In this lesson, students review the add-to and put-together models of addition. Storybooks are then used to model and analyze addition situations.

Step 1 Preparing the lesson

You will need:
- *ORIGO Big Book: Bears on Buses*

Each student will need:
- Student Journal 1.9

Step 2 Starting the lesson

Review what the students know about addition. Then have the students work in pairs to create their own addition word story. Choose some of the more interesting examples to share among the class. Ask, *How can you tell that this story is about addition? What language or actions tell you that the story is about addition?* Bring out the everyday language attached to each addition word story (e.g. put with, joined, combined, dropped in, flew over.) (Note: Students are not expected to classify an addition problem as add to or put together. What is important is recognizing the everyday language that is attached to each, such as knowing that drop in and join both imply addition.)

Step 3 Teaching the lesson

Display the cover of *ORIGO Big Book: Bears on Buses* and read the title. Encourage volunteers to tell the class what they know about bears and to predict what the story might be about. Read the story and then read it again. Ask, *What happened in the story? What did you see in each picture?* Bring out the idea that there are always two groups: bears already on the bus and bears that are getting on the bus.

Turn to pages 6–7, but do not read the text. Discuss the points below:

> *What do you see happening here?*
>
> *What can we write about the two groups of bears?*
>
> *What is a short way to use numbers to write about the bears?*

Encourage students to make suggestions and write equations such as ___ **add** ___ **is** ___ and ___ + ___ = ___ on the board (**SMP2**). Work with the whole class to complete the equations. If necessary, volunteers can come to the front and count the number of bears in each group, and then the total number of bears. Repeat as time allows, writing a new equation each time.

Choose one of the equations from the board and discuss the points below:

> *What number shows the total?*
>
> *What numbers show the parts?*
>
> *What do each of the symbols tell you?*
>
> *Does it matter if you record the total first, and then the parts?*

Bears on Buses

ELL

Read the book slowly and clearly. As each page is read, invite the students to discuss what they heard with other students. Allow students to discuss the words *total*, *parts*, *symbols*, *add*, and *equals* before moving on with the activity.

2.OA.A.1 Solve addition word problems

Major clusters
Represent and solve problems involving addition and subtraction.

Student Journal 1.9, pp. 30–31
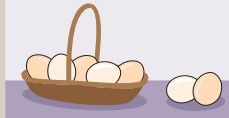
1.9 Addition: Reviewing concepts

Step In What addition story could you say about this picture?

Which number is the **total** in your story? How do you know?

Which numbers are **parts** of the total? How do you know?

✷ What addition fact could you write to match your story? $2 + 3 = 5$

Step Up 1. Write numbers to match each picture.
Then write the addition fact.

a.
There are $\underline{5}$ eggs in the basket.
There are $\underline{2}$ eggs out of the basket.
There are $\underline{7}$ eggs in total.

$5 + 2 = 7$
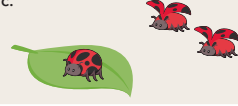
b.
$\underline{4}$ coins are in the jar.
$\underline{1}$ more coin is dropped in the jar.
There are $\underline{5}$ coins in total.

$4 + 1 = 5$

30 ◆ ✷ Answers will vary. This is one example. · ORIGO Stepping Stones · Grade 2 · 1.9

2. Add the groups. Then write an addition fact to match.

a. $3 + 2 = 5$

b. $2 + 2 = 4$

c. $1 + 2 = 3$

d. $5 + 2 = 7$

3. Read the story. Then write an addition fact to match.

a. Cathy has 6 raspberries and 2 strawberries. How many berries does she have in total?

$6 + 2 = 8$

b. Hugo has eaten 7 olives and has 2 more to eat. How many olives did he have in total?

$7 + 2 = 9$

✷ **Step Ahead** Write numbers to complete different number facts. Make each total **less than** 10.

$6 + 3 = 9$ $5 = 3 + 2$ $1 + 3 = 4$

$6 = 3 + 3$ $4 + 3 = 7$ $8 = 3 + 5$

ORIGO Stepping Stones · Grade 2 · 1.9 · ✷ Answers will vary. This is one example. 31 ◆

Reinforce that each equation shows that two parts balance or are equal to a total. Use this idea of balance to clarify that the total can be recorded on either side of the equal symbol. Repeat the discussion for the remaining equations.

Work though the problems of the Step In discussion (Student Journal 1.9) with the whole class. Read the Step Up and Step Ahead instructions with the students. Make sure they know what to do, then have them work independently to complete the tasks.

Step 4 Reflecting on the work

Discuss the students' answers to Student Journal 1.9. Invite individuals to identify the parts and the total in each part of Questions 2 and 3. Discuss what the students notice about the number facts in Step Ahead. Reinforce that the equals symbol means is the same as and so can be placed anywhere in a number fact as long as the whole equation makes sense. Invite the students to try rewriting their addition facts from Question 2 so that the equals symbol appears early in the equation (**SMP7**).

Write $10 = 6 + 4$ and $6 + 4 = 10$ on the board. Ask, *Do you think these addition facts are the same? Why?*

Maintaining concepts and skills

Make copies of Blackline Master 1.30. Cut the page in half and give each student one strip to complete. Alternatively, write the equations on the board and have the students copy and complete them, or just the write the answers.

LESSON BLM

1.30 **Maintaining concepts and skills**

a. $8 - 6 =$ **2**   b. $9 + 6 =$ **15**   c. **12** $= 7 + 5$

d. $10 - 3 =$ **7**   e. $11 - 7 =$ **4**   f. $9 + 5 =$ **14**

g. **15** $= 7 + 8$ h. $16 - 7 =$ **9**   i. $12 - 5 =$ **7**

j. $8 + 9 =$ **17**

✂

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j. $8 + 9 =$ **17**

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Small group differentiation

Extra help

You will need:

- *ORIGO Big Book: Bears on Buses*

Have the students use the *Big Book* tool to act out different addition situations. For example, 4 bears on the bus, 2 bears getting on the bus, 6 bears in total. These situations can be generated by rolling the number cubes. An addition fact to match the scene can then be recorded.

Extra practice

Each student will need:

- 1 card from Blackline Master 1.31
- connecting cubes

Provide each student with one card from the Blackline Master page. Challenge them to write the total, using the connecting cubes to help their thinking if necessary. They then draw a picture to match the fact. These pictures are then shared among the class.
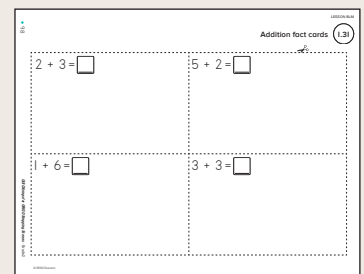
Blackline Master 1.31

Extra challenge

Each student will need:

- connecting cubes

Model the situation that is shown below with blocks. Confirm that 5 add 4 equals 9. Then ask, *What is another way to make a total of nine?* Challenge the students to write all the different addition facts that have a total of 9. They can use the connecting cubes to support their thinking. Extend the activity, challenging the students to make a total of nine with three or more parts.