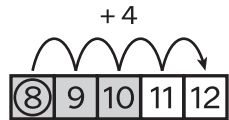


Concept Mini Lessons | Add Within 20

Progression of Mini Lessons Objectives

1 Count on from the **larger part** to find the total.

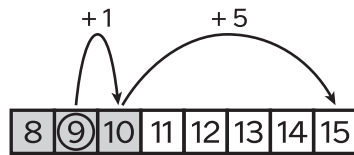


$$8 + 4 = 12$$

Start here if students

- **can** add within 10;
- **can** count on from a visible, countable part, but
- **need support** counting on from the larger part to find the total.

2 Count on to **make ten**.



$$9 + 6 = 15$$

$$9 + 1 + 5 = 15$$

$$\begin{array}{c} \vee \\ 10 \end{array}$$

Start here if students

- **can** count on from the larger part to find the total,
- **can** compose and decompose numbers up to 10 with objects or pictures, but
- **need support** counting on to make ten with visual support.

3 Make ten when either **part is 9**.

$$9 + 7 = 16$$

$$\begin{array}{c} \wedge \\ 1 \quad 6 \end{array}$$

$$9 + 1 + 6$$

$$\begin{array}{c} \vee \\ 10 + 6 = 16 \end{array}$$

Start here if students

- **can** count on to make ten with visual support, but
- **need support** making ten when either part is 9.

4 Make ten when either **part is 7 or 8**.

$$8 + 6 = 14$$

$$\begin{array}{c} \wedge \\ 2 \quad 4 \end{array}$$

$$8 + 2 + 4$$

$$\begin{array}{c} \vee \\ 10 + 4 = 14 \end{array}$$

Start here if students

- **can** make ten when either part is 9, but
- **need support** making ten when either part is 7 or 8.

Objective 1 | Count on from the larger part to find the total.

10 MINUTES

Summary

Students count on to add by using a number path to cross 10.

Materials

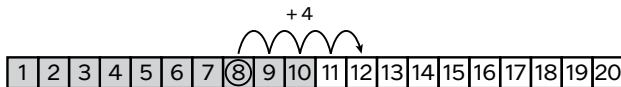
- Number Path template in a personal whiteboard
- Objective 1 Student Page (optional)

Write $8 + 4$. Have students do the same.

- ☞ To add two numbers, start at the first number and then count the second number more. The number that you stop counting at is the total. Circle the first number in the expression on the number path.

What number did you circle?

8



$$8 + 4 = 12$$

- ☞ Count 4 more by hopping on the number path to find the total.

What number did you land on?

12

- ☞ What is $8 + 4$?

12

Write $= 12$ after $8 + 4$ as students do the same.

Write $4 + 8$. Have students do the same.

- ☞ Circle the first number in the expression on the number path.

- ☞ What number did you circle?

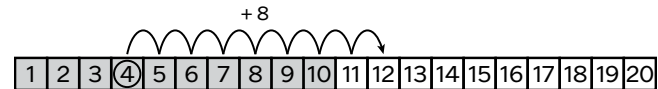
4

- ☞ I can ask myself, What can I do with the number line to show adding 8? What do you think?

I can hop 8 times on the number path starting at 4 to find the total.

- ☞ What number did you land on?

12



$$4 + 8 = 12$$

- ☞ What is $4 + 8$?

12

Write $= 12$ after $4 + 8$ as students do the same.

- ☞ What was the same about the problems?

All the numbers were the same, and the totals were the same.

- ☞ What was different about the problems?

The 4 and the 8 were in different places.

Objective 1 | Count on from the larger part to find the total.

10 MINUTES

💬 **This is an example of the commutative property of addition: We get the same total no matter which number we start adding with. When we are adding, we can choose which number we start with. Which did you like more, starting with 4 or starting with 8? Why?**

I liked starting with 8 because I didn't have to count on too many numbers.

💬 **When we add two numbers, we can start with the larger number so we don't have to count on too many numbers.**

Teacher Tip

Consider thinking aloud to show how to count on by using your fingers.

I can use my fingers to count on. I put a picture of 8 in my head. I get my fingers ready, and I count on 4 fingers. Eiiiiight, 9, 10, 11, 12.

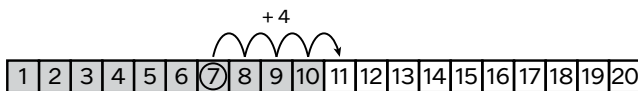
Write $4 + 7$. Have students do the same.

💬 **Let's start with the larger number to find $4 + 7$. Which number is larger, 4 or 7?**

7

💬 **Circle 7 on the number path. Then count 4 more by hopping on the number path to find the total. What number did you land on?**

11



$$4 + 7 = 11$$

Write $= 11$ after $4 + 7$ as students do the same.

💬 **You got the correct answer by starting with the larger number. When you are adding two numbers you can start with the larger number and then count on to find the total.**

Invite students to turn and talk about why it is more efficient to count on starting with the larger number.

Repeat the process: Use the following problem during Concept Mini Lessons or at another time to provide additional practice as needed. Consider providing the Objective 1 Practice Helper and supporting students in using the worked-out example to guide their own work.

- $8 + 3$

🎯 Analyze Student Progress

Monitor:

- Does the student choose to count on with the larger part or the smaller part?
- Does the student hop on the number path with one-to-one correspondence?
- Can the student stop counting on at the designated number?

Questions to Advance Student Thinking:

- What number do you want to count on from? Why?
- How many hops do you need to make? How do you know?
- How does counting on the number path help you find the total?

Plan Future Practice:

Use Practice Page 1 to support students who need additional practice. Structure the additional practice strategically to allow for teacher support or peer support.

Objective 2 | Count on to make ten.

10 MINUTES

Summary

Students decompose a smaller part to get to 10 and then use 10+ skills to hop all at once to the total on the number path.

Materials

- Number Path (objective 1 template) in a personal whiteboard
- Two-color counters (optional)
- 10-frame (optional)
- Objective 2 Student Page (optional)

Write $10 + 5$.

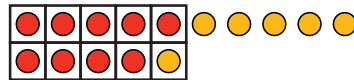
What is the total of 10 and 5? How do you know?

The total is 15. I know my 10+ facts.

10 and 5 more is 15.

Teacher Tip

Consider using two-color counters and a 10-frame to support students as they count on to make ten.



Write $9 + 6$. Have students do the same. Point to 9.

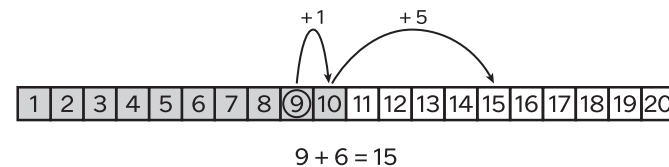
What is one way we could find the total?

We add by starting at 9 and then counting 6 more.

Right. But notice 9 is close to 10. Let's count on to get to 10, and then we can use our 10+ facts to find the total. Circle 9 on the number path.

How many do we need to get from 9 to 10?

1



Let's check. Hop from 9 to 10 on your number path. Label your hop.

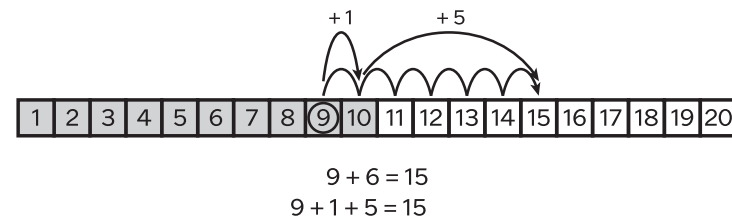
Draw the hop from 9 to 10 and label the hop +1. Have students do the same.

We added 9 and 1 to get to 10. I can ask myself, How many more hops do I need to add 6 altogether? What do you think?

5 more

Teacher Tip

Consider supporting students hopping from 10 all at one time (in one hop) by first letting them hop by ones.



Objective 2 | Count on to make ten.

10 MINUTES

Can you hop 5 more from 10 all at one time?

Yes, because I know my 10+ facts: 10 and 5 more is 15.

5 more than 10 is 15. I don't have to count one at a time.

Hop 5 more all at once on your number path. Label your hop.

Draw the hop from 10 to 15 and label the hop +5. Have students do the same.

What is $9 + 6$?

15

Write $= 15$ after $9 + 6$ as students do the same.

Write $9 + 1 + 5 = 15$. Draw a number bond below the equation to show how 9 and 1 make 10.

How do the number sentence and the number bond show how we used the number path to count on to add?

They show that we started at 9 and then we hopped 1 more to get to 10. We added 5 more to find the total, 15.

How do you see 6 in the number sentence?

1 and 5 make 6.

Invite students to turn and talk about why they would count on to get to 10 when adding.

Repeat the process: Use the following problems during Concept Mini Lessons or at another time to provide additional practice as needed. Consider providing the Objective 2 Practice Helper and supporting students in using the worked-out example to guide their own work.

- $9 + 8$
- $5 + 9$
- $8 + 7$

Analyze Student Progress

Monitor:

- Can the student get to 10?
- Does the student know their decompositions so that they can tell how many more to hop from 10 without guessing or counting by ones?

Questions to Advance Student Thinking:

- Which part is closer to 10?
- How many more does the larger part need to get to 10?
- How many more hops do you need to make? Can you hop them all at the same time?

Plan Future Practice:

Use Practice Page 2 to support students who need additional practice. Structure the additional practice strategically to allow for teacher support or peer support.

Objective 3 | Make ten when either part is 9.

10 MINUTES

Summary

Students make ten by using a number bond and write a new three-part number sentence.

Materials

- Objective 3 Student Page

Distribute the Objective 3 Student Page. Direct students to problem 1:

$$9 + 7 = \underline{\quad}$$

I can ask myself, If I am using the number path, where would I begin, with 9 or 7? What do you think? Why?

9. It is the bigger number.

9. It is close to 10.

How many more do we need to make, or get to, ten?

1 more

Where can we get 1 more?

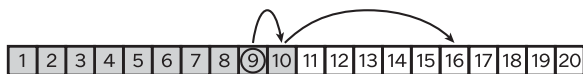
From 7

We can break apart the 7 into 1 and 6.

Teacher Tip

The number path may be used to support students in noticing that 9 and 1 make 10. Consider having students hop with their finger or a pencil as they transition to using the more abstract number bond model to make ten.

Connecting their number bond work to hopping on the number path may support students with writing a three-addend expression (e.g., $9 + 1 + 6$).



Draw a number bond below the equation to show 7 decomposed into 1 and 6. Have students complete the number bond on the student page.

What three parts, or addends, do we have now?

9, 1, and 6

Write $9 + 1 + 6$ and have students do the same. Point to the 7 in $9 + 7$. Then point to $9 + 1 + 6$.

Where do you see the 7 in the three addends?

1 and 6 make 7.

Where do you see 10?

9 and 1 make 10.

Draw a number bond to show composing 9 and 1 to make 10 as students follow along.

Write $+ 6$.

What does $10 + 6$ equal?

16

Write the total.

$$\begin{array}{r} 9 + 7 = \boxed{16} \\ \wedge \\ 1 \quad 6 \\ 9 + 1 + 6 = 16 \\ \vee \\ 10 + 6 \end{array}$$

Objective 3 | Make ten when either part is 9.

10 MINUTES

What does $9 + 7$ equal?

16

Teacher Tip

Consider highlighting 7 and 1 + 6 to help students make connections between the two-part and three-part equations.

$$\begin{array}{r} 9 + 7 = 16 \\ \quad \wedge \\ \quad 1 \quad 6 \\ 9 + 1 + 6 = 16 \\ \quad \vee \\ \quad 10 + 6 \end{array}$$

Write the total to complete the original equation.

Invite students to turn and talk about how they can break apart an addend to make 10 when the other addend is 9.

Repeat the process: Use the following problems during Concept Mini Lessons or at another time to provide additional practice as needed. Consider providing the Objective 3 Practice Helper and supporting students in using the worked-out example to guide their own work.

- $5 + 9$
- $9 + 4$
- $8 + 9$

Analyze Student Progress

Monitor:

- Does the student know 9's partner to 10?
- How does the student decompose the second part?
- Does the student correctly write a three-part expression that shows how they made ten?
- Does the student know 10+ facts?

Questions to Advance Student Thinking:

- How many do you need to get from 9 to 10?
- How can you break apart the other addend to get 1?
- What three-part expression can you write that shows how to make ten?
- Which parts make ten? What is the total?

Plan Future Practice:

Use Practice Page 3 to support students who need additional practice. Structure the additional practice strategically to allow for teacher support or peer support.

Objective 4 | Make ten when either part is 7 or 8.

10 MINUTES

Summary

Students make ten by using a number bond and write a new three-part number sentence.

Materials

- Number Path (objective 1 template, optional)
- Objective 4 Student Page

Distribute the Objective 4 Student Page. Direct students to problem 1:

$$8 + 6 = \underline{\quad}$$

Which part should we use to make ten, 8 or 6? Why?

8. It is closer to 10.

8. I know 2 is 8's partner to 10.

If we start at 8 on a number path, how many more do we need to hop to get to 10?

2 more

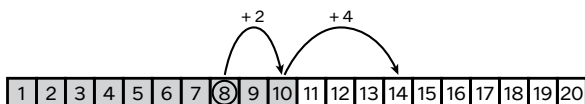
Where can we get 2 more?

From 6

We can break apart 6 into 2 and 4.

Teacher Tip

Students need time and practice for the make ten strategy to become efficient. When working on their own, students may hop on the number path to help them visualize getting to, or making, ten and then add the remaining part. Encourage students to explain how the number path helps them make ten.



Draw a number bond below the equation to show 6 decomposed into 2 and 4. Have students complete the number bond on their Student Page.

I can ask myself, What three-addend expression can I write?

What do you think?

$$8 + 2 + 4$$

Write $8 + 2 + 4$ and have students do the same. Point to the 6 in $8 + 6$. Then point to $8 + 2 + 4$.

Where do you see the 6 in the three-addend expression?

2 and 4 make 6.

What parts in the three-part expression make 10?

8 and 2

Draw a number bond to show composing 8 and 2 to make 10 as students follow along.

Write $+ 4$.

What is $10 + 4$?

14

$$\begin{array}{r} 8 + 6 = \boxed{14} \\ \swarrow \quad \searrow \\ 2 \quad 4 \\ 8 + 2 + 4 = 14 \\ \swarrow \quad \searrow \\ 10 \quad + 4 \end{array}$$

Objective 4 | Make ten when either part is 7 or 8.

10 MINUTES

Write the total.

 **What is $8 + 6$?**

14

Write the total to complete the original equation.

Invite students to turn and talk about how they can make ten to add.

Repeat the process: Use the following problems during Concept Mini Lessons or at another time to provide additional practice as needed. Consider providing the Objective 4 Practice Helper and supporting students in using the worked-out example to guide their own work.

- $7 + 4$
- $6 + 7$
- $5 + 8$

Analyze Student Progress

Monitor:

- Does the student know 7's and 8's partners to 10?
- How does the student decompose the other part?
- Does the student correctly write a three-part expression that shows how they made ten?
- Does the student know their 10+ facts?

Questions to Advance Student Thinking:

- How many does the larger part need to get to 10?
- How can you break apart the other addend to make ten?
- What three-part expression can you write that shows how you made ten?
- Which parts make ten? What is the total?

Plan Future Practice:

Use Practice Page 4 to support students who need additional practice. Structure the additional practice strategically to allow for teacher support or peer support.

Objective 1

Number Path

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----

Concept Development | Add Within 20

Answer Key

Objective 1

1. 12
2. 12
3. 11
4. 11

Objective 2

1. 15
2. 17
3. 14
4. 15

Objective 3

1. 16; 1 and 6
 $9 + 1 + 6 = 16$
2. 14; 4 and 1
 $4 + 1 + 9 = 14$
3. 13; 1 and 3
 $9 + 1 + 3 = 13$
4. 17; 7 and 1
 $7 + 1 + 9 = 17$

Objective 4

1. 14; 2 and 4
 $8 + 2 + 4 = 14$
2. 11; 3 and 1
 $7 + 3 + 1 = 11$
3. 13; 3 and 2
 $3 + 2 + 8 = 13$
4. 13; 3 and 3
 $3 + 3 + 7 = 13$

Observational Data Recording Sheet

Add Within 20

Student	Objective 1	Objective 2	Objective 3	Objective 4

Observational Data Recording Sheet

Add Within 20

Student	Objective 1	Objective 2	Objective 3	Objective 4

Student Edition | Printable Pages for Students

NAME _____

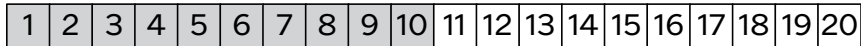
DATE _____

Objective 1 | Count on from the larger part to find the total.

Add.

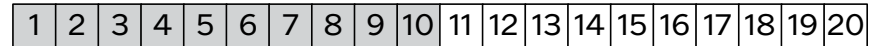
1

$$8 + 4 = \underline{\hspace{2cm}}$$



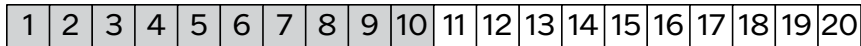
2

$$4 + 8 = \underline{\hspace{2cm}}$$



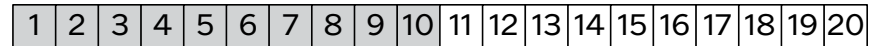
3

$$4 + 7 = \underline{\hspace{2cm}}$$



4

$$8 + 3 = \underline{\hspace{2cm}}$$



NAME _____

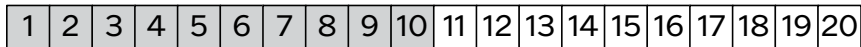
DATE _____

Objective 2 | Count on to make ten.

Add. Count on to get to 10.

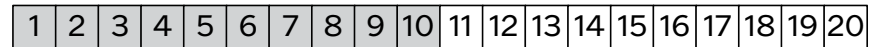
1

$$9 + 6 = \underline{\hspace{2cm}}$$



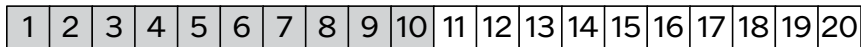
2

$$9 + 8 = \underline{\hspace{2cm}}$$



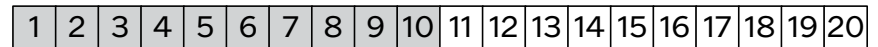
3

$$5 + 9 = \underline{\hspace{2cm}}$$



4

$$8 + 7 = \underline{\hspace{2cm}}$$

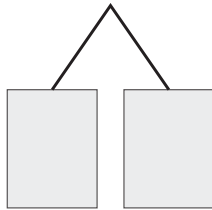


Objective 3 | Make ten when either part is 9.

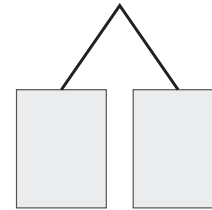
Make 10 to add. Write a three-part number sentence.

1

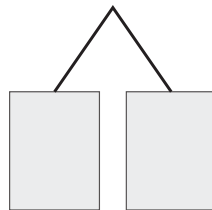
$9 + 7 = \underline{\quad}$

**2**

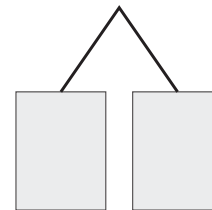
$5 + 9 = \underline{\quad}$

**3**

$9 + 4 = \underline{\quad}$

**4**

$8 + 9 = \underline{\quad}$

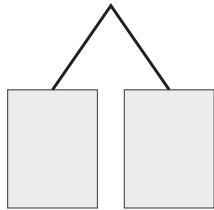


Objective 4 | Make ten when either part is 7 or 8.

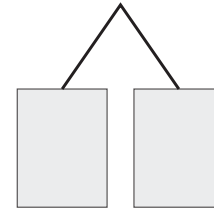
Make 10 to add. Write a three-part number sentence.

1

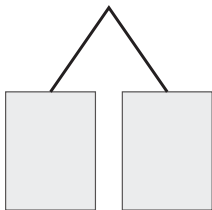
$8 + 6 = \underline{\quad}$

**2**

$7 + 4 = \underline{\quad}$

**3**

$5 + 8 = \underline{\quad}$

**4**

$6 + 7 = \underline{\quad}$

