

2 Develop the Concept: Interactive

10–15 min **Interactive Learning**

Overview In this activity, children use counters on a part-part-whole mat to determine whether to add or subtract to solve story problems.

Essential Question How can using objects help you decide whether to add or subtract to find the correct answer?

Materials Number Cards 1–11 (Teaching Tool 9, 1 set per pair), index cards (set of 3, each with a number sentence: $4 + 2 = 6$; $8 - 5 = 3$; $7 - 2 = 5$, one set per pair), counters (12 per pair)



Set the Purpose *You have learned how to use connecting cubes to model addition and subtraction. Today you will use counters to decide if you need to add or subtract to solve a story problem.*

Connect *When you hear a math story, how do you know when you need to add?* [I add when I know two parts and I need to find the whole.] *How do you know when you need to subtract?* [I subtract when I know the whole and am looking for a missing part.]

Pose the Problem Distribute materials to pairs. Then present this story problem. *Diego picks 3 apples. Gail picks 4 apples. Do you add or subtract to find how many apples Diego and Gail pick in all? How do you know?* Have children use their counters and the workmat on page 27 to solve.

Model/Demonstrate *How can you show the 3 apples Diego picked?* [Put 3 counters in one part of the workmat.] Guide children to place 3 counters in the left part of the mat. *How can you show the 4 apples Gail picked?* [Put 4 counters in a part of the mat.] Guide children to place 4 counters in the right box. *How many apples did they pick in all?* [7] Have children place the Number Card 7 on the whole box of the workmat. *How did you know if you should add or subtract?* [I knew to add because I had to find the total number of apples.] Guide children to complete Item 1 by writing a number sentence to match the model and then circling *add* to show the operation used.

Small-Group Interaction Have children work in pairs. *Pick a card and tell your partner a story problem using addition or subtraction to match the card. Do not show the card. Your partner will use counters on a workmat to act out the story.* As children act out a story problem, guide them to place the appropriate number card in the whole box on the mat. Guide children to record their number sentences in Item 2. Then have them circle *add* or *subtract* to indicate the operation they used. Have children repeat twice for Items 3–4.



Two children pick 12 strawberries in all. Use counters and a part-part-whole mat to show how many strawberries each child could have picked.



eTool Counters
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Link to Investigations, Second Edition

Joint-Usage Master Plan
Blended Instruction (Plan 1):
Topic 1 and Units 1 and 3