

Problem Solving

Lesson Summary Students will learn the steps to solving word problems.

Major Topic and SOL

Math SOL (2009) 3.8

Length of Unit 1 Class Period

Student Objectives

Mathematics, students will be able to:

- solve problems involving the sum or difference of two whole numbers (each 9,999 or less) with or without regrouping, using various computational methods, including calculators, paper and pencil, mental computation, and estimation

21st Century Skills

- Critical-thinking and problem solving
- Communication
- Creativity and innovation
- Collaboration
- Information and media literacy
- Contextual learning

Assessment Evidence

- Assessing student understanding of lesson comes from checking the homework sheet and how they perform on the written assessment

Supplies/Materials/Technology

- Manipulatives
- Highlighters

Lesson Plan

Motivation & Building Background:

- The teacher writes up a word problem ahead of time and allows the students to come up with their solution. Students share their answers as well as any strategy they used to help solve the problem.

Presentation:

- The teacher will begin the lesson by first going over important words to look for when reading word problems. Create a chart on flip chart paper to be kept in the classroom to refer back to.

- The teacher will first model, followed by students working with the teacher, then finally students using the problem solving process on their own to demonstrate their understanding.
 - This process looks something like this:
 1. Teacher reads the word problem aloud
 2. Teacher highlights the key word that lets us know which operation we will need to use. (This helps students to focus on what they are being asked to do.)
 3. Teacher will draw brackets around any “clues” need to solve the problem and will cross out any extraneous information that is not needed to solve the problem.
 4. Finally, teachers will create the number sentence and use a strategy to solve the word problem.

Practice/Application:

- The students are given a variety of word problems to practice the above steps. A chart should be kept in the classroom with these steps listed, as well as a list of strategies they can use to solve the word problems, such as make a table, draw a picture, use mental computation, etc.