing each object with only one number name

Identify combinations of 5

2 Show the Numeral Card for 6 and let students know that this is the starting number, where they will begin counting. Then, show the Numeral Card for 16 and explain that this card is the stop number, where they will stop counting.

Invite students to count forward from 6 to 16 .
4 Repeat steps 2-3 for two more pairs of cards: 19 and 25, then 25 and 36.
5 Next, show students the card for 10 and explain that this time, they'll count backward. Show them the card for 1 and let them know that they'll stop at this number. Then, invite them to count backward from 10 to 1 .

6 Repeat step 5 for three more pairs of cards: 15 and 9,19 and 11 , then 25 and 19. SUPPRORT If necessary, adjust the counting ranges to meet your students' needs.
support Write the numbers on a Blank Number Line to Ten Mat as students count to help them keep track of their counting. This can particularly help when crossing the decades (e.g., 19 to 20 or 30 to 29); seeing the written numeral helps support understanding of place value.

## Warm-Up 2 Cups \& Cubes to Five

1 Let students know that in this warm-up, you'll play a hiding game together. You'll put 5 cubes in a cup, then take some cubes out and hide them in your hand. The students must figure out how many cubes you have hidden.

2 Invite students to count with you as you drop 5 Unifix cubes into a cup. Then, remove 2 cubes from the cup, and hide them in your hand or pocket.

3 Show the students the cubes that are left in the cup, and ask them to visualize how many cubes are hiding. Ask a few students to share their thinking.
SUPPORT Provide students with a Numbers to Ten Counting Mat, Five-Frame Side to help them visualize numbers to 5 .

4 Empty the cup. Then repeat steps 2-3 twice more, first removing 3 cubes, then removing 1 cube.

## Activity Win Five

You'll need a deck of Dot Pattern Cards (3 sets 0-5, total 18 cards) for each pair or trio of players. You'll first play with one deck as a group, then have students play together.

1 Explain that students are going to work as a team to play a game called Win Five with you.

2 Place the selected, shuffled Dot Pattern Cards face-down in a single stack. Turn over the top card for all to see. Ask:

- How many dots are shown?
- Do I have 5 dots?
- What card would we need to make 5?

3 Invite a student to turn over the next card on the stack and place it face-up near the stack of cards so all students can see both of the turned-over cards. Ask if the two cards make 5. If the pair of cards makes 5 , the students get to keep both cards. If not, it is your turn to turn over another card from the draw pile.

Teacher OK, I took the first turn and got a 2. Can I make a total of 5 with only 2 dots on my card?
Students No!
Teacher It's your turn next. What would go with 2 to make 5? (Allows a moment to think.) What card would you hope to get to make 5?
Students Three!
4 Continue taking turns turning over cards and making combinations of 5. More than two cards may be used to create a combination of 5. For example, if three cards showing 1,2 , and 2 dots are face-up, those cards make 5 , as does as a single card with 5 dots.
SUPPORT. Students might use finger formations or a Numbers to Ten Counting Mat, Five-Frame Side to help visualize combinations of 5.

5 Once all of the cards have been turned over and no more combinations of 5 can be made, count the cards to determine which team (you or the students) has the most. The team with the most cards wins the game.

6 Provide groups of two or three students with a deck of cards (18 cards 0-5) and invite them to play Win Five as time permits.
Observe students as they play and take note of those who are fluent with the combinations and those who may still be counting the dots from 1 each time.

## Practice Page Before \& After 1-20

Assign a Before \& After 1-20 Practice Page, and continue to explore student thinking about how they know which number comes before and which number comes after the number in the center box.
SUPPORT You may need to have some students focus on completing only numbers after or only numbers before. You can also have them do numbers after on one day, collect their sheets, then have then work on numbers before the next day.

## Session 13

## Win Five with Dots \& Numerals

## Materials

| Cards, Mats \& Spinners | Other Materials | Print Originals |
| :--- | :--- | :--- |
| - Dot Pattern Cards (1 deck per student pair, 6s removed) | - Unifix cubes, 5 of <br> the same color <br> - Game Number Cards (1 deck per student pair, 0-5 only) <br> - Numeral Cards (selected 1-38; see Warm-Up 1) | P5-P6 Missing Days |
| - Numbers to Ten Counting Mats, |  |  |
| Five-Frame Side (optional, for support) | Unifix cubes |  |$\quad$|  |
| :--- |
| - Blank Number Line to Ten Mats (optional, for support) |

Copy instructions are located at the top of each print original.

## Warm-Up 1 Start \& Stop Counting

Before conducting this warm-up, locate the Numeral Cards for 1, 5, 7, 9, 10, 13, 17, 18, 19, 28, 29, and 38.
1 Let students know that they'll start and stop counting between the numbers you show them on Numeral Cards again today.

2 Show students the Numeral Cards for 5 and 15. Invite them to count forward from 5 to 15 . Repeat for sequences 17-22 and 29-38.

3 Next, show students the Numeral Cards for 10 and 1. Invite them to count backward from 10 to 1 . Repeat for sequences 13-7, 18-9, and 28-19.
If necessary, adjust the counting ranges to meet your students' needs.
SUPPORTT Use the Blank Number Line to Ten Mat to help students keep track of their counting as described in Sessions 11 and 12.

## Warm-Up 2 Cups \& Cubes to Five

1 Explain that you'll again play a hiding game with Unifix cubes today. You'll put 5 cubes in a cup, then take some cubes out and hide them in your hand. The students must figure out how many cubes you have hidden.

2 Invite students to count with you as you drop 5 Unifix cubes into a cup. Then ask: How many cubes are in the cup?

3 Remove 3 cubes from the cup and hide them in your hand or pocket.
4 Show the students the cubes that are left in the cup, and ask them to visualize how many cubes are hiding. Ask a few students to share their thinking.
support Provide a Numbers to Ten Counting Mat, Five-Frame Side to help students visualize numbers to 5 .

5 Remove the cubes from the cup. Repeat steps 2-4, this time removing 4 cubes from the cup. Then, write an equation to show the situation: $5=4+$ $\qquad$ -.

6 Repeat steps 2-4 again, this time removing 2 cubes. With student input, write an equation to describe the situation. Structure the equation differently, with the equals sign in a different location: $2+$ $\qquad$ $=5$.

7 Repeat steps 2-4 one more time, this time removing 0 cubes. Again, write an equation to describe the situation: $5=0+$ $\qquad$

## Instructional Goals

Count forward and backward within 38

Count forward from a given number, rather than starting at 1

Write numerals to 31
Count objects one by one, saying the numbers in the standard order and pairing each object with only one number name

Identify combinations of 5

## Teacher Note:

Asking students how many cubes are in the cup allows you to check for understanding of cardinality.

## Activity Win Five with Dots \& Numerals

Prepare a deck of mixed cards for every pair of students by shuffing a deck of Game Number Cards 0-5 (cards 6-14 removed) together with a deck of Dot Pattern Cards (6s removed). A prepared deck will contain 36 cards-18 dot cards and 18 number cards.

1 Explain that students are going to work as a team to play Win Five with you. This time, there are number cards as well as the dot cards in the deck.

2 Place a prepared deck of cards face-down in a single stack. Turn over the top card for all to see. Ask:

- What is shown on this card?
- Is this a total of 5?
- If the card does not show 5, ask: What do I need to make 5?

3 Invite a student to turn over the next card from the stack and place it face-up beside the first card so students can see them both. Ask the students if the two cards make 5. If the pair of cards makes 5 , the students get to keep both cards. If not, it is your turn to turn over another card from the draw pile.

4 Continue taking turns turning over cards and making combinations of 5.
More than two cards may be used to create a combination of 5. For example, if three cards showing 1 dot, 2 dots, and the numeral 2 are face-up, those cards make 5 , as does as a single card with 5 dots or the numeral 5 .
SUPPORTT. Finger formations or five-frames may help students visualize combinations of 5 .
5 Once all of the cards have been turned over and no more combinations of 5 can be made, each team counts their cards to determine who has the most. The team with the most cards wins.

6 Provide each pair of students with a prepared set of cards and invite them to play Win Five with Dots \& Numerals as time permits.

## Practice Page Missing Days

Assign a Missing Days Practice Page, and continue to explore student thinking about how they know which numbers are missing from the calendar.

## Session 14

## Pair It Up, Fives

## Materials

| Cards, Mats \& Spinners | Other Materials | Print Originals |
| :---: | :---: | :---: |
| - Game Number Cards (1 deck per student pair, cards for numbers 0-5 only) <br> - Numeral Cards (selected 1-38; see Warm-Up 1) <br> - Numbers to Ten Counting Mats, Five-Frame Side (optional, for support) <br> - Blank Number Line to Ten Mats (optional, for support) | - Unifix cubes, 5 of the same color <br> - a cup to hold the 5 Unifix cubes <br> - $6^{\prime \prime} \times 9^{\prime \prime}$ pieces of red and blue construction paper, 1 each per student pair | P7-P8 Make Five Dominoes |

Copy instructions are located at the top of each print original.

## Warm-Up 1 Start \& Stop Counting

Choose one or two sequences based on student proficiency you observed in Sessions 11-13, and locate Numeral Cards that will show the start and stop points of these sequences.

1 Let students know that they'll start and stop counting between the numbers you show them on Numeral Cards again today.

## Instructional Goals

Count forward and backward within 38

Count forward from a given number, rather than starting at 1

Count objects one by one, saying the numbers in the standard order and pairing each object with only one number name

Identify the number of objects as the last number said when counting a group of objects

2 Using the Numeral Cards to show the numbers where they'll start and stop counting, invite students to count forward and backward between pairs of numbers.

Show a card to indicate the start number, then a second card to indicate the stop number. Have students count the sequence aloud (e.g., 13-21, 24-18, or 27-38).

SUPPORT The Blank Number Line to Ten Mat may be used to help the students keep track of their counting as described in Sessions 11 and 12.

## Warm-Up 2 Cups \& Cubes Other than Five

1 Explain to the students that they'll now play the hiding game Cups \& Cubes with other numbers. Ask them to guess the first number you've chosen (4) by giving them a clue.

Teacher The first number is 1 less than 5 .
Students That's 4 because 4 comes before 5 .
I know it's 4 because 4 and 1 makes 5!
2 Count 4 Unifix cubes into a cup. Ask students to tell you how many cubes you have in the cup.

Remove 2 cubes from the cup, and hide them in your hand or pocket.
4 Show the students the cubes that are left in the cup, and ask them to visualize how many cubes are hiding. Ask a few students to share their thinking. SUPPORTT Students may use finger formations to help visualize quantities to 5 .

5 Write an equation to show the situation.
Teacher I'm going to show how many cubes are hiding and how many there are in all with an equation: $2+\ldots=4$.

6 Empty the cup. With student input, repeat steps 2-5 twice more, first removing 4 cubes, and then removing only 1 cube.
Vary the equations to show addition with the missing addend $(1+\ldots=4$ and $4=1+\ldots)$. When reading the equal sign, use the language "the same as" to indicate equivalence.

7 Next, explain that you are going to change the number of cubes to 1 more than 5 and have the students name the new number [6]. Count the cubes into the cup and repeat steps $2-5$ three times, removing 3,5 , and 2 cubes.

## Activity Pair It Up, Fives

Prepare decks of Game Number Cards by removing the cards for 6-14 (leaving 18 cards, 3 each $0-5$, per deck) for each student pair. Each pair will also need two pieces of $6^{\prime \prime} \times 9^{\prime \prime}$ construction paper-one in red and one in blue.
1 Explain that students are going to work as a team to play a game called Pair It Up, Fives with you.
2 Shuffle a prepared deck of Game Number Cards and place them face-down in a stack. Set out a piece of blue construction paper to hold the cards you win during the game, and a piece of red paper to hold the cards the students win.

3 Have a student take turns with you to draw 5 cards. Lay your 5 cards face-up on the table as the student does so for the group. If you or the students have any pairs of cards that sum to 5 , remove them from your collection and set them on your piece of construction paper.


4 When you've removed any pairs that sum to 5, draw another card from the top of the stack. If you can combine it with one of the other cards in your collection to make 5, move that pair to your paper. If not, place the card in line with your others. Then invite a student to take a turn for the group.

5 Continue taking turns until there are no more cards in the draw pile. Count the number of pairs you won, and have the students do the same. The team with the greater number of pairs wins the game.
6 After modeling the game, invite students to play in pairs.
support Play the game with the whole group a second or even third time if students aren't ready to play on their own.

## Practice Page Make Five Dominoes

Assign a Make Five Dominoes Practice Page, and continue to explore student thinking about how they know how many more dots to add to make 5 .

## Questioning Strategies

Questions to ask students
during the Pair It Up, Fives game include:

What did you turn over?
How many more to make 5 ?

Is it a match?
How do you know?
Is there a combination of 3 numbers that make 5?

## Session 15

## Progress Monitoring 1-3

## Materials

| Cards, Mats \& Spinners | Other Materials | Print Originals |
| :--- | :--- | :--- |
| - Dot Pattern Cards (1-5) | - 18 Unifix cubes (or <br> other small objects) <br> - student whiteboard, <br> marker, and eraser | P9 Numeral Writing Record Sheet <br> P10 Progress Monitoring 1-3 Scoring Guide <br> Student Progress Monitoring Record, <br> Volume 1 (Module 1 Print Originals, P1-P2) |

Copy instructions are located at the top of each print original.

## Part 1 Individual Interview

While other students are working on one of the previous games or activities (or the Written Numeral Writing activity in Part 2 below), assess each student on the following skills.

1 Say to the student: Start counting from 8 and count as far as you can go. Record how far the student counts.

2 Hand the student 18 Unifix cubes, a student whiteboard, and a dry-erase marker. Ask the student to count the cubes, then write the numeral that shows how many. If the student does this successfully, ask: How many cubes would there be if I added 1 more?

3 Show the student the Dot Pattern Card with 3 dots. Ask: What goes with 3 to make 5?

Repeat with the cards for $5,4,2$, and 1 , each time asking what goes with the number to make 5. Record responses.

## Part 2 Written Numeral Writing

Have students begin writing at the number 10 less than their personal best from the week before. For example, if a student writes to 20 , this student may start at 10 .

1 Give each student their personal starting number and a Numeral Writing Sheet. Say: Write the number I give you in the first box. Then keep writing the numbers you know. Write one number in each box.

## Scoring

Use the Progress Monitoring 1-3 Scoring Guide to determine scores. Use copies of the Student Progress Monitoring Record (found in the Module 1 Print Originals) to track individual students' progress.

## Instructional Goals

Count forward from a given number, rather than starting at 1

Represent a number of objects with a written numeral 0-20

Count objects one by one, saying the numbers in the standard order and pairing each object with only one number name

Identify the number of objects as the last number said when counting a group of objects

Demonstrate that each successive number name refers to a quantity that is one larger than the previous number name

Given a number 0-5, identify the other number needed to make a sum of 5

Write numerals
to 30 or more


# Print Originals <br> Volume 1 Module 3 

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\operatorname{son}^{0 \times 1}
$$


NAME


## Before \& After 1-20 Version A

Write the numbers that come before and after the number shown.


NAME
| DATE

## Before \& After 1-20 Version A

Write the numbers that come before and after the number shown.


## Before \& After 1-20 Version B

Write the numbers that come before and after the number shown.


NAME

## Before \& After 1-20 Version B

Write the numbers that come before and after the number shown.


## Missing Days Version A

1 Fill in the missing numbers on the calendar below.


2 How many days are in a week? $\qquad$

## Missing Days Version B

1 Fill in the missing numbers on the calendar below.


2 How many days are in a week? $\qquad$

## Make Five Dominoes Version A

Count the dots on each domino. Add more dots to make 5 dots in all.


## Make Five Dominoes Version B

Count the dots on each domino. Add more dots to make 5 dots in all.





[^0]:    See the Preparation section of the Volume 1 Introduction for information about general classroom materials,

