“Math Made Easy”
Problem Solving Skills

Rilla Collins
Grade Level: 3rd or higher
Story Problem Strategies
Taken from the book: Making Math Easy Word Problems Made Easy
By: Rebecca Wingard-Nelson
Illustrated by: Tom LaBaff
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PASS Skills:
Standard 5:
Data Analysis & Probability -- The student will demonstrate an understanding of data collection, display & interpretation.

1. Data Analysis
   a. Pose questions, collect, record, & interpret data to help answer questions (e.g., Which was the most popular booth at our carnival?).
   b. Read graphs & charts; identify the main idea, draw conclusions, make predictions based on the data (e.g., predict how many children will bring their lunch based on a menu).
   c. Construct a bar graph or pictograph with labels & a title from a set of data.

Objectives: To give the students the tools needed to read a story problem and determine the best way to solve the story problem. The give them steps to break down the story problems and solve it.

Materials & Resources: The handout provided, a set of story problems to work.

Instructions: Assess prior knowledge of solving story problems, go over vocabulary needed to work story problems. Practice working story problems as a class. Begin the lesson.

Instructional Process: I will actively engage the students in tearing about the word problem. I will let each student input how they came up with the answer. We as a class will analyze the best way to solve the problem.

Assessment: I will assess understanding with observation and then a worksheet for the students to solve word problems on their own. I will keep records of their success this time and in the future to know if they have the skills needed to successfully solve word problems.
**Modification / Accommodations:** For students who can’t read the problem I will read it to them. For students who can’t tear the problem apart, they will work with a partner / group.

**Closure:** I will keep records of each child’s success with this assignment. I will monitor their progress and as a class we will practice word problems daily as bellwork to ensure complete success for all.

**Reflections:** This lesson went well in the class. We are still working but daily I can see that the students are improving and not worrying when they have to read and solve the problems. They know that they have the tool to do the task. Give extra time for the initial lessons. Limit the number of word problems you work each day, and give easy word problems at first and get harder. Make sure there is success or the kids won’t use the tools.
Problem-Solving Steps

1. **Read the problem.**
   Read carefully. What do you know? What do you need to find?

2. **Make a plan.**
   It is up to you to find the best way to solve the problem. Some problems will give you a plan, like make a table, writing an equation, or drawing a graph.

3. **Solve the problem.**
   It is time to do the math! If you find that your plan is not working, make a new plan.

4. **Check your answer.**
   Yay! You are finished, right? Wrong! Always check your answer. Make sure you have answered the right question. Does your answer make sense? Check your math. Mistakes happen to everyone, and a quick double check can help you spot an error.
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Problem-Solving Tips

Don’t give up!
The first time you try to solve a word problem, it might not work. Keep trying! Look over your work and see if you made a silly mistake, like using the wrong numbers. If you get stuck, try a different plan.

Be positive!
You learn by making mistakes. If you already know all the answers, there is nothing to learn. Remember, it feels great when you finally get the solution!

Use Your Past!
Some of the problems will look like ones you’ve seen before. Use what you remember from other problems to solve new ones.

Practice!
The more you do anything, the better you become at it. Every problem you solve helps you get ready for other problems.

Take a Break!
Tough problems can make your head hurt. If you have tried everything you can think of but are only getting frustrated, take a rest. Go to another problem. Go get a snack or a drink. Close your eyes and stretch. Then come back with a fresh brain and try again.

Move On!
Tests can make people nervous. If you get stuck, go on to the next problem. When you answer problems you know first, it helps you get in the test-taking groove. Go back later and do the problems you skipped.
Too Little Information:
When you don’t have enough information, you cannot solve a word problem.

Too Much Information:
Too much information can make a word problem confusing. Make a list of what you know, then cross out any information you don’t need.

Estimation:
Some word problems do not ask for an exact answer. An estimate is a good guess that is close to the exact answer.

Look for a Pattern:
Patterns can help you solve word problems.

Draw a Picture:
Many word problems are easier to solve if you draw a picture to help.

Logical Thinking:
Some word problems can be solved just by thinking about what you know.

Make a Table:
Organizing information in a table can help you solve some math problems.

Make a List:
Making a list can help you keep track of information you will use to solve a word problem.
Work Backward:
  Some word problems can be solved by starting at the end and working backward.

Make an Easier Problem:
  If the numbers in the word problem seem too hard try using easier numbers to understand the problem first.

Use a Graph:
  Word problems can sometimes be answered just by knowing how to read a graph or chart.

Write an Equation:
  Some word problems are easy to write as an equation. You can write an equation and then solve it. (Equation – A math sentence that uses an equal sign.)