STRATEGY

Parts of Ten

Manipulatives

- Ten Frame
- Counting Chips

Flash Facts

- Set D

Warm-Ups

How well do you know your sums of ten? I'll say part of a tens addition fact. You complete it.

10 is 7 and… (3)
10 is 2 and…
10 is 5 and…
10 is 9 and…
10 is 4 and…

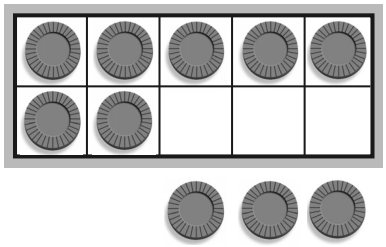
Ten Take-Away

In this lesson, students review the sums of ten on the Ten Frame, then apply these experiences to "ten take-away" problems.

Introducing the Strategy

1 On the overhead projector, display a Ten Frame with all the spaces filled in with counters. Place the Flash Facts flash tile 10 – 3, from Set D, nearby. Model solving the problem by taking three counters off the Ten Frame, leaving seven.

10 – 3



2 Make Ten Frames and counters available to pairs of students. Display all the Flash Facts from Set D on the overhead at once in random order. Ask students to use their Ten Frames and counters to work through each problem. ***Remember your addition facts for ten as you're working. See if you notice any relationship between the number pairs that add up to ten and the problems you work on today.***

3 Discuss with students the answers they found for each of the Set D facts. Ask students to describe the relationship they notice between the addition facts that add up to ten and the "ten take-away" facts they worked with today.

Flash Facts

How Do You Know? Present the Set D Flash Facts in random order and have students solve them without the use of the Ten Frame. ***Close your eyes and visualize the Ten Frame all filled in with counters. I'll say a "ten take-away" problem, and you tell me the answer. Try to imagine how many spaces would still be filled after you took away the number I said. Raise your hand when you know the answer.*** Have volunteers share their answers and strategies. Some students will use the Ten Frame image, while others may use their knowledge of the addition facts for ten.

You may wish to suggest that students may use the Ten Frame image to help solve "nine take-away" problems as well. ***Just think of the Ten Frame with one less space.***

Name _____

Ten Take-Away

Circle and solve the "ten take-away" problems first. Then go back and solve the rest of the problems.

10 −4 6	8 −6	10 −3	10 −7	5 −5
9 −0	10 −2	3 −2	10 −5	7 −2
9 −2	7 −1	3 −3	10 − 1	6 −3
10 −6	10 −9	9 −6	5 −4	10 −8

STRATEGY

Doubles

Flash Facts

- Set E1

Warm-Ups

I'll say a number, you say it's double.

4 (8)
8
2
7
5
9

I'll say a number, you say what number you would double to get my number.

8 (4 doubled is 8)
18
12
6
14
16
4

Spotting Doubles

Learning to spot doubles relationships in subtraction problems is another strategy students will find useful. Modeling problems with counters first helps students begin to identify those problems with doubles relationships.

Introducing the Strategy

1 Write the addition doubles facts from 1 + 1 = 2 to 9 + 9 = 18 in a column on the chalkboard. To the right of 1 + 1 = 2, write the subtraction fact 2 – 1 = 1. Point out to students how the subtraction problem is the reverse of the addition fact. Have students help you write the subtraction counterparts to each of the addition doubles on the list.

2 Mix the Flash Facts Set E1 overhead tiles with an equal number of tiles from previously introduced sets. Display one fact at a time and have students show thumbs up if the fact shows a doubles relationship (the top number is the double of the bottom number). If so, have students tell the answer/difference. They should show thumbs down if the fact does not feature a doubles relationship. Quickly work through all the tiles in the stack. For some auditory learners, saying the bottom number and the top number aloud one after the other ("4 and 8" for instance) may help them hear the doubles relationship if they have trouble just looking at the problem.

Flash Facts

Use the Flash Facts overhead sets you've introduced to date: A1, A2, B1, B2, C1, C2, D, and E1. Mix the tiles up, making sure to have several of the Set E1 facts toward the top of the stack. Display a fact at a time and have students raise their hands as soon as they know the answer. Have volunteers share their answers and strategies. Help students put names to the strategies they describe: counting back, counting up, take away all, take away none, parts of ten, and doubles. Students may also describe strategies of their own that make sense. Help the rest of the class understand these strategies.

Name _____

Spotting Doubles

Solve the problems below. Put a star by the ones that are doubles.

14 ★ −7 7	8 −3	16 −8	7 −2	10 −5
6 −3	4 −4	8 −4	18 − 9	2 −1
12 −6	5 −3	4 −2	16 − 8	10 −8
3 −0	18 −9	10 −6	14 −7	10 −3