

Transcript: Solving an Addition Problem (second–third grade)

Text on screen: Solving an Addition Problem (second–third grade).

Logo: Count, play, explore—for early education.

Text on screen: Setting up the math problem.

On screen: A second grade educator points to a poster on the board that has a math problem written on it and reads aloud with the children.

Educator: Let's read. Kimberly—

All: Kimberly had some stickers. She gave 39 stickers to Gael. Now she has 46 stickers.

David: We're not going to take apart, we're going to combine.

On screen: The educator brings her hands together as she repeats the word “combine.”

Educator: You're going to combine.

Text on screen: Working on the problem.

On screen: Two children, Scarlett and David, are shown working at their desk. David uses base ten blocks—combinations of unit cubes and 10 rods— and Scarlett uses ten frames— a rectangular frame divided into two rows of five boxes each. Scarlett finishes and gets the educator's attention.

Educator: I see you made a strategy here. What did you do?

On screen: Scarlett begins moving the ten frames to demonstrate to the educator her thought process.

Scarlett: I put them together.

Educator: You put the tens together?

On screen: Scarlett places three groups of 10 with the other groups of 10.



Scarlett: And I put them here and...

David: I made a strategy.

Scarlett: And I put a ten here.

Educator: Oh, you're doing a trade? All right.

On screen: Scarlett swaps out two small groups that add up to fourteen. She swaps them with a group of 10 and a group of four.

David: See? I got the answer now.

Educator: And what's the answer?

David: 80, 81, 82, 83, 84, 85!

On screen: Scarlett counts all of the units in the ten frames.

Scarlett: 20, 30, 40, 50, 67. 80, 81. 82, 83, 84.

Educator: All right. Can you write that and draw that? Looks like you got an answer. You got an answer?

David: Yeah.

On screen: The educator moves to view David's work. He totals up all the units in front of him.

Educator: All right, David, how'd you do it?

David: And I combined them to 10, 20, 30, 40, 50, 60, 70, 80, 81, 82, 83, 84, 85.

Educator: Oh, interesting. All right. Write that down and draw it. But I want you to talk to Scarlett, because you two got different answers. So, I want to see how you each got your answers and see if one of you can convince the other one to revise your thinking.

Text on screen: Collaborating with peers.

On screen: David recounts all the units in front of him while Scarlett watches. He moves groups of 10 and then, he adds the units.

David: 31, 32, 33, 34, 35, 36, 37, 38, 39, 49, 59, 69, 79, and 80. 81, 82, 83, 84, 85.

On screen: Next, David watches Scarlett recount all the units in front of her. She moves groups of 10 into place, and they count groups of 10 together.

Scarlett: I put them together and I got 10, 20, 30. 40, 50, 60, 70.

David: And look, you can take one of these here to make a 10.

On screen: David points at the remaining groups: a group of 6 units and a group of 9 units. Scarlett swaps the group of 9 with a group of 10, and David uses his finger to cover the 6th unit on the group of 6.

David: You can make a 10 by using this sixth one.

Scarlett: And I got 80.

David: And you cover that one up, and look.

Scarlett: And now it's 85.

David: 85.

Text on screen: Whole group discussion.

On screen: The educator shows how one child solved the problem by projecting the child's base ten blocks and notebook page onto a screen for the whole class. The notebook shows different representations of ways to solve the addition problem $39 + 46 = 86$. Representations include a drawing of 10 rods and unit cubes, a written equation and a number line.

Educator: Brian P. And he also built 39 and 46. And he also, like David, made a 10. So it wasn't 39 anymore, it was 40. And he counted 10, 20, 30, 40, 50, 60, 70, 80, 81, 82, 83, 84, 85. And then the way he drew it, he drew his 39 and his 46 and it equals, he put all the 85 there. And then he did laser math, 30 and 40 is 70. Nine and six is 15. That equals 85. He put a summary equation, 39 plus 46 equals 85. He put, the answer is 85. And then he did a number line 39 plus 10 is 49, plus 10 is 59, plus 10 is 69, plus 10 is 79. And then he counted the ones.



Text on screen: A special thanks to the children, families, and staff of Cherryland Elementary School, without whose help these videos would not have been possible.

Logo: Count, play, explore—for early education.