## Objective

Solve joining problems by combining two groups to make a larger group (part-part-whole addition).

## Common Core State Standards

- **K.OA.1** Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
- **K.OA.2** Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

**Operations and Algebraic Thinking**

# Joining Problems

Being able to join, or put together, two sets of objects and recognize that the sum of the combined set is greater than either of the sets alone is one of the most important concepts children will learn. In the future, subtraction will be introduced as the opposite of addition, and multiplication will be introduced as repeated addition.

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

## Talk About It

Discuss the Try It! activity.

- Make sure children understand that joining is the same as putting together or adding two groups. While discussing the activity, emphasize the following terms: *join, put together, add, in all,* and *all together.*
- **Ask:** *When you join or add two groups, how do you find the number in all?*
- **Ask:** *When you join or add two groups, are there more or fewer in the number in all?* **Say:** *Explain how you know.*

## Solve It

With children, reread the problem. Have children draw a picture showing 2 children on the swings and 1 child on the slide. Have children number the children in the picture to show that there are a total of 3 children. **Ask:** *How did you find the number of children in all on the playground?*

## More Ideas

For other ways to teach about joining problems—

- Have children make chains of 3 blue Link 'N' Learn® Links. Then have them add 3 red links to the chain. Ask children how they can find the number in all. Repeat with different numbers of links.
- Have children work with a partner. Have one partner make a train of 3 green Snap Cubes®. Have the other partner make a train of 2 yellow cubes. Instruct children to join their trains and tell how many cubes they used to build their trains in all. Repeat with different numbers of cubes.

## Formative Assessment

Have children try the following problem.

*There are 2 ducks inside the pond. There are 4 ducks outside the pond. How many ducks are there in all?*

## Try It! 15 minutes | Independent

Here is a problem about joining two groups together.

*There were 2 children playing on the swings at recess. There was 1 child playing on the slide. How many children were on the playground in all?*

Introduce the problem. Then have children do the activity to solve the problem. Distribute 5 Three Bear Family Counters and one copy of the Part-Part-Whole Workmat (BLM 5) to each child.

### Materials
- Three Bear Family® Counters (5 assorted counters per child)
- Part-Part-Whole Workmat (BLM 5; 1 per child)
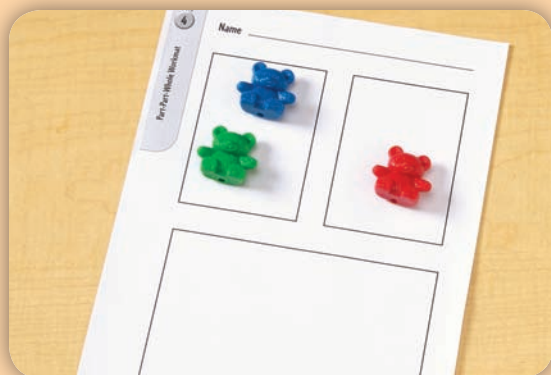


**1.** Have children put 2 Bear Counters in one of the small parts on their workmats. Then have children put 1 bear in the other small part on their workmats. Have children count the number of bears in each small part on their workmats.



**2.** Instruct children to move all of the counters from the small parts on their workmats to the large, or whole, area. Invite children to count all of the bears together in the whole area aloud with you. **Ask:** *How many bears are there in all?*
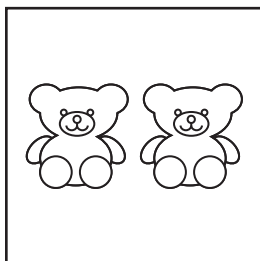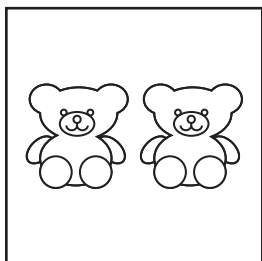
## ⚠ Look Out!

Children may try to tell the number of bears in only one of the groups. Remind children that they must join, or put together, the groups in the large section and count all of the bears to find how many there are in all.
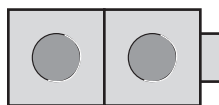


**3.** Have children put 3 Bear Counters in one of the small parts on their workmats and 2 bears in the other small part. Then have children move all of the bears together into the whole area on their workmats and count to find the number of Bear Counters in all.

Check children's work.

**1.**

4

**2.**

6

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## Directions

**1.** Two bears are making lunch. Two bears are setting the table for lunch. How many bears are there in all? Use Bear Counters. Model the groups. Write the number of bears in all.   **2.** Use Snap Cubes®. Build the trains. Join the trains. How many cubes in all? Write the number.

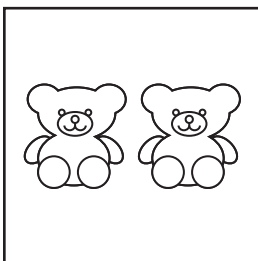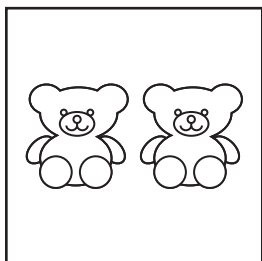© ETA hand2mind™

# *Answer Key*

## Challenge

Two bears are playing in a sandbox. Three bears join them. How many bears in all are playing in the sandbox? Use Bear Counters. Model the groups. Draw the groups. Write the number of bears in all.
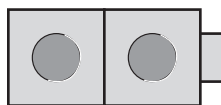
Name _____

**1.**

_____

**2.**

_____

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Hands-On Standards, Common Core Edition

Name _____

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