

Curriculum Units by Fellows of the Yale-New Haven Teachers Institute 2004 Volume V: The Craft of Word Problems

## The Relationship Between Addition and Subtraction in Problem Solving

Guide for Curriculum Unit 04.05.01 by Michele Murzak

Problem solving and word problems seem to be a universal concern at all grade levels. Students see a word problem and feel overwhelmed and nervous. They tend to use the numbers that they see, guess the operation, solve it, and move on. Problem solving is a "life skill." It is a skill that students will use in their everyday activities and careers.

It is important that students understand how to solve word problems. Students must follow steps when solving a problem. This unit is designed for my second grade class, but can be used and modified for grade three. The unit touches upon many important ideas/concepts in problem solving. The concepts that I focus on are as follows:

Place Value

Addition and Subtraction (within 10)

Fact Families

Addition and Subtraction (within 20)

Addition and Subtraction with and without regrouping

Strategies for solving word problems

I have combined what I learned at the seminars from my colleagues, what I learned through my experience as a teacher, and what I learned from my seminar readings. In my unit I discuss books written by Liping Ma, Marilyn Burns, Magdalene Lampert, and T. Carpenter.

(Recommended for Mathematics, grades 2 and 3.)

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