



Curriculum Units by Fellows of the National Initiative
2015 Volume V: Problem Solving and the Common Core

Math at School: Modeling Addition and Subtraction in Everyday Classroom Scenarios

Guide for Curriculum Unit 15.05.05, published September 2015
by Joshua Lerner

The Common Core State Standards present a helpful taxonomy for understanding the various types of addition and subtraction word problems. Considering these many contexts, and the fact that any number in a situation may be unknown in any given situation, there are so many possible variations in these word problems! To help students be able to eventually approach and solve *any* addition or subtraction situation, it is important to help students develop the habits of mind and approaches necessary to make sense of word problems in general. This curriculum unit, written at Yale University in Summer 2015, uses a modeling method to help students make sense of word problems, and presents a logical sequence of presenting students with one-step and two-step problems. The unit also describes how to use a structured problem-solving lesson format to drive student higher-order thinking.

This curriculum unit will be taught to 3rd grade students but can be modified for 2nd grade and 4th grade classrooms. The research presented on word problem types, modeling, and structured problem solving is useful professional development for math teachers at all grade levels.

(Developed for Mathematics, grade 3; recommended for Mathematics, grades 2-4)

<https://teachers.yale.edu>

©2023 by the Yale-New Haven Teachers Institute, Yale University, All Rights Reserved. Yale National Initiative®, Yale-New Haven Teachers Institute®, On Common Ground®, and League of Teachers Institutes® are registered trademarks of Yale University.

For terms of use visit https://teachers.yale.edu/terms_of_use