Using Model-Based Representation to Improve
Addition and Subtraction Problem Solving in the First Grade

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This unit is intended for first grade students, to incorporate with units related to addition and subtraction word problems. The lessons first give students time to practice identifying word problems as either joining or separating problems. Next, the lessons move on to allowing students time to represent problems, without solving them. Only once students have mastered identifying problems as joining or separating, and representing the problems, should the lesson progress to solving them. Finally, students should be asked to create story problems based on information provided. The lessons will incorporate whole group discussions and modeling, partner and small group work, as well as independent work. This unit will help deepen students' understanding of word problems, better preparing them for math problems in 2nd grade and up, when the problems become more challenging and require multiple steps to solve.