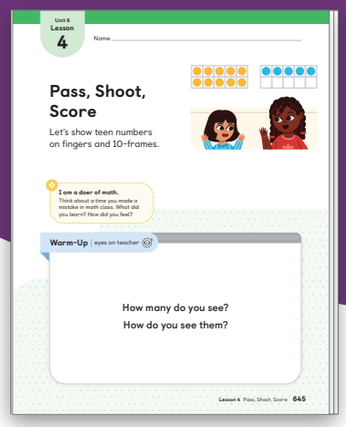
Unit 6
Lesson
4

Student Edition pages, Manipulatives, and Presentation Screens support learning in this lesson.



Pass, Shoot, Score

Representing Teen Numbers on Fingers and 10-Frames

Let's show teen numbers on fingers and 10-frames.

Focus and Coherence

Today's Goals

1. **Goal:** Represent spoken number words 11–19 using fingers and 10-frames.
2. **Language Goal:** Explain how to determine and represent a quantity. **(Speaking and Listening)**

Students begin to explore the *10 + n* structure of teen numbers as they determine quantities shown on fingers and represent numbers on fingers and 10-frames. The structure of fingers and 10-frames helps students to see teen numbers as 10 ones and some more ones. While students might begin to see 10 as a unit, they are not introduced to this idea until Grade 1. For this reason, teen numbers are intentionally described as "10 and some more" rather than a ten and some ones.

Prior Learning

In Lesson 3, students applied their understanding of conservation of number to count groups of 11–20 objects. In Units 1 and 2, students used the *5 + n* structure to make sense of numbers 6–10.

Future Learning

In Lesson 5, students will continue to develop an understanding of the *10 + n* structure of teen numbers as they match images on 10-frames to written numerals.

Vocabulary

Review Vocabulary

teen number

Rigor and Balance

- Students build their **conceptual understanding** of the *10 + n* structure of numbers 11–19.

I am a doer of math.
Think about a time you made a mistake in math class. What did you learn? How did you feel?

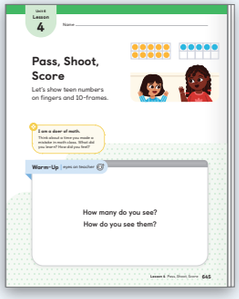
Support students in building their ***mathematical identity*** by asking them to reflect on this question as they complete this lesson.

Lesson at a Glance 60 min

Warm-Up Fluency

Whole Class | 5 min

Students use the **How Many Do You See?** routine, in which they develop fluency by looking at and describing the ways they see different quantities of fingers.



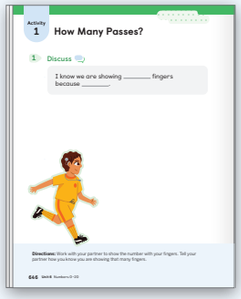
Screen 1

Activity 1

Pairs | 15 min

Students begin to explore the *10 + n* structure of teen numbers as they work in pairs to represent teen numbers on their fingers. In the Connect, language describing addition, such as "10 and 7 is 17," is used to describe how the number is represented with 2 full hands and some more fingers.

Note: The Student Edition is not required for this activity.

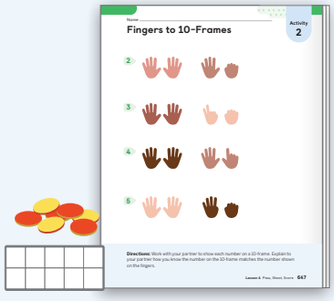


Screens 2-4

Activity 2

Pairs | 15 min

Students use 10-frames to represent teen numbers shown on fingers to notice and use the *10 + n* structure of numbers 11–19. In the Connect, they make connections between the structure of teen numbers represented on fingers and 10-frames.



Screens 5-6

Synthesis

Whole Class | 10 min

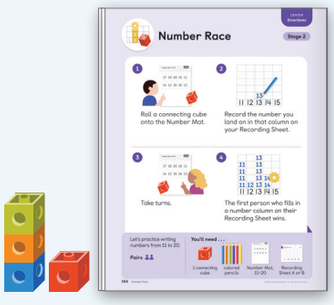
Students review and reflect on the tools they can use to independently represent a teen number.

Screen 7

Center

Pairs | 15 min

Students revisit the Center, *Number Race*, *Stage 2* to learn the full version of the Center in which they recognize and write numerals 11–20.



Screen 8

Prep Checklist

Invite students to use their Student Edition and prepare the additional materials. Display the Presentation Screens.

This lesson includes:

- Presentation Screens (for display)
- Student Edition
- Show What You Know PDF (Optional)

Additional required materials:

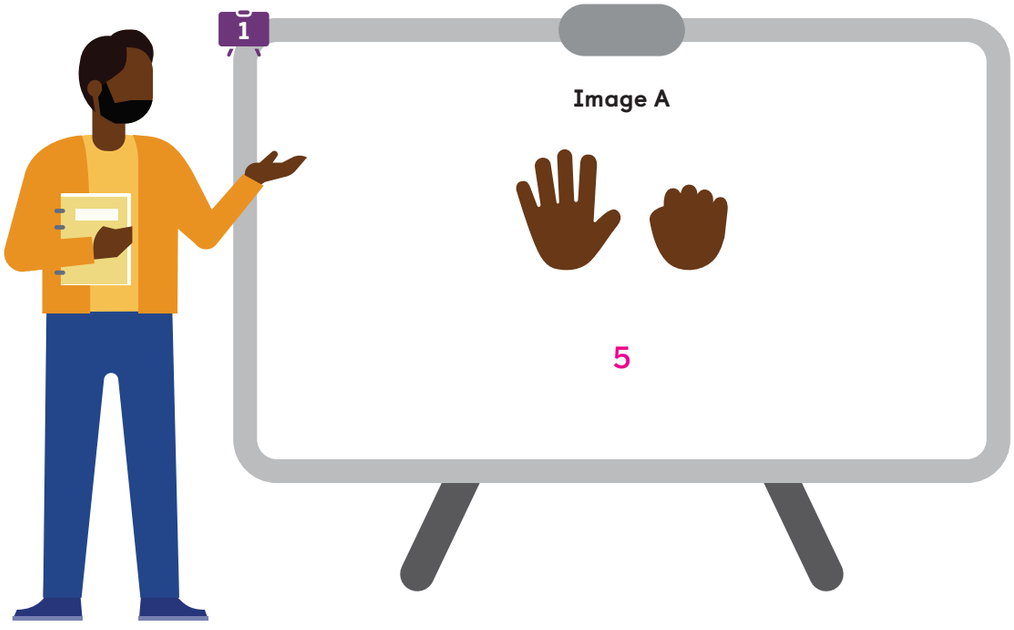
- **Manipulative Kit:** 10-frames, two-color counters

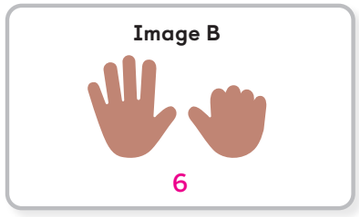
Whole Class | 5 min

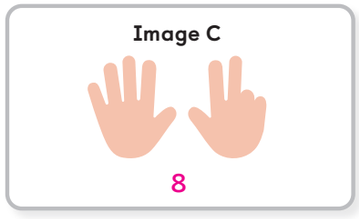
Presentation Screen 1

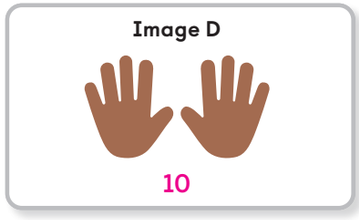
Warm-Up How Many Do You See? Fluency

Purpose: Students look for and make use of the *5 + n* structure as they determine the quantity of a group of fingers.









Why these problems? These fingers lend themselves to looking for and making use of the *5 + n* structure.

1 Launch

1 **Use the How Many Do You See? routine.**

Flash the first image for 2–5 seconds, and ask, "How many do you see?"

Say, "Give me a signal when you have an answer."

Display the image again, leaving it displayed to discuss.

2 Connect

1 **Record** 2 or 3 students' responses, and ask, "How did you see them?"

Repeat for each image.

Say, "We will continue thinking about how to show numbers on fingers in the next activity."

Students might say . . .

A: *All the fingers are up on 1 hand and I know there are 5 fingers on each hand.*

B: *I saw 1 hand, which is 5, and 1 more, which makes 6.*

C: *I started with 5 from the first hand and then counted...6, 7, 8.*

D: *All the fingers are up on both hands and I know that makes 10.*

Pairs | 15 min

Activity 1 How Many Passes?

Purpose: Students begin to explore the *10 + n* structure of teen numbers as they use fingers to represent numbers 11–19.

Presentation Screens 2-4

Short on time? Consider reducing the rounds of showing teen numbers on fingers.

1 Launch

2 **Read aloud** page 8 from the Unit Story.

Say:

- "The students have enjoyed keeping track of different numbers at the soccer game."
- "Charlie noticed that the ball gets passed many times before a goal is made. He and Lizzy use their fingers to keep track of how many times the ball is passed. Let's show how many times the ball gets passed on our fingers."

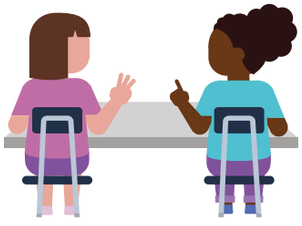
3 **Say**, "Show 10 with your fingers. Then tell your partner how you know you are holding up 10 fingers."

Invite a student to share how they knew they had 10 fingers held up without counting.

Say:

- "Show 13 with your fingers. What do you notice?"
- "Work with your partner to show 13 with your fingers. Then tell your partner how you know you are holding up 13 fingers." Repeat with the numbers 15, 20, and 18.

2 Monitor



While students complete the activity, refer to the D **Differentiation | Teacher Moves** table on the following page.

If students need help getting started . . .

- Ask, "What do you know about fingers? How could you use what you know to help you make this teen number?"
- Ask, "How could you and your partner show 10, then hold up more fingers to make this teen number?"

3 Connect

4 **Invite a pair to share** how they showed 18 with their fingers. Ask:

- "How many fingers is each partner holding up?"
- "How many fingers are they holding up altogether?"

Say, "10 and 8 is 18."

Ask, "How is showing 18 with fingers different from showing 10 with fingers?"

Key Takeaway: Say, "To show teen numbers with fingers, you need 2 full hands and some more fingers."

Student Edition

Activity 1

How Many Passes?

1 Discuss

I know we are showing _____ fingers because _____.

Oral activity: No writing expected. Sample response shown.

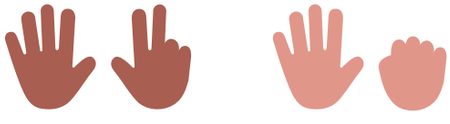
I know we are showing 13 fingers because I showed 10 fingers. Then my partner put up 3 more fingers, making 11, 12, and 13.

Directions: Work with your partner to show the number with your fingers. Tell your partner how you know you are showing that many fingers.

646 Unit 6 Numbers 0–20

2-4 Presentation Screens

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Hold up a different number of fingers.		**Support** Say, "Count each finger, and then tell how many you are holding up altogether."
Hold up some fingers while their partner holds up the rest of the fingers.		**Strengthen** Ask, "How could you show 13 by first filling one partner's hands and then holding up more fingers?"
Hold up 10 fingers while their partner holds up the rest of the fingers.		**Stretch** Ask, "How do you see the number 13 on your fingers? How would you show 14 on your fingers? What would stay the same? What would change?"

Pairs | 15 min

Activity 2 Fingers to 10-Frames

Purpose: Students build understanding of the *10 + n* structure of teen numbers as they use 10-frames to represent a number shown on fingers.

Presentation Screens 5-6

Materials

Manipulative Kit:

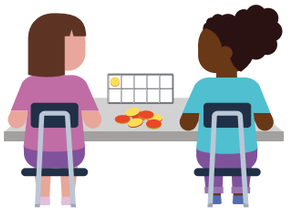
- Distribute one 10-frame and 20 two-color counters to each pair.

1 Launch

5 **Say:**

- "The students wonder what it would look like to show the number on 10-frames instead of fingers."
- "Work with your partner to show each number on a 10-frame. Then explain to your partner how you know the number on the 10-frame matches the number shown on the fingers."

2 Monitor



After students have completed **Problem 5**, refer to the D **Differentiation | Teacher Moves** table on the following page.

If students need help getting started . . .

- Ask, "In your own words, what do you need to do? What could you try first?"
- Ask, "What do you notice about the fingers? How could that help you show the number on a 10-frame?"

ML/EL **Multilingual/English Learners** Provide sentence frames to support students as they explain their thinking. For example, "I know this is the same number because _____." or "I showed the same number by _____."

3 Connect

MLR This Connect is structured using the *MLR7: Compare and Connect* routine.

Display Problem 5.

Ask, "How many fingers do you see?"

6 **Invite students to share** how they showed the number 14 on their 10-frame, as shown in Rows 1 and 2 in the *Differentiation* table.

Display 14 fingers and 14 counters on a 10-frame. Ask:

- "How do you see 14 on the fingers?"
- "How do you see 14 on the 10-frame?"

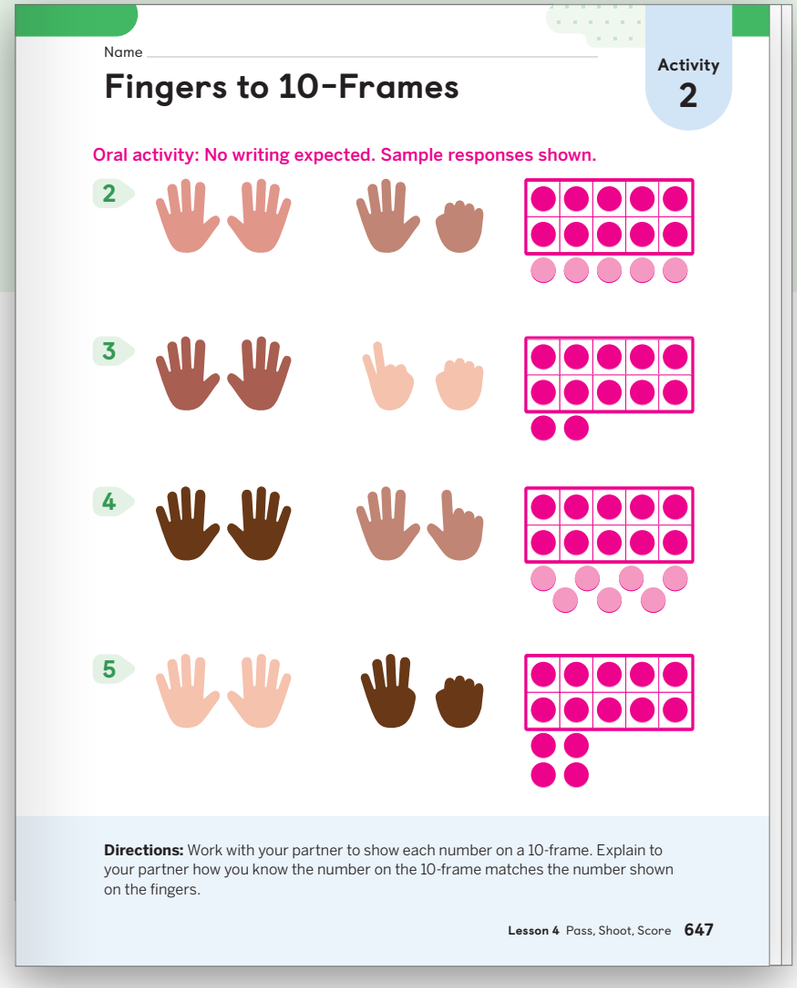
Use the Think-Pair-Share routine. Ask, "What is the same about how you see 14 on the fingers and on the 10-frame?"

A **Accessibility: Conceptual processing** Make students' connections between the fingers and 10-frames visible by using gestures or labeling the representations.

Ask, "What can we say about showing teen numbers on a 10-frame?"

Key Takeaway: Say, "To show teen numbers on a 10-frame, you need a full 10-frame and some more counters."

Student Edition



Name _____

Activity 2

Fingers to 10-Frames

Oral activity: No writing expected. Sample responses shown.

2

3

4

5

Directions: Work with your partner to show each number on a 10-frame. Explain to your partner how you know the number on the 10-frame matches the number shown on the fingers.

Lesson 4 Pass, Shoot, Score 647

5-6 Presentation Screens

D Differentiation | Teacher Moves

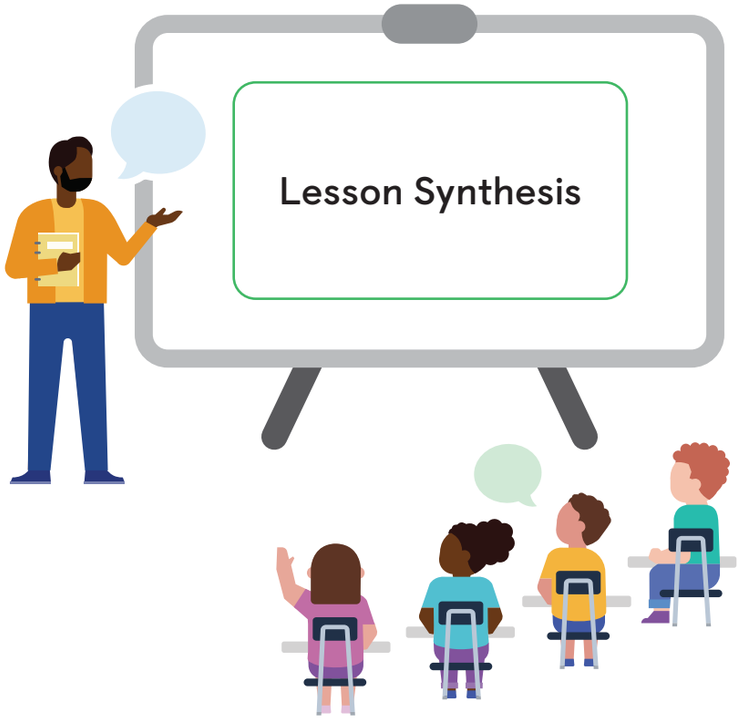
Look for students who . . .	For example . . .	Provide support . . .
Count each object starting at 1 to determine and then represent the quantity.	I counted 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 fingers. Then I showed 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 counters.	S **Strengthen** Ask, "What is the same about showing teen numbers on fingers and 10-frames? How could you use that to help you figure out how many?"
Use the *10 + n* structure to identify 10 and then count on.	I showed 10 counters because there are 10 fingers. Then I saw 11, 12, 13, 14 fingers, so I showed 11, 12, 13, 14 counters.	S **Stretch** Ask, "What patterns do you notice with teen numbers?"
Use the *10 + n* structure to identify 10 and then subitize the remaining counters.	I showed 10 counters because there are 10 fingers. Then I saw 4 more fingers so I showed 4 more counters. There are 14 fingers and 14 counters.	

Whole Class | 10 min

Presentation Screen 7

Synthesis

Lesson Takeaway: Numbers 11–19 can be represented as 10 ones and some more ones.



7 **Ask:**

- "If you were working by yourself, how could you show the number 15?"
- "What tool would you use to show 15? Why would you show 15 that way?"

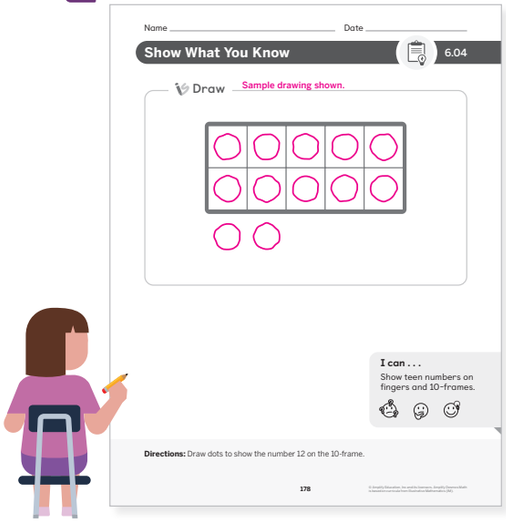
Say, "You can use fingers and 10-frames to show how a teen number is the same as 10 and some more. When showing teen numbers on your own, it can be helpful to use the 10-frame."

Show What You Know

Independent | 5 min

(Optional)

PDF Show What You Know PDF


Name _____ Date _____

Show What You Know 6.04

Draw Sample drawing shown.

I can . . .
Show teen numbers on fingers and 10-frames.

Directions: Draw dots to show the number 12 on the 10-frame.

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Today's Goals

1. **Goal:** Represent spoken number words 11–19 using fingers and 10-frames.
2. **Language Goal:** Explain how to determine and represent a quantity. **(Speaking and Listening)**

D **Differentiation** See the last page of the lesson for differentiation support.

Practice

Independent

Provide students with sufficient practice to build and reinforce their conceptual understanding, fluency, and application of mathematical topics, assessment practice, and ongoing spiral review.

Students using print

Summary | eyes on teacher

You can use fingers and 10-frames to show how a teen number is the same as 10 and some more.

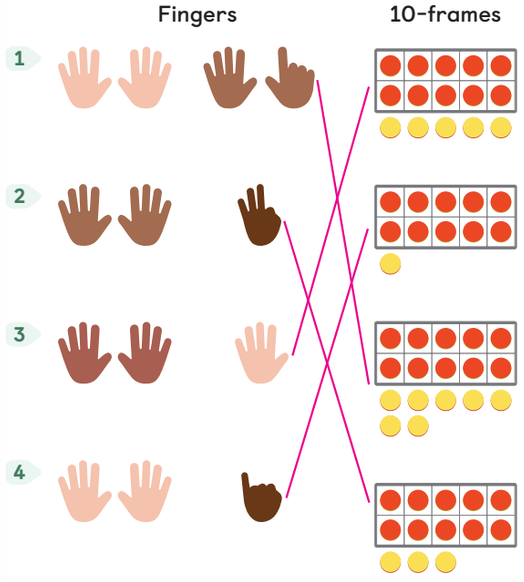
Practice

You'll play this Center.

Number Race Stage 2

Let's practice writing numbers from 11 to 20.

Name _____



Directions:

1–4. Draw lines to match each set of fingers with the 10-frame that shows how many.

Spiral Review

5 | 2 | 10 = 2 + 8

6 | 4 | 10 = 4 + 6

7 | 9 | 10 = 9 + 1

Directions:

5–7. Figure out how many more are needed to make 10. Fill in the equation to show the 2 parts that make 10.

Practice Problem Item Analysis

	Problem(s)	DOK
On-Lesson		
	1–4	2
Spiral Review		
Fluency	5–7	1

Pairs | 15 min

Let's Play Number Race, Stage 2 Fluency

Purpose: Students build fluency with recognizing and writing numerals 11–20 as they roll a connecting cube onto a Number Mat and write the number that it lands on.

Presentation Screen 8

Materials

Manipulative Kit:

- Distribute one connecting cube to each pair.

Classroom materials:

- Distribute colored pencils to each pair.

Centers Resources:

- Display the Directions, Recording Sheet A, and Number Mat (11–20).
- Distribute Recording Sheet A to each student.
- Distribute one Number Mat (11–20) to each pair.

1 Launch

Display the Center materials, Directions, and Recording Sheet A.

Demonstrate how to play *Number Race, Stage 2*. While demonstrating:

- **Say**, "We will learn a new way to play *Number Race*. Instead of tracing numbers, we will practice writing numbers.
- **Say**, "First, I roll the cube onto the Number Mat." Roll the cube.
- **Ask**, "Which number did the cube land on?"
- **Say**, "Now I will find that written number on the Recording Sheet and write the number, starting from the bottom." Write the number by modeling the appropriate starting point.
- **Say**, "Take turns with your partner. During each turn, roll the cube, notice what number it lands on, and write that number on the Recording Sheet. The first person who writes all of 1 number wins."

2 Monitor

Observe students' number formation.

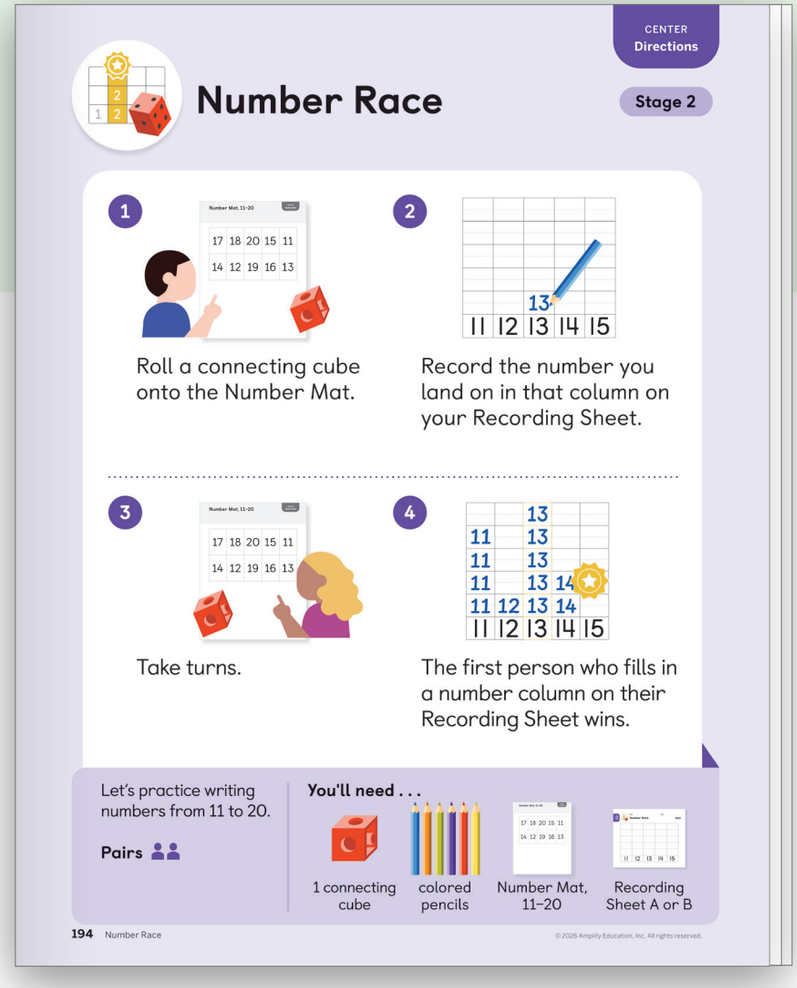
3 Connect

Display Recording Sheet A.

Use the Think-Pair-Share routine. Ask:

- "Which teen number was your favorite to write?"
- "Which teen number was most challenging to write? What made it challenging?"

Key Takeaway: Say, "We will continue practicing writing teen numbers so that we can clearly show how many."



CENTER Directions

Number Race

Stage 2

1 Roll a connecting cube onto the Number Mat.

2 Record the number you land on in that column on your Recording Sheet.

3 Take turns.

4 The first person who fills in a number column on their Recording Sheet wins.

Let's practice writing numbers from 11 to 20.

Pairs

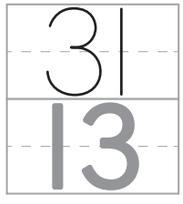
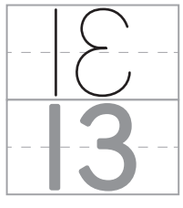
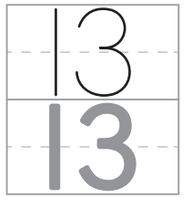
You'll need . . .

1 connecting cube; colored pencils; Number Mat, 11–20; Recording Sheet A or B

194 Number Race

8 Presentation Screen

D Differentiation | Teacher Moves

Look for students who . . .	For example . . .	Provide support . . .
Almost there Reverse the digits.		**Support** Ask, "What is the same about the number you wrote and the number that is on the page? What is different about the number you wrote and the number that is on the page?"
Write a digit backward.		**Strengthen** Ask, "What do you notice about writing this number? What did you do first? What did you do next?"
Write the number.		

Differentiation Use after Lesson 4

Lesson Goal: Represent spoken number words using fingers and 10-frames.

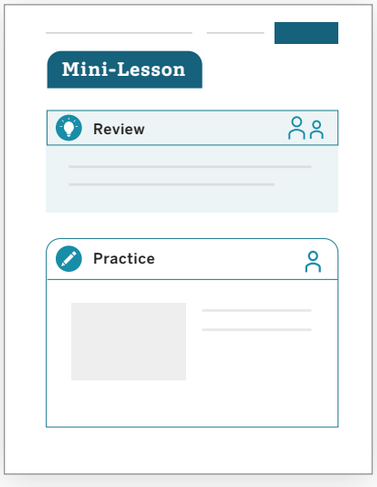
Support

Provide targeted intervention for students by using these resources.

If Student Response Shows: A quantity other than 12.

» **Respond:**

- **Mini-Lesson |** 15 min
  Showing Teen Numbers on Fingers and 10-Frames (ML 6.04)



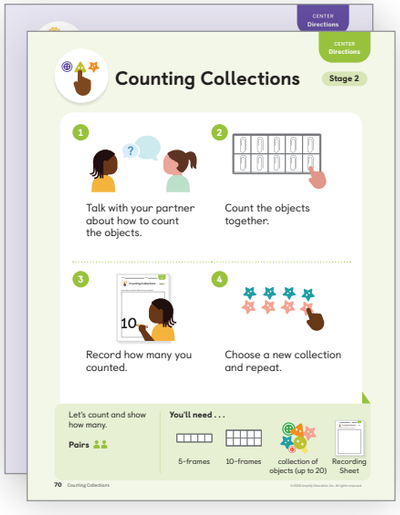
Strengthen

Reinforce students' understanding of the concepts assessed by using these resources.

If Student Response Shows: 12 circles.

» **Respond:**

- **Centers |** 15 min
  Counting Collections, Stage 2
  Number Race, Stage 2
- **Lesson 4 Practice |** 15 min
- **Item Bank**



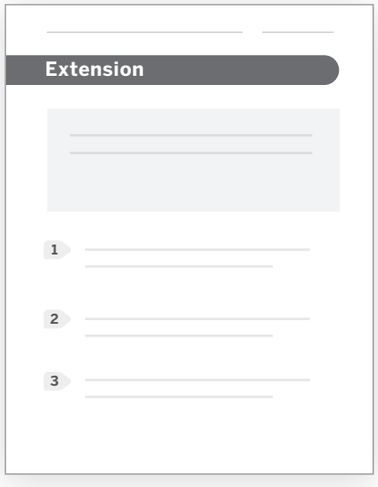
Stretch

Challenge students and extend their learning with these resources.

If Student Response Shows: 12 circles, arranged using the *10 + n* structure.

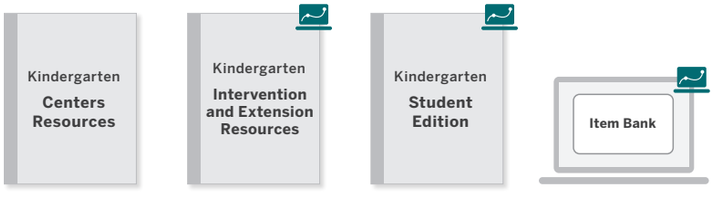
» **Respond:**

- **Sub-Unit 1 Extension Activities |** 15 min



Support, strengthen, and **stretch** learning by assigning these digital resources that adjust to each student's current level of skill and understanding: • **Personalized Practice** • **By Heart Fluency Practice** • **Math Adventures**

Key (Differentiation Resources)



Centers | Mini-Lessons Extensions | Lesson Practice | Item Bank

Professional Learning

As students worked together today, where did you see evidence of meaningful mathematical community connections?