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Curriculum Units by Fellows of the National Initiative

2007 Volume VI: Keeping the Meaning in Mathematics: The Craft of Word Problems

Assisting the Transition from English to Mathematical Language

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by Paula Shaffer-Roche

This unit maintains a focus on various strategies and approaches to implementing word problems. For example, the lessons utilize mental math and tables to help aid to the mathematical thinking involved in problem solving. Furthermore, the lessons emphasize starting with simple mathematical language, then completing more complex problems. The goal is to build a strong problem solving foundation. The lessons are built around the idea that math is similar to learning a foreign language. Hence, students have to be prepared to handle mathematics with the idea in mind that with more exposure the language becomes much easier to translate. The unit seeks to illustrate methods that help address the difficulties that mathematical language presents to students. Classroom activities will analyze meaning in word problems in order to arrive at the correct answer. My goal for this unit is to have students be able to attack word problems without fear and frustration. I hope the strategies explored here inspire educators to analyze word problems with their students more easily and effectively.

(Developed for Algebra I, grade 9; recommended for Algebra I, grade 9)

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