

<b>Course: Fifth Grade Mathematics</b>			<b>Designated Six Weeks: Every Six Weeks</b>		
<b>Unit: Problem Solving</b>			<b>Days to teach: Incorporate throughout the year</b>		
<b>TEKS</b>	<b>Guiding Questions/ Specificity</b>	<b>Assessment</b>	<b>Vocabulary</b>	<b>Instructional Strategies</b>	<b>Resources/ Weblinks</b>

<b>5.4 Number, operation, and quantitative reasoning. The student estimates to determine reasonable results. The student is expected to</b>					
<p>5.4 Use strategies, including rounding and compatible numbers to estimate solutions to addition, subtraction, multiplication, and division problems.</p> <p><b>Supporting Standard</b></p> <p><b>College Readiness Standard: **</b> <b>CRS I.C.1.a</b></p>	<p>Use rounding to estimate solutions when adding, subtracting, multiplying, and dividing</p> <p>Relate answers to a range of numbers or a number less than or greater than a given value</p> <p>Use various strategies to estimate solutions of addition, subtraction, multiplication and division such as rounding to the largest place value for each number</p>	<p>Carlos earns \$11 each week taking care of pets. Which of the following is the best estimate of how much money he will earn in 48 weeks taking care of pets?</p> <p>A.\$1,000    B. \$300 C. \$500    D. \$800</p> <p><i>Answer: C</i></p>	<p>compatible number estimate reasonable round</p>	<p><b>Link to ELPS Instructional Strategies:</b> <a href="http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html">http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html</a> 4F</p> <p>Use benchmark numbers of 10's, 100's, 1000's Ex: <math>56 \times 82 = 60 \times 80</math> Ex: <math>84 \times 7 = 80 \times 7</math> Ex: <math>362 \div 8 = 400 \div 8</math></p> <p>Estimate a solution prior to solving the problem and compare estimate to actual solution to determine reasonableness</p> <p>Estimate solutions by using compatible numbers (numbers that are easy to compute mentally and do not always end in 0) Ex. <math>92 \times 12</math> could be <math>92 \times 10</math> or <math>90 \times 10</math> or <math>90 \times 12</math> Ex. <math>429 \div 8</math> could be <math>400 \div 8</math> or <math>400 \div 10</math></p>	<p><b>enVision</b> Topic 2 Lessons 1-3</p> <p>Topic 4 Lessons 1 and 3</p> <p>Topic 6 Lessons 1 and 2</p> <p><b>A.I.R.R.</b> What's Your Rounding Strategy, #81 Let's Take Turns Rounding, #82</p> <p><a href="#">Safari Montage</a></p>

<b>Course: Fifth Grade Mathematics</b>			<b>Designated Six Weeks: Every Six Weeks</b>		
<b>Unit: Problem Solving</b>			<b>Days to teach: Incorporate throughout the year</b>		
<b>TEKS</b>	<b>Guiding Questions/ Specificity</b>	<b>Assessment</b>	<b>Vocabulary</b>	<b>Instructional Strategies</b>	<b>Resources/ Weblinks</b>

<b>5.6 Patterns, relationships, and algebraic thinking. The student describes relationships mathematically. The student is expected to select from and use diagrams and equations such as <math>y = 5 + 3</math> to represent meaningful problem situations.</b>					
<p>5.6 The student describes relationships mathematically. The student is expected to select from and use diagrams and equations such as <math>y = 5 + 3</math> to represent meaningful problem situations.</p> <p><b>Supporting Standard</b></p> <p><b>College Readiness Standard: **</b> <b>CRS II.D.2.a,b</b></p>	<p>Represent equations concretely, pictorially, and abstractly</p> <p>Extract necessary information needed to solve the problem (ignoring extraneous information)</p> <p>Generate, select from, and use equations to represent meaningful problem situations</p> <p>Use either a numerical representation, such as a number sentence, or a variable representation</p> <p>Recognize the operation(s) needed to solve (relationships may be written in words) Ex: the # of people (x) is 16 times the # of cakes (y)</p> <p>Select and use diagrams such as tables and charts to represent real-world problem situations</p>	<p>Robert and Julia collect stamps. Robert has 54 stamps in his stamp collection. He has 18 more stamps than Julia does. Which of the following equations can be used to find s, the number of stamps Julia has in her collection?</p> <p>A. <math>s=54+18</math> B. <math>s=54-18</math> C. <math>s=54 \times 18</math> D. <math>s=54/18</math></p> <p><i>Answer: B</i></p>	<p>algebraic expression equation equation variable</p>	<p><b>Link to ELPS Instructional Strategies:</b> <a href="http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html">http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html</a> 3E, 5B, 2E</p> <p>Students collaborate to connect diagrams and equations to the problem situation</p> <p>Write a number sentence, equation, or expression which represents the problem solving situation and justify their equation</p> <p>Determine which information is extraneous</p> <p>Write additional number sentences, equations, or expressions that could represent a process for solving the problem</p> <p>Students write a journal entry to justify equation or selection of equation</p>	<p><b>enVision</b> Topic 11 Lessons 1 – 5</p> <p><b>A.I.R.R.</b> Show the Operation #103 Make a Complete Number Sentence #104</p> <p><a href="#">Safari Montage</a></p>

<b>Course: Fifth Grade Mathematics</b>			<b>Designated Six Weeks: Every Six Weeks</b>		
<b>Unit: Problem Solving</b>			<b>Days to teach: Incorporate throughout the year</b>		
<b>TEKS</b>	<b>Guiding Questions/ Specificity</b>	<b>Assessment</b>	<b>Vocabulary</b>	<b>Instructional Strategies</b>	<b>Resources/ Weblinks</b>

<b>5.14 Underlying processes and mathematical tools. The student applies Grade 5 mathematics to solve problems connected to everyday experiences and activities in and outside of school. The student is expected to:</b>						
5.14(A) identify the mathematics in everyday situations;  <b>College Readiness Standard: ** CRS VIII.A.1.a</b>	Brainstorm mathematics in everyday life  Analyze how math is used in various situations and jobs	Holly walked 4.5 miles on Saturday and 7.2 miles on Sunday. Which of the following questions can best be answered using this information?  <i>Answer: How much farther did Holly walk on Sunday</i>		<b>Link to ELPS Instructional Strategies:</b> <a href="http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html">http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html</a> 4F, 5B  Draw a graphic representation, picture or model for the problem situation Students will use graphic representation to decide which operation to use  Explain operation decision  Write a number sentence, equation, or expression which represents the problem solving situation  Write additional number sentences, equations, or expressions that could represent a process for solving the problem  Write a verbal description of how to solve the problem  Use problem solving board	Resources may include, but are not limited to:  <b>enVision Math Investigations A.I.R.R. Closing the Distance Engaging Mathematics</b>  <a href="#">Safari Montage</a>	

Course: Fifth Grade Mathematics			Designated Six Weeks: Every Six Weeks		
Unit: Problem Solving			Days to teach: Incorporate throughout the year		
TEKS	Guiding Questions/ Specificity	Assessment	Vocabulary	Instructional Strategies	Resources/ Weblinks
5.14 (B) solve problems that incorporate understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness;  <b>College Readiness Standard: **CRS VIII.A.1.a,b,c,d,e &amp; VIII.A.4.b</b>	Extract necessary information to solve multi-step problems  Use strategy of compatible numbers in division	Mr. LaSalle is buying ice-cream bars for the 8 dozen fifth graders at his school. The ice-cream bars are packaged 10 to a box. What is the least number of boxes he can buy so that each fifth grader gets at least 1 ice-cream bar?  <i>Answer: 10</i>		<b>Link to ELPS Instructional Strategies:</b> <a href="http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html">http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html</a> 4F, 5B  Draw a graphic representation, picture or model for the problem situation  Explain operation decision  Write a number sentence, equation, or expression which represents the problem solving situation  Determine which information is extraneous  Write additional number sentences, equations, or expressions that could represent a process for solving the problem  Write a verbal description of how to solve the problem  Use problem solving board	Resources may include, but are not limited to:  <b>enVision Math Investigations A.I.R.R. Closing the Distance Engaging Mathematics</b>  <a href="#">Safari Montage</a>

Course: Fifth Grade Mathematics			Designated Six Weeks: Every Six Weeks		
Unit: Problem Solving			Days to teach: Incorporate throughout the year		
TEKS	Guiding Questions/ Specificity	Assessment	Vocabulary	Instructional Strategies	Resources/ Weblinks
5.14 (C) 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;  <b>College Readiness Standard: **CRS VIII.A.2.a</b>	Use various strategies to estimate solutions real life problem solving situations  Develop problem solving strategies  Emphasize estimating before solving problem	Lenny bought as many crickets as possible with \$4.20 to feed to his lizard. Crickets cost \$0.10 each or \$1.00 per dozen. How many crickets did Lenny buy?  <i>Answer: 50</i>		<b>Link to ELPS Instructional Strategies:</b> <a href="http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html">http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html</a> 4F, 3H, 5B  Draw a graphic representation, picture or model for the problem situation  Explain operation decision  Write a number sentence, equation, or expression which represents the problem solving situation  Determine which information is extraneous  Write additional number sentences, equations, or expressions that could represent a process for solving the problem  Write a verbal description of how to solve the problem  Use problem solving board	Resources may include, but are not limited to:  <b>enVision Math Investigations A.I.R.R. Closing the Distance Engaging Mathematics</b>  <a href="#">Safari Montage</a>

Course: Fifth Grade Mathematics			Designated Six Weeks: Every Six Weeks		
Unit: Problem Solving			Days to teach: Incorporate throughout the year		
TEKS	Guiding Questions/ Specificity	Assessment	Vocabulary	Instructional Strategies	Resources/ Weblinks
5.14 (D) use tools such as real objects, manipulatives, and technology to solve problems.	Use objects to act out the actions of the problems	<i>Not previously assessed</i>		<p><b>Link to ELPS Instructional Strategies:</b>  <a href="http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html">http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html</a>            4F</p> <p>Use manipulatives such as square tiles, meter sticks, base 10 blocks, etc. to solve the problem</p> <p>Use real live objects or representations of those objects to act out the problem</p> <p>Use calculator or computer in a problem-solving setting</p> <p>Write a number sentence, equation, or expression which represents the problem solving situation</p> <p>Use problem solving board</p> <p>Use the 5<sup>th</sup> Grade Mathematical Chart for measuring length, measurement conversions, and measurement formulas</p>	<p>Resources may include, but are not limited to:</p> <p><b>enVision Math Investigations A.I.R.R. Closing the Distance Engaging Mathematics</b></p> <p><a href="#">Safari Montage</a></p>

<b>Course: Fifth Grade Mathematics</b>			<b>Designated Six Weeks: Every Six Weeks</b>		
<b>Unit: Problem Solving</b>			<b>Days to teach: Incorporate throughout the year</b>		
<b>TEKS</b>	<b>Guiding Questions/ Specificity</b>	<b>Assessment</b>	<b>Vocabulary</b>	<b>Instructional Strategies</b>	<b>Resources/ Weblinks</b>

<b>5.15 Underlying processes and mathematical tools. The student communicates about Grade 5 mathematics using informal language. The student is expected to:</b>					
5.15(A) explain and record observations using objects, words, pictures, numbers, and technology;  <b>College Readiness Standard: **CRS IX.A</b>	Analyze and draw conclusions based on data collected and created in lesson	<i>Not previously assessed</i>		<b>Link to ELPS Instructional Strategies:</b> <a href="http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html">http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html</a> 4F  Draw a graphic representation, picture or model for the problem situation  Explain operation decision  Write a number sentence, equation, or expression which represents the problem solving situation  Determine which information is extraneous  Write additional number sentences, equations, or expressions that could represent a process for solving the problem  Write a verbal description of how to solve the problem  Use problem solving board	Resources may include, but are not limited to:  <b>enVision Math Investigations A.I.R.R. Closing the Distance Engaging Mathematics</b>  <a href="#">Safari Montage</a>

Course: Fifth Grade Mathematics			Designated Six Weeks: Every Six Weeks		
Unit: Problem Solving			Days to teach: Incorporate throughout the year		
TEKS	Guiding Questions/ Specificity	Assessment	Vocabulary	Instructional Strategies	Resources/ Weblinks
<p>5.15 (B) relate informal language to mathematical language and symbols.</p> <p><b>College Readiness Standard: **CRS IX.A</b></p>	<p>Solve everyday problems using mathematical language and symbols</p>	<p>Gracie was 5 years old when her father was 26. Which of these could be used to find how old Gracie will be when her father is 35?</p> <p>A. Add 21 to 35 B. Subtract 21 from 35 C. Add 5 to 26 D. Subtract 5 and 26</p> <p><i>Answer: B</i></p>		<p><b>Link to ELPS Instructional Strategies:</b> <a href="http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html">http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html</a> 3I, 1F, 1G, KWL</p> <p>Brainstorm math in everyday life</p> <p>Explain operation decision</p> <p>Write a number sentence, equation, or expression which represents the problem solving situation</p> <p>Write additional number sentences, equations, or expressions that could represent a process for solving the problem</p> <p>Write a verbal description of how to solve the problem</p> <p>Use problem solving board</p>	<p>Resources may include, but are not limited to:</p> <p><b>enVision Math Investigations A.I.R.R. Closing the Distance Engaging Mathematics</b></p> <p><a href="#">Safari Montage</a></p>

<b>Course: Fifth Grade Mathematics</b>			<b>Designated Six Weeks: Every Six Weeks</b>		
<b>Unit: Problem Solving</b>			<b>Days to teach: Incorporate throughout the year</b>		
<b>TEKS</b>	<b>Guiding Questions/ Specificity</b>	<b>Assessment</b>	<b>Vocabulary</b>	<b>Instructional Strategies</b>	<b>Resources/ Weblinks</b>

<b>5.16 Underlying processes and mathematical tools. The student uses logical reasoning. The student is expected to:</b>					
5.16(A) make generalizations from patterns or sets of examples and nonexamples;  <b>College Readiness Standard: **CRS VI.C.1.b &amp; VIII.A.5.c</b>	Identify number sequences and establish rules.	Look at the pattern in the sequence of numbers below. Which rule describes this pattern best? 25, 32, 28, 35, 31, 38  A. Add 25, subtract 4 B. Add 13, subtract 7 C. Add 7, subtract 4 D. Add 4, subtract 7  <i>Answer: C</i>		<b>Link to ELPS Instructional Strategies:</b> <a href="http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html">http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html</a> 2E  Identify number sequencing and determine the rules.  Write a verbal description of how to solve the problem situation  Extend the table based on the pattern identified  Use the problem solving board	Resources may include, but are not limited to:  <b>enVision Math Investigations A.I.R.R. Closing the Distance Engaging Mathematics</b>  <a href="#">Safari Montage</a>

Course: Fifth Grade Mathematics			Designated Six Weeks: Every Six Weeks		
Unit: Problem Solving			Days to teach: Incorporate throughout the year		
TEKS	Guiding Questions/ Specificity	Assessment	Vocabulary	Instructional Strategies	Resources/ Weblinks
5.16(B) justify why an answer is reasonable and explain the solution process.  <b>College Readiness Standard: **CRS VIII.A.4.a,b</b>	Use estimating to check for correctness or reasonableness  Determine when it is appropriate to round up or down	<i>Not previously assessed</i>		<b>Link to ELPS Instructional Strategies:</b> <a href="http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html">http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html</a> 4F  Draw a graphic representation, picture or model for the problem situation  Explain operation decision  Write a number sentence, equation, or expression which represents the problem solving situation  Determine which information is extraneous  Write additional number sentences, equations, or expressions that could represent a process for solving the problem Write a verbal description of how to solve the problem  Use problem solving board	Resources may include, but are not limited to:  <b>enVision Math Investigations A.I.R.R. Closing the Distance Engaging Mathematics</b>  <a href="#">Safari Montage</a>