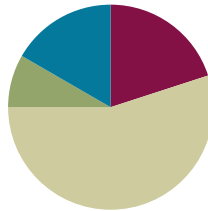


Lesson 14

Objective: Model subtraction of 9 from teen numbers.

Suggested Lesson Structure

■ Fluency Practice	(12 minutes)
■ Application Problem	(5 minutes)
■ Concept Development	(33 minutes)
■ Student Debrief	(10 minutes)
Total Time	(60 minutes)



Fluency Practice (12 minutes)

- 5-Group Flash: Partners to Ten **1.OA.6** (2 minutes)
- Sprint: Subtraction Within 10 **1.OA.6** (10 minutes)

5-Group Flash: Partners to Ten (2 minutes)

Materials: (T) 5-group row cards

Note: This activity supports Grade 1’s core fluency standard of adding and subtracting within 10.

Flash a card for 2–3 seconds. Snap. Students say the number. Snap again. Students say the partner to ten.

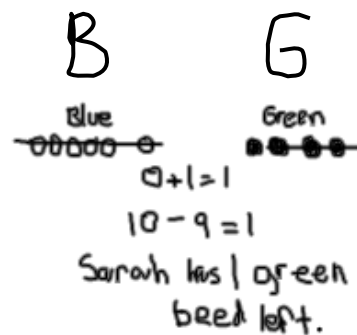
Sprint: Subtraction Within 10 (10 minutes)

Materials: (S) Sprint: Subtraction Within 10

Note: This sprint reviews subtracting from ten, along with other subtraction facts within the Grade 1 core fluency objective of adding and subtracting within 10.

Application Problem (5 minutes)

Sarah has 6 blue beads in her bag and 4 green beads in her pocket. She gives away the 6 blue beads and 3 green beads. How many beads does she have left?



Note: This problem again asks students to subtract 9 from 10, but from two different places: some from the green bead group and some from the blue bead group. Using numbers within 10, students can explore how it is sometimes more efficient to take from a particular group(s) when subtracting. During the Student Debrief, students will have the opportunity to share their strategies.

Concept Development (33 minutes)

Materials: (T) Linking cubes (S) Personal white boards

Students sit in a semi-circle in the meeting area with their personal white boards.

- T: (Project and read aloud.) Shayan has 12 eggs. He uses nine of them to make breakfast for his family. How many eggs are left?
- T: How would you solve this problem? Use your personal white board to show your work.
- S: (Solve as teacher circulates.)
- T: How did you solve this problem?
- S: I drew 12 eggs. I crossed off 9 and I had 3 eggs left. → I counted on from 9. (9, 10, 11, 12) I have 3 fingers up, too. → I used the strategy from yesterday. I saw that I can take apart 12 as 10 and 2. I took away 9 from 10 and did $1 + 2 = 3$. Three eggs.
- T: No matter which strategies these students used, did they get the same answer?
- S: Yes!
- T: Here is a stick of 12 linking cubes to show how many eggs Shayan had in the beginning. Just like what we practiced yesterday, let's break it off into 10 and 2. (Break off and separate into two sticks.) We need to take away...
- S: 9 eggs.
- T: Where should I take 9 from? Turn and talk to your partner.
- S: Take from 2 and then more from 10. → Take 9 from 10.
- T: (Model taking away from 2.) Do I have enough? I need to take away more from 10. Help me count until we take away 9. (Count and take away 7 more.) How many do we have left?
- S: 3.
- T: (Model taking away from 10.) Taking away 9 from 10 will first leave us with...? (Break off 9 and shows 1.)
- S: 1.
- T: 1 and 2 make...?



NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Be aware of the different learning needs in your class and adjust the lesson as necessary. Since some students may need to work at the concrete level for a longer period of time, allow access to manipulatives. Other students may grasp the take from ten strategy quickly and be able to do mental math for some number sentences.



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

It is important to guide students to evaluate their thinking, as well as their partner's during the turn and talks. This provides students an opportunity to evaluate their process and analyze

MP.7

MP.7

- S: 3.
 T: Turn and talk to your partner. Which was more efficient, simpler? Taking 9 from 10 or taking away the 2 and then some more from 10?
 S: Taking 9 from 10.
 T: I agree. Let's try more.

Repeat the process following the following suggested sequence: $11 - 9$, $14 - 9$, and $17 - 9$. For each story problem, ask students which number 9 should be taken from.

- T: Most of these are examples of 10 being a friendly number. When we take a number away from 10, we'll call it the take from ten strategy.
 T: On your personal white board, draw a picture to show how we took 9 away from 10 to solve $17 - 9$.
 S: (Draw as teacher circulates and supports students.)
 T: Let's do just a few more. This time, you can use drawings or the linking cubes to show how we use the take from ten strategy to solve.

Repeat with $15 - 9$, $18 - 9$, and $19 - 9$.

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to modify the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students solve these problems using the RDW approach used for Application Problems.

Student Debrief (10 minutes)

Lesson Objective: Model subtraction of 9 from teen numbers.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner before going over answers as a class. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson. You may choose to use any combination of the questions below to lead the discussion.

- Look at Problems 8–10. What is happening with the difference in each of these problems? If the pattern continued, what would be the next problem? What problem would come before the first problem?

Worksheet content includes:
 Name: Maria Date: _____
 1. Match the pictures with the number sentences.
 a. $11 - 9 = 2$ (Two boxes of 10 circles each, one with 1 circle crossed out)
 b. $14 - 9 = 5$ (Two boxes of 10 squares each, one with 5 squares crossed out)
 c. $16 - 9 = 7$ (Two boxes of 10 circles each, one with 7 circles crossed out)
 d. $18 - 9 = 9$ (Two boxes of 10 squares each, one with 9 squares crossed out)
 e. $17 - 9 = 8$ (Two boxes of 10 circles each, one with 8 circles crossed out)
 Circle 10 and subtract.
 2. $12 - 9 = 3$ (Drawing of 12 sticks, 9 circled)
 3. $14 - 9 = 5$ (Drawing of 14 flowers, 9 circled)

- When solving $19 - 9$, where can you take 9 from? Explain your answer.
- A student says, “Taking away 9 is like adding 1 to the part that is not 10 from the number bond. To solve $17 - 9$, you can do $1 + 7$.” Is she correct? Explain your answer.
- What new strategy did we learn to solve our problems today? (Take from ten strategy.) Explain to your partner why it’s an efficient strategy.
- Look at your application problem. How did you solve it? Do you have to add the blue beads and the green beads together to solve this problem? Why or why not? How is it like our lesson today? How is it different?

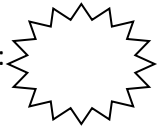
Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help you assess the students’ understanding of the concepts that were presented in the lesson today and plan more effectively for future lessons. You may read the questions aloud to the students.

The worksheet displays student work for subtraction problems. It is divided into two columns by a vertical line. The top left section shows problem 4: $15 - 9 = 6$ with a bead string of 15 beads, 9 of which are circled. Problem 5: $13 - 9 = 4$ with a bead string of 13 beads, 9 circled. Problem 6: $16 - 9 = 7$ with a bead string of 16 beads, 9 circled. Problem 7: $17 - 9 = 8$ with a bead string of 17 beads, 9 circled. Below these is a instruction: "Draw and circle 10. Then subtract." Problem 8: $12 - 9 = 3$ with a drawing of 12 circles, 9 circled. Problem 9: $13 - 9 = 4$ with a drawing of 13 circles, 9 circled. Problem 10: $14 - 9 = 5$ with a drawing of 14 vertical lines, 9 circled. Problem 11: $15 - 9 = 6$ with a drawing of 15 dots, 9 circled. At the bottom, there is a header with "COMMON CORE", "Lesson # Date", "Lesson Name DATE: 01/02/14", "engage^{ny}", and "K.K.2".

A

Number correct:



Name _____

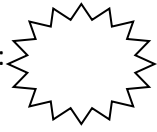
Date _____

*Write the missing number.

1	$10 - 9 = \square$		16	$10 - \square = 5$	
2	$10 - 8 = \square$		17	$9 - \square = 5$	
3	$10 - 6 = \square$		18	$8 - \square = 5$	
4	$10 - 7 = \square$		19	$10 - \square = 3$	
5	$10 - 6 = \square$		20	$9 - \square = 3$	
6	$10 - 5 = \square$		21	$8 - \square = 3$	
7	$10 - 6 = \square$		22	$\square - 6 = 4$	
8	$10 - 4 = \square$		23	$\square - 6 = 3$	
9	$10 - 3 = \square$		24	$\square - 6 = 2$	
10	$10 - 7 = \square$		25	$10 - 4 = 9 - \square$	
11	$10 - 8 = \square$		26	$8 - 2 = 10 - \square$	
12	$10 - 2 = \square$		27	$8 - \square = 10 - 3$	
13	$10 - 1 = \square$		28	$9 - \square = 10 - 3$	
14	$10 - 9 = \square$		29	$10 - 4 = 9 - \square$	
15	$10 - 10 = \square$		30	$\square - 2 = 10 - 4$	

B

Number correct:



Name _____

Date _____

*Write the missing number.

1	$10 - 8 = \square$		16	$10 - \square = 0$	
2	$10 - 9 = \square$		17	$9 - \square = 0$	
3	$10 - 8 = \square$		18	$8 - \square = 0$	
4	$10 - 9 = \square$		19	$10 - \square = 1$	
5	$10 - 7 = \square$		20	$9 - \square = 1$	
6	$10 - 9 = \square$		21	$8 - \square = 1$	
7	$10 - 8 = \square$		22	$\square - 5 = 5$	
8	$10 - 7 = \square$		23	$\square - 5 = 4$	
9	$10 - 3 = \square$		24	$\square - 5 = 3$	
10	$10 - 7 = \square$		25	$10 - 8 = 9 - \square$	
11	$10 - 6 = \square$		26	$8 - 6 = 10 - \square$	
12	$10 - 4 = \square$		27	$8 - \square = 10 - 2$	
13	$10 - 3 = \square$		28	$9 - \square = 10 - 2$	
14	$10 - 7 = \square$		29	$10 - 3 = 9 - \square$	
15	$10 - 5 = \square$		30	$\square - 1 = 10 - 3$	

Name _____

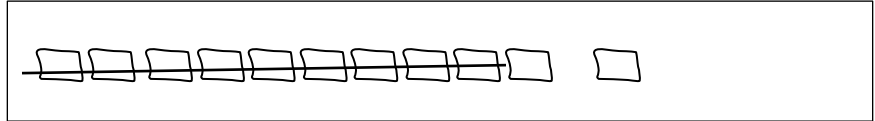
Date _____

1. Match the pictures with the number sentences.

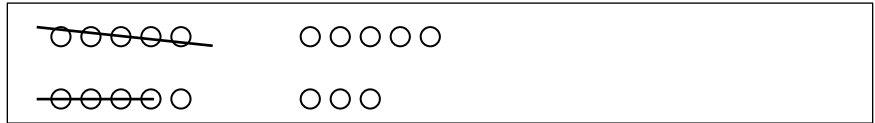
a. $11 - 9 = 2$



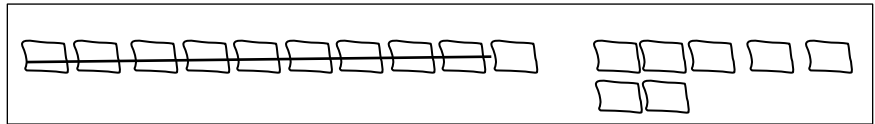
b. $14 - 9 = 5$



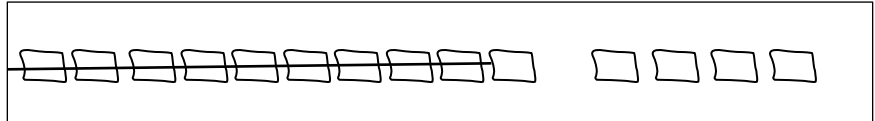
c. $16 - 9 = 7$



d. $18 - 9 = 9$

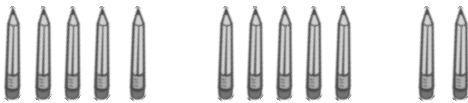


e. $17 - 9 = 8$

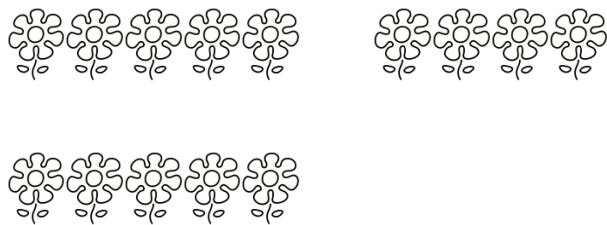


Circle 10 and subtract.

2. $12 - 9 = \underline{\quad}$



3. $14 - 9 = \underline{\quad}$



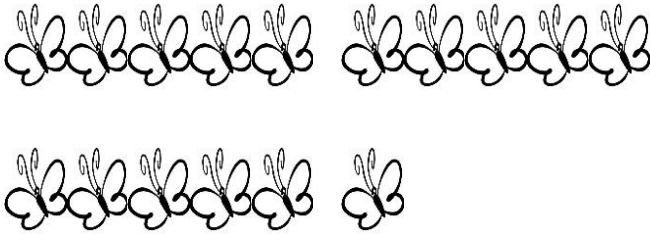
4. $15 - 9 = \underline{\quad}$



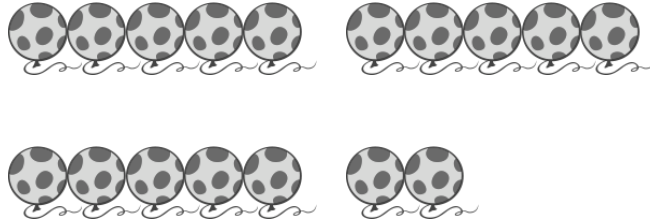
5. $13 - 9 = \underline{\quad}$



6. $16 - 9 = \underline{\quad}$



7. $17 - 9 = \underline{\quad}$



Draw and **circle** 10. Then subtract.

8. $12 - 9 = \underline{\quad}$

9. $13 - 9 = \underline{\quad}$

10. $14 - 9 = \underline{\quad}$

11. $15 - 9 = \underline{\quad}$

Name _____

Date _____

Draw and **circle** 10. Solve and make a number bond.

1. $17 - 9 = \underline{\quad}$

2. $14 - 9 = \underline{\quad}$

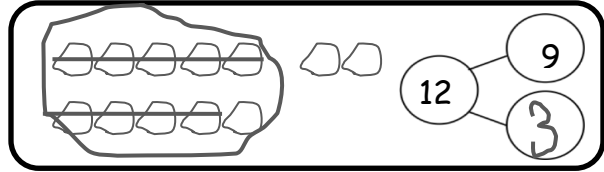
3. $15 - 9 = \underline{\quad}$

4. $18 - 9 = \underline{\quad}$

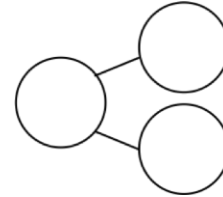
Name _____

Date _____

Circle 10 and subtract. Make a number bond.



1. $15 - 9 = \underline{\quad}$



Draw and circle 10. Subtract and make a number bond.

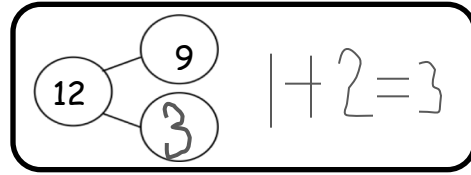
2. $14 - 9 = \underline{\quad}$

3. $12 - 9 = \underline{\quad}$

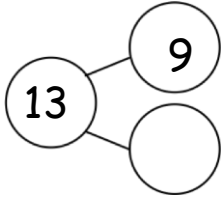
4. $13 - 9 = \underline{\quad}$

5. $16 - 9 = \underline{\quad}$

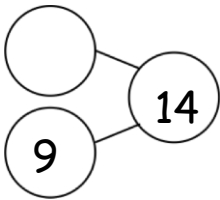
Complete the number bond and write the number sentence that helped you.



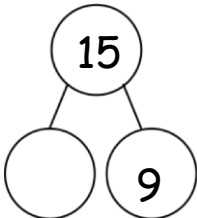
a.



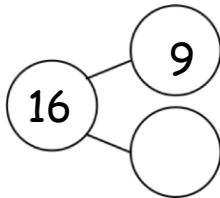
b.



c.



d.



Make the number bond that would come next and write a number sentence that matches.