

Three short teaching routines

1. ADD BY MAKING TEN

- Step 1
8 needs 2 to make 10.
- Step 2
Split 5 into 2 and 3.
- Step 3
 $10 + 3 = 13$.

2. SUBTRACT THROUGH TEN

- Step 1
 $14 - 4$ lands on 10.
- Step 2
Split 6 into 4 and 2.
- Step 3
 $10 - 2 = 8$.

3. MULTIPLY FROM FIVE KNOWN ROWS

- Step 1
First factor tells the number of rows.
- Step 2
5 rows of 6 = 30; 2 rows of 6 = 12.
- Step 3
 $30 + 12 = 42$.

Access options

- Point: touch each jump, counter, or row.
- Draw: circle the part that makes ten or five rows.
- Speak: say the bridge in their own words.

Teaching note

Offer one fresh item after the model. A response suggests what to explain next; it is not a diagnosis or a mastery score.

Models and fresh practice

Add by making ten | model: $8 + 5 = 13$. Make 10 with 2; 3 remains.

$8 + 6 = 14$. Make 10 with 2; 4 remains.

$9 + 4 = 13$. Make 10 with 1; 3 remains.

$7 + 5 = 12$. Make 10 with 3; 2 remains.

$6 + 7 = 13$. Make 10 with 4; 3 remains.

Subtract through ten | model: $14 - 6 = 8$. Subtract 4 to 10, then 2.

$13 - 5 = 8$. Subtract 3 to 10, then 2.

$15 - 8 = 7$. Subtract 5 to 10, then 3.

$12 - 7 = 5$. Subtract 2 to 10, then 5.

$16 - 9 = 7$. Subtract 6 to 10, then 3.

Five known rows | model: $7 \times 6 = 42$. 5 rows of 6 = 30; 2 rows = 12.

$6 \times 7 = 42$. 6 rows of 7: 5 rows = 35; 1 row = 7.

$8 \times 4 = 32$. 8 rows of 4: 5 rows = 20; 3 rows = 12.

$9 \times 6 = 54$. 9 rows of 6: 5 rows = 30; 4 rows = 24.

$7 \times 8 = 56$. 7 rows of 8: 5 rows = 40; 2 rows = 16.

For multiplication, the first factor tells the number of rows.