LESSON 10

## Objective

Explore "counting on" as an addition strategy.

## Common Core State Standards

- **1.OA.5** Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
- **1.OA.6** Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Operations and Algebraic Thinking

# Explore Counting On

Stories involving finding the sum by "counting on" help children develop the concept of addition within a real-life context. Using "counting on" as an addition strategy shows the effects of adding whole numbers. While finding the sum, it is important to consider with children, *What does it mean to find the sum?* and *What other groups could be added to find the same sum?*

**Try It!** *Perform the Try It! activity on the next page.*

## Talk About It

Discuss the Try It! activity.

- Have children discuss how they can add numbers by counting on.
- **Ask:** *How can you tell when to add?*
- **Ask:** *On which number do you start when you are counting on?*

## Solve It

With children, reread the problem. Ask them to draw a picture that shows how many aluminum cans the class collected on Monday. Have children draw the cans collected on Tuesday, and label them to show counting on. Then have them label how many cans they had in all.

## More Ideas

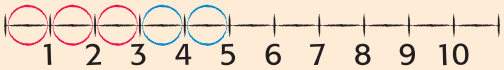
For other ways to teach about counting on—

- Arrange Two-Color Counters for pairs of children. Some should be red side up and the rest should be yellow side up. Have children start by counting the red counters, and then count on the yellow counters to find the number in all.
- Draw a 1–20 number line. Have children make two sets of 1–10 number cards. Allow each child to choose a card. Have one child put an Inchworms™ piece on the first number on the number line, and have the second child count on the number on the card and place the worm in its final position.

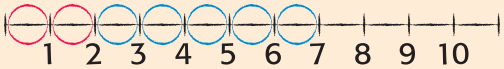
## Formative Assessment

Have children try the following problem.

*Randy has 4 pencils. His mom gives him 2 more pencils. Choose the number line that shows how to find how many pencils Randy has in all.*

A. 


B. 


C. 

## Try It! 15 minutes | Pairs

Here is a problem about counting on to add numbers.

*First graders are collecting aluminum cans to recycle to earn money for a field trip. If the class collected 5 aluminum cans on Monday and finds 3 more cans on Tuesday, how many cans do they have in all?*

Introduce the problem. Then have children do the activity to solve the problem.

**Materials**
- Base Ten Blocks (10 units per pair)

Before children do the activity, ask them to give examples of situations in which they might want to add two numbers to find a sum. Give Base Ten Blocks to each pair of children. **Say:** *Let's pretend that each block is an aluminum can. Let's find how many cans we will have in all.*

**1.** Ask each pair of children to show you how many blocks they need to show 5 aluminum cans.

**2.** Ask each pair of children to figure out how many blocks they need to show 3 aluminum cans.

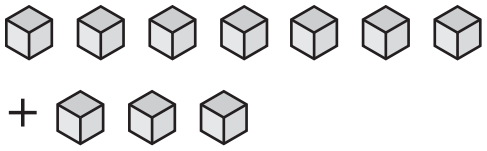
**3.** Ask each pair of children to line up their two groups of blocks. Then have children count on to find the total. **Say:** *Count on from 5 to find out how many blocks you have in all.*

### ⚠ Look Out!

If children have trouble counting on, make sure that they have lined up the two groups of blocks. If children are having trouble starting to count from 5, have them combine both groups and start counting at 1 to find the total.

Answer Key

## Use Base Ten Blocks. Build the numbers shown. Count on to find the total. (Check students' work.)

1. 

7 + 3 = 10

## Use Base Ten Blocks. Build each number. Draw the model. Count on to find the total. Draw the model.

2. 6 + 3

Total 9

3. 5 + 4

Total 9

4. 2 + 3

Total 5

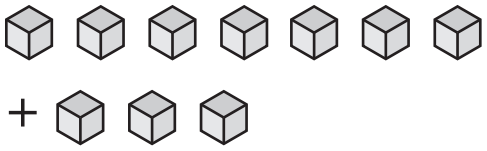
*Answer Key*

**Challenge!** Why does the "counting on" strategy work for addition?

Challenge: (Sample) When you add, you are joining two sets. The total number of objects in both sets will equal the answer to the addition sentence.

Name _____

## Use Base Ten Blocks. Build the numbers shown. Count on to find the total.

1. 

_____ + _____ = _____

## Use Base Ten Blocks. Build each number. Draw the model. Count on to find the total. Draw the model.

2. 6 + 3

Total _____

3. 5 + 4

Total _____

4. 2 + 3

Total _____

Name _____

**Challenge!** Why does the "counting on" strategy work for addition?