

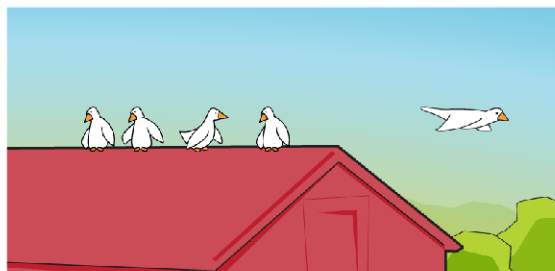
Identifying the Parts and Total

In this lesson, students identify the parts and the total in addition and subtraction situations. The mathematical practices *Model with mathematics* (SMP4) and *Look for and make use of structure* (SMP7) are embedded in this lesson.

step 1 preparing the lesson

Each student will need:

- Student Journal 8.1



step 2 starting the lesson

Project the farmyard scene. Organize the students into pairs and ask, **What is an addition story you could say about this picture?** Allow time for the students to examine the scene and discuss their ideas with their partner. Then call on pairs to share their stories. Repeat with subtraction stories.

step 3 teaching the lesson

- Share an addition story about the farmyard scene, for example, **There are 2 cows in the barn and 3 cows outside the barn. How many cows are there in total?** Then ask, **What parts do we know?** (2 cows and 3 cows.) **What do we need to find?** (The total.) Write the addition sentence on the board. Loop the two parts in one color and the total in a different color.
- Then say, **Think about your addition story for the picture. What are the two parts in your story? What is the total?** Call on pairs of students to provide examples. For each example, write the matching addition sentence on the board and loop the parts and total as before.
- Share a subtraction story about the farmyard scene, for example, **There are 5 birds in total. 4 birds are on the barn. How many birds are flying away?** Then say, **What do we know?** (The total and one part.) **What do we need to find?** (The other part.) Write the subtraction sentence on the board and loop the two parts in one color and the total in a different color.
- Then say, **Think about your subtraction story for the picture. What were the parts in your story? What was the total?** Call on pairs of students to provide examples. For each example,

write the matching number sentence on the board and loop the parts and total as before.

- Project the Step In discussion from Student Journal 8.1 and work through the questions with the whole class. Read the Step Up and Step Ahead instructions with the students. Make sure they know what to do and then have them work independently to complete the task.

step 4 reflecting on the work

Discuss the students' answers to Student Journal 8.1. Ask students to look at Question 2a in their journal. Write the two equations on the board and have students write the missing numbers. Then ask, *How are these number sentences the same? How are they different?* Invite four students to stand in front of the group and represent the purple shells. Then invite six more students to join them. Ask, *What do these six students represent?* (Orange shells.) Ask students to think about a story to match the first number sentence and have the students at the front act out that story. Repeat for the second number sentence. Invite individual students and some helpers to act out the pictures they drew for Step Ahead.