

Grade 1

MATH NATION

BY ACCELERATE LEARNING

Take & Teach



*Accelerate*LEARNING
THE LEADER in STEM EDUCATION

What's Inside This Sample Lesson?

- A fully guided lesson written to meet rigorous state and national standards
- **Teacher Edition** pages, **Student Workbook** pages, and other **helpful resources** to fully experience a Math Nation lesson
- Warm-ups, exploration tasks, instructional routines, and teacher prompts
- Support for English learners and students with disabilities
- Integrated reflection, synthesis, and cool-down opportunities

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Go Online!

Explore the digital resources for this lesson.



LESSON 12

SUBTRACT FROM A TEEN NUMBER

TEACHER-FACING LEARNING GOAL

- Add and subtract single-digit numbers from teen numbers without composing or decomposing a ten.

ALIGNMENT

Addressing

1.NBT.A.1 1.OA.B.4 1.OA.D.8
1.OA.A.1 1.OA.C.6

LESSON PREPARATION

Instructional Routines

Choral Count (Warm-up)

Materials To Gather

Connecting cubes or two-color counters

Cups

Double 10-frames

Two-color counters

Materials To Copy

Shake and Spill Stage 4 and 5
Recording Sheet (G1 and 2)

LESSON TIMELINE

Warm-up	10 min
Activity 1	15 min
Activity 2	10 min
Activity 3	15 min
Lesson Synthesis	10 min
Cool Down	0 min

TEACHER REFLECTION QUESTION

What connections did students make between the different methods shared?
What questions did you ask to help make the connections more visible?



LESSON INFORMATION

Student-Facing Learning Goal

- Let's subtract and add within 20.

Lesson Narrative

The **objective** of this lesson is for students to add and subtract within 20 without composing or decomposing a ten.

In previous lessons, students learned the $10 + n$ structure of teen numbers and considered the relationship between addition and subtraction. The purpose of this lesson is for students to use their understanding of the structure of teen numbers to add and subtract from a teen number, without composing or decomposing a ten (MP7). Students use methods they used in a previous section such as counting on, taking away, or relating addition and subtraction.



WARM-UP | CHORAL COUNT: BY TEN 10 minutes

Instructional Routines

Choral Count

The purpose of this Choral Count is to invite students to practice counting on by **10** and notice patterns in the count. These understandings help students develop fluency and will be helpful when students make use of the base-ten structure (MP7).

LAUNCH

- “Count by 10, starting at 2.”
- Record as students count.
- Stop counting and recording at 52.

ACTIVITY

- “What patterns do you see?”
- 1–2 minutes: quiet think time
- Record responses.

POSSIBLE RESPONSES

Record the count in a column, lining up the tens and ones digits.
Sample responses:

- All the numbers end with a 2.
- The numbers on the left go up by one each time.
- It goes 20, 30, 40, 50 . . .

ACTIVITY SYNTHESIS

- “Who can restate the pattern in different words?”
- “What do you predict would come after 82? Why?”



EXPLORATION ACTIVITY | NOAH’S COLLECTION 15 minutes

Materials To Gather

Connecting cubes or two-color counters
Double **10**-frames

The purpose of this activity is for students to solve a Take From, Result Unknown story problem in which the minuend is in the teens. Students solve using any method that makes sense to them, which could include using double **10**-frames, connecting cubes, or drawings, and counting back or counting on (MP1).

Monitor and select students with the following methods to share in the synthesis:

- cross off **8** and count remaining or see it as **10** and **1**
- count on from **8** to **19**
- know the ten stays the same, subtract $9 - 8$

Support for Students with Disabilities

Representation: Internalize Comprehension. Synthesis: Record students' strategies on a display and keep it visible during the next activity.

Supports accessibility for: Conceptual Processing, Organization

LAUNCH

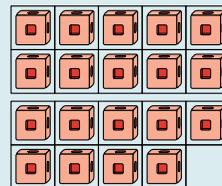
- Groups of 2
- Give students access to double 10-frames and connecting cubes or two-color counters.

ACTIVITY

- Read the task statement.
- 4 minutes: independent work time
- 3 minutes: partner discussion
- Monitor for students using methods listed in the narrative.

STUDENT-FACING TASK STATEMENT

Noah likes to collect game pieces. He has 19 game pieces arranged like this in his bin. He takes out 8 game pieces to play with. How many game pieces are left in the bin? Show your thinking using drawings, numbers, or words.



Equation: _____

POSSIBLE RESPONSES

- $19 - 8 = \boxed{11}$
 Sample responses:
- Crosses off 8 of the game pieces, counts remaining, or sees 10 and 1
 - Counts on from 8 to 19

ACTIVITY SYNTHESIS

- "What do you notice about how the game pieces are organized? How can that help us solve the story problem?" (They are in two 10-frames. Since I know there are 5 in each row, I can take away 5 and then 3 more.)
- Invite previously identified students to share in the given order.
- "How are these methods the same? How are they different?" (They are the same because they all show 19 game pieces and the 8 he took out. They all got 11. They are different because one counts on, one counts back, and the other doesn't count at all.)
- "What equation could we write to represent the problem?"
 $(19 - 8 = \boxed{11}, 8 + \boxed{11} = 19)$



EXPLORATION ACTIVITY | ADDITION AND SUBTRACTION EQUATIONS WITH TEEN NUMBERS 10 minutes

Materials To Gather

Connecting cubes or two-color counters
 Double 10-frames

The purpose of this activity is for students to find the value that makes the addition and subtraction equations true using methods that make sense to them. Each equation has a total within 20 and one part that is a teen number.

LAUNCH

- Groups of 2
- Give students access to double 10-frames and connecting cubes or two-colors counters.

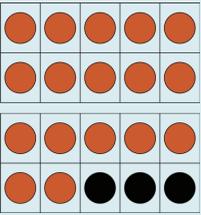
ACTIVITY

- Read the task statement.
- “You will work on your own at first, then you will share with a partner.”
- 5 minutes: independent work time
- 3 minutes: partner discussion
- Monitor for students who find the value that makes the equation $19 - 8 = \square$ true by taking away 8 or counting on from 8 to 19 using double 10-frames and counters or drawings. These methods will be discussed in the lesson synthesis.

STUDENT-FACING TASK STATEMENT

Find the number that makes each equation true. Be ready to explain your thinking in a way that others will understand.

- $13 + 4 = \square$
- $16 + \square = 17$
- $19 - 8 = \square$
- $14 - 2 = \square$
- $11 + \square = 17$
- $\square + 1 = 18$



POSSIBLE RESPONSES

- 17
- 1
- 11
- 12
- 6
- 17

ACTIVITY SYNTHESIS

- Display each equation with the missing value.

EXPLORATION ACTIVITY | INTRODUCE SHAKE AND SPILL, COVER (UP TO 20) 15 minutes

Materials To Gather	Materials To Copy
Cups Two-color counters	Shake and Spill Stage 4 and 5 Recording Sheet (G1 and 2)

The purpose of this activity is for students to learn stage 5 of the Shake and Spill center. Students use between 11–20 counters. One partner shakes, spills, and covers up the yellow counters with a cup. The other partner determines how many counters are under the cup and explains how they know. Both partners record the round with an equation.

Support for English Language Learners

MLR8 Discussion Supports. Synthesis: Provide students with the opportunity to rehearse what they will say with a partner before they share with the whole class.

Advances: Speaking

LAUNCH

- Groups of 2
- Give each group a cup, two-color counters, and recording sheets.
- “We are going to learn a new way to play the Shake and Spill center. We will play Shake and Spill, Cover, with more than 10 counters.”
- “First, you and your partner decide how many counters you want to use. You can use 11–20 counters. Then you play the same way we have played in the past. One partner shakes and spills the counters and covers the yellow counters with the cup. Their partner needs to figure out how many yellow counters are under the cup. Then both partners write an equation to match the counters.”

ACTIVITY

- 10 minutes: partner work time

ACTIVITY SYNTHESIS

- Display five red counters and cover ten yellow counters under the cup.
- “My partner and I are playing with 15 counters. How many yellow counters are under the cup? How do you know?”

**LESSON SYNTHESIS** 10 minutes

“Today we added and subtracted with teen numbers.”

Display $19 - 8 = \square$.

Invite previously identified students to share.

“Which method would you recommend to a friend? Why?” (I would recommend building numbers on 10-frames and taking away because it’s easier to use the counters. I would recommend counting on because it is faster than using counters.)

**COOL DOWN | UNIT 3, SECTION B CHECKPOINT** 0 minutes**STUDENT-FACING TASK STATEMENT**

There is no student-facing task. Use the Section B Checkpoint to make observations throughout the lesson to check for understanding.

POSSIBLE RESPONSES

- Identify teen numbers as a ten and some ones.
- Count all to find the sum.
- Count on to find the sum or difference.
- Take away to find the difference.
- Use the $10 + n$ structure of teen numbers to add and subtract.

Unit 3, Lesson 12: Subtract From a Teen Number



Choral Count: By Ten

Please listen for directions from your teacher.



Noah's Collection

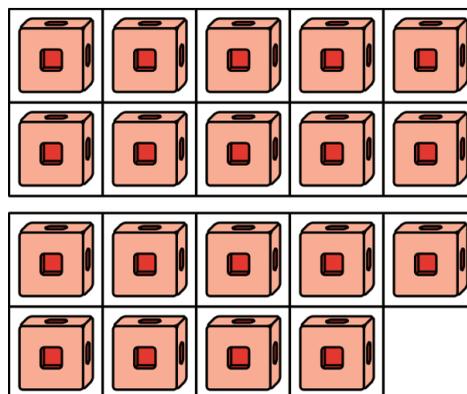
Noah likes to collect game pieces.

He has 19 game pieces arranged like this in his bin.

He takes out 8 game pieces to play with.

How many game pieces are left in the bin?

Show your thinking using drawings, numbers, or words.



Equation: _____



Addition and Subtraction Equations with Teen Numbers

Find the number that makes each equation true.

Be ready to explain your thinking in a way that others will understand.

1. $13 + 4 = \square$

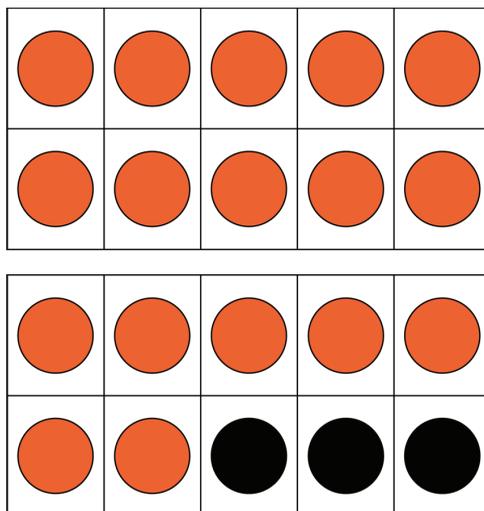
2. $16 + \square = 17$

3. $19 - 8 = \square$

4. $14 - 2 = \square$

5. $11 + \square = 17$

6. $\square + 1 = 18$





Introduce Shake and Spill, Cover (up to 20)

Please listen for directions from your teacher.

Double 10-Frame - Standard

Shake and Spill Stage 4 and 5 Recording Sheet (G1 and 2)

Directions:

- Choose how many counters to put in the cup.
- Partner A: Close your eyes.
- Partner B: Shake and spill. Cover up the yellow counters with the cup.
- Partner A: Open your eyes and figure out how many counters are under the cup.
- Partner B: Show how many.
- Both partners: Record an equation.
- Switch roles and start the next round.



round:	Write an equation to represent the red and yellow counters.
1	
2	
3	
4	
5	
6	
7	
8	



**Ready to see the
full program?**

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