

Course: 4th Math			Designated Six Weeks: Every 6 weeks		
Unit: Problem Solving			Days to teach: On-Going		
TEKS	Guiding Questions/ Specificity	Assessment	Vocabulary	Instructional Strategies	Resources/ Weblinks
PROBLEM SOLVING TEKS PRACTICED EACH SIX WEEKS					

4.14 The student applies Grade 4 mathematics to solve problems connected to everyday experiences and activities in and outside of school.					
4.14A Identify the mathematics in everyday situations. Readiness	<p>Look at a question and be able to tell what information is missing.</p> <p>Create word problems that reflect how math is used in everyday life.</p> <p>Explain the problem in words, pictures, and numbers (including a number sentence).</p>	<p>Lorraine had a box of 300 crackers. After she and her brothers ate some, there were 78 left in the box. Which question can be answered with this information?</p>	<p>ELPS Strategies</p> <p>1C, 1E, 2E, 3E,, 3H, 4D, 4F</p>	<p>Brainstorm ways we used math this week in real life.</p> <p>Give sample problems and ask “what do we still not know”?</p> <p>Model use of problem solving board for students. Focus on writing questions for the data given.</p> <p>Partners create a word problem and trade to solve.</p>	<p>Envisions: Problem of Day</p> <p>Problem Solving resource such as Target the Question.</p> <p>Problem Solving Board</p>
4.14B Solve problems that incorporate understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness. Readiness	<p>Use the problem solving board to help create a plan.</p> <p>Transfer the procedures from the problem solving board to various problem situations.</p>	<p>Zachary has a ball of string 6 yards long. He needs 20 feet of string. What should he do first to find out if he has enough string to equal 20 feet?</p>		<p>Model problem solving process using problem solving board.</p> <p>Students will determine if there is any extraneous information given in problem.</p> <p>Evaluate answer for reasonableness using strategies such as logical reasoning.</p>	<p>Safari-Math TV Problem Solving Videos</p> <p>Problem Solving Board</p>

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4.14C Select or develop an appropriate problem-solving plan or strategy, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem. Readiness	Select the most appropriate strategy for a given problem. Practice solving problems using each of the strategies.	Jenna has 12 days left to read a 192 page book. She has already read 60 pages. What is the best way for her to find how many pages she should read each day to finish the book?		Present a problem and have students work using a variety of strategies. Explain thinking. Partners will work together and choose one of the strategies. After solving, give a verbal or written description of how you solved the problem.	Envisions Problem Solving Strategies.
4.15 The student communicates about Grade 4 mathematics using informal language.					
4.15A Explain and record observations using objects, words, pictures, numbers, and technology. Readiness	Express mathematical thinking in a variety of ways.	Journal Writing Explaining with pictures, words, and number sentence. Staci bought 2 DVDs at the store. Each one cost \$24.95. How much did she spend?		Show students a partly done problem and ask them to explain what the student is thinking. Explain how you solved the problem by using manipulatives, verbal or written expression, pictures, numbers, and technology.	
4.15B Relate informal language to mathematical language and symbols. Readiness	Decide which equation could be used to solve a problem. Relate informal language to the appropriate operation.	A class is going on a field trip. Each group of 5 students will need an adult helper. What can the teacher do to find out how many adult helpers are needed?	sum product difference quotient	Model writing number sentences for pictures in multi-step problems. Write two additional number sentences, equations, or expressions that could solve the problem.	Engaging Mathematics

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4.16 The student uses logical reasoning to make sense of his or her world.					
4.16A Make generalizations from patterns or sets of examples and non-examples. Readiness	Process skill to be addressed with relevant content. Use concrete objects to sort, describe, and generalize. Design their own shapes to fit the generalizations.	Carl drew these shapes. Carmella drew these shapes. What is a good description of the shapes Carl drew?		Demonstrate taking sets of data and making up categories and ways to describe. Students take two sets of pictures and put in categories. Justify orally or in written expression the characteristics of the examples.	Teacher created materials.
4.16B Justify why an answer is reasonable and explain the solution process. Readiness	Use logical reasoning to explain the solution process.	Mrs. Ramirez and Mrs. Nguyen went on a trip. They wanted to split the expenses. Mrs. Ramirez spent \$85 and Mrs. Nguyen spent \$45. Mrs. Ramirez says Mrs. Nguyen owes her \$40 so they will be even. What is wrong with her thinking?		Explain that we need to know what is true and what is not true. Students will relate their reasoning to everyday situations to evaluate the answer for reasonableness.	Math Journaling Problem solving board.